

Scoping review of culture, well-being, and health interventions and their evidence, impacts, challenges and policy recommendations for Europe



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Table of contents

Introduction	4
Executive summary	7
Scoping review protocol	24
Background	24
Scoping Review Methodology	25
Policy Recommendations Methodology	28

Research findings	30
1. Culture and Health	31
2. Culture and Subjective Well-being	52
3. Culture and Community Well-being	72
4. Culture and COVID-19	93
Factors determining the effectiveness of interventions	97
Discussion of research findings	107

Policy considerations	117
The Findings of the Data Extraction: What Works and What Could Work Better	117
Policy Recommendations – or What Can Be Done?	124
Policy Programme – or What Kind of Impact Can Be Expected and How Can It Best Be Facilitated?	131
Specific Policies and Targeted Investment Measures	136
Culture, Health and Well-being: Addressing European Challenges	141

References	152
Appendices	174
Appendix I: Summaries of the Studies Included in the Scoping Review	174
1. Culture and Health	174
2. Culture and Subjective Well-being	190
3. Culture and Community Well-being	204
4. Culture and COVID-19	218
Appendix II: Search Strategy and Terms	220
Appendix III: PRISMA flow diagram	222
Appendix IV: Data extraction form	223

Introduction

There is a growing awareness in the European Union (EU) of the critical role of culture and the arts in improving health and well-being at both the individual and collective level. Concurrently, the ambition to harness the positive effects of cultural approaches to well-being is growing at the policy level. Yet, designing sustainable interventions at a policy level that reliably implement a change of approach and strategy at practitioner level is no trivial task. This requires knowledge of recent developments in methods and evidence across disciplines, and an empirically based understanding of the enablers and barriers in the implementation of existing interventions with the aim of transforming approaches.

The research covering this field is vast, rapidly expanding and highly interdisciplinary. This scoping review aims to narrow the gap between the fast-growing knowledge on the positive impact of culture and arts on human health and well-being, and the policies at EU level.

Good health and well-being are a fundamental pillar of prosperous societies. However, health policy across the EU tends to focus on disease treatment. **A more ambitious and holistic approach to health and well-being that complements the biomedical model is thus required – shifting the focus towards health promotion and disease prevention.** As the scoping review suggests, if such a long-term approach is combined with efforts to address existing health inequalities, the result is likely to foster individual health, subjective well-being, and community well-being. Altogether, this could promote an economy of well-being as described by the OECD [2].

Despite these aspirations, reality is different. To mention one example, mental health problems affected more than 85 million EU citizens already before the outbreak of COVID-19 [3]. Since then, anxiety and depression have significantly increased, and current factors such as the energy crisis and the war in Ukraine could exacerbate these conditions further. In addition to this, many European countries have serious capacity constraints in their psychosocial support systems, often with long waiting lists. The European Commission is calling for a comprehensive approach to mental health, and it is of the utmost importance that it recognises and frees up the potential of culture to improve health and well-being. This is not to suggest that culture is a panacea for social ills; rather, culture can be embedded into broad approaches to address them.

The aim of this scoping review is to synthesise existing evidence on the positive effect of arts and cultural activities on health and well-being. This means the review is not limited to a few research questions but seeks to provide a clear indication of the volume of existing literature, the key concepts, focus points and the types of studies that exist. It also identifies knowledge gaps in the existing literature. Finally, it gathers policy recommendations and identifies challenges, further expanding the scope of the report beyond the proposed policy directions and specific policy measures.

The World Health Organization (WHO) published the scoping review *What is the evidence on the role of the arts in improving health and well-being?* in 2019, advancing knowledge and raising awareness in this field. Our scoping review takes stock of the findings of the WHO report and further builds on it. It uses a similar approach in presenting the evidence on the contribution of the arts to health, adding the dimensions of subjective and community well-being to expand its perspective beyond health to the social and personal spheres. Moreover, the current scoping review also includes studies published since 2019, along with a special section on how culture and the arts have been experienced during the COVID-19 pandemic and specifically how the online environment has transformed cultural activities and how this has impacted well-being.

This scoping review is carried out within the framework of the CultureForHealth project and responds to the criteria set out in the guidelines of the Preparatory Action – Bottom-Up Policy Development for Culture & Well-being in the EU, launched by the European Union (European Union, 2020). The CultureForHealth project aims to facilitate the exchange of knowledge, experience and success stories in the EU where they are related to the role of culture in well-being and health. Its various actions include a scoping review clarifying the importance and the role of culture for well-being and health (presented in this document); taking stock of existing knowledge and evidence; a mapping of the most relevant existing practices¹; a series of pilot projects; capacity building initiatives; and the drafting of policy recommendations on this topic.

CultureForHealth is implemented by a consortium consisting of Culture Action Europe, Trans Europe Halles, Central Denmark Region, The Northern Dimension Partnership on Culture, Centrul Cultural Clujean, and Društvo Asociacija. The project is co-funded by the European Union.

As our society faces severe challenges such as a mental health crisis exacerbated by the pandemic, an ageing population, growing inequalities, forceful displacement of people due to war and political conflict, and dynamic changes to work and the economy, new solutions and approaches are needed. The findings of this scoping review and its recommendations throw light on the pathways through which culture and the arts can support individuals and communities in adequately addressing these global challenges, thus identifying further avenues for future research and action.

¹ The CultureForHealth Mapping of Initiatives on Culture, Health and Well-being is available online at <https://www.cultureforhealth.eu/mapping/>

How to navigate this report?

An Executive Summary is presented after the Introduction.

The first chapter of the report, **Scoping Review Protocol**, presents the background, objectives and methodology of this study.

The chapter **Research Findings** includes a narrative analysis and a synthetic table with corresponding evidence collected from the reviewed studies under four thematic headings. The four thematic headings are: (1) *Culture and Health*, (2) *Culture and Subjective well-being*, (3) *Culture and Community Well-being* and (4) *Culture and COVID-19*. The analysis presents the key learnings from research findings. The synthetic tables are meant to facilitate researchers and cultural practitioners to explore the collected data in accordance with their own interests.

While chapter II. focuses on the outcomes of arts and culture activities, interventions and projects, chapter III. **Factors Determining the Effectiveness of Interventions** identifies the factors and pathways through which various forms of art or cultural engagement produce health- and well-being-related impact.

Chapter IV. **Discussion of Research Findings** presents an overview of the scoping review and its key findings.

Chapter V. **Policy Recommendations** provides a series of broader and targeted policy recommendations, as well as a discussion on the relevance of culture for the specific health, social and economic challenges that Europe currently faces.

The final sections of the report include the list of **References and four Appendices**. Appendix One includes a paragraph summary of each of the studies included, allowing a more in-depth and contextualised understanding of the interventions and their impact. This is followed by the appendices to the scoping review protocol.



EXECUTIVE SUMMARY

Introduction

The aim of this scoping review is to synthesise existing evidence of the effect of arts and cultural activities on health and well-being. It provides an indication of the volume of existing literature, as well as highlighting the key concepts, focus points and types of evidence that exist. It identifies the knowledge gaps and challenges identified in the existing literature, and provides policy recommendations for stakeholders in the cultural, health and social sectors, and decision makers at local, national and European level.

This scoping review is carried out within the framework of the CultureForHealth project and responds to the criteria set out in the guidelines of the Preparatory Action – Bottom-Up Policy Development for Culture & Well-being in the EU, launched by the European Union (European Union, 2020). The CultureForHealth project aims to facilitate the exchange of knowledge, experience and success stories in the EU related to the role of culture in well-being and health. CultureForHealth is implemented by a consortium consisting of Culture Action Europe, Trans Europe Halles, Central Denmark Region, The Northern Dimension Partnership on Culture, Cluj Cultural Centre, and Društvo Asociacija. The project is co-funded by the European Union.

The report answers four research questions that were defined in the guidelines of the above-mentioned Preparatory Action (European Union, 2020), namely:

- (a) What evidence is there that participation in cultural activities improves the health and well-being of citizens?
- (b) Which specific forms of cultural participation appear to have a more positive impact?
- (c) Which policies in the field of culture might contribute, directly or indirectly, to maximising the benefits?
- (d) What synergies are necessary with other policy fields?

The report consists of two main parts: a Scoping Review addressing the first two research questions, and a Policy Recommendations section addressing the last two. The scoping review was carried out following the Joanna Briggs Institute (JBI) methodology for scoping reviews (Peters et al., 2020), and presents the health and well-being outcomes of arts and culture activities, interventions and projects. The Policy Recommendations provide a series of broader and targeted policy proposals, as well as a discussion about the relevance of culture for the specific health, social and economic challenges that Europe currently faces.

The scoping review takes stock of, and builds upon, the findings of the scoping review *What is the Evidence on the Role of the Arts in Improving Health and Well-being?* (Fancourt & Finn, 2019), published in 2019 by the World Health Organization (WHO). This review uses a similar approach in presenting the evidence on the contribution of the arts to health, adding the dimensions of subjective and community well-being to expand its perspective beyond health to the social and personal spheres. It also includes a special section on how culture and the arts have been mobilised to support health and well-being during the COVID-19 pandemic.

Scoping review findings

Why culture and well-being?

Arts and cultural activities are important in promoting the positive health and well-being of populations both individually and at a collective level. Our evidence synthesis has shown that the interdisciplinarity, accessibility and personal approach that arts-based and cultural activities involve can have significant benefits.

By incorporating arts-based approaches into healthcare and health policy, policymakers within the health and social care sectors are building on a strong and growing body of evidence. The research team responsible for the scoping review found 137 studies regarding the links between culture and health, 117 studies on culture and subjective well-being, 131 studies on culture and community well-being, and 12 studies on culture's positive effects during COVID-19. A total of 310 studies have been included in the scoping review, with some being relevant for more than one theme.

Both before ill health takes place (at the 'prevention and promotion' stage) and after (at the 'management and treatment' stage), arts and cultural approaches can have a role to play within health and social care and policy. This is not only as an add-on to existing medical treatment; cultural and arts-based methods can also prove effective as health-care responses in their own right.

What is the evidence base?

The 310 studies used widely differing methodologies, and included meta-analyses, systematic reviews, scoping reviews, randomised controlled trials, non-randomised/quasi-experimental observational studies, mixed-methods studies, text and expert opinion papers, and qualitative studies. The table below divides the studies into the different major themes of cultural participation included. Some studies cut across categories and are counted in multiple areas:

Thematic chapter	N° of studies included	Active cultural participation	Receptive cultural participation	Active and receptive cultural participation
Culture and Health	137	105	16	15
Culture and Subjective well-being	117	94	13	10
Culture and Community well-being	131	101	20	10
Culture and COVID-19	12	6	5	1

What kinds of cultural activities benefit health and well-being?

According to the theoretical model proposed by the WHO Report (Fancourt & Finn, 2019), arts activities can be viewed as complex or multimodal interventions, involving different types of engagement mechanisms that facilitate health and well-being outcomes. Arts activities can involve aesthetic engagement, imagination stimulation, sensory activation, cognitive stimulation, social interaction, physical activity or engagement with health- or well-being-related themes or settings. These components, usually a combination of several components, determine responses at psychological, physiological, social and behavioural levels, and thus mediate health and well-being outcomes (Fancourt & Finn, 2019).

Studies show that people can have health and well-being benefits both from engagement in arts and cultural activities as leisure, and from active enrolment in creative activities aimed at achieving specific health outcomes, such as cognitive stimulation, exercise and stress reduction. Though the latter treats art as a 'means to an end', the selection of specific artists and artworks in both scenarios is essential in creating an effective intervention.

Activities can be receptive (such as listening to music or watching visual artworks) or active (where participants are involved in the creative process) and still be effective. While some of the studies reviewed look at participation on a single occasion, most studies found that participating in the same activity multiple times is useful and effective. In either case, it is important that interventions are adapted to suit the needs and social conditions of participants.

Similarly, some studies look at individual cultural experiences, whereas most of them either involve participating in activities as a group or combining individual with group engagement. However, when facilitating group activities, it is important to be sensitive to issues that can arise due to the group dynamic, such as tensions due to differing individual preferences, timetabling issues and impacts on the group dynamic that can occur due to scheduling of group sessions.

There is also evidence that **online interventions can be beneficial**, though interactions between participants and accessibility for specific demographic groupings may make the use of online approaches difficult. Similarly, **considerations should be given to urban design and the environment within which activities take place**. Places that are green, active, pro-social and safe can promote well-being, while open public spaces can enhance a sense of relaxation; conversely, excessive lighting or noise may negatively influence people's mental states.

What types of artistic intervention can be used?

There is a variety of different health-benefiting cultural activities, such as:

- **Music:** to help alleviate stress and anxiety, and promote social engagement and connection)
- **Drama and storytelling:** to aid social interaction, create a positive mood and to be used as a means of health promotion)
- **Dance and movement:** to foster social engagement and physical functioning)
- **Clown interventions:** to reduce anxiety and stress in hospitalized patients)
- **Reading and writing:** to enable the finding of meaning and reduction of risk behaviours)
- **Photography and film:** for stress-reduction, self-reflection and self-expression)
- **Visual arts:** to reduce feelings of loneliness and isolation, to promote the finding of meaning and generate a positive therapeutic environment)
- **Architecture and design:** to improve perceptions of healthcare environments and overall well-being)
- **Museum visits:** which can play an important social role for health promotion, well-being and social inclusion)
- **Multiple art forms:** which can be provided in the same setting, so that individuals can choose the most suitable and therapeutic forms of expression for their needs)

What are the positive impacts of art-based interventions?

The evidence points towards associations between art-related cultural activities and positive health outcomes including: improvements to quality of life; general and psychological well-being; increased social engagement; reduction in experiences of depression and anxiety; improved health-related quality of life in patients with chronic health conditions; prevention of cognitive decline in older adults; and the development of cognitive, emotional and social skills.

As the above suggests, studies were gathered on a range of topics that covered a broad spectrum of health and well-being-related issues, ranging from inclusion of disadvantaged groups and improved empathy and finding of meaning, to improved perceptions of the healthcare environment and physical, psychological and social benefits for those with chronic obstructive pulmonary diseases.

Most studies included in this scoping review refer to **art-based interventions in which participants were actively involved in the creative process.**

The table below summarises the categories of health and well-being outcomes associated with arts and cultural participation identified by the scoping review:

1. Culture and health

a. Prevention and Promotion

Healthy living and health-promoting behaviours
Health communication
Prevention of ill health
Maternal mental health and mother-infant bonding
Care-giving

B. Management and Treatment

Mental health conditions
Neurodevelopmental and neurological disorders
Noncommunicable diseases
Acute conditions

2. Culture and subjective well-being

A. Personal Fulfilment and Engagement

Acquiring and developing skills
Self-expression
Empowerment
Increased social engagement, bonding and inclusion
Sense of identity and belonging

B. Personal Orientation

Resilience
Positive behaviours
Empathy
Confidence and Self-Value

C. Experiences of Emotions

Improved mood
Positive emotions
Emotional regulation
Reduced anxiety and depression
Reduced stress, improved relaxation and flow
Bereavement support

D. Personal Evaluations of Life

Improved well-being and quality of life
Life satisfaction and motivation
Finding of meaning
Improved knowledge and reflectivity

3. Culture and community well-being

A. Social Inclusion

Social bonding and inclusion
Inclusion of disadvantaged groups
Increasing social engagement and reducing isolation
Reducing stigma
Well-being and inclusion of refugees

B. School- and Work-related Well-being

School-related well-being
Work-related well-being

C. Quality of Built Environment and Well-being

Environmental design in healthcare
Public space design

D. Community Development

Well-being, quality of life and active citizenship
Environmental awareness
Public engagement in health-policy development
City cultural profile and well-being

4. Culture and Covid-19

Creative activities as preferred leisure
Innovative strategies to cope with challenges
Resilience
Reducing stress and short-term anxiety
Delivery of public health information
Counteract negative effects of social isolation

Most studies included in this scoping review refer to art-based interventions in which participants were actively involved in the creative process.

In the area of Culture and Health, the evidence shows that participation in cultural activities can help with health promotion and the prevention of illness, as well as the management and treatment of conditions.

- The overall findings show significant associations between participation in creative activities and art therapies, and improved health-related quality of life in patients with chronic health conditions.
- Elderly people involved in arts-related activities may benefit from increased social engagement, decreased anxiety and depression, and improved functioning.
- Certain cultural activities help with the prevention of further cognitive decline and ageing support for older adults with cognitive impairments.
- Singing is found to bring physical, psychological and social benefits for people with chronic obstructive pulmonary diseases, and to improve maternal emotional states and mother-infant bonding.
- Listening to pre-recorded music before surgery proved effective in reducing pre-operative anxiety, while music interventions were reported to have beneficial effects for patients in the recovery period after surgery.
- Art and environmental design in mental health care units may improve the well-being of patients and staff, and the perceptions of the healthcare environment.
- Specific art-based interventions are effective in alleviating anxiety in children undergoing medical interventions and in the management of pain.

In terms of Personal/Subjective Well-being, studies in the scoping review found that involvement with the arts is associated, among other benefits, with higher life satisfaction, reduced anxiety and depression levels, improved mood and emotional regulation, increased confidence and self-valuing, and an improved sense of belonging in adults and older individuals. In particular, reading enables the development of empathy and the finding of meaning, while watching visual artworks may help with stress reduction and sketching may facilitate experiences of flow (that is, being 'in the zone'). Community singing can help reduce feelings of loneliness among older adults and music/singing promote development of resilience in adults.

Arts and culture activities may contribute to Community Well-being at different levels by positively impacting social relations, school- and work-related processes, built environments and citizens' active engagement.

- Evidence from the scoping review found significant associations between peoples' active participation in cultural activities, and increased social inclusion and bonding. Such interventions mainly target vulnerable groups and people at risk of exclusion, such as people with disabilities, minority groups, people living in poverty, people in rehabilitation and people with various health conditions.
- Museums, libraries and other cultural venues play a key role in enabling access to culture, and to a range of social and health services for such groups.
- A series of well-being outcomes are related to the school environment or have the potential to support educational development and social inclusion within the school context. They include stress reduction, development of cognitive, emotional and social skills, and the reduction of risk behaviours.
- Creative and social skills are increasingly required by the current labour market, while work relations and organisational structures highly depend on individual well-being and the collective capacity to adapt to fast-changing realities. Evidence shows that involvement with the arts may reduce stress and increase the quality of work environments, help with the management of burnout symptoms, increase creative and collaborative skills, and enable the development of resilience.
- Public space design impacts individual and community well-being. Places that are green, active, pro-social and safe may enhance social participation and positive emotions.

Arts have supported people's well-being during the COVID-19 pandemic both broadly, through delivery of public health information, and at the individual level, through engagement with the arts and creative activities. At the individual level, creative activities were people's preferred leisure activity during lockdown and self-isolation. They benefited mental health by reducing stress and short-term anxiety, and supporting emotional regulation and the development of resilience. Most notably, engaging with creative activities helped people develop innovative strategies to cope with challenges.

Policy recommendations

Which policies maximise the benefits of cultural activities in improving the health and well-being of citizens?

Building on the scoping review, policy considerations have been made about what is required of, or can assist, actors involved in the studies and the links between the culture, health and well-being sectors.

Actors:

- Recognise and engage with the knowledge held by an emerging community of practice linking cultural and health actors with other relevant stakeholders that are connected by a community of care approach.
- All citizens could benefit from cultural approaches to health and well-being (and thus become their end beneficiaries), but there is also value in adopting cultural practices targeted at specific groups – namely vulnerable ones.
- Political-administrative authorities can support or facilitate programmes in this space. If authorities enable bottom-up experimentation and network building and, simultaneously, provide strategic guidance and other forms of support, this will enable cultural activities to achieve their full health and well-being potential.

What works?

- Cultural activities can support before ill health takes place (at the 'prevention and promotion' stage) and after (at the 'management and treatment' stage). Such activities can also help with removing social and cultural barriers that impede prevention and treatment. Thus, a holistic approach is offered by cultural activities, as they help shift the focus away from specific illnesses to a broader understanding of health. In so doing, culture supports health and well-being at the individual level (supporting physical and mental health, and subjective well-being), at the community level (supporting social inclusion and engaged, resilient communities), and at the economic level, resulting in what the OECD (2019) describes as an economy of well-being (that is, reinforcing social stability and economic prosperity, and thus supporting continued investments in culture, leading to a "virtuous circle", where each advancement benefits the next).
- Cultural participation also can reinforce active health citizenship. It can help support patients in developing their own health strategies, stimulating conversations around different medical options and strengthening the relations between citizens and health policymakers.

What could work better?

- Culture and health activities and policies should pay attention to untapped overlaps between the culture and health sectors. Cultural activities can be incorporated into health policy in multiple ways, such as in routine medical care, as auxiliary treatment, supporting preventive action and supporting individuals' abilities to manage their own health.
- There is a need for further opportunities for research, education and training, and collaboration.

The review also makes clear that a piecemeal approach to this topic is unlikely to be sufficient to maximise the full benefits of culture for health and well-being across the European continent. Rather, the linkages between these disciplines have the potential to result in a new interdisciplinary field of knowledge and practice, the emergence of which reflects broader and parallel shifts in discussions regarding health and culture. An explicit engagement with health promotion and prevention reinforces the broader role of culture in society, and empowers it to take a crucial role in promoting just, equal and sustainable societies.

Supporting this overlap could also contribute to reinforcing the cultural field, giving new opportunities to the sector

as a whole (by encouraging capacity-building activities, new sources of income and funding and, more broadly, by creating an environment that is supportive of experimentation). It also provides opportunities for artists and cultural operators to expand their skills and fields of work. This would reinforce the currently fragile cultural ecosystem, and continue to add to the ongoing expansion of artistic and cultural practices towards cross-sectorial cooperation.

Combining recommendations from the literature with learnings gained from existing policies and initiatives, the CultureForHealth team makes several policy suggestions, which are itemised below.

What policy measures are proposed?

Unleashing the potential health and well-being benefits of culture across the European Union requires concerted action that can be grouped under the following four headings:

1. **Dedicated strategic and financial support**
2. **Knowledge and awareness building**
3. **Training and peer learning**
4. **Localising culture, health and well-being R&D and policy discussions**

Dedicated strategic and financial support

1.1 Include culture as an integral part of the EU's health strategy and as a core pillar of its upcoming mental health strategy. The approach shall be comprehensive, holistic, focusing on long-term health promotion and disease prevention and shall address health inequalities.

1.2 Increase investment in prevention and health promotion. If cultural activities can prevent disease and support individual and community well-being, they are likely to contribute to long-term health-budget savings. Cultural activities are also a **cost-effective** way to support more equal access to health and broader efforts targeting the social determinants of health. They should be based on the combined resources of three different major budgets (health, culture and social care), be consistent with the timeframe required to achieve the potential benefits and ensure fair remuneration of all actors involved.

1.3 Embed dedicated provisions that recognise the health and well-being benefits of cultural activities **in policy documents** at the European, national, regional and local level.

1.4 Promote the use of culture-based social prescribing² across the EU.

Knowledge and awareness building

2.1 Recognise cultural activities as complementary to traditional medical responses to both ill health and its prevention, the multiple dimensions that connect culture to health and well-being, and, in particular, culture's contribution to the economy of well-being³. Strive for equal-level cooperation between the cultural, health and other stakeholders involved in the design and implementation of these activities.

2.2 Support further research in the field of culture for health and well-being, with particular emphasis on advancing the knowledge of the impact factors and mechanisms, to enable maximisation of the benefits of culture in this context. Increase the number of large-scale, large sample, cross-country research initiatives. More research is also needed into the health and well-being effects of digital participation in cultural activities.

2.3 Raise awareness of the evidence regarding the health and well-being benefits of cultural activities and, more broadly, of the **cost effectiveness** of supporting a more comprehensive, equal and long-term approach to health policy across the EU.

² The World Health Organization defines social prescribing as 'a means of connecting patients to a range of non-clinical services in the community to improve their health and well-being. It builds on the evidence that addressing social determinants of health such as socioeconomic status, social inclusion, housing and education is key to improving health outcomes WHO (2022b).'

³ The OECD refers to the economy of well-being as 'the capacity to create a virtuous circle in which citizens' well-being drives economic prosperity, stability and resilience, and vice-versa, that those good macroeconomic outcomes allow to sustain well-being investments over time (OECD, 2019).'

Training and peer learning

3.1 **Develop curricula and encourage joint training, as well as life-long learning** involving culture, social and health stakeholders **on an equal level, in culture for health and well-being** for: a) university students in the cultural, medical and social areas; b) established practitioners and professionals; and c) capacity building on an institutional level (e.g., in museums, theatres, or health or care centres).

3.2 **Support the development of training** that encompasses mechanisms to **take care of the mental health and well-being of actors involved** in the implementation of cultural activities. In the sensitive environment of healthcare, caregivers, artists, cultural managers and other stakeholders can face challenging situations⁴. **Enable and financially support peer learning and the exchange of good practice guidelines** on the topic across borders and sectors.

Localising culture, health and well-being R&D and policy discussions

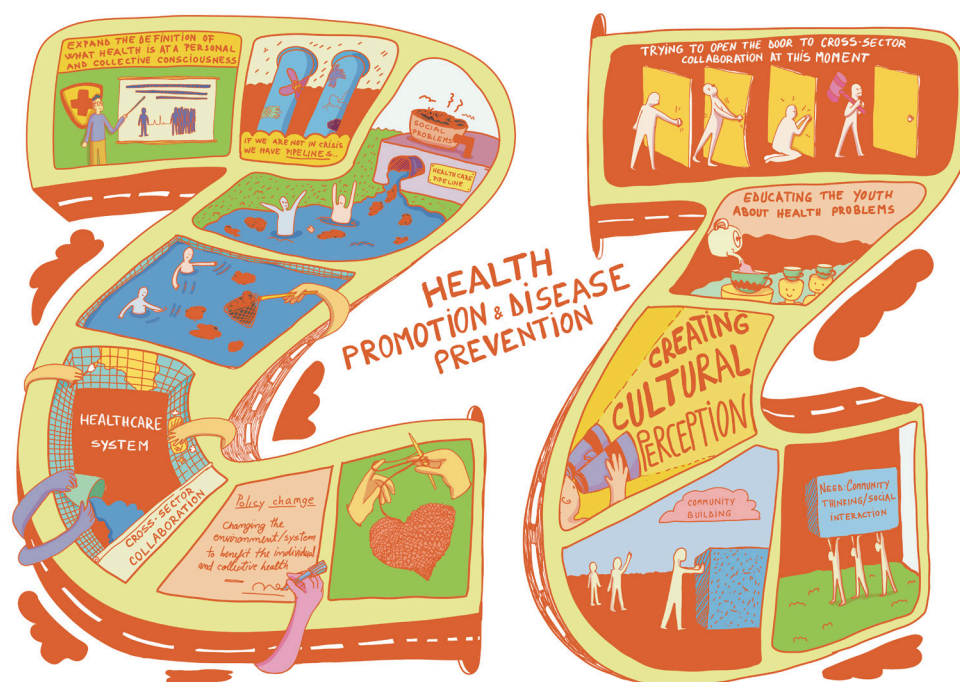
4.1 Support the **creation of a dedicated platform** enabling policy discussions and exchange of knowledge on culture, health, and well-being. In the short-term, this platform could be driven by EU Member States (for example, in the context of the Work Plan for Culture 2023–2026) or, alternatively, by a think tank or a university. In the mid-term, it could be **embedded in an already existing EU-level health organisation, agency, or other structure**. In the long-term, the interdisciplinarity of the culture, health and well-being fields would justify the creation of an independent organisation dedicated to advancing the field through R&D, cross-border peer learning, training, capacity building and policy recommendations, which could take the form of a **Centre for European Culture, Health and Well-being**.

4.2 **Encourage Member States, regions, cities and organisations** to establish **their own culture for health and well-being strategies, and to assign dedicated finance and personnel** to the promotion of integrated culture and health policies and interventions. Embed these actions in the work of local health, cultural and social institutions. Such strategies should recognise that change takes time, and thus prioritise the goal of their long-term impact.

In addition, the CultureForHealth team has identified **eight challenges faced by the EU** connected to this area, for which new approaches are needed. The table below presents evidence from the scoping review and recommendations tailored to each challenge. These recommendations should be seen as illustrative rather than exhaustive, and need further development by experts, practitioners and policymakers.

⁴ This is echoed by the European Care Strategy's statement that 'providing care has major consequences for informal carers, including negative effects [...] on their mental health (European Commission, 2022a).'

CHALLENGE 1: The need for an increased focus on health promotion and disease prevention



About the challenge

The importance of health promotion and prevention in supporting health throughout life is widely known. However, in the EU, public and private expenditure on preventive care accounted for only 2.8 per cent of total health expenditure in 2018 on average, with the highest shares recorded in Italy (4.4 per cent) and Finland (4 per cent) (Eurostat, 2021). The tension between existing knowledge on the one hand and investment patterns on the other becomes stronger when one considers the research suggesting that focusing on health promotion and prevention is a highly cost-effective investment (UK Health and Security Agency, 2016).

Additionally, taking into account the social determinants of health, focusing on health promotion and prevention could also potentially pre-empt the reinforcement of health inequalities – see the challenge entitled 'The association between ill health and patterns of inequality' for more.

Examples of evidence from the scoping review

Engaging with the arts can help prevent ill health; for instance, through improving respiratory, cardiovascular and cognitive function through singing.

Cultural participation can be used to support healthy living and health-promoting behaviours. Some studies confirmed positive associations between participation in cultural activities and good health in adults, and between an adolescent's creative engagement and the promo-

tion of healthy lifestyles, such as engaging in physical activity and the reduction of risk behaviours.

Arts can enable health communication by increasing the awareness of and understanding of various health conditions (e.g., via theatre) and improving communication between medical staff and patients (e.g., by drawing).

The arts can have a positive health impact by affecting the social determinants of health, such as promoting social inclusion, reducing stigma, addressing inequalities and encouraging active participation in community life.

Tailored recommendations

As the policy recommendations highlighted, unleashing the potential health and well-being benefits of cultural activities requires combined action across four areas: dedicated support, knowledge and awareness building, training and peer learning, and infrastructure building. This extends to the challenges summarised in this table.

This challenge could be addressed by recognising the health benefits of culture and thus increasing the spending on mixed-methods approaches, such as activities with potential benefits in terms of prevention and health promotion, based on the combined efforts of health, culture, social care and other budgets.

In this context, one could also consider using arts and culture for health communication and increased public engagement during the development of health policies.

CHALLENGE 2: A growing mental health crisis



About the challenge

More than 85 million citizens in the EU were affected by mental health problems before the COVID-19 pandemic (EPRS, 2021). This situation has only been exacerbated by the spread of the virus and the methods of its control, particularly among the young, those with precarious employment, lower incomes or less education. There has been a notable increase in burnout, anxiety and depression. At the same time, the resulting workload and drain on health professionals has led to an increase in the levels of anxiety and depression compared to workers in other sectors (EPRS, 2021). This mental health crisis is exacerbated by a series of indirect and direct reasons, including the pandemic, climate anxiety, war, and economic and energy crises.

problems through reduced anxiety and depression, improved emotion regulation strategies, increased experience of positive emotions, well-being, and improved self-acceptance and identity in relation to being mentally ill.

Tailored recommendations

This challenge could be addressed by funding cultural activities with potential benefits in this context by supporting cross-sector partnerships to widen access to these activities, and by enabling further research in the field of culture for mental health and well-being. While doing so, it is important to develop mechanisms to take care of the mental health and well-being of actors involved in the implementation of cultural activities.

Examples of evidence from the scoping review

• Promotion and prevention:

Participation in receptive and creative cultural activities is associated with good health, good satisfaction with life, and low anxiety and depression scores.

Creative activities addressing mental health delivered in community settings facilitate young people with such problems to seek out and access health services.

• Management and treatment:

Active engagement with a variety of creative activities such as singing, dancing, creative writing, drama, visual arts and crafts benefits individuals with mental health

CHALLENGE 3: The need to support the broader health and well-being of young people



About the challenge

Around the world, suicide is the 'fifth most prevalent cause of death for adolescent boys and girls aged 10–19; for adolescents 15–19, it is the fourth most common cause of death, after road injury, tuberculosis and interpersonal violence' (UNICEF, 2021). Additionally, in Croatia, there were 57.1 per cent more suicides in 2020 in this age group, 70 per cent of all suicides in Bulgaria are among young people, while self-harm and suicide attempts by Italian teenagers increased by 30 per cent between the autumn of 2020 and spring of 2021 (Taylor, 2022).

The WHO notes that young people 'face many pressures and challenges, including growing academic expectations, changing social relationships with family and peers and the physical and emotional changes associated with maturation [...] Behaviours established during this transition period can continue into adulthood' (WHO, 2016c). Supporting the health of young people at such a crucial moment of their lives can also be seen as an investment in the future health and well-being of our societies.

Examples of evidence from the scoping review

Active engagement with art supports emotional regulation in early age children and schoolchildren. There are positive associations between an adolescent's creative engagement and the promotion of healthy lifestyles, such as engaging in physical activity and the reduction of

risk behaviours.

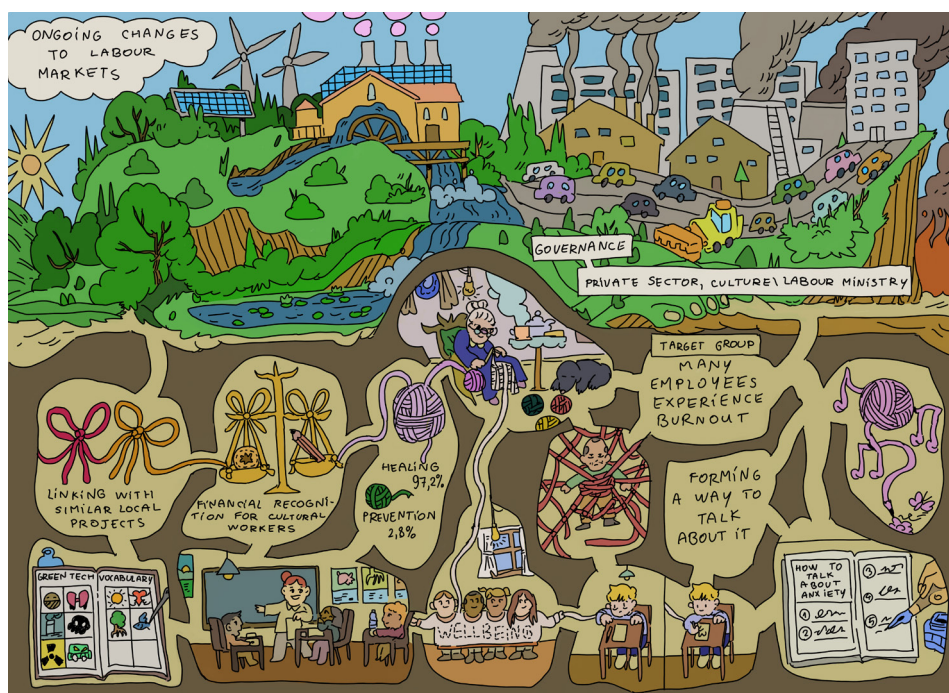
Cultural participation leads to the development of creative skills, contributing to the personal and educational development of children and youth, as well improving life skills such as empathy, decision-making, resilience, communication and collaboration.

Tailored recommendations

This challenge could be addressed by promoting cultural activities tailored to this specific age group and making them available through cultural, educational, social and health settings, ensuring that youths from underprivileged communities have access to these activities.

The use of culture-based social prescribing could also help to address this challenge. More broadly, as with some of the other challenges, supporting the health and well-being of young people would be facilitated by the recognition that cultural activities are complementary to traditional medical responses to both ill health and its prevention.

CHALLENGE 4: Ongoing changes to labour markets, patterns of work and the economy



About the challenge

The impact of automation on occupational categories is likely to be differentiated (Smit et al., 2020). This might be accompanied by increased flexibility in working patterns. Simultaneously, the transition to the green economy will require changes towards different ways of living. To face this challenge, it is important to strengthen critical thinking and the capability of dealing with complex challenges in a transversal way. Schools have an important role to play by providing widespread access to artistic education and cultural activities.

This echoes statements by organisations such as the World Economic Forum regarding the importance of creativity as a skill in the future (WEF, 2019).

Examples of evidence from the scoping review

Participation of students and professionals in creative activities enables personal growth and development of creative and collaboration skills. They also acquire new abilities and strategies to cope with stressful experiences and combat burnout, and to improve their resilience. Involvement with the arts can help reduce stress and increase motivation, energy and job satisfaction.

Arts and crafts can be used successfully as occupational therapy during rehabilitation and leisure pastimes for ill or older people who are not active in the labour market.

Tailored recommendations

This challenge could also be addressed by promoting cultural activities and making them available through education, training, in the workplace, during rehabilitation and in other appropriate settings.

The cross-sectoral work required to address this challenge reinforces the need to encourage Member States to establish their own culture for health and well-being strategies, and to assign dedicated finance and personnel to the promotion of integrated culture and health policies and interventions.

CHALLENGE 5: An ageing population



About the challenge

Unless growing older healthily is well promoted, an ageing population will by default decrease the percentage of fit and robust members of the workforce, increase the need for long-term care and health expenditure, and slow economic growth. The potential number of people across the European Union in need of long-term care is expected to rise from about 30.8 million in 2019 to 33.7 million in 2030, rising to 38.1 million in 2050, which corresponds to an overall increase of 23.5 per cent (Council of the European Union, 2021). People who are isolated and lonely have a 50 per cent greater risk of dying earlier than those who are connected; they also have higher rates of stress, anxiety, depression and cognitive decline. Isolation increases the risk of dementia with 64 per cent (Health Commons, 2019). The number of people with dementia is set to double by 2050 (Alzheimer Europe, 2019). Healthy ageing can be promoted by the coordination of health, long-term care and other services, as well as the promotion of healthy lifestyles (EuroHealthNet, 2021).

Examples of evidence from the scoping review

Elderly people's active engagement with the arts has positive effects on their health and well-being. It enables a decrease in anxiety and depression, as the result of improved physical, intra-personal, cultural, cognitive and social factors.

Activities like singing and dancing positively affect the

cognitive functions of elderly people, and have been used in the management of neurodegenerative diseases with positive results.

Both receptive and active forms of cultural participation are successful in increasing social engagement and reducing isolation and loneliness among elderly people.

Tailored recommendations

This challenge could be addressed by promoting cultural activities tailored to this specific age group, making them available in care and community settings, and supporting cultural venues such as museums, libraries and art centres to programme dedicated activities involving the active engagement of elderly people. These actions are cost-effective investments that can potentially enable a longer period of active ageing, alleviating pressure on relatives and unpaid caregivers, and delaying the need for more costly long-term care.

The use of culture-based social prescribing could also help address this challenge.

More broadly, health and care practitioners and professionals would be more likely to support the above suggestions if they encountered curricula dedicated to the health and well-being benefits of culture during their education and training. This underlines the need to develop specialised modules for such courses.

CHALLENGE 6: The association between ill health and patterns of inequality



About the challenge

According to the WHO, 90 per cent of health inequalities can be explained by five factors: quality of healthcare; financial insecurity; poor quality housing and neighbourhood environment; social exclusion; and the lack of decent work and poor working conditions (WHO, 2019c). That is the social determinants of health (Health Inequalities, n.d.1) have a bigger impact on health promotion than individual lifestyle risk factors.

Examples of evidence from the scoping review

Cultural participation has been found to increase knowledge and awareness of various health conditions among underserved communities, and to provide support networks for disadvantaged individuals suffering from illness.

Social inclusion is facilitated by active participation in art activities. Cultural venues such as theatres and museums can be an entry point for social services and a source of community for the socially excluded.

Tailored recommendations

This challenge could be addressed across the EU with dedicated research and development targeting the links between ill health, patterns of inequality and cultural interventions. These efforts could be led by a dedicated team; e.g., the research and policy staff of a Centre for European Culture, Health and Well-being.

Supporting further research in the field of culture for health and well-being – that is, to advance knowledge of the benefits of cultural interventions to address and prevent the reinforcement of health inequities – could also provide a robust response to this challenge. That said, it is important to highlight that, while cultural activities can support broader efforts targeting the social determinants of health, such activities cannot address health inequity or its health consequences on their own.

CHALLENGE 7: Promoting active citizenship



About the challenge

The simultaneous phenomena of apathy and political polarisation require an expanding awareness of participatory tools. Empowering people in all walks of life is crucial to actively engage them in making decisions about their lives and future. This is likely to support individual and collective adaptability and resilience (RICS, 2021) in the context of a changing world. Cultural spaces could offer opportunities for communities to meet, discuss and act.

Examples of evidence from the scoping review

Participatory arts projects enable community well-being and resilience, foster leadership skills and encourage people to take up new roles and responsibilities in their communities.

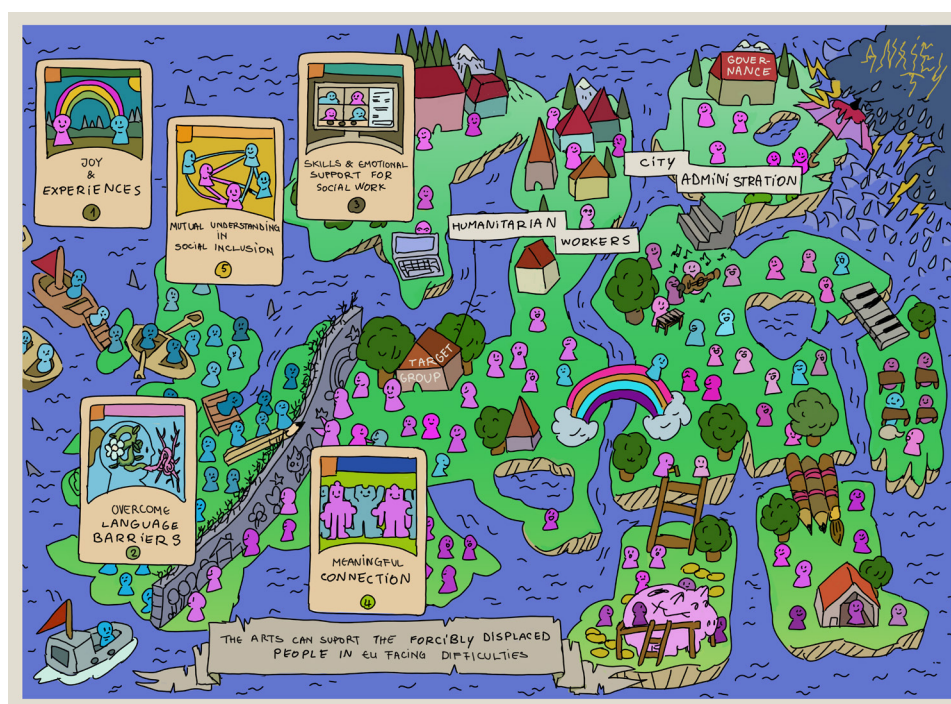
During the COVID-19 pandemic, people engaged in creative activities were able to develop innovative and constructive strategies to deal with the associated challenges and uncertainties that arose in lockdown.

Tailored recommendations

This challenge could be addressed by promoting participatory arts projects and other cultural activities tailored to this goal.

Additionally, it will be necessary to raise awareness of the evidence-based health and well-being benefits of cultural interventions among those who manage cultural spaces.

CHALLENGE 8: Difficulties faced by forcibly displaced people in the EU



About the challenge

As a WHO paper highlights, displaced people experience significant loss, physical hardships and other stressors that often result in psychological distress (WHO, 2022a). By promoting social inclusion, social cohesion, social acceptance and belonging, arts activities can support psychological, behavioural and community processes that are linked to improved mental well-being.

Examples of evidence from the scoping review

Engagement in community arts facilitates an increased quality of life and enjoyment of life, as well as a sense of belonging to a community for recent refugees and asylum seekers. Through involvement in cultural activities, young migrants and refugees benefit by liberation from disempowering identities, the re-defining of relationships, and increased knowledge and confidence.

Investment in the arts means investment in improving social integration and cohesion, and can contribute to mental well-being for all.

Organising arts and cultural activities for displaced people and their host community can help support coping, and promote recovery and integration.

Cultural and community assets can play an important role in supporting the health and well-being of forcibly displaced people.

Artistic methods and practices can contribute to skill-building among those involved in humanitarian responses. Integrating artistic methods into mental health

awareness-raising and other types of training can help to improve active listening, cultural competence and diversity sensitivity.

Tailored recommendations

This challenge could be addressed by the recommendations outlined in the WHO publication titled 'Arts and Health: Supporting the Mental Well-being of Forcibly Displaced People' (WHO, 2022a).

'1. Supporting arts, arts therapies and cultural activities can benefit the mental health and wellbeing of all people, whether they are forcibly displaced or members of host communities.

'2. Arts and cultural activities can form an important part of an organised mental health and psychosocial support response [...]. Incorporate artist led initiatives, arts therapies and arts interventions into the response.

'3. People working in museums, libraries, performance venues, cultural centres, heritage sites and other cultural spaces, should consider how their venues can support forcibly displaced people; e.g., by showcasing their art, creating community theatre plays, organising musical events and concerts, or developing relevant educational activities.

'4. In humanitarian responders, [active listening, cultural competence and diversity sensitivity] skills [brought about through artistic methods and practices] can greatly contribute to community empowerment and participation.'

SCOPING REVIEW PROTOCOL

Background

Scoping Review Objectives

This scoping review aims to map the literature in the field of culture, well-being and health to inform policy recommendations for Europe. The objectives and the research questions have been defined by the guidelines of the Preparatory Action – Bottom-Up Policy Development for Culture & Well-being in the EU (European Union, 2020).

The objectives of the scoping review are:

1. to provide a structured argument for explaining the key relevance of culture for health and well-being to policy-makers at EU and national levels;
2. to identify the key dimensions of the topic and the key challenges in the field;
3. to summarise existing knowledge and evidence from the most relevant research;
4. to provide recommendations (both broad policy directions and specific policy and targeted investment measures) based on the findings of the scoping review.

Scoping review questions

The main research questions were:

- a. What evidence is there that participation in cultural activities improves the health and well-being of citizens?
- b. Which specific forms of cultural participation appear to have a more positive impact?
- c. Which policies in the field of culture might contribute, directly or indirectly, to maximising the benefits?
- d. What synergies are necessary with other policy fields?

Eligibility criteria

Participants: There are no restrictions on participants in terms of socio-demographics.

Topics

The scoping review covers four main topics:

1. **Culture and health outcomes**, which corroborates the findings from the extensive scoping review published by the WHO in 2019 (Fancourt & Finn, 2019);
2. **Culture and subjective well-being**, which integrates a conceptualisation of well-being from the perspective of four theories: fulfilment and engagement, personal orientation, evaluative and emotional (Das et al., 2020);
3. **Culture and community well-being**, where community well-being is operationalised to include the work and living environments, as well as urban development (Cohen, 2017; Rautio et al., 2018);
4. **Culture and COVID-19**, which focuses on how culture contributes to alleviating the direct and indirect negative effects of the COVID-19 pandemic.

Types of Sources

There have been no restrictions based on study design for the records included in this scoping review. However, special attention has been given to meta-analyses, meta-syntheses and existing scoping reviews. We included both quantitative and qualitative studies. In terms of quantitative studies, this scoping review has considered both experimental and quasi-experimental study designs (that is, randomised controlled trials, non-randomised controlled trials, and pre and post studies), analytical observational studies (that is, cross-sectional studies), and descriptive observational studies (that is, individual case reports). Regarding qualitative studies, we included case studies, action research and ethnographic research. Grey literature such as text, opinion and position papers, policy papers and other projects have also been considered for inclusion in this scoping review.

Scoping Review Methodology

The proposed scoping review has been conducted following the JBI methodology for scoping reviews (Peters et al., 2020).

Search strategy

The databases used to search for sources were PubMed and Scopus.

The review strategy was aimed at locating published studies and reports, as well as grey literature, by searching the reference lists of included records and additional relevant records, and by obtaining recommendations from Advisory Board members. An initial limited search of PubMed and Scopus was undertaken to identify articles on the topic of the impact of cultural participation on health outcomes, subjective well-being, community well-being and COVID-19 outcomes. The concept of subjective well-being has been operationalised based on the theoretical foundations of subjective well-being described elsewhere (Das et al., 2020). Other systematic reviews and meta-analyses were used to inform the key words and search strategy for the other topics within this scoping review: community well-being (Cohen, 2017; Rautio et al., 2018), cultural activities (Warran et al., 2021) and COVID-19 (Michelen et al., 2021). The titles and abstracts of relevant articles have been used to develop a full search strategy (see Appendix II). The search strategy, including all identified keywords, has been adapted for each database included in the review. Studies published in English have been included for the literature published in PubMed and Scopus.

Studies published between 2005 and November 2021 have been searched for the scoping review. The year 2005 was selected as a limit by the project team, since it can be associated with the emergence of a more complex perspective on culture, related to sustainable development. This is marked, among others, by the adoption of the Convention for the Protection and Promotion of the Diversity of Cultural Expressions (UNESCO, 2005) and by the European Council's Workplan for Culture 2005/2006, leading to the European Agenda on Culture in a Globalising World (European Union, 2007a).

Limitations

The limitations of this scoping review are related to the fact that its search strategy included only two databases and that it considered literature available in English exclusively. Given the fact that health and well-being are very broad concepts that are defined in different ways by various sources, our search terms may not have covered all the possible valuable aspects of our focus theme very accurately.

Study or Source of Evidence Selection

After the search was completed, all identified records were collated and uploaded into the free literature collation web tool CADIMA, and duplicates were removed. Following a two-stage eligibility assessment process, three independent reviewers (M.D.D., D.Y. and O.P.) screened the titles and abstracts of uploaded records, and followed this with a full-text screening of records found eligible in the first stage. Each record was screened by a reviewer against the eligibility criteria in the first and second stages of assessment. The scoping review team organised regular meetings with the reviewers to discuss the inclusion or exclusion of records for which they needed a second opinion regarding their status.

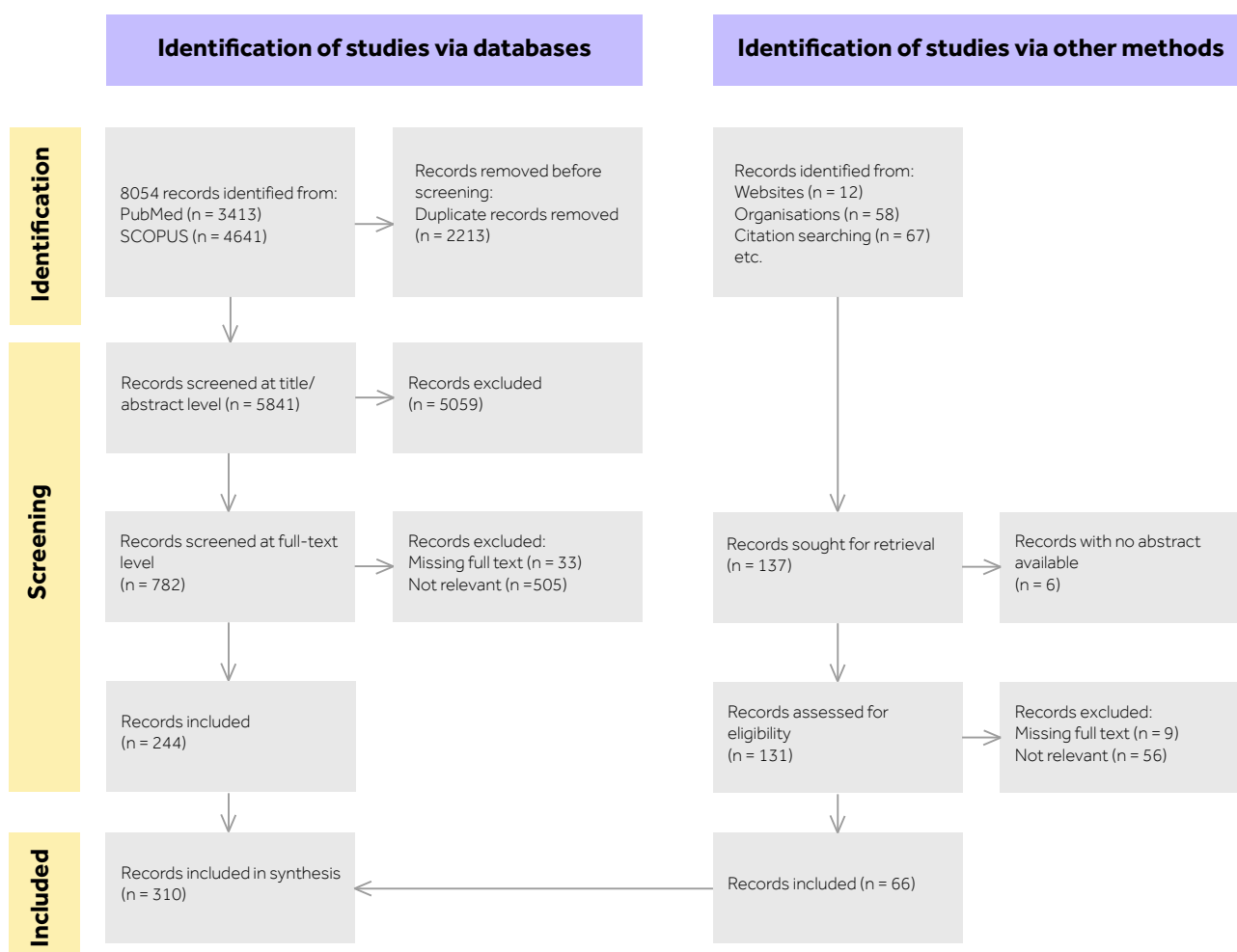
Records were included if their abstracts:

1. described empirical research conducted on humans and focusing on culture or the arts to improve health outcomes, subjective well-being, community well-being or COVID-19 outcomes;
2. described theoretical frameworks, concepts and tools that explained the pathways through which culture could potentially contribute to improved health outcomes, subjective well-being, community well-being or COVID-19 outcomes;
3. described any benefits of participation in cultural or art-based activities.

Records were excluded if they did not have an abstract to assess.

The results of the search and the study inclusion process have been presented in an adapted version of the Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping review (PRISMA-ScR) flow diagram (Tricco et al., 2018).

Figure 1 – PRISMA Flow Diagram



Data Extraction

Data was extracted from the included papers by the reviewers using a data extraction tool developed by the scoping review team (see Appendix IV: Data extraction form).

The data extracted included specific details about the type of study design (i.e., meta-analysis of systematic review, randomized controlled trial, observational study, qualitative study, text/expert opinion paper, policy report), participants (description and number), context (i.e., art institution or centre, social or community centre, health institution, school), type of cultural participation (i.e. receptive or active participation, one-off participation or participation on multiple occasions), outcomes, potential ethical issues, determinants of success, determinants of failure, and key conclusions of study authors. In addition, information was extracted on the findings' potential to inform policies based on the authors' conclusions regarding the extent to which the outcomes of their study have the potential to inform public policies, strategies, or plans.

In addition, information was extracted on the potential of the findings to inform policies based on the authors' conclusions regarding the extent to which the outcomes of their study had the potential to inform public policies, strategies or plans.

The data extraction tool was slightly modified and revised as necessary during the process of extracting data from each evidence source included. The modifications included:

1. adding information about the type of intervention presented (whether individual, group or combination of individual and group interventions);
2. adding details about the name of the intervention, program or policy presented, as well as enabling multiple selection for most of the variables included in the data extraction form.

Data Analysis and Presentation

The data analysis and presentation in the present review consists of tables and figures presenting the results of the scoping review in terms of publication year, settings, participants, type of cultural activity, participation or outcomes improved, as well as any available policy recommendations.

Policy Recommendations: Methodology

This section addresses question (c) below: which policies in the field of culture might contribute, directly or indirectly, to maximising the benefits?

The work in this section is aligned with the policy cycle approach and the key elements of policy analysis (identified by Knoepfel et al., 2007). The four main phases of the policy cycle are:

1. agenda setting;
2. formulation of the policy programme;
3. implementation;
4. evaluation.

This section focuses on the first two phases of the policy cycle. Recommendations regarding the third and fourth phases (implementation and evaluation) will be provided in a subsequent phase of the project, taking into account the empirical learnings from the project's pilots.

Regarding the report's specific approach to policy analysis, Knoepfel et al. (2007) call for an examination of four elements:

1. actors (the political-administrative authorities, target groups and end beneficiaries);
2. resources – according to Knoepfel et al. (2007), this category includes information but in the context of the project as a whole, we define this as evidence regarding enablers and barriers;
3. institutional rules (in this case, the competencies of the EU regarding not only culture and well-being but also all other relevant and overlapping policy areas);
4. the substantive and, when possible, the institutional content of existing policies.

The Policy Recommendation section focuses mostly on actors, resources and the content of existing policies.

The policy researcher (Mafalda Dâmaso) wrote the first draft of this section. Subsequently, the other team researchers and the Culture Action Europe team reviewed it, before opening the section and the report to internal review by the Advisory Board and consortium partners.

Broad Recommendations

Our initial aim was to summarise the findings of the data extraction in the light of existing policies (search terms: policy OR plan OR strategy). However, this search resulted in very few relevant documents. The significance of this fact is discussed in the relevant chapter. Because of this, the report summarises documents provided by the project partners and Advisory Board.

First, in the subsection Findings of the Data Extraction: What Works and What Could Work Better?, the chapter begins by identifying key actors, policy approaches and lessons learned that emerged in the scoping review. Secondly, in the subsection Policy Recommendations – Or What Can Be Done?, the following questions are addressed:

- (a) What evidence is there that participation in cultural activities improves the health and well-being of citizens?, and;
- (b) Which specific forms of cultural participation appear to have a more positive impact?

Thirdly, in the subsection Policy Programme – Or What Kind of Impact Can Be Expected, and How Can It Best Be Facilitated?, the main policy pathways connecting culture with health and well-being are identified, and the broad policies that could be included to expand such dimensions are proposed. In doing so, the report also identifies the main needs in terms of cross-sector collaboration, hence addressing the question (d) What synergies are necessary with other policy fields?

Specific Policies and Targeted Investment Measures

The fourth subsection in this chapter focuses specifically on practical recommendations for policymakers at the EU level (focused on the 'usability' of the policy recommendations).

RESEARCH FINDINGS

The scoping review included 310 studies with different methodologies, including meta-analysis, systematic reviews, scoping reviews, randomised controlled trials, non-randomised/quasi-experimental observational studies, mixed-methods studies, text and expert opinion papers, qualitative studies and policy reports.

These studies were conducted around the world: in European Union member states (Italy, Netherlands, Sweden, Denmark, Finland, France, Spain, Portugal, Poland, Germany, Greece and Ireland), the UK, the USA, Canada, Africa, Asia and Latin America. There were also studies carried out in two or more countries and online.

To answer the first research question – (a) What evidence is there that participation in cultural activities improves the health and well-being of citizens? – we have analysed and extracted well-being outcomes and grouped them under four main themes:

1. Culture and Health;

2. Culture and Subjective well-being;

3. Culture and Community Well-being;

4. Culture and COVID-19.

Evidence from 137 studies were included in the Culture and Health chapter, 117 in Culture and Subjective well-being, 131 in Culture and Community Well-being and 12 in Culture and COVID-19. Several articles have been included under two or more thematic headings, since they presented outcomes of relevance to more than one theme.

Table 1. Numbers of studies with evidence of art-related well-being outcomes included under the four thematic headings.

Thematic chapter	N° of studies included	Active cultural participation	Receptive cultural participation	Active and receptive cultural participation
Culture and Health	137	105	16	15
Culture and Subjective well-being	117	94	13	10
Culture and Community well-being	131	101	20	10
Culture and COVID-19	12	6	5	1

The second research question – (b) Which specific forms of cultural participation appear to have a more positive impact? – is addressed in the analysis presented under each thematic heading. A summary of the findings responding to these two research questions across the four focus areas is presented in the *Discussion of Research Findings* chapter.

Under each of the major themes, a synthesis of the findings is presented, offering information on the type of cultural intervention, target group and type of study. To describe the cultural interventions, we have identified the broader art disciplines (Music, Theatre, Visual Arts, Literature, Design and Architecture and Multiple Art Forms), the type of cultural participation (Receptive or Passive and Active) and the type of intervention (e.g., workshops and art classes). Where relevant, additional comments have been included to enable an understanding of the limitations and enabling factors.

When referring to the types of cultural participation, the literature differentiates between receptive and active participation. Passive or receptive enjoyment or attendance refers to cultural consumption, and active involvement, corresponds to engagement, entailing creative participation in culture as an activity (European Parliament & Pasikowska-Schanass, 2018).

1. Culture and Health

The Culture and Health sub-chapter uses the WHO report (Fancourt & Finn, 2019) as a reference point. The findings are structured using the main categories proposed by the WHO report – namely (A) Health Prevention and Promotion and (B) Management and Treatment of Disease – to allow comparison and facilitate analysis. Under these two themes, the evidence is clustered by health condition, and provides information on the format and type of cultural intervention.

The WHO Report (Fancourt & Finn, 2019) has also highlighted how the arts affect the social determinants of health by supporting social cohesion and addressing social inequalities. In the case of our report, these benefits are included in the Community Well-being section, acknowledging their importance in promoting health, but also valuing the social aspects as a dimension of well-being. Some 137 studies have been included in this section, of which 45 included evidence regarding the contribution of the arts to health prevention and promotion and 92 had relevance to management and treatment of disease.

1.1 Summary of evidence

A. Prevention and Promotion

Healthy living and health-promoting behaviours

A scoping review on interventions used to **promote mental health and well-being** in varied populations found that music classes have effects on reduction of physiological stress markers in young children, dance projects can improve mental health and well-being in female teenagers, shared reading groups can improve mental health and well-being, and Arts on Prescription, including visual art making, music and singing, theatre and museum or gallery projects, were found to have meaningful effects on the mental health and well-being of working adults (Jensen et al., 2020).

A rapid review found positive associations between adolescents' creative engagement and **promotion of healthy lifestyles**, such as engaging in physical activity and the reduction of risk behaviours (Bungay & Vella-Burrows, 2013). A large-scale survey showed that active participation of adolescents in cultural activities was associated with **better reported health**, life-satisfaction and self-esteem in adolescents, with higher frequency of participation being associated with better reported outcomes (Hansen et al., 2015). The results of a cohort study on the effects of an arts on prescription project on adolescents indicated that participation in visual arts workshops (wire sculpting, clay, painting and collage) led to significant improvements in **mental well-being and resilience** immediately after participation (Efsthathopoulou & Bungay, 2021).

A large-scale survey found that daily music making was associated with reports of **better health** in practicing adults. Women who reported on daily music-making, claimed less often to have poor physical or mental health compared to their control group (Ekholm et al., 2016).

Longitudinal studies confirmed a positive association between attending cultural events and **self-reported health**, although a causative relationship between cultural attendance on physical health was not confirmed (Wziak-Biaowolska, 2016; Wziak-Biaowolska & Biaowolski, 2016).

Results show that participation in receptive and creative cultural activities was significantly associated with **good health, good satisfaction with life and low anxiety and depression scores**. For women, the association between active cultural participation was stronger with perceived health, while for men attending receptive, rather than creative, cultural activities was more strongly associated with all health-related outcomes. Study results supported arguments for the inclusion of cultural activities in health promotion and healthcare (Cuyppers et al., 2012). The aesthetic experiences related to visiting a cultural heritage site demonstrated a noticeable impact on individual physical and mental health in terms of stress reduction (cortisol levels) and well-being (Grossi et al., 2018).

Health communication

Multiple studies suggested that attending theatre performances with health-related subjects increases **awareness and understanding of various health conditions** (Burns et al., 2018; Cueva et al., 2016; Ghosh et al., 2006) and supports engagement around antibiotic use (Swe et al., 2020) or prenatal screening (Hundt et al., 2011). At the same time, involving children in a community drama aimed at health communication did not prove effective in improving the level of knowledge of adults in the audience (Kamo et al., 2008).

Drawing enables patients to **express their disease-related states** and support medical staff in understanding the patient's condition (Nowicka-Sauer, 2007), which is especially useful in the case of hospitalised children (Kortesuoma et al., 2008).

Prevention of ill health

Evidence from a systematic review shows that group singing is effective in improving **respiratory and cardiovascular function, cognitive function, psychological well-being**, social inclusion and the bonding of different populations (Hagemann, 2021). Elderly people at high risk of future dementia who engaged in choral singing benefited from improved cognitive functions and ageing support, according to a randomised active-controlled trial (Feng et al., 2020).

Active participation in reading groups enables improved **mood and mental states** (Jensen et al., 2020), social bonding and inclusion, self-expression and the finding of meaning (Billington, 2019).

Singing bowl therapies are linked to the improvement of **physiological measurements** like blood pressure, heart rate and respiratory rate (Stanhope & Weinstein, 2020).

There is also evidence associating the viewing of a visual artwork with **stress and systolic blood pressure reduction** (Law et al., 2021).

Participation in dance activities is associated with improved mood and **reduced depression and anxiety symptoms, pain relief, enhanced physical functioning**, improved quality of life and better social inclusion and bonding (Baltà Portolés, 2021, Cruz-Ferreira et al., 2015, Brustio et al., 2018, Kim & Lee, 2016). Also, participation in dance classes positively affects the cognitive function of elderly people (Marquez et al., 2017).

There is evidence that older women actively engaged in music and painting benefit from increased **functional capacity** (Liddle et al., 2012), while dancing **reduces their risk of falls** (Cruz-Ferreira et al., 2015, Britten et al., 2017). Group singing has positive effects on the health and well-being of elderly people (Fu et al., 2018, Skingley et al., 2016).

In addition, there is evidence that playing a musical instrument from adolescence into adult life **improves episodic memory**, though it may not reduce the rate of memory decline (Romeiser et al., 2021). Playing a musical instrument is also a protective factor for **cognitive function** and an enabler for social and psychological well-being in healthy older adults (Mansky et al., 2020).

Maternal mental health and mother-infant bonding

Evidence shows that singing-based early postpartum interventions for mothers and their babies helped to lower cortisol levels, leading to improved maternal emotional states and mother-infant bonding (Wulff et al., 2021a). Maternal singing contributes to overall stress reduction (de Villiers, 2016) and enhanced signs of engagement in preterm infants (Palazzi et al., 2021).

Caregiving

Participation in singing activities provides effective emotional and social support to caregivers and medical staff (Fancourt et al., 2019; Moss & O'Donoghue, 2020). Similarly, storytelling may support bereaved parents through mourning (Bosticco & Thompson, 2005) and enable sense-making and emotional release in cancer patients and caregivers (De-Santo-Madeya et al., 2021). There is also evidence that engaging people suffering from dementia in morning singing activities facilitates enhanced communication between persons with dementia and their caregivers (Hammar et al., 2011).

Art interventions in health settings were found to improve the quality of well-being in the workplace in health workers (Jensen & Bonde, 2018). Studies also showed how engaging with creative activities enables reflection, self-expression and professional relations in both healthcare professionals and medical students (Rodríguez et al., 2012, Jones et al., 2017).

A scoping review showed that caregivers, music therapists and residential home staff are increasingly trained to use music and singing to decrease stress, improve cooperation in daily living tasks and enhance general well-being (Jensen et al., 2020).

A systematic review shows that art and environmental design in mental healthcare units improved the perceptions of the healthcare environment, and the well-being of patients and staff. While environmental conditions like excessive lighting or noise could negatively influence blood pressure, heart rate and psychological well-being, design settings that favoured safety, social interaction, improved acoustic conditions and exposure to natural settings promoted patients' orientation and reduced both stress and the risk of falling (Daykin et al., 2018).

B. Management and Treatment

Mental health conditions

A randomised control trial (RCT) found that elderly people's active engagement with art enabled a decrease of **anxiety and depression** (Coulton et al., 2015). Such benefits are the result of improved physical, intrapersonal, cultural, cognitive and social factors, as shown by a systematic review (Dunphy et al., 2019). Evidence also shows that singing facilitates better **management of mental health conditions** in older individuals. Singing also contributes to a growth in the perceived ability to cope with stressful experiences, though there seems to be no direct decrease of psychological stress (Sun & Buys, 2016).

An arts on prescription programme proposing participation of people dealing with anxiety, depression, social isolation or chronic pain in varied art forms demonstrated significant improvements in global well-being – namely improved mood and reduced tension – during and after participation (Holt, 2020). Previous studies (Crone et al., 2013; Crone et al., 2018) also showed that arts on prescription programmes can lead to significant improvements in the mental well-being of people with mental health conditions (including multiple morbidities).

Systematic reviews found that group singing leads to improved emotional states, senses of belonging, self-confidence (Williams et al., 2018) and reduced anxiety and depression (Reagon et al., 2016) in those living with a mental health condition.

An RCT which focused on the health effects of group singing in mothers suffering from post-natal depression found significant improvements in women diagnosed with moderate-severe postnatal depression symptoms (Fancourt & Perkins, 2018).

A systematic review found that visual arts interventions can have beneficial effects on subjective well-being in working adults diagnosed with mental health conditions. Evidence suggested that: the painting of mandalas can help in the reduction of PTSD symptoms; crafts such as ceramic painting and flower arranging can increase the self-reported quality of life in individuals dealing with PTSD; and that active participation in visual arts may enhance well-being by promoting social connectedness and bonding, a sense of achievement and appreciation (Julier et al., 2018). A qualitative inquiry revealed that museum visits and creative workshops enhanced the sense of self-empowerment and realisation of new meanings in life for mental health service users (Jensen, 2018a).

Other studies show that active engagement with a variety of creative activities such as singing, dancing, creative writing, drama, visual arts and crafts benefits individuals with mental health conditions through improved emotion regulation strategies (Dingle et al., 2017; Fancourt & Ali, 2019), increased experience of positive emotions (Dingle et al., 2017; Jensen, 2019; Holt, 2020; Slattery et al., 2020), well-being (Leckey, 2011; Holt, 2020), increased energy, motivation, reduced panic attacks (Jensen et al., 2020), and improved self-acceptance and identity in relation to being mentally ill (Buchan, 2020; Ørjasæter & Ness, 2017; Julier et al., 2018; Jensen, 2019; Slattery et al., 2020; Sitvast & Springer, 2020). Reading activities supported adults with mental-health conditions by reducing depressive symptoms and improving personal meaning and social connection (Dowrick et al., 2012; Hilse et al., 2007). Long-term engagement with art- and craft-based therapies shows sustained improved health outcomes for hospitalised psychiatric patients (Caddy et al., 2012).

Social inclusion of those with mental health conditions may be supported through participation in visual arts classes and creative workshops, especially for those with severe conditions (Saavedra et al., 2018; Leckey, 2011) or those living in remote areas (Leenders et al., 2011).

Creative activities carried out in community settings can facilitate health service utilisation by young people with mental health conditions (Shik, 2013). Theatre activities support patient care and quality of life of children and young adults with **eating disorders** in hospital care (Pellicciari et al., 2013).

Neurodevelopmental and neurological disorders

There is evidence that people with **dementia** who participate in semi-improvised drama activities benefit from an increased Positive Affect and engagement and a decrease in negative forms of engagement. For a sub-sample diagnosed with depression, a decrease in symptoms was also recorded (Zeisel et al., 2018).

Research has demonstrated the benefits of group singing for dementia patients in terms of stabilising stress and anxiety, improving quality of life and social ties (Camic et al., 2013), decreasing resistant behaviour and increasing positive emotions and general alertness (Hammar et al., 2011). Orchestral music-making or listening have been found to be strongly connected to psychological benefits such as improved mood and engagement; improved social functioning;

a sense of belonging and reduced social isolation; improved physical and health-related behavioural outcomes; and the improved cognitive function of elderly people living with dementia (Warran & Frederick Welch, 2019).

Promising results were also found by a scoping review that assessed the effects of online group singing, as long as the use of that technology is adapted to the patient's level (Dowson & Schneider, 2021). Watercolour painting positively affects well-being domains of interest, sustained attention, pleasure, self-esteem and normalcy (Gross et al., 2015), while dancing enhances confidence in balance, the quality of life and well-being (Koh et al., 2020). Storytelling and the use of digital content for telling stories supported people with dementia to access long-term memories (Critten & Kucirkova, 2019), increase Positive Affect and communication skills (Phillips et al., 2010), and aid self-expression and social interaction (Stenhouse et al., 2013). Studies also highlighted the positive effect of participation in the arts of people with dementia for the well-being of their caregivers (Hammar et al., 2011; Koh et al., 2020; Stenhouse et al., 2013).

The results of a randomised control trial indicated that singing supports the stabilisation of episodic verbal memory in patients with mild **Alzheimer's**, while painting enables the reduction of depressive symptoms and anxiety, being more suitable for introverted individuals (Pongan et al., 2017). Museum activities also supported positive mood changes in individuals in the early and middle stages of Alzheimer's disease and their care-givers (Rosenberg, 2009). Reminiscence dance is used for patients with Alzheimer's to promote the physical benefits of movement and coordination training, as well as meaningfulness, well-being and social contact (Jensen et al., 2020).

Other randomised control trials showed that people with **Parkinson's** experienced slight improvements in speech and prevention of deterioration in speech function as a result of singing (Elefant et al., 2012), as well as of improved movement, gait velocity and medication use after attending dance activities (Duncan & Earhart, 2012).

Other studies show that singing increases the quality of life (Stegemöller et al., 2017; Buetow et al., 2014) and mental well-being of people with Parkinson's across cultures and gender (Irons et al., 2021), and helps to improve physical, emotional and cognitive functioning, social connectedness, flow-on effects and the sense-of-self (Abell et al., 2017; Buetow et al., 2014). Negative effects have been recorded in relation to some patients' inability to engage, based on past abilities and expectations (Abell et al., 2017).

Elderly people with amnesic mild cognitive impairment engaged in dancing classes benefited from improved maintenance of cognitive functions and performance in daily functionality, mood and behaviour (Lazarou et al., 2017). Dancing also facilitates improved functional capacity and quality of life in patients with **schizophrenia** (Kaltsatou et al., 2015).

Children and adolescents with cerebral palsy participating in adapted hip-hop dancing classes seemed to benefit from improved physical functions, increased social competence and a reduction in emotional and behavioural problems (Withers et al., 2019).

Chronic stroke patients engaged in drawing, painting, collage and handicrafts activities benefited from body and brain stimulation, enjoyment, self-appreciation, self-expression and social connection with others (Bronken et al., 2012; Sit et al., 2017).

An experimental musical adaptation of the outdoor playground increased play and involvement with peers among **children with autism** (Kern & Aldridge, 2006). Music therapy supports increased attention and actions of social engagement (Vaiouli et al., 2015), while circus training promotes social development and well-being in children on the autistic spectrum (Seymour & Wise, 2017).

Noncommunicable diseases

According to a literature review, art therapy and participatory creative arts interventions demonstrated beneficial effects for **various health conditions**, including cancer, chronic pain and chronic obstructive pulmonary diseases, benefits that included improvements in physical function, reduced depression and anxiety, and improved mood and psychosocial resources (Jensen & Bonde, 2018).

A high number of studies showed the positive effects of singing for people with **chronic obstructive pulmonary diseases** at physical, psychological and social levels. These benefits included: physical – that is, increases in respiratory muscle strength, improved maximal respiratory pressure, and the reduction of dyspnoea and perceived respiratory symptoms (Bonilha et al., 2009; Goldenberg, 2018; Lewis et al., 2016); psychological – that is, an improved quality of life, increased mood and vitality, and reduced mental pain and depressive symptoms (Bonilha et al., 2009; Goldenberg, 2018; Lewis et al., 2016; Liu et al., 2019); and social functioning (Goldenberg, 2018; Lewis et al., 2016). Online group singing also proved effective by improving confidence and depression scores for people with long-term respiratory conditions (Philip et al., 2020).

Other studies into the benefits of singing also showed improved exercise capacity (McNaughton et al., 2017), acute physiological responses and increased minute ventilation and breath volumes, showing similar responses to a moderate-intensity physical activity (Philip et al., 2021). Group singing activities are enjoyable and well accepted (Liu et al., 2019), proved feasible in the long-term (Bonilha et al., 2009; McNaughton et al., 2017) and had benefits that increased with the duration of the therapy (McNaughton et al., 2017).

A randomised control trial indicated that active engagement with music and painting improves the recovery and quality of life of hospitalised patients with **ankylosing spondylitis**, showing better results than routine treatment. For these patients, music therapy is suggested as auxiliary treatment (Qin, 2020).

Patients with **chronic structural heart disease** engaged in choir singing benefited from improved respiratory muscle strength and quality of life, according to the results of a randomised control trial (Ganzoni et al., 2020).

A systematic review showed that, in the case of **cancer** patients, creative art therapies contributed to reduced symptoms of anxiety, depression and pain, as well as an improved quality of life (Puetz et al., 2013).

Various forms of creative engagement are effective in improving the quality of life of paediatric cancer patients and their parents (Madden et al., 2010), of oncologic patients undergoing chemotherapy (Bozcuk et al., 2017) and of women with breast cancer (Visser & Op 't Hoog, 2008). Long-term participation of cancer patients in dance activities is associated with a high self-efficacy and an active lifestyle (Thieser et al., 2021). Creative activities, mainly those involving visual arts and crafts, enabled cancer patients to learn new ways of coping with limited physical abilities and existential problems (la Cour et al., 2007), and to support conscious and meaningful living (Visser & Op 't Hoog, 2008). Cancer survivors with laryngectomy participating in adapted beatboxing workshops got to exercise their novel vocal instruments and improve breathing (Moors et al., 2020). The provision of hospital clown interventions for procedural support and as part of routine medical care in chronic conditions can lead to beneficial health effects in hospitalised young patients, including reduction of pain, anxiety and cancer-related fatigue, as well as improved psychological and emotional reactions, and in patients' overall sense of well-being (Lopes-Júnior et al., 2020).

A study showed that interactive drawing enables children with **type 1 diabetes** to express body and illness perception, and enhances doctor-patient communication (Vanelli et al., 2018).

Creative activities enabled **patients in primary care** to better manage aspects related to their health condition (Redmond et al., 2019). Art-making became a viable occupation and source of well-being for women with **chronic fatigue syndrome/myalgic encephalopathy** (Reynolds et al., 2008).

Acute conditions

A large scale RCT indicated that painting helps alleviate **pre-operative anxiety** in children undergoing elective surgery, with such activities being suggested as routine medical care (Forouzandeh et al., 2020). Three systematic reviews and meta-analyses have found significant evidence for the beneficial effect of listening to music for surgery patients. Listening to pre-recorded music before surgery proved effective in reducing pre-operative anxiety (Bradt et al., 2013; Fu et al., 2019). Also significant beneficial effects for the use of music interventions were reported for patients in the **recovery period after surgery**, including reduced pain, anxiety and use of analgesics, and improved patients' satisfaction. Music interventions were also effective when patients were under general anaesthetic (Hole et al., 2015).

Systematic reviews indicated that hospital clown interventions were significantly effective in the reduction of stress and anxiety levels in hospitalised paediatric patients and their parents (Sridharan & Sivaramakrishnan, 2016; Zhang et al., 2017; Lopes-Júnior et al., 2020).

Various studies show that engagement with art and creative activities facilitated **pain reduction and management** in different medical contexts. Group singing may be an effective and safe approach for reducing persistent pain and depression in people with long-term health conditions (Irons et al., 2020b; Kelly et al., 2012; Irons et al., 2020a). Listening to brainwave music supported the relief of orthodontic pain in adults (Huang et al., 2016). Live music interventions showed good results for pain and distress reduction in the case of children undergoing blood tests and are well accepted by the children and their parents (Caprilli et al., 2007). Active engagement with creative arts assisted pain reduction during cancer treatment (Puetz et al., 2013) and helped people elderly people with chronic conditions living in low-income housing or senior living communities cope with pain (Yuen et al., 2011). Listening to music and engagement with music was also found to support pain management (Hauck et al., 2013).

Different ways of engaging with arts and culture activities

Among the studies screened, certain art forms and intervention models appeared more frequently. This does not necessarily mean that other art-based approaches are less effective, but that they may have been less studied or are less represented in the databases we searched for our resources. That said, we noticed that:

- Group singing seems to provide high benefits and to be widely used for improving the health and well-being of people with respiratory conditions, people with Parkinson's and dementia, and elderly people;
- Theatre is often used for health communication;
- Dance is frequently used in the management of Parkinson's disease, and for physical and psychosocial outcomes in elderly people;
- Visual arts in various forms – e.g., drawing, painting, photography or crafts – are used to help enable patients to express their conditions, provide self-reflection, meaning and a sense of achievement and appreciation for people with various conditions, including cancer, diabetes and mental illnesses;
- Playing a musical instrument requiring long-term engagement is associated with cognitive benefits in adults, while daily music-making is associated to better health in adults;
- Creative art therapies, combining multiple arts techniques and actively engaging participants, are used as complementary therapies in various healthcare settings.

Among the 137 included studies, 106 (77 per cent) refer to active forms of cultural engagement, 16 (12 per cent) to receptive participation and 15 (11 per cent) to both active and receptive forms of participation. In this respect, we can conclude:

- **Receptive experiences with the arts** have a certain potential to support health promotion, especially by providing creative ways of health communication such as improved knowledge and understanding of health-related subjects. In specific cases, activities like listening to music may also have benefits in terms of pain management (Hole et al., 2015, Huang et al., 2016), improved physiological measurements (Stanhope & Weinstein, 2020), reduced anxiety before and after surgery (Bradt et al., 2013, Hole et al., 2015, Fu et al., 2019), post-operative recovery (Hole et al., 2015), and reduced pain and anxiety for children undergoing blood tests (Caprilli et al., 2007).
- There are also positive associations between **overall cultural participation**, involving both **receptive and active forms**, and self-reported physical health or life satisfaction (Hansen et al., 2015, Wziak-Biaowolska, 2016; Wziak-Biaowolska & Biaowski, 2016). Certain studies note that no causative relation between voluntary cultural engagement and health could be identified (Wziak-Biaowolska, 2016; Wziak-Biaowolska & Biaowski, 2016).
- The vast majority of studies show that **active engagement with the arts and creative activities** is necessary to produce health outcomes both in terms of promotion and prevention and management and treatment.
- A study on a large population sample has found a light but consistently stronger relationship between receptive cultural activities and satisfaction with life, and low anxiety and depression scores in women and men (Cuyper et al., 2012).

Most art programmes aiming to produce health outcomes covered by the studies included in our scoping review involved a **targeted cultural intervention design**. Thus, expert knowledge rooted both in the arts and the health sectors is necessary in order to create effective interventions.

1.2 Synthetic table of evidence

A. Prevention and Promotion

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Healthy living and health promoting behaviours							
Adolescents (11-18)	Multiple	Receptive and active	Creative activities	Promoting behaviour change and healthy lifestyles (physical activity, mental well-being, less risky behaviours), increased confidence and social skills	Rapid review		Bungay & Vella-Burrows, 2013
Adolescents	Multiple	Receptive and active	Reading a book, listening to music, playing an instrument, meeting, training, visiting a library, cinema or theatre, attending music or sports events or choir singing	Better reported health, life-satisfaction and self-esteem in the case of active cultural participation.	Large-scale survey	Frequency of participation was found impactful, routine participation being associated with better reported outcomes.	Hansen et al., 2015
Adolescents	Visual Arts	Active	Arts on Prescription: wire sculpting, clay, painting, and collage	Improved mental well-being and resilience	Cohort study	Significant improvements immediately after participation, though effects were not sustained after three months.	Efstathopoulou & Bungay, 2021
Children, adolescents, adults and elderly	Multiple	Receptive and active	Music listening, classes and therapy groups, choral singing, dance classes, visual art making, museum visits, reading groups, theatre educational workshops	Children – reduction of physiological stress markers through music classes; Adolescents – mental health and well-being in female teenagers through dance; Working adults – meaningful effects of Arts on Prescription on mental health and well-being; Elderly – physical benefits, meaningfulness, well-being and social contact of dance for people with dementia	Scoping review		Jensen et al., 2020
Adults	Heritage	Receptive and Active	The aesthetic experience of visiting a cultural heritage site	Impact on individual physical and mental health: stress reduction (cortisol levels) and well-being increase	Experimental study		Grossi et al., 2018
General population	Museum	Receptive and active	Museum activities	Strong positive correlations between cultural activities and health	Narrative synthesis		Camic & Chatterjee, 2013

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Adult participants	Multiple	Receptive and Active	Participation in cultural activities	Good health, good satisfaction with life, low anxiety and depression scores in both genders. In women the association between active cultural participation was stronger with perceived health, while, in men, attending receptive, rather than creative, cultural activities was more strongly associated with all health-related outcomes	Cross-sectional study	Slight but consistently stronger relationship between the receptive cultural activities and satisfaction with life, anxiety and depression in both	Cuyppers et al., 2012
General population	Multiple	Receptive and active	Voluntary engagement with the arts	Self-reported physical health or life satisfaction	Observational study	No causative relation	Węziak-Białowska, 2016
General population	Multiple	Receptive	Attendance at cultural events	Attendance at cultural events and self-reported health could only be confirmed as associational	Observational study	Findings do not contest that participation in other types of more active, cultural and creative, arts-related activities may be beneficial to health	Węziak-Białowska & Białowski, 2016
Health communication							
General public	Theatre	Receptive	Performance at community festival	Increased public awareness of dementia	Observational study		Burns et al., 2018
General public	Theatre	Receptive	Applied theatre	Debate and engagement with the complexities of prenatal screening	Observational study	Extent of engagement and its effects not captured	Hundt et al., 2011
General public in rural setting	Theatre	Receptive	Folk theatre	Correct and scientific information on malaria control and prevention provided	Mixed methods	Immediate behavioural changes not observed	Ghosh et al., 2006
Adults	Theatre	Receptive	Community drama with primary school students	Knowledge on HIV treatment and prevention	RCT	No change of knowledge in adults participating as audience.	Kamo et al., 2008
General public	Theatre	Active	Forum theatre	Increased public engagement around antibiotic use	Qualitative study	Effective method to evaluate community perceptions and use	Swe et al., 2020
Adults	Visual Arts	Receptive	Watching digital stories	Increased knowledge and understanding on cancer	Qualitative study	Cancer education courses	Cueva et al., 2016
Women with systemic lupus erythematosus	Visual Arts	Active	Drawing the disease	Enhanced openness and sharing of personal experience; assisted medical staff's understanding of the patient's psychological status	Qualitative study		Nowicka-Sauer, 2007

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Hospitalised children	Visual Arts	Active	Drawing pain stories	Assisted with self-explanation of pain	Qualitative study		Kortessluoma et al., 2008
Prevention of ill health							
Adults	Music	Receptive	Singing bowl therapies	Improvements in blood pressure, heart rate, respiratory rate, peripheral capillary oxygen saturation, cutaneous conductance, and anterior-frontal alpha values	Systematic review		Stanhope & Weinstein, 2020
General population	Music	Active	Choir and singing groups	Improved respiratory and cardiovascular function, improved cognitive function; improved psychological well-being, improved social inclusion and bonding	Systematic review		Hagemann, 2021
Multiple	Dance	Active	Dance classes, movement therapy	Improved mood and reduced depression and anxiety symptoms, pain relief, enhanced physical functioning, improved quality of life, improved social inclusion and bonding	Systematic review		Baltà Portolés, 2021
Multiple	Literature	Active	Reading groups	Improved mood and mental states, social bonding and inclusion, self-expression, finding of meaning; increased theory of mind	Narrative synthesis		Billington, 2019
General population	Visual Arts	Receptive	Viewing a visual artwork	Stress reduction, systolic blood pressure reduction	Scoping review		Law et al., 2021
Middle-aged women	Dance	Active	Line dancing	Perceived health benefits and well-being, feelings of social closeness, physical exercise	Phenomenological analysis	Continuous participation in a leisure activity is necessary for the improvement of health	Kim & Lee, 2016
Elderly at a high risk for future dementia	Music	Active	Choral singing	Cognitive functions and ageing support	RCT	The study lacked a non-intervention control group	Feng et al., 2020
Latino Elderly	Dance	Active	Latin dancing classes	Cognitive function	RCT		Marquez et al., 2017
Elderly women	Dance	Active	Creative dance	Beneficial effects on physical fitness and life satisfaction, might play an important role in the prevention of falls	RCT		Cruz-Ferreira et al., 2015
Elderly women	Dance	Active	Contemporary dance	Decreased physical and psychosocial risk factors of falls	Uncontrolled 'pre-post' intervention design		Britten et al., 2017

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Elderly women (aged over 80)	Multiple	Active	Music instrument and painting	Improved functional capacity, improved emotional well-being	Observational study	Women in their eighties continued to try new activities or revisit old ones	Liddle et al., 2012
Elderly adults in senior living communities	Music	Active	Group singing	Improved memory, language, speech information processing, executive function, and respiratory muscle strength	Quasi-experimental study	Informal socialisation time was not appreciated	Fu et al., 2018
Elderly people	Dance	Active	Dance classes	Positive effects on mobility performance, improvement of quality of life and social engagement	Quasi-experimental study	Dance as a feasible form of physical training (not expensive, suitable and adaptable for elderly adults)	Brustio et al., 2018
Elderly people	Music	Active	Community singing	Benefits for health and well-being	Mixed-methods study		Skingley et al., 2016
Healthy older adults	Music	Active	Playing a musical instrument	Protective factor for cognitive function, improved social connections and quality of life	A post-hoc observational analysis		Mansky et al., 2020
Lifelong (individuals assessed at ages 18, 36, 65 and 72)	Music	Active	Lifelong musical instrument engagement	Improved episodic memory	Observational study	May not reduce the rate of decline	Romeiser et al., 2021
Mother-infant health and bonding							
Mothers and infants	Music	Active	Singing-based intervention	Lowered cortisol levels, improved maternal emotional state and mother-infant bonding	RCT	Early postpartum intervention	Wulff et al., 2021a
Mothers and preterm infants	Music	Active	Maternal singing	Enhanced signs of engagement in pre-term infants, maternal intuitive abilities	Experimental		Palazzi et al., 2021
Mothers and preterm infants	Music	Active	Maternal singing during feeding	Overall stress reduction	Quasi-experimental study	No contingent effect on feeding or weight gain	Blumenfeld & Eisenfeld, 2006
Women with postnatal depression	Music	Active	Group singing	Reduced postnatal depressive symptoms	RCT		Fancourt & Perkins, 2018
Caregiving							
Caregivers of people with dementia	Music	Active	Music therapeutic caregiving	Less uncomfortable and more joyful caregiving	Quasi-experimental study	Morning care situations	Hammar et al., 2011
Cancer caregivers	Music	Active	Singing	Emotional experiences, sense of identity, social support, resilience, development of musical skills	Observational study		Fancourt et al., 2019

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Terminally ill adult cancer patients and their families	Storytelling	Active	Legacy video creation	Means for inner procession of diagnosis and experience, and support for caregivers	Stage IB pilot, intervention study		DeSanto-Madeya et al., 2021
Bereaved parents	Storytelling	Active	Storytelling	Supported mourning processes, assist in sense-making and reaching a cathartic release	Narrative review		Bosticco & Thompson, 2005
Health service workers	Music	Active	Work-place choir	Improved self-perception of mental health and decreased depression rates; enhanced social connectedness, personnel engagement, and enjoyment	Mixed-methods study	A professional facilitator and financial costs should be covered	Moss & O'Donoghue, 2020
Patients and staff in mental care facilities	Architecture/Design	Receptive	Environmental design	Promoted patients' orientation, reduce stress and risk of falling, improve perceptions of the healthcare environment, and staff's overall well-being	Systematic review	Environmental conditions (e.g., excessive lighting or noise) may negatively influence blood pressure, heart rate and psychological well-being	Daykin et al., 2008a
Medical staff and students	Writing	Active	Creation of a creative arts journal	Encouraged self-expression and strengthened professional relationships.	Quasi-experimental study		Rodríguez et al., 2012
Medical students	Visual Arts	Active	Narrative-based programme	Enhanced reflection on past experiences, personal growth and development, self-discovery, awareness of art as an important tool, enhanced sense of collaboration	Quasi-experimental study		Jones et al., 2017

B. Management and Treatment

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Mental health							
People with mental health conditions	Music	Active	Choir singing	Improved emotional states, sense of belonging and self-confidence	Systematic review	Performance anxiety: enjoyment to be prioritised over quality of singing	Williams et al., 2018
People with mental health conditions	Multiple	Active	Creative arts	Positive effects on mental well-being, improvements within the individual's immediate social networks	Systematic review	Need for clarity of concepts related to culture and mental well-being	Leckey, 2011
Adults with mental health conditions	Visual Arts	Receptive and active	Painting or drawing, art appreciation and viewing, creation and exhibition of art, and crafts including ceramics and sculpture	Subjective well-being and quality of life, social connectedness and bonding, sense of achievement and appreciation, reduction of PTSD symptoms	Systematic review		Julier et al., 2018
Adults with mental health conditions	Multiple	Receptive and active	Arts on Prescription: choir singing, guided reading, introduction to the city archives, music listening, museum and theatre visits, nature hike	Increased energy, motivation and self-esteem, improved self-awareness and sense of joy, reduced panic attacks and a better level of self-care	Qualitative report		Jensen, 2019
Adults with mental health conditions	Museum	Active	Guided museum visits followed by painting and sculpture workshop	Empowerment and meaning in life	Qualitative study	The positive influence of the museum visits was not evident in all museums and was highly impacted by the interaction with the tour guide	Jensen, 2018a
Adults with mental health conditions	Multiple	Active	Arts on Prescription: poetry, ceramics, drawing, mosaic, and painting	Improvements in mental well-being	Observational study		Crone et al., 2013
Adults with mental health conditions	Multiple	Active	Arts on Prescription: poetry, ceramics, drawing, mosaic, and painting	Improvements in mental well-being	Observational study - longitudinal	Arts interventions have a high potential to improve well-being also for people with multiple morbidities.	Crone et al., 2018
Patients with chronic health conditions	Music	Active	Group singing	Reduced anxiety, depression	Mixed-methods study		Reagon et al., 2016

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Adults dealing with mental health conditions, social isolation and chronic pain	Multiple	Active	Arts on Prescription	Global well-being – improved mood and reduced tension	Observational pre-post repeated measures study		Holt, 2020
Elderly adults	Multiple	Active	Creative art interventions	Reduced depression and symptoms by improving physical, intrapersonal, cultural, cognitive and social factors	Systematic review	Interventions led by creative arts therapists show best results	Dunphy et al., 2019
Elderly people	Music	Active	Community group singing	Decrease in anxiety and depression	RCT	Results maintained after three months, lowered after six months	Coulton et al., 2015
People with mental health conditions	Photography	Active	Participatory Photography as therapy	Support in working through problematic issues, a sense of empowerment, strengthened therapeutic relationships	Systematic review	Ethical issues that may arise with taking photographs of identifiable people	Buchan, 2020
Inpatients to a psychiatric hospital	Multiple	Active	Art- and craft-based creative therapies	Improvement in measured mental health outcomes over a five-year period	Observational study		Caddy et al., 2012
Adults	Music	Active	Singing	Lowered depression levels, better management of mental health conditions, perceived ability to cope with stressful experiences	Interventional study	No direct decrease of psychological stress	Sun & Buys, 2016
Adults with mental health conditions	Multiple	Active	Choir singing and creative writing	Improved emotion regulation strategies, increased experience of positive emotions	Interventional study, repeated measures design		Dingle et al., 2017
Individuals with long-term mental health conditions	Multiple	Active	Theatre and music workshop	Improved experience of individual and collective identity of being mentally ill	Qualitative study		Ørjasæter et al., 2017
Adults with mental health conditions	Multiple	Active	Individual artwork, poetry writing, dance, play musical instruments	Improved confidence, feeling valued, connectedness, self-acceptance and understanding of own mental health problems	Qualitative study	Writing was the least popular; group work raised tensions due to individual preferences	Slattery et al., 2020
Individuals with depression	Multiple	Active	Visual arts, literature-related exercises, craft and design, digital, electronic and online art	Lower general use of self-reported emotional regulation strategies, yet still reports on positive emotional regulation experiences	Observational study	Results did not include effects of digital, electronic and online art	Fancourt & Ali, 2019

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Individuals with severe mental conditions	Visual Arts	Active	Creative visual arts workshop: painting, drawing, collage, sculpture, print-making	Improved social inclusion and psychological well-being	Mixed-methods study	Impact may be increased by changing workshop's location from clinical settings to public space together with individuals without a diagnosis of severe mental illnesses	Saavedra et al., 2018
Indigenous individuals with mental health conditions living in remote areas	Visual Arts	Active	Visual arts classes	Social inclusion	Case study		Leenders et al., 2011
Ambulatory mental-health service users	Literature	Active	Reading group (literature and poetry)	Reduction of depressive symptoms, social awareness, and communication skills	Mixed-methods study	Setting was influential: a less-medical drop-in centre (rather than a surgery unit) increased comfort and participation level in participants	Dowrick et al., 2012
Mental health care users	Photography	Active	Photography	Self-actualization, reflection and awareness	Text and expert opinion paper		Sitvast & Springer, 2020
Adults with mental-health difficulties	Literature	Active	Poetry reading and writing	Connect to inner self, enhanced personal meaning, connection between group members	Qualitative study		Hilse et al., 2007
Youth with a mental condition	Multiple	Active	Creative art in community-based mental health program	Facilitated mental health service utilization	Qualitative study		Shik, 2013
Hospitalised children and young adults with eating disorders	Theatre	Active	Theatre workshop	Decreasing defence mechanisms, allowing a patient-focused approach, mitigating specific symptoms, improving the quality of life during the hospital stay	Observational study	Feasible and possibly effective strategy for use in interventions aimed at the prevention of weight-related disorders	Pellicciari et al., 2013
Neurodevelopmental and neurological disorders							
Autism							
Children with autism	Music	Receptive	Experimental musical adaptation of the outdoor playground	Increased peer interactions	A single-case experimental design	Social interactions with other children did not improve	Kern & Aldridge, 2006
Children on the autistic spectrum	Circus	Active	Circus training	Enhance social development and well-being	Qualitative study		Seymour & Wise, 2017

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Kindergarten children with autism	Music	Active	Music therapy	Improvement in joint attention and actions of social engagement	Mixed-methods study		Vaiouli et al., 2015
Cerebral Palsy							
Children/adolescents with cerebral palsy	Dance	Active	Adapted hip-hop dancing class	Improved physical function (transfer and basic mobility, sporting, global function, and symptoms), reduction of emotional and behaviour problems, increased social competence	A pilot, prospective, clinical trial		Withers et al., 2019
Stroke							
Chronic stroke patients	Visual Arts	Active	Drawing, painting, collage, and handcrafts	General well-being, bodily engagement, brain stimulation, rejuvenation experience; enjoyment, self-appreciation, self-expression, social connection with others	Qualitative study		Sit et al., 2017
Stroke survivors	Storytelling	Active	Co-construction of stories with medical nurse	Enhanced psychosocial well-being	Single case report		Bronken et al., 2012
People with aphasia	Photography/Film	Active	Photovoice method	Opportunity to share useful everyday lives coping mechanism; enhanced motivation, feeling of control and empowerment	Qualitative study	Using a camera may include obstacles for stroke survivors, as it may affect their mobility, vision impairments and inability to understand the symbols on camera	Levin et al., 2007
Other							
People with complex neurological disabilities in long-term care facilities	Theatre	Active	Interactive drama	Appropriate casual leisure occupation	Clinical practice guidelines		Fenech, 2009
Patients with schizophrenia	Dance	Active	Exercising traditional dancing	Improved functional capacity and quality of life	RCT	Greek traditional dancing can be used as an alternative form of exercise in patients with schizophrenia	Kaltsatou et al., 2015
Elders with amnesic mild cognitive impairment	Dance	Active	International Ballroom Dancing classes	Improved maintenance of cognitive functions and performance in daily functionality, mood and behaviour	RCT	A big decline in cognitive function in control group	Lazarou et al., 2017

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Dementia							
People with dementia and their caregivers	Music	Active	Online group singing	Promising results	Scoping review	Technology use to be adapted to the patients' level	Dowson & Schneider, 2021
People with dementia	Theatre	Active	Scripted-Improvis (semi-improvised drama performance)	Increase of positive forms of affect/engagement and a decrease in the negative forms of engagement; For a sub-sample diagnosed with depression, a decrease in depression symptoms	Quasi-experimental study	Quality of life was higher while participants were involved in the intervention	Zeisel et al., 2018
People with dementia	Music	Active	Community Singing	Stabilising stress, anxiety, improved quality of life and social ties	Mixed-methods study	Focus on dyad of care partners	Camic et al., 2013
People with dementia	Music	Active	Music therapeutic caregiving	Decrease in resistant behaviour, increase in positive emotions and general alertness	Quasi-experimental study	Morning care situations	Hammar et al., 2011
Elderly with dementia or post-stroke	Music	Receptive and active	Orchestral music-making and listening	Psychological, social, physical and cognitive improvements	Literature review		Warran & Frederick Welch, 2019
Individuals with middle-to late-stage dementia	Visual Arts	Active	Watercolour painting	Improved well-being domains (interest, sustained attention, pleasure, self-esteem and normalcy)	Quasi-experimental study	To adapt to the level of individual functioning	Gross et al., 2015
Elderly with dementia	Storytelling	Active	Digital story making	Support for participants to access their long-term memories	Case study	The value of touchscreens for people living with dementia	Critten & Kucirkova, 2019
People with mild to moderate dementia, living in the community	Dance	Active	Person-centred creative dance intervention	Enhancing the engagement and well-being, improved gait, balance confidence, well-being and quality of life, reduced perceived stress of caregiving	Quasi-experimental study	Introduction of creative dance intervention into community care	Koh et al., 2020
People with dementia	Storytelling	Active	Group storytelling program	Increased positive affect, improved communication skills	Quasi-experimental study		Phillips et al., 2010
People with early-stage dementia and their carers	Storytelling	Active	Digital story-making workshop	Social interaction, expression and maintenance of self	Qualitative study	Relationship between participant and facilitator as a key	Stenhouse et al., 2013
Parkinson's Disease							
People with Parkinson's	Music	Active	Music therapy voice and singing intervention	Slight improvements in speech, prevention of deterioration of speech function	RCT		Elefant et al., 2012
People with Parkinson's	Dance	Active	Argentinian Tango	Improved medication use, movement disorder and gait velocity	RCT		Duncan & Earhart, 2012

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
People with Parkinson's in care centres	Music	Active	Group singing	Better quality of life and mental well-being	Pre-post design	Similar effects across cultures and gender	Irons et al., 2021
People with Parkinson's	Music	Active	Group singing	Improved physical, mood, cognitive functioning, social connectedness, flow-on effects and sense-of-self	Qualitative study	Negative effects related to incapacity to engage based on past abilities and expectations	Abell et al., 2017
People with Parkinson's	Music	Active	Singing	Increased respiratory pressure and quality of life	Experimental study		Stegemöller et al., 2017
People with Parkinson's disease	Music	Active	Singing	Increase of neurorehabilitative care/quality of life, connectedness and flow	Text and expert opinion paper		Buetow et al., 2014
Alzheimer's Disease							
Patients with mild Alzheimer's	Multiple	Active	Music and painting	Painting – reduction of depressive symptoms and anxiety; Singing – stabilisation of episodic verbal memory	RCT	Painting more suitable for individuals experiencing introvert needs	Pongan et al., 2017
Individuals in early and middle stages of Alzheimer's disease and their caregivers	Museum	Receptive	'Meet Me at MoMA': Guided tours and Interactive discussion	Positive mood change	Interventional study, pre-post design		Rosenberg, 2009
Noncommunicable diseases							
Patients in primary care	Multiple	Active	Creative activities courses through social prescribing	Personal and social benefits, self-management of aspects of health-related conditions, progress towards better physical or mental health	Qualitative study (longitudinal)	Social prescribing programmes to be further developed	Redmond et al., 2019
Patients and health workers	Multiple	Receptive and active	Art therapy, creative art interventions and Arts on Prescription	Physical and mental well-being of people with various conditions including oncologic patients, chronic pain and chronic obstructive pulmonary disease; improved work environment	Literature review		Jensen & Bonde, 2018
Women with chronic fatigue syndrome/myalgic encephalopathy (CFS/ME)	Multiple	Active	Art-making	Subjective well-being mainly through providing increased satisfaction in daily life, positive self-image, hope and contact with the outside world	Qualitative study	Creative art-making as part of a broader acceptance and adjustment process to CFS/ME	Reynolds et al., 2008
Respiratory diseases							
Lung disease patients	Music	Active	Singing	Physical, psychological and social benefits	Systematic review	Skilled singing lead is key	Lewis et al., 2016

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
People with respiratory diseases	Music	Active	Singing	Physical – respiratory muscle strength, reduction of dyspnoea and perceived respiratory symptoms; psycho-social – improved mood, vitality, social functioning, quality of life, reduced mental pain	Literature review		Goldenberg, 2018
People with long-term respiratory conditions	Music	Active	Online Group Singing	Psychological – improved confidence and depression scores	RCT	Online, during COVID-19	Philip et al., 2020
Chronic obstructive pulmonary disease	Music	Active	Singing	Improved maximal respiratory pressure (PEmax), quality of life	RCT	Long-term participation proved feasible	Bonilha et al., 2009
Patients with stable chronic obstructive pulmonary disease	Music	Active	Group singing therapy	Decreased depressive symptoms and improved quality of life	RCT	Benefits increase with the duration of therapy, enjoyable and well accepted	Liu et al., 2019
Chronic obstructive pulmonary disease	Music	Active	Group Singing	Improved exercise capacity, anxiety reduction	Observational study	Long-term participation proved feasible	McNaughton et al., 2017
People with chronic respiratory conditions	Music	Active	Group Singing	Acute physiological responses, increased minute ventilation and breath volumes	Observational study	Similar to a moderate-intensity physical activity response	Philip et al., 2021
Adults with chronic obstructive pulmonary disease	Music	Active	Community singing	Improved breathing, relaxation, decreased anxiety, new social connections	Qualitative study	Facilitation methods and the exercise component as key	Skingley et al., 2018
Adults with chronic obstructive pulmonary disease	Music	Active	Community singing group	A safe place to relax and enjoy, shared ownership, identification with others in similar health. Performance led to boost in self-confidence, sense of achievement and shared responsibility	Observational study	Influential factor - medical staff involvement	McNaughton et al., 2016
Ankylosing spondylitis							
Hospitalised patients with ankylosing spondylitis	Multiple	Active	Traditional Chinese music and painting	Improved recovery and quality of life	RCT	Better results than routine treatment; music therapy suggested as auxiliary treatment	Qin, 2020
Diabetes							
Children with type 1 diabetes	Visual Arts	Active	Interactive drawing	Express body and illness perception, enhance doctor-patient communication	Quasi-experimental study		Vanelli et al., 2018

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Cancer							
Cancer patients	Multiple	Active	Creative Art Therapies	Reduced symptoms of anxiety, depression, and pain, improved quality of life	Systematic review		Puetz et al., 2013
Paediatric cancer patients and their parents	Multiple	Active	Creative arts therapy and Music therapy	Improved quality of life	Mixed-methods study		Madden et al., 2010
Cancer patients	Dance	Active	Ballroom dancing	Improved functional exercise capacity; long-term participation associated with a high self-efficacy and active lifestyle	Qualitative study	No significant effects on fatigue or body image	Thieser et al., 2021
Oncologic patients undergoing chemotherapy	Visual Arts	Active	Painting	Improved quality of life, reduced depression levels	Quasi-experimental study	Better effects for patients with previous experience of painting art therapy	Bozcuk et al., 2017
Advanced cancer patients	Multiple	Active	Painting, pottery, gardening, and woodwork	Learn new methods to cope with limited physical abilities and existential problems	Qualitative study		La Cour et al., 2007
Women with breast cancer	Multiple	Active	Creative art courses	Enhanced positive emotions, increased level of creativity, more conscious living, improved quality of life and meaning of life	Interventional study, pre-and post-evaluations	Mood was not changed	Visser & Op 't Hoog, 2008
Cancer survivors with laryngectomy	Music	Active	Beatboxing workshops	Safe synergistic environment in which laryngectomees use their novel vocal instruments, breathing development	Quasi-experimental study		Moors et al., 2020
Chronic Heart Conditions							
Patients with chronic structural heart disease	Music	Active	Choir singing	Improved respiratory muscle strength and quality of life	RCT		Ganzoni et al., 2020
Acute conditions							
Hospitalised school age children	Creative Arts Therapy	Active	Play intervention: Building toys from medical equipment	Self-expression, gaining an active role within the hospital environment, reducing fear and enabling satisfying experiences	Mixed-methods study		Teksoz et al., 2017
Children and adolescents hospitalised with acute or chronic conditions	Circus	Receptive and Active	Medical clown interventions for procedural support and as part of routine medical care	Reduction of pain, anxiety and fatigue; improved psychological and emotional reactions and overall well-being	Systematic review		Lopes-Júnior et al., 2020

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Hospitalised paediatric patients	Circus	Receptive and Active	Medical clowns interventions	Reduction of anxiety and stress in patients and their parents	Systematic review		Sridharan & Sivaramakrishnan, 2016
Hospitalised paediatric patients	Circus	Receptive and Active	Medical clowns	Reduction of pre-operative psychological stress and anxiety in patients, reduction of parents' anxiety	Systematic review		Zhang et al., 2017
Surgery							
Surgical adult patients	Music	Receptive	Recorded music listening	Preoperative anxiety reduction	Cochrane systematic review		Bradt et al., 2013
Surgical adult patients	Music	Receptive	Recorded music listening	Reduction of physiological stress markers, decreased neuroendocrine cortisol stress response pre surgery	Systematic review and meta-analysis		Fu et al., 2019
Post-operation adult patients	Music	Receptive	Music listening	Reduced pain after surgery, anxiety and use of analgesics, and improved patient satisfaction.	Systematic review and meta-analysis	Music interventions were effective also when patients were under general anaesthetic.	Hole et al., 2015
General population	Music	Active	1 hour/day of instrument playing or singing	Reports of better physical and mental health than control group. Women making music daily reported less on poor physical or mental health, compared to their control group	Large-scale survey		Ekholm et al., 2016
Children undergoing elective surgery	Visual Arts	Active	Painting	Alleviating preoperative anxiety	RCT	Suggested as routine medical care	Forouzan-deh et al., 2020
Pain management							
Adults	Music	Receptive	Brainwave music listening	Relief of orthodontic pain	RCT		Huang et al., 2016
People with long-term health conditions	Music	Active	Group singing	Reduction of pain intensity and interference; psychological and social benefits	Systematic review	There is limited available evidence of varied quality	Irons et al., 2020b
Children undergoing blood tests	Music	Receptive	Live music listening	Pain and distress reduction	RCT	Well accepted by children and parents	Caprilli et al., 2007
Elderly adults with chronic conditions living in low-income housing or senior living communities	Theatre	Active	Community-based theatre activities	Coping with pain	Mixed-methods study		Yuen et al., 2011

Target group	Art discipline	Participation	Intervention	Specific outcome	Evidence strength	Comments, limits, negative outcomes	Reference
Cancer patients	Multiple	Active	Creative Art Therapies	Pain reduction during cancer treatment	Systematic review	Smaller reductions in heterogeneous cancer groups in outpatient settings	Puetz et al., 2013
Patients with chronic pain	Music	Active	Group singing	Pain reduction, positive feelings, positive social interaction	Exploratory pilot study		Irons et al., 2020a
Adults	Music	Receptive and active	Entrainment music therapy, receptive music listening, composition of "pain music" and "healing music"	Pain coping	Quasi-experimental study	Pain management based on the capability of music to induce both relaxation and distraction	Hauck et al., 2013
Rural women with chronic illness	Multiple	Active	Creative arts	Improved ability to cope with chronic illness and increased overall sense of well-being, pain management	Experimental study	Use of creative arts as a pain management tool as well as a non-traditional therapy for dealing with chronic illness	Kelly et al., 2012

2. Culture and Subjective Well-being

There are multiple definitions of subjective well-being. Ed Diener (2009) defines subjective well-being as 'a person feeling and thinking his or her life is desirable regardless of how others see it (Diener, 2009).' This definition highlights two dimensions, namely thinking and feeling. In our study, we have operationalised the concept of subjective well-being on the basis of four categories identified by Das et al. (2020): (a) fulfilment and engagement theories; (b) personal orientation theories; (c) evaluative theories; and (d) emotional theories (Das et al., 2020).

Fulfilment and engagement theories discuss the influences of an individual's goals, needs and activities on their subjective well-being. Personal orientation theories analyse the influence of temperament on subjective well-being, which dynamically affects fulfilment and engagement, and further leads to the readjustment of personal orientation. Evaluative theories focus on how personal evaluations of life (cognitive dimension) are interconnected with the process of fulfilment and emotions. Theories of emotion show how experiences of emotions (in the context of their affective dimension) are interconnected with the processes of fulfilment, engagement and evaluations (Das et al., 2020).

Some 117 studies have been included in this thematic sub-chapter.

2.1 Summary of evidence

A. Personal Fulfilment and Engagement

Acquiring and developing skills

There is a large evidence base proving that active cultural participation enables the **acquiring and development of skills such as collaboration and communication** (Chang et al., 2019; Eleni & Georgios, 2020; Gao et al., 2021; Pearce & Lillyman, 2015; Jones et al., 2017; Barnes, 2014; Lister et al., 2009; Jensen et al., 2020), and technology (Gilliam et al., 2012).

Among these, development of creative skills that can support personal and professional development, as well as an individual's ability to navigate life, is of high relevance in the case of children (Kucirkova et al., 2014; Barnes, 2014), youth (Rodgers & Furcron, 2016), adults (Ritter & Ferguson, 2017), adults in the workplace (Chang & Netzer, 2019), elderly adults (Keisari et al., 2020; Pearce & Lillyman, 2015), medical students (Jones et al., 2017; Nagji et al., 2013), caregivers (Fancourt et al., 2019), women with cancer (Visser & Op 't Hoog, 2008), partners of members of armed forces (Clift et al., 2016) and individuals with mental health conditions (Dowrick et al., 2012; Withers et al., 2019).

A systematic review found that participatory photography therapy enables people with mental illness to work through problematic issues (Buchan, 2020).

Self-expression

Active engagement with a variety of art activities such as photography, reading, drama, drawing, painting and hand-icrafts support **self-expression** in the case of different population groups (Billington, 2019), students (Chang et al., 2019), adults in the workplace (Chang & Netzer, 2019), and medical staff and students (Rodriguez et al., 2012). In particular, it enables self-expression for individuals with communication impairments, such as deaf children and adolescents (Young et al., 2019) and chronic stroke patients (Sit et al., 2017).

Empowerment

Creative activities contribute to the **empowerment** of students from disadvantaged groups (Mazza, 2012), hospitalised children (Teksoz et al., 2017) and people with various health conditions (McNaughton et al., 2016; Thieser et al., 2021; Levin et al., 2007; Buchan, 2020; Cueva, 2010). They also support the body engagement and brain stimulation of patients with chronic stroke (Sit et al., 2017 and Levin et al., 2007) and dementia (Zeisel et al., 2018).

Museum visits and creative workshops enhanced sense of a self-empowerment and the realisation of new meaning in life among participating mental health service users (Jensen, 2018a).

Increased social engagement, bonding and inclusion

Both receptive (theatre-going) and active (theatre-creating roles, dance and visual arts) cultural participation are successful in **increasing social engagement** in elderly people (Meeks et al., 2020; Keisari et al., 2020; Cantu & Fleuriet, 2018; Brustio et al., 2018). Group singing facilitates the social engagement of health service workers (Moss & O'Donoghue, 2020) and underprivileged elderly adults (Petrovsky et al., 2020).

Social bonding and inclusion are promoted through group reading and writing (Billington, 2019; Hilse et al., 2007), singing and music playing (Sun & Buys, 2016; Mansky et al., 2020; Moss & O'Donoghue, 2020; Petrovsky et al., 2020; Batt-Rawden & Andersen, 2020; Skingley et al., 2018; Dadswell et al., 2020), visual arts (Rose & Lonsdale, 2016; Sit et al., 2017; Saavedra et al., 2018), dance (Winther et al., 2015; Dadswell et al., 2020) and a mix of creative activities (Pearce & Lillyman, 2015; Slattery et al., 2020).

A randomised control trial found that participation in community singing helped **reduce feelings of loneliness** among elderly adults (Coulton et al., 2015). Young people engaged in photography activities also experienced reduced feelings of isolation and marginalisation (Charles & Felton, 2020).

Sense of identity and belonging

There is a large evidence base showing that participation in the arts contributes to an enhanced **sense of belonging** in adults and older individuals (Meeks et al., 2020; Batt-Rawden & Andersen, 2020), students (Jones et al., 2017) and refugees (Philipp et al., 2015).

Also, a **sense of identity** is enhanced through singing in adult women (Batt-Rawden & Andersen, 2020), cancer caregivers (Fancourt et al., 2019) and people with chronic respiratory problems (McNaughton et al., 2016), while participation in theatre and music activities supports people with long-term mental health conditions in experiencing an improved individual and collective identity (Ørjasæter et al., 2017). Long-term inpatient adolescents with chronic pain receive support in reshaping their narratives about disabilities through drama and movement therapy (Christie et al., 2006).

B. Personal Orientation

Resilience

There is evidence that music and singing supports **resilience** in participating adults (Daykin et al., 2018 and Sun & Buys, 2016) and cancer caregivers (Fancourt et al., 2019). Creative activities also improved the resilience of trauma survivors (Diamond & Shrira, 2018).

The results of a cohort study on the effects of an arts on prescription project in adolescents indicated that participation in visual arts workshops (wire sculpting, clay, painting, and collage) led to significant improvements in mental well-being and resilience immediately after participation (Efsthathopoulou & Bungay, 2021).

People seem to acquire new abilities and **strategies to cope** with stressful experiences (Sun & Buys, 2016), self-imposed limitations (Yuen et al., 2011), bullying (Ta Park et al., 2020) and limited physical abilities (la Cour et al., 2007; Levin et al., 2007).

Positive behaviours

Positive behavioural outcomes (that is, a **reduction of risk behaviours and maladjustments**) in children and youth have been captured as a result of reading for pleasure (Mak & Fancourt, 2020), dance (Rodgers & Furcron, 2016; Withers et al., 2019) and watching TV series with age-relevant content (Ta Park et al., 2020).

Improved decision-making has been observed in students participating in theatre-based therapy (Chang et al., 2019).

Participation in dance promotes an **active lifestyle** and improved functioning of cancer patients (Thieser et al., 2021).

Empathy

There is evidence that reading enhances the **development of empathy** among students, especially in the case of participants with a low baseline grade of “openness” (Djikic et al., 2013; Billington, 2019). Reading activities have also proven to enhance empathy in adults (Mar et al., 2009; Bal & Veltkamp, 2013).

Active engagement with arts and crafts helps medical staff and students **combat compassion fatigue** (Anderson & Gustavson, 2016), develop their **empathy and awareness** (Milligan & Woodley, 2009), and the ability to act **ethically** (Zbikowski et al., 2020; Milligan & Woodley, 2009).

Confidence and Self-value

Several studies show how active cultural engagement enables individuals to increase **confidence and self-value** in the case of adolescents (Hansen et al., 2015), people with chronic health conditions (Reagon et al., 2016), people with developmental disabilities (Lister et al., 2009), young children in drama activities (Gao et al., 2021; Barnes, 2014), the elderly during painting (Rose & Lonsdale, 2016), people with chronic respiratory problems (McNaughton et al., 2016), women in singing activities (Batt-Rawden & Andersen, 2020; Clift et al., 2016), people with mental health conditions (Slattery et al., 2020) and medical students participating in dance activities (Winther et al., 2015).

The **self-esteem and self-worth** of older adults are also boosted through acting classes (Yuen et al., 2011) and creative activities like dancing, drawing and crafts (Pearce & Lillyman, 2015). Through arts, people suffering from mental health conditions (Sit et al., 2017; Gross et al., 2015; Jensen, 2019; Slattery et al., 2020) and those from a disadvantaged background engaging in community arts benefited from improved self-acceptance, self-esteem and self-appreciation (Kelaher et al., 2014).

C. Experiences of Emotions

Improved mood

There is evidence showing that participants in various cultural activities benefit from an **improved mood**. This is the case for students engaged in co-creative activities (Moula, 2021), people participating in reading groups (Billington, 2019), dance activities (Baltà Portolés, 2021), pregnant women engaged in singing and music-listening activities (Wulff et al., 2021b), and patients with chronic health conditions taking part in group singing (Reagon et al., 2016) or in varied art forms in the framework of an arts on prescription programme (Holt, 2020).

Older adults attending live theatre performances (Meeks et al., 2020), individuals with Alzheimer's disease and their caregivers engaged in guided museum tours and interactive discussions (Rosenberg, 2009), and professional dancers engaged in recreational dance and routine training (Zajenkowski et al., 2015), also benefited from improved mood.

Positive emotions

Positive emotional experiences supported by receptive and active cultural participation included **joy** (Liu et al., 2019; Philipp et al., 2015; Sit et al., 2017; Fancourt et al., 2019; Chang & Netzer, 2019; Petrovsky et al., 2020; Winther et al., 2015; McNaughton et al., 2016), **pleasure** (Gross et al., 2015), **happiness** (Cantu & Fleuriot, 2018), **hope** (Reynolds et al., 2008) and **calm** (Rose & Lonsdale, 2016; Cantu & Fleuriot, 2018).

Emotional regulation

Active participation in art activities was found to **increase Positive Affect** and decrease Negative Affect and engagement in individuals with dementia (Zeisel et al., 2018). It also enhanced positive emotions in people with mental health problems (Dingle et al., 2017) and women with breast cancer (Visser & Op 't Hoog, 2008).

Moreover, there were several studies that showed how active engagement with art supports **emotional regulation** in participants, in the case of school children (Moula, 2021) and early age children (Gao et al., 2021), individuals with depression (Fancourt & Ali, 2019), people with mental health conditions (Dingle et al., 2017) and nursing students (Winther et al., 2015).

Reduced anxiety and depression

Research findings showed **reduced anxiety and depression** levels for older people (Coulton et al., 2015) and patients with chronic health conditions (Reagon et al., 2016) who participated in group singing. Participation in dance activities reduced depression and anxiety symptoms (Baltà Portolés, 2021). Involvement in drama improvisation was also found to reduce depression in people with dementia with depression symptoms (Zeisel et al., 2018). Active engagement with arts was also proven to reduce depression levels in adults (Sun & Buys, 2016), health service workers (Moss & O'Donoghue, 2020) and oncological patients undergoing chemotherapy (Bozcuk et al., 2017). It also enabled decrease of anxiety in the hospital environment (Teksoz et al., 2017). Listening to music also helped to decreased stress and anxiety in students (Fiore, 2018). Medical clown interventions were found effective in reducing stress and anxiety around medical procedures in hospitalised children, and adolescents and their parents (Sridharan & Sivaramakrishnan, 2016; Zhang et al., 2017; Lopes-Júnior et al., 2020).

In contrast with other studies, a wide population study showed a slight but consistently stronger relationship between the receptive cultural activities and anxiety and depression in both women and men (Cuypers et al., 2012).

Reduced stress, improved relaxation

Viewing a visual artwork can contribute to the **reduction of stress** (Law et al., 2021). Aesthetic experiences related to visiting a cultural heritage were also found to enable stress reduction (gauged by a lowering in cortisol levels) (Grossi et al., 2018). Singing and listening to music helped reduce stress in students (Fiore, 2018), children undergoing blood tests (Caprilli et al., 2007) and the partners of members of the armed forces (Clift et al., 2016). Active engagement with creative activities also supported stress reduction in adults in the workplace (Chang & Netzer, 2019). Another study showed that singing contributed to a perceived improved ability to cope with stress in adults, even if a direct reduction of psychological stress was not observed (Sun & Buys, 2016). However, competitive contexts such as dance contests induced stress and could lower the well-being benefits of art practitioners, when compared with recreational dance situations (Zajenkowski et al., 2015). An arts on prescription programme proposing participation of people dealing with anxiety, depression, social isolation or chronic pain in varied art forms proved effective in **reducing tension** during and after participation (Holt, 2020).

Participation in community singing activities facilitated **relaxation** in people with chronic obstructive pulmonary disease (McNaughton et al., 2016; Skingley et al., 2018), while engaging in visual arts activities brought **calm** to elderly people (Rose & Lonsdale, 2016; Cantu & Fleuriet, 2018).

Flow

One study found that sketching increases the **flow experience** (Cseh et al., 2016).

Bereavement support

There is also evidence that storytelling enables terminally ill cancer patients and their families to process the diagnosis (DeSanto-Madeya et al., 2021) and helped to support bereaved parents through their **mourning processes** (Bosticco & Thompson, 2005; Xiu et al., 2020).

D. Personal Evaluations of Life

Improved well-being and quality of life

The **general and psychological well-being** of healthy people (Yuen et al., 2011; Cantu & Fleuriet, 2018; Waddington-Jones et al., 2019; Charles & Felton, 2020; Brewster & Cox, 2019; Clift et al., 2016; Chung et al., 2018; Jensen et al., 2020) and those suffering from illness (Lopes-Júnior et al., 2020; Crone et al., 2018; Gross et al., 2015; Saavedra et al., 2018; Sit et al., 2017; Crone et al., 2013; Bronken et al., 2012; Reynolds et al., 2008) was improved by engagement with the arts. Aesthetic experiences related to visiting a cultural heritage site were reported to have increased well-being (Grossi et al., 2018).

Pregnant women engaged in music-related activities also benefited from improved well-being (Wulff et al., 2021b). Reminiscence dance was used with patients with Alzheimer's to promote the physical benefits of movement and co-

ordination training, as well as meaningfulness, well-being and social contact (Jensen et al., 2020)

There are several studies showing that receptive and active cultural participation improved the **quality of life** in people of all ages (Daykin et al., 2018; Fraser et al., 2015; Yuen et al., 2011; Sun & Buys, 2016; Mansky et al., 2020; Brustio et al., 2018; Xiu et al., 2020).

Health-related quality of life was also cited as an outcome for patients with chronic health conditions (Reagon et al., 2016; Qin, 2020; Liu et al., 2019; Zeisel et al., 2018; Madden et al., 2010; Bozcuk et al., 2017; Visser & Op 't Hoog, 2008).

Life satisfaction and motivation

Life satisfaction was improved by active engagement with art in the case of adolescents (Hansen et al., 2015), adults (Cuypers et al., 2012), elderly people (Mansky et al., 2020), hospitalised children (Teksoz et al., 2017) and women with chronic fatigue (Reynolds et al., 2008). Engagement in community arts facilitated an increased quality and enjoyment of life for new refugees and asylum seekers (Philipp et al., 2015). Engaging in creative dance improved satisfaction with life in older women (Cruz-Ferreira et al., 2015).

Participation in creative activities also facilitated **increased motivation** in children with language and socio-emotional difficulties (Kucirkova et al., 2014) and people with aphasia (Levin et al., 2007), as well as supporting **interest** in people with dementia (Gross et al., 2015).

The finding of meaning

There is evidence that reading supported the **finding of meaning** in individuals (Billington, 2019). Creative engagement also facilitated a sense of meaning in people with cancer (Visser & Op 't Hoog, 2008), patients with Alzheimer's (Jensen et al., 2020) and mental health difficulties (Hilse et al., 2007), and supported bereaved parents in sensemaking (Bosticco & Thompson, 2005).

Improved knowledge and reflectivity

There was evidence that participation in creative activities enables **reflection about self and others, and life experiences** in middle-school-aged children (Moula, 2021), young people (Chang et al., 2019), deaf children and adolescents (Young et al., 2019), medical students (Jones et al., 2017) and adults in the workplace (Chang & Netzer, 2019). Early-age children involved in dance and organised movement benefited from **self-awareness** as cognitive, social and emotional beings (Thom, 2010).

Young people also benefited from **improved knowledge** about healthy lifestyles and attitudes through watching age-appropriate TV drama and playing transmedia games (Gilliam et al., 2012; Ta Park et al., 2020).

Digital story making supported **critical thinking** and offered the opportunity to think deeply about a topic or theme among minority youth, which proved supportive in youth health promotion (Fletcher & Mullett, 2016).

Different ways of engaging with arts and culture activities

Within this chapter on Culture and Subjective Well-being, 94 (80 per cent) of the 117 studies included referred to active forms of cultural engagement, 13 (11 per cent) to receptive participation and 10 (9 per cent) of them were concerned with general cultural participation involving both receptive and active forms.

- Drama-based active participation (acting classes, improvisation) tended to support cooperation and communication skills, social engagement, self-expression and positive mood;
- Dance encouraged social competences and the reduction of risk behaviours in youth, along with social engagement and physical functioning in older age;
- Reading was associated with the finding of meaning and the reduction of risk behaviours, while writing enabled self-expression;
- Watching films and video content facilitated knowledge acquisition and relaxation;
- Viewing an artwork could reduce stress, while active engagement in visual arts activities enabled self-expression, self-reflection, social inclusion, empowerment and helped to overcome communication barriers;

- Listening to music was associated with pain and stress reduction;
- Singing is associated with positive emotional outcomes, social engagement and connection, and increased quality of life.

Several studies mentioned that art-based interventions were well received by the people in the target groups.

2.2 Synthetic table of evidence

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Children and Youth							
Middle-school children	Multiple	Active	Story making, storytelling, drawing, puppetry, song writing and empowerment activities	Increase in awareness about feelings and mood changes, reflections on emotions and thoughts about self and others, emotional relief and enjoyment	RCT		Moula, 2021
Young children, pre-school and primary school students	Dance	Active	Community dance program	Positive effect on social relations: improved collaboration and communication skills	Quasi-experimental study		Eleni & Georgios, 2020
Preschool children	Dance	Active	Body movement	Integrated sense of body and emotion, self-awareness as cognitive, emotional and social being	Qualitative study		Thom, 2010
Adolescent	Storytelling	Active	Transmedia games	Increased agency; improved sexual health knowledge, attitudes, and technology skills	Review article - Project description		Gilliam et al., 2012
Adolescents	Multiple	Receptive and active	Book reading, music listening, playing an instrument, meeting and training, visiting a library and cinema, playing theatre, attending music or sports events and choir singing	Better reported health, life-satisfaction and self-esteem in the case of active cultural participation	Large-scale survey	Frequency of participation was found impactful, routine participation being associated with better reported outcomes.	Hansen et al., 2015
Adolescents	Visual Arts	Active	Arts on Prescription: wire sculpting, clay, painting, and collage	Improved mental well-being and resilience	Cohort study	Significant improvements immediately after participation, though the effects were not sustained after three months	Efstathopoulou & Bunge, 2021

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Children with language and socio-emotional difficulties	Storytelling	Active	Creation of digital stories	Increased motivation, improved story-sharing and story-creation abilities	Case studies		Kucirkova et al., 2014
Children with communication difficulties	Theatre	Active	Shared personal stories through drama	Improved well-being, positive effects on speaking and listening skills, motivation and confidence, improved attitude, behaviour and relationships	Observational study		Barnes, 2014
Deaf children and adolescents	Photography and Film	Active	Photography and filmmaking	Reflexivity over life experiences, reappreciation of self-abilities, new means for self-expression and communication while overcoming ordinary sign-language barriers	Qualitative study		Young et al., 2019
Disadvantaged middle-school-age youth	Multiple	Active	Art and athletics summer camp: creative writing, athletics training, arts and leadership skills	Empowerment, hope for personal and educational development.	Qualitative study		Mazza, 2012
Minority youth	Multiple	Active	Digital story making	Supported critical thinking, opportunity to think deeply about a topic or theme, connected youth and elders in discussions about healthy living	Observational study	The processes had to be continually adapted to meet the changing needs of the youth	Fletcher & Mullett, 2016
Children/ Adolescents (7-11)	Literature	Active	Reading	Daily reading for pleasure in childhood associated with better behavioural adjustment in early adolescence	Observational study		Mak & Fancourt, 2020
Youth	Dance	Active	Youth dance program	Reduction of risky behaviours, improved competence in important life skills	Observational study		Rodgers & Furcron, 2016
Young people	Photography/ Film	Active	Photography	Captured experiences and perceptions of the state of individual well-being and mental health; overcoming isolation, marginalisation and stigma	Qualitative study		Charles & Felton, 2020
University students	Visual Arts	Active	Sketching	Higher experience of flow; decreased perception of task difficulty	RCT		Cseh et al., 2016

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Students	Music	Receptive	Online music listening	Decreased stress and anxiety	Quasi-experimental study	Melody and tempo were the most supportive musical elements	Fiore, 2018
Students	Theatre	Active	Drama therapy	Improved decision-making, self-awareness, interpersonal and communication skills, self-expression, self-cognitive reconstruction, and social role ability	Experimental study	Self-awareness and decision-making was more positively influenced in males than females	Chang et al., 2019
Students	Literature	Active	Fiction reading	Self-reported empathy measures	RCT	Enhanced development of empathy specifically within participants with a low baseline grade of "openness"	Djikic et al., 2013
College students	Photography and Film	Receptive	Korean drama (K-drama)	Improved knowledge, attitude and behaviour to cope with bullying	Mixed-methods study	Significant effects only in individuals with depressive symptoms or past anxiety	Ta Park et al., 2020
Early childhood in Dual Language Learners	Theatre	Active	Creative drama	Improved cooperation skills, emotion management, social interactions, and increased level of confidence	Mixed-methods study		Gao et al., 2021
Adults							
Adults	Music	Receptive and Active	Music and singing	Improved quality of life and resilience	Systematic review		Daykin et al., 2018
Adults	Music	Receptive	Singing bowl therapies	Improvements in blood pressure, heart rate, respiratory rate, peripheral capillary oxygen saturation, cutaneous conductance and anterior-frontal alpha values	Systematic review		Stanhope & Weinstein, 2020
Adults	Heritage	Receptive and Active	The aesthetic experience of visiting a cultural heritage site	Impact on individual physical and mental health: stress reduction (cortisol levels) and well-being increase	Experimental study		Grossi et al., 2018
Multiple	Literature	Active	Reading groups	Improved mood and mental states, social bonding and inclusion, self-expression, finding of meaning and increased theory of mind	Narrative synthesis		Billington, 2019

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Multiple	Dance	Active	Dance classes, movement therapy	Improved mood and reduced depression and anxiety symptoms, pain relief, enhanced physical functioning, improved quality of life, improved social inclusion and bonding	Systematic review		Baltà Portolés, 2021
General population	Music	Active	Choir and singing groups	Improved respiratory and cardiovascular function, improved cognitive function, improved psychological well-being, improved social inclusion and bonding	Systematic review		Hagemann, 2021
General population	Visual Arts	Receptive	Viewing a visual artwork	Stress reduction, systolic blood pressure reduction	Scoping review		Law et al., 2021
General population	Music	Receptive	Listening to music	Participants who listened to 'happy music' reported higher creativity while performing a divergent creativity task when compared with participants who completed the task in silence	RCT	No effect of music listening on convergent creativity	Ritter & Ferguson, 2017
Multiple: children, adolescents, adults and elderly	Multiple	Receptive and active	Music listening, classes and music therapy groups, choral singing, dance classes, visual art making, museum visits, reading groups, theatre educational workshops	Children – stress reduction through music classes; Adolescents – mental health and well-being in female teenagers through dance; Working adults – meaningful effects of Arts on Prescription on mental health and well-being; Elderly people – meaningfulness, well-being and social contact of dance for people with dementia	Scoping review		Jensen et al., 2020
Adult participants	Multiple	Receptive and Active	Participation in cultural activities	Good health, good satisfaction with life, low anxiety and depression scores. In women, the association between active cultural participation was stronger with perceived health, while in men attending receptive, rather than creative, cultural activities was more strongly associated with all health-related outcomes.	Cross sectional study	Slight but consistent stronger relationship between the receptive cultural activities and satisfaction with life, anxiety and depression	Cuyper et al., 2012

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Pregnant women and their babies	Music	Active	Singing and music listening	Improved mood and well-being, support mother-infant bonding	RCT	Effects of intervention were stronger in singing	Wulff et al., 2021b
Adults	Music	Active	Singing	Lowered depression levels, increased quality of life, resilience, social support, and social connectedness, better management of mental health conditions, perceived ability to cope with stressful experiences	Quasi-experimental study	No direct decrease of psychological stress	Sun & Buys, 2016
Young adults	Literature	Active	Fiction reading	Enhanced empathy skills	Experimental study		Mar et al., 2009
Adults	Literature	Active	Fiction reading	Enhanced empathy	Experimental study	Effects were enhanced when readers became 'emotionally transported' by the story	Bal & Veltkamp, 2013
Adult women	Music	Active	Choir singing (long term)	Joy of singing, social connection, higher sense of belonging, self-confidence, self-esteem, identity	Qualitative study		Batt-Rawden & Andersen, 2020
Adults	Photography/ Film	Active	Photo-a-day practice	Supported well-being	Observational study	Required access to technology (smartphone, camera)	Brewster & Cox, 2019
People with developmental disabilities	Multiple	Active	Drama, music, painting, dancing, movement as therapy	Enhanced self-esteem, improvement of social and communication skills	Scoping review		Lister et al., 2009
Disadvantaged populations	Multiple	Active	Community arts (theatre, dancing, circus)	Physical skills, improved self-confidence	Mixed-methods study		Kelaher et al., 2014
Adults during COVID-19 restrictions	Photography/ Film	Receptive	Mediated nature exposure: watching a forest-themed video	Self-perceived relaxation effect and short-term decrease of anxiety level	RCT		Zabini et al., 2020
Adults in workplace							
Health service workers	Music	Active	Work-place choir	Improved self-perception of mental health and decreased depression rates, enhanced social connectedness, personnel engagement and enjoyment	Mixed-methods study	A professional facilitator and financial costs need to be covered	Moss & O'Donoghue, 2020

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Medical staff and students	Literature	Active	Creation of a creative arts journal	Encouraged self-expression and strengthening of professional relationships	Quasi-experimental study		Rodríguez et al., 2012
Medical students	Visual Arts	Active	Narrative-based programme	Enhanced reflection on past experiences, personal growth and development, self-discovery, awareness of art as an important tool, enhanced sense of collaboration	Quasi-experimental study		Jones et al., 2017
Healthcare staff	Theatre	Active	Drama intervention	Perceived increase in ability to act according to own moral beliefs regarding abuse in healthcare	Interventional study, pre-post design		Zbikowski et al., 2020
Medical students	Theatre	Active	Theatre-based study module	Positive effects on well-being, growth and development as individuals and future physicians	Qualitative study		Nagji et al., 2013
Paramedic students	Literature	Active	Writing	Insight, empathy, relational awareness, heightening ethical sensibilities	Observational study		Milligan & Woodley, 2009
Medical students	Dance	Active	Dance and body movement	Joy, trust, openness, bonding, somatic awareness and self-contact, emotional regulation	Qualitative study		Winther et al., 2015
Nurses	Crafts	Active	Knitting	Helped to manage stressors, combat compassion fatigue, process difficult work situations	Mid-range Health Promotion Model (HPM)		Anderson & Gustavson, 2016
Professional dancers	Dance	Active	Recreational, ordinary training and competitive dance	Positive mood change	Experimental study	Dance competition may induce stress and decrease level of enjoyment	Zajenkowski et al., 2015
Adults in workplace	Multiple	Active	Indoor creative expression with nature-sourced materials	Stress reduction in workplace, enjoyment, increased playful and creative behaviour and a better reflection of life besides work	Qualitative study		Chang & Netzer, 2019

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Wives and partners of members of armed forces	Music	Active	Choir singing	Helped with serious mental health conditions; general improvements in well-being, confidence and morale; release of tension and stress; coping with ongoing stresses related to military life; increased numbers of friends; development of new skills; and a strengthened sense of personal identity	Observational study	Choice of repertoire and the number and intensity of performances	Clift et al., 2016
Elderly People							
Elderly people	Multiple	Active & Receptive	Music (singing or instrumental), flora therapy, cloth mural creation; painting or drawing, dance; theatre or drama; writing or narrative (prose, poetry, storytelling); and photography or film	Quality of life	Scoping review	There was thought to be a need to initiate programmes of research instead of singular study teams	Fraser et al., 2015
Elderly people	Music	Active	Community group singing	Decrease in anxiety and depression, reduced feelings of loneliness	RCT	Results maintained after three months, lowered after six months	Coulton et al., 2015
Adults aged over 52	Multiple	Receptive	Visiting museums/galleries/exhibitions, going to the theatre/concert/opera/cinema	Slowing of decline in cognitive function	Experimental study	Cinema visits were found to hold little effect for cognitive preservation	Fancourt & Steptoe, 2018
Healthy elderly adults	Music	Active	Playing a musical instrument	Protective factor for cognitive function, improved social connections and quality of life	Observational study		Mansky et al., 2020
Elderly adults	Music	Active	Collaborative composition workshop	Improved subjective and psychological well-being	Quasi-experimental study		Waddington-Jones et al., 2019
Elderly people	Theatre	Receptive	Attending live theatre performances	Improved positive mood, social engagement, sense of belonging and flow	Mixed-methods study		Meeks et al., 2020
Elderly people in day centre	Theatre	Active	Playback theatre groups	Personal transformation and improved community social engagement	Qualitative study		Keisari et al., 2020

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Elderly in residential care home	Multiple	Active	Reminiscence arts, seated dance, and orchestral music	Social connectedness and bonding with care-givers, improved sense of quality of care	Qualitative report		Dadswell et al., 2020
Elderly people	Theatre	Active	Acting classes	Improved general and psychological well-being, increased sense of self-advocacy and self-worth, coped with self-imposed limitations and improved health-related quality of life	Mixed-methods study		Yuen et al., 2011
Latino elderly	Dance	Active	Latin dancing classes	Cognitive function	RCT		Marquez et al., 2017
Elderly people	Visual Arts	Active	Participatory painting programme: re-imagining a landscape	Improved levels of confidence, self-value, feelings of safety, calm and tranquillity, reconnection of the present with the past. A means to enhance connectedness and sharing	Qualitative study		Rose & Lonsdale, 2016
Elderly adults	Multiple	Active	Art classes including drawing, painting, creative writing, and mixed media	Social and mental well-being: creative engagement, happiness, and calmness	Pre-post survey study		Cantu & Fleuriet, 2018
Elderly people	Dance	Active	Dance classes	Positive effects on mobility performance, improvement of quality of life and social engagement	Quasi-experimental study	Dance as a feasible form of physical training (not expensive, suitable and adaptable to older adults)	Brustio et al., 2018
Elderly people	Theatre	Active	Playback Theatre	Perceived increased mental and emotional well-being	Quasi-experimental study		Chung et al., 2018
Elderly women	Dance	Active	Creative dance	Beneficial effects on physical fitness and life satisfaction; might play an important role in the prevention of falls	RCT		Cruz-Ferreira et al., 2015
Elderly from rural communities	Multiple	Active	Creative arts projects: dance, film, painting, drawing, crafts	Increased self-esteem and level of self-worth, development of new skills, making new social connections, especially collaborating with a different generation	Qualitative study		Pearce & Lillyman, 2015

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Elderly adults from low socioeconomic status	Music	Active	Choir singing	Joy, enjoyment, social engagement and connection	Qualitative study	Requirement to consider other group members' talent and musical preferences that may limit one's feelings of comfort	Petrovsky et al., 2020
Refugees and Holocaust survivors							
Holocaust survivors	Multiple	Active	Engagement in at least one type of art: music, writing, plastic art, drama	Improved resilience	Survey	No decrease in PTSD symptoms	Diamond & Shrira, 2018
New refugees, immigrants, and asylum seekers	Multiple	Receptive	Community arts installation event	Raised awareness, supported sense of community belonging, enjoyment of life and quality of life	Qualitative study		Philipp et al., 2015
Well-being and quality of life for people with health problems							
Patients with chronic health conditions	Music	Active	Group singing	Improvement of health-related quality of life, increased confidence, reduced anxiety, depression, increased mood and social support	Mixed-methods study		Reagon et al., 2016
Hospitalised patients with ankylosing spondylitis	Multiple	Active	Traditional Chinese music and painting	Improved recovery and quality of life	RCT	Better results than routine treatment. Music therapy suggested as auxiliary treatment	Qin, 2020
Patients with stable chronic obstructive pulmonary disease	Music	Active	Group singing therapy	Decreased depressive symptoms and improved quality of life	RCT	Benefits increased with the duration of therapy, enjoyable and received well	Liu et al., 2019
Patients with stable chronic obstructive pulmonary disease	Music	Active	Community singing	Experiences of improved breathing, relaxation, decreased worries and positive benefits related to the opportunity to create new social connections	Qualitative study	Facilitation methods and the exercise component as key	Skingley et al., 2018
Patients with stable chronic obstructive pulmonary disease	Music	Active	Community singing	A safe place for relaxation and enjoyment, shared ownership, identification with others in similar health. Performance led to boost self-confidence, sense of achievement and shared responsibility	Qualitative study	Influential factor: medical staff involvement	McNaughton et al., 2016

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Individuals with dementia	Theatre	Active	Abstract Scripted-Improv (semi-improvised drama performance)	Increase of positive forms of affect and engagement, and decrease in negative forms of engagement; for a sub-sample diagnosed with depression, a decrease in symptoms	Quasi-experimental study	Quality of life was higher while participants were involved in the intervention	Zeisel et al., 2018
People with dementia and their caregivers	Music	Active	Online group singing during COVID-19	Growing acceptability and evidence of efficacy of digital interventions	Scoping review	Technology use to be adapted to the patients' level; online singing could be taken up by people with dementia as a relatively inexpensive aid to well-being and social inclusion, and improved accessibility	Dowson & Schneider, 2021
Individuals with middle-to late-stage dementia	Visual Arts	Active	Watercolour painting	Improved well-being domains (interest, sustained attention, pleasure, self-esteem and normalcy)	Quasi-experimental study	The programme should be adapted to level of individual functioning; well-being evaluation may vary according to the assessors' subjectivity and the interpretation of participant's behaviour	Gross et al., 2015
People with mental health conditions	Photography and Film	Active	Participatory Photography as therapy	Support in working through problematic issues, a sense of empowerment, strengthened therapeutic relationships	Systematic review	Ethical issues that may arise with taking photographs of identifiable people	Buchan, 2020
Individuals with depression	Multiple	Active	Visual arts, literature-related exercises, craft and design, digital, electronic and online art	Lower general use of self-reported emotional regulation strategies, yet still reported positive emotional regulation experiences	Observational study	Results did not include effects of digital, electronic and online art	Fancourt & Ali, 2019
People with mental health conditions	Multiple	Active	Choir singing and creative writing	Improved emotion regulation strategies, increased experience of positive emotions	Interventional design, pre and post		Dingle et al., 2017

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
People with long-term mental health conditions	Multiple	Active	Theatre and music workshop	Improved experience of individual and collective identity of being mentally ill	Qualitative study		Ørjasæter et al., 2017
People with mental health conditions	Multiple	Active	Individual art-work, poetry writing, dance, play musical instruments	Improved confidence, feeling valued, connectedness, self-acceptance, and understanding of own mental health problems	Qualitative study	Writing was the least popular; Group work raised tensions due to individual preferences	Slattery et al., 2020
Individuals with severe mental health conditions	Visual Arts	Active	Creative visual arts workshop: painting, drawing, collage, sculpture, print-making	Improved social inclusion and psychological well-being	Mixed-methods study	Impact may be increased by changing workshop's location from clinical settings to public space together with individuals without a diagnosis of severe mental illnesses	Saavedra et al., 2018
Adults with mental health conditions	Multiple	Active	Arts on Prescription: poetry, ceramics, drawing, mosaic, and painting	Improvements in mental well-being	Observational study		Crone et al., 2013
Adults with mental health conditions	Multiple	Active	Arts on Prescription: poetry, ceramics, drawing, mosaic, and painting	Improvements in mental well-being	Observational longitudinal study	Arts interventions also had a high potential to improve well-being for people with multiple morbidities	Crone et al., 2018
Adults with mental health conditions	Multiple	Receptive and active	Arts on Prescription - choir singing, guided reading, introduction to the city archives, music listening, museum and theatre visits, nature hike	Increased energy, motivation and self-esteem, improved self-awareness and sense of joy, reduced panic attacks and a better level of self-care	Qualitative report		Jensen, 2019
Adults with mental health conditions	Museum	Active	Guided museum visits followed by painting & sculpture workshop	Empowerment and meaning in life	Qualitative study	The positive influence of the museum visits was not evident in all museums and was highly impacted by the interaction with the tour guide	Jensen, 2018a

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Ambulatory mental-health service users	Literature	Active	Reading group (literature and poetry)	Reduction of depressive symptoms, social awareness and communication skills	Mixed-methods study	Setting was influential: a less-medical (drop-in centre vs. surgery unit) increased comfort and participation level in participants	Dowrick et al., 2012
Adults with mental-health difficulties	Literature	Active	Poetry reading and writing	Connection to inner self, enhanced personal meaning, connection between group members	Qualitative study		Hilse et al., 2007
Indigenous individuals with mental health conditions living in remote areas	Visual Arts	Active	Visual arts classes	Social inclusion	Update of project description		Leenders et al., 2011
Individuals in early and middle stages of Alzheimer's disease and their caregivers	Museum	Receptive	'Meet Me at MoMA': guided tours and interactive discussion	Positive mood change	Interventional study, pre-post design		Rosenberg, 2009
Children with autism	Music	Receptive	Experimental musical adaptation of the outdoor playground	Increased peer interactions	A single-case experimental design	Social interactions with other children did not improve	Kern & Aldridge, 2006
Children and adolescents with cerebral palsy	Dance	Active	Adapted hip-hop dancing class	Improved physical function (transfer and basic mobility, sporting, global function, and symptoms), reduction of emotional and behaviour problems, increased social competence	A pilot, prospective, clinical trial		Withers et al., 2019
Children and adolescents hospitalised with acute or chronic conditions	Circus	Receptive and active	Medical clown interventions for procedural support and as part of routine medical care	Reduction of pain, anxiety and fatigue; improved psychological and emotional reactions, and overall well-being	Systematic review		Lopes-Júnior et al., 2020
Hospitalised paediatric patients	Circus	Receptive and active	Medical clowns interventions	Reduction of anxiety and stress in patients and their parents	Systematic review		Sridharan & Sivaramakrishnan, 2016
Hospitalised paediatric patients	Circus	Receptive and active	Medical clowns	Reduction of pre-operative psychological stress and anxiety in patients, reduction of parents' anxiety	Systematic review		Zhang et al., 2017
Hospitalised children	Visual Arts	Active	Drawing pain stories	Assisted with self-explanation of pain	Qualitative study		Kortesluoma et al., 2008

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Hospitalised school age children	Multiple	Active	Play intervention: building toys from medical equipment	Self-expression, gaining an active role within the hospital environment, reducing fear, enabling satisfying experiences	Mixed-method study		Teksoz et al., 2017
Children undergoing blood tests	Music	Receptive	Live music listening	Pain and distress reduction	RCT	Well accepted by children and parents	Caprilli et al., 2007
Paediatric cancer patients and their parents	Multiple	Active	Creative arts therapy and Music therapy	Improved quality of life	Mixed-methods study		Madden et al., 2010
Cancer patients	Dance	Active	Ballroom dancing	Improved functional exercise capacity; long-term participation associated with a high self-efficacy and active lifestyle	Qualitative study	No significant effects on fatigue or body image	Thieser et al., 2021
Oncologic patients undergoing chemotherapy	Visual Arts	Active	Painting with professional painting artist's support	Improved quality of life, reduced depression levels	Quasi-experimental study	Effects were stronger for patients with previous experience of painting art therapy	Bozcuk et al., 2017
Advanced cancer patients	Multiple	Active	Painting, pottery, gardening and woodwork	Learning new methods to cope with limited physical abilities and existential problems	Qualitative study		la Cour et al., 2007
Minority people diagnosed with cancer	Theatre	Active	Readers' Theatre	Nurtured healing, renewal, affirmation and shifts in knowledge, attitudes and beliefs, which empowered action	Qualitative study	A respectful environment for adult learners from diverse ethnic and cultural backgrounds to engage in meaningful conversations	Cueva, 2010
Women with breast cancer	Multiple	Active	Creative art courses	Enhanced positive emotions, increased level of creativity, more conscious living, an improved overall quality of life and meaning of life	Interventional study, pre-and post-evaluations	Mood was not changed	Visser & Op 't Hoog, 2008
Women with systemic lupus erythematosus	Visual Arts	Active	Drawing the disease	Enhanced openness and sharing of personal experience; assisted medical staff understanding of patient's psychological status	Qualitative study		Nowicka-Sauer, 2007
Women with chronic fatigue syndrome/ myalgic encephalopathy (CFS/ME)	Multiple	Active	Art-making	Increase in subjective well-being mainly with satisfaction in daily life, positive self-image, hope and contact with the outside world	Qualitative study	Creative artmaking as part of a broader acceptance and adjustment process to CFS/ME	Reynolds et al., 2008

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Chronic stroke patients	Visual Arts	Active	Drawing, painting, collage, and handcrafts	Increase in general well-being, bodily engagement, brain stimulation and rejuvenation experience; enjoyment, self-appreciation, self-expression and social connection with others	Qualitative study		Sit et al., 2017
Stroke survivors	Storytelling	Active	Co-construction of stories with medical nurse	Enhanced psychosocial well-being	Single case report		Bronken et al., 2012
People with aphasia	Photography and Film	Active	Photovoice method	Opportunity to share useful coping mechanism; enhanced motivation, feeling of control and empowerment	Qualitative study	Using a camera might include obstacles for stroke survivors, as it could affect their mobility, impair vision and affect their abilities to understand symbols on the camera	Levin et al., 2007
Long-term inpatients adolescents with chronic pain	Theatre	Active	Drama and movement therapy	The programme was enjoyed and reported as beneficial in reshaping the patients' own narratives about disability	Observational study		Christie et al., 2006
Caregiving and bereavement							
Cancer caregivers	Music	Active	Singing	Emotional experiences, sense of identity, social support, resilience, development of musical skills	Quasi-experimental study		Fancourt et al., 2019
Caregivers of people with dementia	Music	Active	Music therapeutic caregiving	Less uncomfortable and more joyful caregiving	Quasi-experimental study	Morning care situations	Hammar et al., 2011
Caretakers for dementia	Music	Receptive	Live music concerts within care facilities	Feeling less stressed, more cooperative, more caring, and overall, increased levels of motivation, energy and job satisfaction	Qualitative study	Caretakers' well-being achieved as people with dementia became more cooperative as result of the art intervention	Shibazaki & Marshall, 2017
Terminally ill adult cancer patients and their families	Storytelling	Active	Legacy video creation	Means for inner procession of diagnosis and experience, and support for caregivers	Stage IB pilot, intervention study		DeSanto-Madeya et al., 2021
Bereaved parents	Storytelling	Active	Storytelling	Support mourning processes, assist in sense-making and reaching a cathartic release	Narrative review		Bosticco & Thompson, 2005

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
Bereaved Parents	Visual Arts	Active	Painting	Reducing some important prolonged grief symptoms and improving quality of life	Intervention study		Xiu et al., 2020

3. Culture and Community Well-being

There are 131 studies included under this thematic heading. This sub-chapter broadly refers to practices and interventions which take place at community level, and tend to foster inclusion and social interaction in such a way as to enhance both collective and individual well-being. Themes explored in this section include **(a) social cohesion, (b) school and work-related well-being, (c) quality of the built environment** and broader considerations related to **(d) community development**.

Interventions in the first category of social cohesion mainly target vulnerable groups, people at risk of exclusion and people for whom health impairments make it difficult to access conventional cultural and arts settings, care centres for elderly adults and schools – especially in the case of children with special needs. Community centres and public venues play a key role in enhancing both social and economic accessibility to these activities.

A series of well-being outcomes are related to the school environment or have the potential to support educational development and social inclusion within the school context. Creative and social skills are increasingly required by the current labour market, while work-relations and organisational structures depend highly on individual well-being and the collective capacity to adapt to fast-changing realities.

We are also looking to understand how public-space design impacts individual and community well-being and what culture-related processes prove effective in citizen engagement and urban development.

3.1 Summary of evidence

A. Social Inclusion

Social bonding and inclusion

There is a large evidence base showing that active cultural participation such as singing and playing music (Hagemann, 2021; Moss et al., 2018; Moss & O'Donoghue, 2020; Daykin et al., 2007; Petrovsky et al., 2020), reading (Billington, 2019), storytelling (Xie et al., 2021) and dancing (Baltà Portolés, 2021) increases **social inclusion and bonding**.

Further evidence suggests that other forms of art engagement such as writing (Hilse et al., 2007), visual arts (Rose & Lonsdale, 2016; Sit et al., 2017; Saavedra et al., 2018), storytelling (Fletcher & Mullett, 2016) and creative activities (Pearce & Lillyman, 2015; Slattery et al., 2020) also support social inclusion and bonding.

Inclusion of disadvantaged groups

Use of accessible technology like mobile phones as a platform for engagement in creative activities may be an attractive **learning tool for children and adolescents from educationally disadvantaged communities** (Duarte-García & Sigal-Sefchovich, 2019).

Photography and filmmaking can be used by **deaf children and adolescents** as means for **self-expression and communication**, overcoming sign-language barriers, enabling, at the same time, reflexivity over life experiences and self-appreciation (Young et al., 2019).

Participation in creative activities facilitated **empowerment** and hope for the personal and **educational development of disadvantaged youth** (Mazza, 2012).

People with developmental disabilities participating in various cultural activities benefited from **improved self-esteem, social and communication skills, and reduced stigma** (Lister et al., 2009).

Adolescents in a court-referred residential treatment engaged in music improvisation benefited from improvements in performance of their school and work roles, their behaviour toward others and a reduction in negative emotions, anger and interpersonal problems (Bittman et al., 2009). **Disadvantaged people, including prisoners**, engaged in community arts enjoyed better physical skills and self-confidence (Kelaher et al., 2014).

Social inclusion was facilitated by active participation in art activities taking place in **cultural venues** such as theatres and museums. Participation in theatre activities fostered the integration of **children with disabilities** provided that adequate infrastructure was available (Goodley & Runswick-Cole, 2011). **Young people with social, emotional, and behavioural difficulties** taking part in an art intervention in a museum benefited from increased self-esteem, self-confidence and resilience as a result of changes in physical and emotional space (Thompson & Tawell, 2017).

Museums and art galleries have been considered to have an important social role in the health and well-being of communities (Camic & Chatterjee, 2013). Access to a public infrastructure such as a hockey floor can be an entry point for social services, networks of support and a source of community for a group of less affluent or **homeless young men** (Scherer et al., 2016).

Health workers' participation in a community theatre experience helped with **preventing discrimination and fostering community empowerment** for elderly **LGBT people in care centres** (Hughes et al., 2016).

Theatre and art workshops have effectively been used in social work for the **recovery of fragmented identities** and improving self-confidence and self-worth among the **homeless** (Cordero Ramos & Muñoz Bellerin, 2019; Silva et al., 2018). Theatre activities also created a respectful environment for adult learners from **diverse ethnic and cultural backgrounds** to engage in meaningful conversations (Cueva, 2010).

Cultural participation also seemed to increase knowledge and awareness of various health conditions among **underserved communities** and provided support networks for disadvantaged individuals suffering from illness (Leckey, 2011; Leenders et al., 2011; Chung et al., 2009; Yuen et al., 2011; Cueva, 2010).

A community-based woodwork group was found to support **men with disabilities in community rehabilitation** to achieve their rehabilitation goals and improve socialisation (Fulton et al., 2016).

Increasing social engagement and reducing isolation

In both receptive forms of cultural participation, such as theatre-going, and active ones, such as being involved in drama, singing and visual arts activities, there was success in **increasing social engagement in older people** (Meeks et al., 2020; Keisari et al., 2020; Cantu & Fleuriet, 2018; Pearce & Lillyman, 2015; Petrovsky et al., 2020; Brustio et al., 2018; Dadswell et al., 2020).

Participation in an art festival enhanced **social collaboration** by motivating collective actions such as networking or exchange of knowledge with others, and illuminated increases and decreases in social inequalities by factors related to cultural participation, competence and knowledge, financial support or resources for participation, competitiveness and power relations (Warran, 2019).

Active participation in singing or the visual arts helped to **reduce isolation and feelings of loneliness of elderly people** (Davidson et al., 2014), including of those living in disadvantaged urban communities (Murray & Crummett, 2010). In order to enable such outcomes, particular attention needs to be given to enable socially isolated individuals to have access to art activities (Davidson et al., 2014) and to have in mind that certain activities may be perceived with reluctance e.g., older working-class men tend not to engage so eagerly with certain forms of art-making that are not in line with what the authors describe as 'male working-class culture' (Murray & Crummett, 2010).

Participation in creative activities also enabled **young people** to overcome isolation, marginalisation and stigma (Charles & Felton, 2020), and avoid risky behaviour (Rodgers & Furcron, 2016; Mak & Fancourt, 2020).

Engagement with arts also reduced isolation in **people suffering from illness**, such as people with quadriplegia in singing activities (Tamplin et al., 2013a), people undergoing cancer treatment in singing activities (Daykin et al., 2007) and people with mood disorder in dancing activities (Tavormina & Tavormina, 2017).

Group singing also facilitated the social engagement of health service workers (Moss & O'Donoghue, 2020).

Reducing stigma

Engaging in creative activities such as photography helps prevent social stigma about mental health conditions among youth (Charles & Felton, 2020).

Group art practices and participatory methodologies created an ability to challenge stigmatising discourses around poverty and people facing food poverty (Wheeler, 2018).

Attending theatre performances with relevant content helped to reduce the public stigma surrounding dementia and Alzheimer's disease (Burns et al., 2018). Also, dancing programmes helped to fight the societal stigma that reinforces biases towards people with mental illness (Tavormina & Tavormina, 2017).

Well-being and inclusion of refugees

Engagement in community arts facilitated increased **quality of life and enjoyment of life**, as well as a **sense of community belonging**, for recent refugees and asylum seekers. Attending the presentation of an arts installation on the life of refugees also resulted in an increased **awareness** of the life of refugees among community members (Philipp et al., 2015).

Community language radio is found to enhance the **well-being** of presenters from immigrant communities, meeting their needs of **autonomy, relatedness and competence**. At the same time, ethnic community radio fosters migrant well-being, offering an accessible and adaptable outlet **for creative expression** and an entry point for various services (Krause et al., 2020).

Through theatre and storytelling, young migrants and refugees benefited from liberation from disempowering identities, and the redefining of relationships (Clayton & Hughes, 2015) and increased knowledge and confidence (Roberts et al., 2017).

B. School and Work-Related Well-being

School related well-being

School-based drama interventions positively influenced **knowledge and attitudes related to the health behaviour** of children and adolescents (Joronen et al., 2008), and of youth leaders (Kennedy et al., 2020). Creative arts therapy in public schools promoted **community well-being** (Nelson, 2010) and collaboration between community stakeholders (Fritz et al., 2013). At the same time, school based peer education that integrates drama arts was promising for **promoting wellness and reducing exposure to violence** among urban youth (Chung et al., 2017).

Co-creation activities enhanced middle-school-aged children's reflections on emotions and thoughts about themselves and others (Moula, 2021; Sclater & Lally, 2013), which facilitated **interpersonal and communication skills**, self-cognitive reconstruction and social role ability (Chang et al., 2019). Improved collaboration and communication skills also resulted from the students' engagement with community dancing (Eleni & Georgios, 2020) and creative drama (Gao et al., 2021). Art therapy in public schools could empower students with special needs (Isis et al., 2010).

Students reading fiction reported **development of empathy**, which was particularly pronounced within participants with a low baseline grade of "openness" (Djicic et al., 2013). Watching theatre and drama was also found to increase empathy in medical students (Baker et al., 2019; Suh et al., 2021).

Active engagement with art supported **emotional regulation** in schoolchildren (Moula, 2021) and early age children (Gao et al., 2021). Music listening helped to **reduce stress and anxiety** in students (Fiore, 2018). Watching youth TV drama series helped students to improve their knowledge, attitudes and behaviours in **coping with bullying** (Ta Park et al., 2020).

Evidence showed that sketching increased the **flow experience** and enabled students to **perceive a creative mental synthesis task as being less difficult** (Cseh et al., 2016). Daily reading for pleasure in childhood was associated with better **behavioural adjustment** in early adolescence (Mak & Fancourt, 2020). Participation in dance activities could enable the reduction of risky behaviours and improve the competence of youth in important life skills (Rodgers & Furcron, 2016). **Improved decision-making** was also observed in students participating in theatre-based therapy (Chang et al., 2019). Creative activities contributed to the **empowerment** of students from disadvantaged groups (Mazza, 2012) and **self-expression** in the case of students (Chang et al., 2019).

Use of accessible technology like mobile phones as a platform for engagement in creative activities could be an attractive **learning tool** for children and adolescents from educationally disadvantaged communities (Duarte-García & Sigal-Sefchovich, 2019).

A randomised control trial using theatre expression workshops measured a small improvement in impairment in first-generation immigrants placed in special education classes, but also an increase in impairment in second-generation youth of the same condition. The study suggests that these educational settings present particular challenges and may require interventions which specifically address some organisational dimensions (Rousseau et al., 2014).

In the case of drama-based school interventions aimed at improving health, studies showed that primary school students had healthier behaviour than secondary school students, indicating that the most appropriate time for intervention may be earlier in adolescence, before the onset of risky behaviours (Joronen et al., 2008).

Engaging students with art offered them tools and occasions for developing socio-emotional health; thus schools should be encouraged to integrate these kinds of goals alongside education performance goals (Vitalaki et al., 2018).

Work related well-being

Several studies have reflected on the relationship between engagement with the arts and well-being in the workplace or a work context. Among them, the most frequent area of focus was interventions concerning health workers and caretakers.

A scoping review found that arts on prescription including visual art making, music and singing, and theatre, museum or gallery projects, have meaningful effects on mental health and the well-being of working adults, while choral singing can lead to an improved psychosocial work environment (Jensen et al., 2020).

Art interventions in health settings were found to improve the quality of well-being in the workplace in health workers (Jensen & Bonde, 2018). Health service workers singing in a work-place choir perceived **an improvement in their mental health, a reduction of depression** and enhanced **social connectedness, personnel engagement, and enjoyment** (Moss & O'Donoghue, 2020). The creation of a creative arts journal encouraged **self-expression** and **strengthened professional relationships** among medical staff and students (Rodríguez et al., 2012).

Engaging with creative activities also enabled **personal growth and the development of collaborative skills** in medical students (Jones et al., 2017; Nagji et al., 2013). Receptive forms of participation such as watching theatre and recorded drama enabled increased **empathy with, and understanding of, patients' conditions** among health professionals and students (Hughes et al., 2016; Baker et al., 2019; Suh et al., 2021; Milligan & Woodley, 2009). Their capacity to act in accordance with ethical principles and their moral beliefs in situations of abuse in healthcare was also increased (Zbikowski et al., 2020; Milligan & Woodley, 2009).

Direct and indirect well-being benefits were registered in caretakers for patients with dementia as a result of music and singing interventions. To a large extent, this was due to the fact that, during and after interventions, people with dementia were more cooperative and easier to care for. Healthcare workers and caretakers experienced **reduced stress, increased motivation, energy and job satisfaction, and felt more caring** (Shibazaki & Marshall, 2017; Osman et al., 2016; Shuber & Kok, 2020; Anderson & Gustavson, 2016; Hammar et al., 2011) and better able to deal with their burdens (Leonard & Libera, 2020; Hammar et al., 2011).

An interactional music-making intervention supported community health workers in developing **skills for building relationships**, to mobilise members of the community to take responsibility for their own health and to access services, and for conducting health-promotion activities (dos Santos & Lotter, 2017).

Professional contemporary dancers seemed to experience dance as a **creative collaboration** process that opened up new dimensions of understanding and experience in relation to **well-being and care for themselves and others** (Purser, 2019). Zejenkowski et al. (2015) also demonstrated that recreational dance and dance training could instigate positive mood change, though the authors cautioned that, when dancers are in a competitive environment, this can induce feelings of stress which can decrease enjoyment.

Creative activities with nature-sourced materials in an indoor setting appeared to **reduce stress in workplace, increase enjoyment, playful and creative behaviour** and offered individuals a **better perspective on life outside work** (Chang & Netzer, 2019). Individuals listening to 'happy music' reported **higher creativity** while performing a divergent creativity task when compared with participants who completed the task in silence (Ritter & Ferguson, 2017).

The participation of adults with burnout symptoms in a series of creative workshops found that, after seven weeks of intervention, participants tended to experience a **lower level of burnout** (when measured from high to medium or low), a higher level of **well-being, more positive experiences** – and also more positive experiences than negative ones (Cacovean et al., 2021).

Arts and crafts were proven to be successful when used as **occupational therapy in rehabilitation** (Fulton et al., 2016) and **leisure occupation for people who are not active on the labour market** due to old age (Edwards & Owen-Booth, 2021) or illness (Reynolds et al., 2008; Fenech, 2009).

C. Quality of Built Environment and Well-Being

Environmental design in healthcare

There is evidence that art and environmental design in mental healthcare **units improved perceptions of the healthcare environment, and the well-being of patients and staff**. While environmental conditions like excessive lighting or noise could negatively influence blood pressure, heart rate and psychological well-being, design settings that favour safety, social interaction, improved acoustic conditions and exposure to natural settings promoted patient orientation, and reduced stress and the risk of falling (Daykin et al., 2008a).

A scoping review identified that **social and cultural interactions and values** are key components of quality design in healthcare environments, along with environmental values and the resilience of building construction. It also highlighted the need for person-centred, welcoming, accessible spaces that support the privacy and security of patients and staff (Anåker et al., 2017).

Public space design

Our screening of the literature found very few relevant studies on the effects of art and design in public spaces on the well-being of individuals and communities. There were a number of articles that discussed broad principles for urban design to support well-being, yet only a few focused on the presence of art and art-mediated outcomes, and even fewer measured their effects. Thus, the research findings presented mainly identified criteria for quality public space design and its potential benefits.

Given the evidence that viewing visual artworks can contribute to a **reduction in stress and systolic blood pressure** (Law et al., 2021), using artworks in community environments like schools, healthcare buildings and workplaces could prove promising.

A book on urban design and mental health identified that **green, active, pro-social and safe spaces** promoted community and individual health and well-being. It emphasised the need for aesthetic factors that enhance relaxation and the sense of security. It called for wider access to green space and opportunities for physical activities and social gathering, with facilities appropriate for different age groups (McCay et al., 2017). These four main concepts (of designing green, active, pro-social and safe places) were also highlighted by a policy brief aiming to promote sustainable improvement in the general population's mental health (Centre for Urban Design and Mental Health, 2016).

Another study found that people tended to favour **spending more time in open, public spaces** and to be in areas which were **visually inspiring** and enhanced a sense of **relaxation**. It called for public spaces to be designed based on an aesthetic understanding of citizen preferences, with soothing colours and a proximity to green areas. Such spaces may enhance **social participation and positive emotions** (Alyari, 2018).

Mental health in urban areas is a pressing social challenge, and is set to grow as the stressors of city living continue. A pilot architectural intervention using inclusive design methods showed promising results in **creating vibrancy and reducing suicide-related negative connotations around an urban riverfront**. The authors proposed **design as a mediator in tackling social challenges**, bringing together expertise from health, social work, architecture and governance; they also provide holistic solutions. Involvement of communities throughout the design, prototyping and implementation phases supported the adoption of urban solutions, once finalised (Spencer et al., 2019).

Another study on square dancing provided a novel example of how urban furniture design could support the two different health and well-being outcomes of **supporting physical and social activity in the elderly**, as well as fostering **inter-generational interaction**. (Zhu et al., 2021).

D. Community Development

Well-being, quality of life and active citizenship

Several studies have showed that cultural participation (Fraser et al., 2015), and in particular engagement with singing (Hagemann, 2021; Daykin et al., 2018), reading (Billington, 2019) and dance (Baltà Portolés, 2021), helped increase the **well-being and quality of life of individuals of all ages**.

The general and psychological well-being of people suffering from illness (Gross et al., 2015; Saavedra et al., 2018; Crone et al., 2018; Sit et al., 2017; Crone et al., 2013; Bronken et al., 2012) was improved by engagement with the arts. Health-related quality of life was also among the most cited outcomes for patients with chronic health conditions (Reagon et al., 2016; Qin, 2020; Liu et al., 2019; Zeisel et al., 2018; Madden et al., 2010; Bozcuk et al., 2017; Visser & Op 't Hoog, 2008; Koponen et al., 2018).

Engagement in community arts facilitated an increased quality and enjoyment of life for **recent refugees and asylum seekers** (Philipp et al., 2015).

A study aimed to isolate the effect of cultural background from other extrinsic institutional, economic and social factors by measuring the life satisfaction of immigrants living in the same residence country. It suggested that **culture** defined as 'intrinsic cultural disposition, values, beliefs, norms', **played an important role in life satisfaction** (Hajdu & Hajdu, 2016).

A cross-sectional survey, including a large sample of individuals living in non-isolated areas, demonstrated a positive relationship between various cultural activities and individual psychological well-being (Grossi et al., 2011). Researchers found that **cultural access** ranked immediately after health status (that is, absence or presence of disease) **as the second most important psychological well-being determinant** (Grossi et al., 2012).

Participatory arts projects enabled **community well-being, fostered leadership skills and encouraged people to take up new roles and responsibilities in their communities** (Cameron et al., 2013).

Environmental awareness

A systematic review found that arts-in-nature activities offered an inclusive medium to increase nature connectivity and **environmental awareness**, and to potentially decrease eco-anxiety in children and youth. There is a limited number of studies on this connection, and quantitative research is still at its infancy. Scaling-up existing interventions may lead to the wider recognition and inclusion of arts-in-nature in future health guidelines, including green social prescribing (Moula et al., 2022).

Public engagement in health-policy development

In addition to the potential of theatre as an effective public health-promotion platform, there was also evidence that theatre can **inform policy interventions and elicit public opinion on policy issues** (Nisker et al., 2006; Blignault et al., 2010).

City cultural profile and well-being

A comparative study of two cities aimed to assess the impact of cultural participation on subjective well-being, while comparing the opportunities for **cultural participation as enabled by the city structure** (that is., cultural events and cultural facilities). The researchers found that cultural participation, among other factors such as social cohesion and bonding, **positively influenced subjective well-being in cities with a well-developed socio-economic status** (Blessi et al., 2016).

A qualitative study provided the perspectives of cultural institutions participating in different Arts on Prescription programmes. The findings suggested that such programmes enhanced interdisciplinary collaboration with healthcare providers (along with interest in potential collaborations), and enhanced and strengthened professional skills and service provision (Jensen & Bonde, 2020).

Different ways of engaging with arts and culture activities

In this thematic section, 101 (77 per cent) of the 131 articles included in the review referred to active forms of cultural participation, 20 (15 per cent) to receptive cultural participation and 10 (8 per cent) to both active and receptive engagement.

- Studies that reported health benefits from singing in group contexts mentioned one or more of the following outcomes: the building of social support, enablement of collaboration, a sense of identity and belonging, prevention of loneliness and social isolation, improvements in mood and social functioning, promotion of community development, help to reduce inequalities, the fostering of solidarity and cohesion, improvements in infrastructure and community access to healthcare and arts;
- Most studies that focused on receptive participation in theatre highlighted the receptive use of art as a vehicle for mental health promotion and as an important aid in destigmatising certain health conditions;
- Receptive participation in theatre productions was especially suited for prevention-focused messages or as a tool to engage audiences that were part of marginalised groups, and therefore did not benefit from equal access to health information;
- Arts organised as social events helped to fight isolation, especially in the case of elderly people or people with chronic illness;
- Dance therapies were being increasingly used to link individual perceptions of embodiment to sociality and community identities;
- Publicly available infrastructure played a key role in facilitating community arts and well-being, with museum

and art galleries being identified as having an important social role for health promotion, well-being and social inclusion;

- The studies that focused on movies as vehicles for promoting well-being highlighted the potential that came from the accessibility of that medium. Film and video recordings could enhance prevention and educational programmes because they are technologically accessible to a very wide audience;
- Participation in arts festivals and community events generated well-being at a community level;
- The quality of design of built environments was found to influence people's experiences in healthcare, and their well-being and social connections. Urban design was proposed as a mediator in tackling urban social issues.

3.2 Synthetic table of evidence

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Individuals and communities							
Young people	Dance	Active	Inner city youth dancing program	Staying in an inner city youth dancing program for a longer period helped young people avoid risky behaviours and acquire competence in essential life skills	Observational study	Compelling proof of dance movement's efficacy as a viable youth development tool	Rodgers & Furcron, 2016
Young people	Photography	Active	Photography	Captured experiences and perceptions of the state of self-well-being and mental health; overcoming isolation, marginalisation, and stigma	Qualitative study		Charles & Felton, 2020
Adolescent	Storytelling	Active	Transmedia games	Increased agency, and improved sexual health knowledge, attitudes and technology skills	Review article and Project description		Gilliam et al., 2012
Children/Adolescents (7-11)	Literature	Active	Reading	Daily reading for pleasure in childhood associated with better behavioural adjustment in early adolescence	Observational study		Mak & Fancourt, 2020
Minority youth	Multiple	Active	Digital story making	Supported critical thinking, opportunities to think deeply about a topic or theme, youth and elders connecting in discussions about healthy living	Observational study	Processes had to be continually adapted to meet the changing needs of the young people involved	Fletcher & Mullett, 2016
Multiple	Literature	Active	Reading groups	Social bonding and inclusion, self-expression, meaning finding	Narrative synthesis		Billington, 2019
Multiple	Dance	Active	Dance classes, movement therapy	Improved quality of life, improved social inclusion and bonding	Systematic review		Baltà Portolés, 2021
General population	Music	Active	Choir and singing groups	Improved psychological well-being, improved social inclusion and bonding	Systematic review		Hagemann, 2021

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
General population	Storytelling	Receptive	Sharing emotional stories	Better recall quality and a higher level of interpersonal closeness	RCT		Xie et al., 2021
General population	Cultural participation	Active	Fringe art festival	Enhanced social collaboration	Qualitative study	Social inequalities in the festival can be influenced by factors like cultural participation, competence and knowledge, resources for participation, competitiveness and power relations	Warran, 2019
Local communities	Multiple	Active	Participatory arts projects	Improvements in health and well-being, encouraging and equipping local people to develop leadership skills and to take up new roles and responsibilities in their communities	Qualitative study	The quality of creative work matters	Cameron et al., 2013
Adults	Music	Receptive and active	Music and singing	Improved quality of life and resilience	Systematic review		Daykin et al., 2018
Adults	Music	Active	Choir practice	Social interaction, social connection, bonding and social inclusion, promoting diversity	Mixed-methods study	Access to people coming from different age groups, gender and ethnic backgrounds than normally available in their community	Moss et al., 2018
Adults	Music	Active	Singing	Increased quality of life, resilience, social support, and social connectedness	Quasi-experimental study	No direct decrease of psychological stress	Sun & Buys, 2016
Young adults	Literature	Active	Fiction reading	Enhanced empathy skills	Experimental study		Mar et al., 2009
Adults	Literature	Active	Fiction reading	Enhanced empathy	Experimental study	Effects are enhanced when readers became 'emotionally transported' with the story	Bal & Veltkamp, 2013
Adult women	Music	Active	Choir singing (long term)	Social connection, higher sense of belonging, self-confidence, self-esteem, and identity	Qualitative study		Batt-Rawden & Andersen, 2020
Elderly people	Music	Active	Community group singing	Reduced feelings of loneliness	Scoping review	Results maintained after three months, lowered after six months	Coulton et al., 2015

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Elderly	Multiple	Receptive and Active	Cultural participation: music, visual arts, dance, theatre, writing, storytelling, photography, film	Quality of life	Scoping review	There is a need to initiate programmes of research instead of individual study teams	Fraser et al., 2015
Elderly adults	Theatre	Receptive	Attending theatre performances	Positive Affect: sense of belonging, social engagement and flow, changes in well-being	Mixed-methods study		Meeks et al., 2020
Elderly adults	Dance	Active	Dance classes	Positive effects on mobility performance, improvement of quality of life and social engagement	Quasi-experimental study	Dance as a feasible form of physical training (not expensive, suitable and adaptable for elderly adults)	Brustio et al., 2018
Healthy elderly people	Multiple	Active	Participatory arts	Social and emotional support, sense of purpose, social connectedness	Qualitative study	Creative ageing	Bradfield, 2021
Elderly	Music	Active	Community-based singing groups	Collaboration and social interaction	Qualitative study	Long-term commitment may have led to improved mental health and well-being	Skingley & Bungay, 2010
Healthy elderly adults	Music	Active	Playing a musical instrument	Improved social connections and quality of life	Observational study		Mansky et al., 2020
Healthy elderly adults	Music	Active	Choir practice	Choir singers had better verbal and cognitive flexibility, and experienced better social integration compared to members of the control group	Observational study		Pentikäinen et al., 2021
Elderly adults	Multiple	Active	Art classes, including drawing, painting, creative writing and mixed media	Social and mental well-being	Pre-post survey study		Cantu & Fleuriot, 2018
Elderly in day centre	Theatre	Active	Playback theatre groups	Personal transformation and improved community social engagement	Qualitative study		Keisari et al., 2020
Elderly	Music	Active	Singing programs conducted by musician	The social elements of the singing programs help prevent isolation	Mixed-methods study	Highlights the need for more effective strategies to recruit socially isolated individuals, who would benefit from socio-musical engagement	Davidson et al., 2014

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Elderly in residential care home	Multiple	Active	Reminiscence arts, seated dance, and orchestral music	Social connectedness and bonding with caregivers, improved sense of quality of care	Qualitative report		Dadswell et al., 2020
Elderly people	Visual Arts	Active	Participatory painting programme	The relational aspect of the intervention was effective in generating a positive therapeutic environment	Qualitative study		Rose & Lonsdale, 2016
Elderly from rural communities	Multiple	Active	Creative arts projects: dance, film, painting, drawing, crafts	Increased self-esteem and levels of self-worth, development of new skills, making new social connections (especially collaborating with a different generation)	Qualitative study		Pearce & Lillyman, 2015
Rural communities	Multiple	Active	Photography and song writing as community-enabled art-forms	Community arts are linked to the empowerment of individuals and communities through participatory and inclusive practices	Observational study		Sonn et al., 2015
Indigenous community	Story-telling	Active	Digital stories about HIV prevention activism	Arts-based models of intervention which amplify stories and voices foster the growth of Indigenous youth leadership, inspire dialogue, and create change with far-reaching impacts for communities	Qualitative study	Advocate for finding new ways of promoting public health that are culturally safe, decolonising, and respect the self-determination of Indigenous peoples	Flicker et al., 2020
Refugees and immigrants							
Immigrants	Multiple	Active	Community language radio	Enhancing the well-being of presenters; meeting the needs of autonomy, relatedness and competence; ethnic community radio fosters migrant well-being, offering accessible and adaptable outlets for creative expression	Mixed-methods study		Krause et al., 2020
Underage refugees	Multiple	Active	Storytelling: Video, writing (poems, small text, essays)	Liberation from dis-empowering identities and the redefining of relationships	Mixed-methods study		Clayton & Hughes, 2015
New refugees, immigrants and asylum seekers	Multiple	Receptive	Community arts installation event	Raised awareness, support sense of community belonging, enjoyment of life and quality of life	Qualitative study		Philipp et al., 2015
Migrant youth	Theatre	Active	Sharing Stories drama workshop	Improved sexual health knowledge, increased confidence levels, positive attitudes towards sexual health	Mixed-methods study	Peer-sharing proves good results	Roberts et al., 2017

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
First- and second-generation immigrant students with learning or behavioural problems	Theatre	Active	Theatre expression workshops	A small reduction in impairment in first-generation immigrants placed in special education classes, but an increase in impairment in second-generation youth	RCT	These educational settings present particular challenges and may require interventions that specifically address some organisational dimensions	Rousseau et al., 2014
Disadvantaged individuals and communities							
Children and adolescents from educationally disadvantaged community	Music	Active	Electroacoustic composition and performance	The innovative use of technology (mobile phones) in attracting children and adolescents to electroacoustic composition and performance	Quasi-experimental study	The successful use of mobile phones as tool for learning	Duarte-García & Sigal-Sechovich, 2019
Deaf children and adolescents	Photography and Film	Active	Photography and filmmaking	Reflexivity over life experiences, reappreciation of self-abilities, new means for self-expression and communication while overcoming ordinary sign-language barriers	Qualitative study		Young et al., 2019
Disadvantaged middle-school-age youth	Multiple	Active	Art and athletics summer camp: Creative writing, athletic trainings, arts and leadership skills	Empowerment, hope for personal and educational development	Quasi-experimental study		Mazza, 2012
Children with disabilities and their carers	Theatre	Active	Participation in artforms that are usually inaccessible for children with disabilities and their carers	Theatre productions foster the integration of children with disabilities	Qualitative study	The authors call for more infrastructure that supports this type of intervention.	Goodley & Runswick-Cole, 2011
Young people with social, emotional, and behavioural difficulties	Museum activities	Active	Art intervention	A respite from situations of conflict at school through changes of physical and emotional space can aid the development of better coping mechanisms, and increase self-esteem, self-confidence and resilience	Qualitative study	No evidence about long-term effects	Thompson & Tawell, 2017
Adolescents in a court-referred residential treatment	Music	Active	Music improvisation	Improvements in school and work role performance, behaviour toward others, anhedonia, Negative Affect, anger and interpersonal problems	RCT		Bittman et al., 2009

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
People with developmental disabilities	Multiple	Active	Drama, music, painting, dancing, movement as therapy	Enhanced self-esteem, improvement of social and communication skills	Scoping review		Lister et al., 2009
Prisoners	Multiple	Active	Community arts (theatre, dancing, circus)	Physical skills, improved self-confidence	Mixed-methods study		Kelagher et al., 2014
Homeless people	Theatre	Active	Theatre based method	Theatre is effectively used in social work for the recovery of fragmented identities among people facing social exclusion, such as the homeless	Qualitative study	Self-confidence and self-worth increased as a result of acquiring new capabilities and feeling useful	Cordero Ramos & Muñoz Bel-lerin, 2019
Homeless people	Multiple	Active	Art workshops	Self-expression, strengthening social support networks for participants and team, awareness of the social conditions of homeless people	Qualitative study		Silva et al., 2018
Elderly adults with chronic conditions living in low-income housing	Theatre	Active	Community-based theatre activities	Improvement in psychological well-being and health-related quality of life	Mixed-methods study		Yuen et al., 2011
Minority people diagnosed with cancer	Theatre	Active	Readers' Theatre	Nurtured healing, renewal, affirmation and shifts in knowledge, attitudes and beliefs that empowered action	Qualitative study	A respectful environment for adult learners from diverse ethnic and cultural backgrounds to engage in meaningful conversations	Cueva, 2010
Indigenous people who live in remote communities	Visual Arts	Receptive	Exhibition, community-based Arts in Health initiative	Implementing culturally appropriate models is important for the meaningful engagement of indigenous people who live in remote communities and experience mental health problems	Case study		Leenders et al., 2011
Underserved communities of colour	Multiple	Active	Photo exhibit, Spoken word and comedy events	Enhancing collective efficacy to improve depression care may be a key component of increasing community engagement to address depression	Confirmatory exploratory design		Chung et al., 2009
Elderly residents in a disadvantaged urban community	Visual arts	Active	Participatory arts project	Feelings of loneliness and isolation and of being forgotten or ignored by the larger community were alleviated through challenging the negative outsider representation of their community	Qualitative study	Older working-class men may not be able to engage so eagerly with certain forms of artmaking	Murray & Crummett, 2010

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Elderly adults from low socioeconomic status	Music	Active	Choir singing	Joy, enjoyment, social engagement and connection	Qualitative study	Requirement to consider other group members' talent and musical preferences that may limit one's feeling of comfort	Petrovsky et al., 2020
Men in community rehabilitation	Crafts	Active	Community-based woodwork group in community rehabilitation	Achieving rehabilitation goals, socialisation for men with disabilities	Pilot study		Fulton et al., 2016
People in poverty	Community Art	Active	Arts-based and participatory methods to explore food poverty	Group art practices and participatory methodologies create an ability to challenge stigmatising discourses and contribute to current debates surrounding the ability to resist stigma and its relation to well-being	Qualitative study		Wheeler, 2018
People in poverty that is a group of less affluent and often homeless young men	Community Art	Active	Weekly use of a publicly funded floor-hockey programme	Access to the hockey floor was a vital entry point for a wide range of social services and networks of friendship and support, and, for many participants, a powerful source of community	Qualitative study		Scherer et al., 2016
People with various health conditions							
People with dementia and the wider community	Theatre	Active	Drama-based interventions at community level	Improved quality of life, social networks, organisational flexibility and attitudes toward ageing and dementia	Scoping review	The practice of cultural community development improved the lived experience of people living with dementia in care centres	Basting, 2018
People with dementia and their caregivers	Multiple	Active	Creative activities	Positive effects for people with memory loss and their caregivers, and for their relationships	Qualitative study		Mondro et al., 2020
People with severe mental illness	Museum	Active	Museum activities (contemporary art)	Significant increases in social acceptance and social relationships	Mixed-methods study	Use of museums and other public spaces for such activities encouraged	Saavedra et al., 2018

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
People with mental health conditions	Music	Active	Vocal singing workshops for mental well-being	Singing in a community context was beneficial for people who have experienced mental health conditions, and the construction of a safe environment that created opportunities for developing social skills and rediscovering work-related skills	Mixed-methods study		Shakespeare & Whieldon, 2018
Adults dealing with mental health conditions, social isolation and chronic pain	Multiple	Active	Arts on Prescription	Global well-being (improved mood and reduced tension)	Observational pre-post repeated measures study		Holt, 2020
General public	Theatre	Receptive	Self-revelatory performance on dementia	Reduced public stigma surrounding dementia and Alzheimer's disease	Observational study		Burns et al., 2018
People with dementia and their families	Dance	Active	Dance program	A narrative approach to dancing supported social inclusion for people living with dementia and their families in residential long-term care settings	Qualitative study		Kontos et al., 2021
Adults with mental health conditions	Museum	Active	Arts- and nature-based museum intervention	The results showed that green prescriptions, which involve combining creative arts- and nature-based activities, can significantly impact the lives of adult mental health service users	Mixed-methods study	More research into the relationships between creativity, arts, nature, health and well-being outcomes is needed	Thomson et al., 2020
People with mental health conditions	Multiple	Active	Creative arts	Positive effects on mental well-being, improvements within the individual's immediate social networks	Systematic review	Need for clarity of concepts related to culture and mental well-being	Leckey, 2011
Adults with mental health conditions	Multiple	Active	Arts on Prescription - Poetry, ceramics, drawing, mosaic, and painting	Improvements in mental well-being	Observational study		Crone et al., 2013
Adults with mental health conditions	Multiple	Active	Arts on Prescription - Poetry, ceramics, drawing, mosaic and painting	Improvements in mental well-being	Observational study - longitudinal	Arts interventions have a high potential to also improve well-being for people with multiple morbidities	Crone et al., 2018
People with aphasia	Music	Active	Choir practice	Singing in a choir had a positive effect on mood, increased confidence and helped to establish peer support networks	Mixed-methods study		Tamplin et al., 2013b

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
People with quadriplegia	Music	Active	Therapeutic group singing intervention	Social support and interpersonal ties as antidotes to social isolation and depression, which are both frequent after spinal cord injuries	RCT	The therapeutic singing intervention's regulated, deep breathing may have lowered anxiety and stress	Tamplin et al., 2013a
Patients with chronic pain	Music	Active	Group singing	Increased self-esteem, confidence, motivation and empowerment; bonding experiences and positive social interaction among patients with same condition	Qualitative study	Favourable findings might support the introduction of group singing in pain management programmes	Irons et al., 2020a
Elderly in long-term care units	Multiple	Receptive and active	Creative activities	Bringing meaningfulness into the lives of people in long-term care centres; a new social sense among the elderly people and the nursing personnel	Quasi-experimental study	Culture plan extended to all inpatients following the positive outcomes	Koponen et al., 2018
Older patients	Theatre	Receptive	Theatre-going	Positive emotions, meaningful social interaction, and psychological stimulation	Mixed-methods study	The program connected individual well-being to community well-being	Meeks et al., 2018
People undergoing cancer treatment	Music	Active	Music therapy in supportive cancer care	Group experience in music therapy sessions fostered social connection and support, and prevented loneliness	Qualitative study	Loneliness and isolation were common detriments to the lives of people undergoing cancer treatment	Daykin et al., 2007
People in need of HIV treatment	Theatre	Active	Drama-based method	Drama enhanced interventions that addressed male participation in HIV treatment and awareness	Qualitative study		Komakech, 2020
Patients with mood disorders	Dance	Active	Dancing project	Dancing can stimulate positive socialisation behaviours and discourage isolation. It acts promptly and effectively on the psychological well-being of patients and helps to increase self-esteem	Observational study	Dancing programmes helped to fight the societal stigma that reinforced biases about depressive people and their capacity to feel joy	Tavormina & Tavormina, 2017
Children on the autistic spectrum	Circus	Active	Circus training	Circus training can enhance the social development and well-being of children diagnosed on the autistic spectrum.	Qualitative study		Seymour & Wise, 2017

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
School and education							
School-aged children and adolescents	Theatre	Active	School-based drama interventions in health promotion	Positive effects concerning knowledge and attitudes related to health behaviour	Systematic review		Joronen et al., 2008
Mid-school children	Multiple	Active	Story making, storytelling, drawings, puppetry, songwriting	Increases in awareness about feelings and mood changes, reflections on emotions and thoughts about self and others, emotional relief and enjoyment	RCT		Moula, 2021
University students	Visual Arts	Active	Sketching	Higher experience of flow; decreased perception of task difficulty	RCT		Cseh et al., 2016
Students	Literature	Active	Fiction reading	Self-report increased empathy measures	RCT	Enhanced development of empathy specifically within participants with a low baseline grade of "openness".	Djikic et al., 2013
Students	Theatre	Active	Drama therapy	Improved decision-making, self-awareness, interpersonal and communication skills, self-expression, self-cognitive reconstruction, and social role ability	Experimental study	Self-awareness and decision-making was more positively influenced in males compared with females	Chang et al., 2019
Students	Theatre	Active	Drama-centred, school-based peer education	Promoted wellness and reducing exposure to violence in urban youth – an effective way to deliver information to children and teens	Literature review	Students were more receptive to prevention-focused messages that came from other students, versus adults	Chung et al., 2017
School students	Theatre	Active	Creative arts therapy in public schools	Community well-being	Scoping review		Nelson, 2010
Students	Music	Receptive	Online pre-composed music listening	Decreased stress and anxiety	Quasi-experimental study	Melody and tempo are the most supportive musical elements	Fiore, 2018
College students	Photography and Film	Receptive	Korean drama (K-drama)	Improved knowledge, attitude and behaviour to cope with bullying	Mixed-methods study	Significant effects only in individuals with depressive symptoms or past anxiety	Ta Park et al., 2020
Preschool and primary school students	Dance	Active	Community dance programme (educational centre)	Positive effects on social relations: improved collaboration and communication skills	Quasi-experimental study		Eleni & Georgios, 2020

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Early childhood: dual language learners	Theatre	Active	Creative drama	Improved cooperation skills, emotion management, social interactions and increased levels of confidence	Mixed-methods study		Gao et al., 2021
Students	Multiple	Active	Virtual workshops (photography, filmmaking and fashion)	Improved understanding of self and others	Qualitative study		Sclater & Lally, 2013
Students	Multiple	Active	Creative expressive art therapy	Improved communication between different stakeholders from the community	Qualitative study		Fritz et al., 2013
Students with special needs	Multiple	Active	Art therapy in public schools	Empowered students through creativity	Scoping review		Isis et al., 2010
Youth leaders engaged in health promotion	Multiple	Active	Arts-based approach; Storytelling	Arts-based approaches to social action allowed youth to share personal experiences of stigmatised topics that promoted healing and supported their growth as leaders	Qualitative study		Kennedy et al., 2020
Work and occupation							
Professional dancers	Dance	Active	Recreational, ordinary training, and competitive dance	Positive mood change	Experimental study	Dance competition may induce stress and decrease level of enjoyment	Zajenkowski et al., 2015
General population	Music	Receptive	Listening to music	Participants who listened to 'happy music' reported higher creativity while performing a divergent creativity task compared with those who completed the task in silence	RCT	No effect of music listening on convergent creativity	Ritter & Ferguson, 2017
Adults in the workplace	Multiple	Active	indoor creative expression with nature-sourced materials	Stress reduction in workplace, enjoyment, increased playful and creative behaviour, and a better reflection of life besides work	Qualitative study		Chang & Netzer, 2019
Working adults	Multiple	Receptive and active	Arts on Prescription: visual art making, music and singing, and theatre and museum or gallery projects	Meaningful effects of Arts on Prescription on mental health and well-being, and of choral singing for improved psychosocial work environment	Scoping review		Jensen et al., 2020

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Adults with burnout	Multiple	Active	Drama and improvisation, drawing, photography, dance	Decreased level of burnout, improved well-being, a higher number of positive experiences, and a higher proportion of positive to negative experiences	Case study		Cacovean et al., 2021
Elderly adults in rural area	Visual Arts	Active	Community-based creative arts occupation	Positive impacts on mental well-being: senses of achievement, increased motivation, social connection	Quasi-experimental study	Creative arts as a leisure occupation with important well-being gains to older adults as part of healthy ageing policies, social prescribing	Edwards & Owen-Booth, 2021
Professional contemporary dancers	dance	active	dancing	Dance as a creative collaboration process opened new dimensions of understanding and experience in relation to well-being and self (and other) care	Qualitative study		Purser, 2019
Caretakers for patients with dementia	Music	Receptive	Live music concerts within care facilities	Feeling less stressed, more cooperative, more caring, and overall increased levels of motivation, energy and job satisfaction	Qualitative study	Caretaker well-being achieved, as people with dementia became more cooperative as result of the art intervention	Shibazaki & Marshall, 2017
Community health workers	Music	Active	Interactional music making	Skills for building relationships, mobilising members of the community to take responsibility for their own health and to access services, and conducting health-promotion activities	Observational study		Dos Santos & Lotter, 2017
Caretakers for patients with dementia	Music	Active	Group singing	Singing supported social inclusiveness regardless of the stage of dementia; improved relationship between carer and patient	Qualitative study	All participants were white and of British nationality.	Osman et al., 2016
Caregivers	Theatre	Active	Training through improvisation	Caregivers were better able to deal with their burdens	Clinical practice guidelines		Leonard & Libera, 2020
Healthcare providers and general public	Theatre	Receptive	Theatre production and conversations with audience members	Increased conceptual understanding of inequity, and increased likelihood that participants would implement changes within their own lives in a way that may contribute to the reduction of inequality	Mixed-methods study		Wasmuth et al., 2020

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Health care providers and students in the health-care professions	Theatre	Receptive	Community informed theatre experience	Prevented discrimination and fostered community empowerment for older LGBT people in care centres	Project description and evaluation summary		Hughes et al., 2016
Undergraduate nursing students	Theatre	Receptive	Mono-logue-based theatre	Increased empathy	Observational study		Baker et al., 2019
Medical students	Recorded drama	Receptive	Drama-based intervention in cancer treatment education	Improved understanding and empathy for patients	Qualitative study	Better outcomes if programmes broadened to other subjects and recorded on video	Suh et al., 2021
Medical students	Visual Arts	Active	Narrative-based programme	Enhanced reflection on past experiences, personal growth and development; self-discovery; awareness of art as an important tool; enhanced sense of collaboration	Quasi-experimental study		Jones et al., 2017
Health service workers	Music	Active	Work-place choir	Improved self-perception of mental health and decreased depression rates; enhanced social connectedness; personnel engagement and enjoyment	Mixed-methods study	A professional facilitator and financial costs should be covered	Moss & O'Donoghue, 2020
Medical staff and students	Writing	Active	Creation of a creative arts journal	Encouraged self-expression and strengthened professional relationships.	Quasi-experimental study		Rodríguez et al., 2012
Healthcare staff	Theatre	Active	Drama intervention	Perceived increased ability to act according to own moral beliefs towards abuse in healthcare	Interventional study, pre-post design		Zbikowski et al., 2020
Health workers	Multiple	Receptive and active	Art therapy, creative art interventions and Arts on Prescription	Improved quality of well-being in the work-place	Literature review		Jensen & Bonde, 2018
Medical students	Theatre	Active	Theatre-based study module	Positive effects on well-being, growth and development as individuals and future physicians	Qualitative study		Nagji et al., 2013
Paramedic students	Literature	Active	Writing	Insight, empathy, relational awareness, heightening ethical sensibilities	Observational study		Milligan & Woodley, 2009
Medical students	Dance	Active	Dance and body movement	Joy, trust, openness, bonding, somatic awareness and self-contact, emotional regulation	Qualitative study		Winther et al., 2015

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Nurses	Crafts	Active	Knitting	Help with managing stressors, combat compassion fatigue, process difficult work situations	Mid-range Health Promotion Model (HPM)		Anderson & Gustavson, 2016
Hospice social workers	Photography	Active	Photography	Increased job satisfaction, building therapeutic relationships with patients and families	Qualitative study		Shuber & Kok, 2020
Quality of built environments							
Patients and staff in mental care facilities	Architecture and design	Receptive	Environmental design	Promoted patient orientation, reduced stress and risk of falling, improved perceptions of the healthcare environment and staff overall well-being	Systematic review	Environmental conditions (e.g., excessive lighting or noise) may negatively influence blood pressure, heart rate and psychological well-being	Daykin et al., 2008a
Patients, staff, visitors	Architecture/design	Receptive	Design of healthcare environments	Quality design in health-care encompasses environmental values, social and cultural interactions and values, and resilience of building construction	Scoping review	Need for person-centred, welcoming, accessible and supportive privacy and security care environments	Anåker et al., 2017
General population	Architecture and design	Receptive	Design of public space	Enhanced sense of relaxation and safety	Mixed-methods study		Alyari, 2018
Chinese elderly and youth	Architecture and design	Receptive and Active	Design of a sensory, urban furniture	Increased elderly well-being and cross-generational interaction	Case study		Zhu et al., 2021
City residents	Architecture and design	Receptive	Urban design for mental health	Design of places that are green, active, prosocial and safe; designing public spaces with aesthetic factors and considerations that enhance relaxation and sense of security; enlarging access to green space; public spaces that provide opportunities for physical activities and active transport, as well as for social gathering with facilities appropriate for different age groups	Narrative synthesis		McCay et al., 2017
City residents	Architecture and design	Active	Design of public space around riverfront	Created vibrancy and reduced suicide-related negative connotations around the riverfront	Case study		Spencer et al., 2019
Community development							

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits and negative outcomes	Reference
Children and youth	Multiple	Active	Art-in-nature activities	Increased nature connectivity and understanding of environmental issues, higher environmental awareness and pro-environmental behaviours, and potential decrease in eco-anxiety	Systematic review		Moula et al., 2022
Immigrants from different cultures living in the same country of residence	Multiple	Receptive and active	Cultural Heritage	Culture (transmitted values, norms and beliefs) is a significant determinant of subjective well-being	Natural experiment		Hajdu & Hajdu, 2016
Urban residence	Multiple	Receptive and active	Cultural events and facilities endowed by the city structure	Improved subjective well-being	Comparative study		Blessi et al., 2016
General population in non-isolated areas	Multiple	Receptive and active	Attending jazz, classical or rock concerts, opera or ballet, theatre, museums, cinema, discos or other dance events, exhibitions, social activities, spectating and practicing sports, reading books, poetry reading	Individual psychological well-being	Mixed-methods study	Access to such culture depends on existing opportunities for cultural consumption, the city structure and cultural policies	Grossi et al., 2011
General population	Museum	Receptive and active	Museum activities	Museums and art galleries as sites for public-health interventions and health promotion programmes, and the social role of these organisations in health and well-being	Narrative synthesis		Camic & Chatterjee, 2013
Cultural institutions	Multiple	Active	Arts on Prescription: multiple art forms	Professional collaboration, enhanced knowledge and professional skills	Qualitative study		Jensen & Bonde, 2020
Public engagement in health-policy development	Theatre	Receptive	Theatre attending	Dual potential of theatre to inform on policy interventions and elicit public opinion on policy issues	Observational study		Nisker et al., 2006
Public health engagement	Theatre	Receptive	Transforming qualitative health research data into dramatic form	Applied theatre is an effective public health-promotion tool	Quasi-experimental study	Language and cultural barriers as obstacles for members of minority communities	Blignault et al., 2010

4. Culture and COVID-19

4.1 Summary of the findings

There were 12 studies eligible for this scoping review that proved relevant for understanding whether or how arts have benefited people during the COVID-19 pandemic. Among them, six referred to active cultural participation, five to receptive cultural participation and one to both.

The findings showed that arts and creative activities were the preferred leisure activity for people in isolation and promoted increased well-being and resilience. Most studies carried out during the pandemic focused on the effects of creative engagement in the general population.

Creative activities as preferred leisure

Evidence based on data from 74 countries showed that, during the pandemic, **people spent more time on leisure activities** – including crafts, languages, cooking, fine arts, music and performing arts – than outdoor activities. **Creative activities were preferred to non-creative leisure activities and contributed to well-being to the same extent as physical exercise** (Morse et al., 2021).

Innovative strategies to cope with challenges

Creative arts were used as a **buffer for the negative consequences** of quarantine and enabled **copied with challenges by using innovative strategies** (Kapoor & Kaufman, 2020). Engaging with art and creative activities, both actively and receptively, helped **emotional regulation** (Elisondo & Melgar, 2021; Kiernan et al., 2021).

Resilience

Studies have also evidenced **creativity as a resilience factor** in developing new projects and postponed affairs, adaptability, communication, situational control and flexibility (Elisondo, 2021). Singing helped in **emotional coping and bonding** (Corvo & De Caro, 2020).

Reducing stress and short-term anxiety

A study which aimed to assess the effectiveness of mediated nature experiences during lockdown (when people were deprived of nature connections) found that watching videos of forest environments was helpful in **reducing stress and short-term anxiety**, though no long-term benefits were detected (Zabini et al., 2020).

Some studies suggested examples of strategies for managing the consequences of a pandemic that could be taken into consideration with regard to future outbreaks. One such study illustrated the benefits of creative leisure activities on **mental health** during lockdown (Morse et al., 2021).

Another study showed that, during the first months of the pandemic, art consumption increased, with people stating that art helped them to **feel better and become relaxed**. Active cultural participation during the pandemic was significantly correlated with **Positive Affect**, while receptive participation was associated with a **decrease in negative feelings** (Zbranca et al., 2020).

Delivery of public health information

Art forms used to deliver public health information about COVID-19 in ways that connected emotionally developed **social awareness and increased the level of public understanding**. Negative effects were also recorded in relation to songs promoting fear or conspiracy theories on COVID-19 and state-sponsored visual art with public-health messaging decoupled from socio-economic context (de-Graft Aikins & Akoi-Jackson, 2020).

Counteracting negative effects of social isolation

There were also studies evaluating the response of cultural institutions to the pandemic that adapted their programmes to digital or remote access. Museums transformed content and programmes into digital formats to encourage online visitors, which helped with people's mental health and well-being by **counteracting the negative effects of COVID-19, such as social isolation** (Tan & Tan, 2021). Boxes of art resources and guided activities for home use delivered to vulnerable families helped parents and infants improve their **connection and attachment** through playful engagement in the arts, and **improved parents' well-being** (Armstrong & Ross, 2021).

Most of the participants in the studies enrolled by choice, followed by study recruitment. This suggests that people were willing to get involved in activities to improve their well-being. Taking into consideration the fact that, during the pandemic, people's well-being was influenced by social distancing and isolation, participation in group cultural activities online had noticeable benefits. Moreover, the sense of connection and social support was more important than the group setting itself; even if some activities were done individually, people felt connected to others that got involved in similar activities.

4.2 Synthetic table of evidence

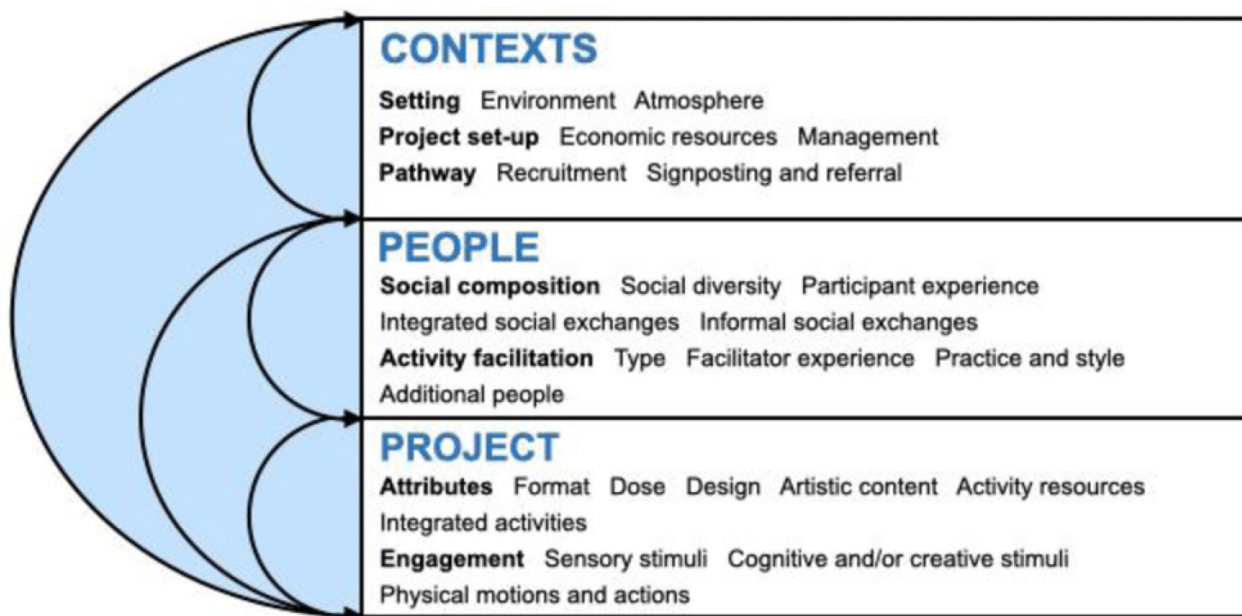
Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
General population	Multiple	Active	Creative arts (baking, preparing beverages, watching movies, videos)	Creativity as a buffer for the negative consequences of quarantine; coping with current challenges by using different innovative methods and originality	Scoping review		Kapoor & Kaufman, 2020
General population during COVID-19 lockdown	Photography and Film	Receptive	Watching a video of forest environments	Stress reduction and short-term anxiety decrease	RCT	No long-term benefits	Zabini et al., 2020
General population during the pandemic	Multiple	Active	Creative, non-creative and physical leisure activities	The preference of creative activities over non-creative activities in leisure time; improvement of well-being	Scoping review		Morse et al., 2021
People in quarantine	Multiple	Active	Creative activities (e.g., cooking, gardening, painting)	Increased positive emotions and coping with negative ones	Scoping review		Elisondo & Melgar, 2021
General population	Multiple	Receptive	Artistic creative activities (ACAs) and music engagement	Enhanced emotional regulation and improvement in mental health and well-being	Scoping review		Kiernan et al., 2021
General population	Multiple	Active	Creative activities	Creativity as a resilience factor in developing new and postponed projects and activities, adaptability, communication, situational control, flexibility	Mixed-methods study		Elisondo, 2021

Target group	Art discipline	Participation	Intervention	Specific outcome	Type of study	Comments, limits, negative outcomes	Reference
General population	Multiple	Receptive	Creative arts (music, comedy, theatre, dance, music, visual arts, textile design and literature)	COVID-19 art forms communicated public health information about the disease in ways that connected emotionally, developed social awareness and increased the level of public understanding.	Qualitative study	Songs promoting fear or conspiracy theories about COVID-19, and state-sponsored visual art with public health messaging decoupled from its socio-economic context	de-Graft Aikins & Akoi-Jackson, 2020
General population	Music	Active	Singing	Emotional coping and bonding	Text and expert opinion paper		Corvo & De Caro, 2020
Vulnerable parents and infants	Multiple	Active	Art boxes	Parents reported more confidence and undertaking new activities which they planned to continue, increased positive playful moments and improvements to their general well-being and connectedness	Mixed-methods study		Armstrong & Ross, 2021
Doctors, health workers and medical students	Photography and Film	Receptive	Watching short videos with recommendations for an objective view over reality	Improved reflection and communication skills, enhancing empathy, affectivity and ethical attitudes	Qualitative study		Blasco et al., 2021
General population	Multiple	Receptive and active	Cultural participation	Art consumption increased; art helped people feel better and become relaxed; improvement in positive and negative affect scores; resilience	Survey		Zbranca et al., 2020
Museums	Museum	Receptive	Digitalisation of museum content and programs	Counteracting the negative effects of COVID-19, such as social isolation, and supporting mental health and well-being	Scoping review		Tan & Tan, 2021

FACTORS DETERMINING THE EFFECTIVENESS OF INTERVENTIONS

Besides identifying the well-being outcomes of arts and cultural activities, we aimed to extract and analyse information on the determinants of success and failure of such activities. Below, we present the key lessons from the studies included in our scoping review using the broader categories proposed by the INNATE Framework (Warran et al., 2022), the most comprehensive framework for the design, implementation and assessment of arts in health activities. The framework includes 139 “active ingredients” of arts in health activities, grouped under three headings: People, Project and Contexts.

Figure 2 The INNATE Framework: active ingredient categories, subcategories and interconnections



Source: (Warran et al., 2022)

We also present some observations that the studies' authors have made regarding factors that seemed to support effective arts interventions. Since not all the studies included such observations, some of the suggestions may only apply to specific contexts and situations. Moreover, for the same reasons, the list below does not cover all the factors that could determine the success of an intervention.

A. Context

Context-related factors presented here include the location and environment where the projects or interventions took place, the project set-up (e.g., the initiating organisations and types of partnerships enabling the project) and the pathways for the recruitment of participants.

Setting

Many of the studies did not offer explicit information about the place or context of the interventions. Among those that did give such details, the most frequently used environments were **cultural spaces** and contexts (e.g., art venues and public spaces during festivals), in addition to **schools, community centres, and healthcare spaces** such as hospitals and care centres. Some studies referred to **home-based** activities, while others referred to **online** cultural participation.

- Ørjasæter & Ness (2017) highlight the importance of having access to art-based activities in the proximity of mental health hospitals, regardless of admission status. The authors claim that cultural leisure activities should remain independent from therapy and be run by people with professional artistic backgrounds. These conditions enable ‘illness-free zones’ which restore personal dignity, and give participants chances to

be treated as artists and citizens, rather than just being treated as patients. At the same time, it is equally important to reach people where they already are, especially in the case of groups that spend a long time in spaces they cannot leave (such as schools, hospitals, refugee centres, elderly homes or care centres for children with disabilities). In this context, the presence of art and artists can sustainably transform care and learning environments.

- For people with mental illness, changing location of activities from clinical settings to museums or public spaces could prove more effective (Saavedra et al., 2018).
- Using a community venue that is associated by sections of the community with experiences of exclusion or authority may negatively influence attendance (Swe et al., 2020).

Set-up

Our review analysed research studies that aimed to measure the effects of arts on health and well-being. Some of the studies have designed interventions for the purpose of research, and others aimed to assess cultural projects or voluntary participation in culture. Thus, there is little information about the management and resources of the projects and interventions analysed. Some interventions have been carried out by universities and research institutes, some by health institutions and others by arts and community organisations, most of which were public or benefited from public support.

Partnerships between sectors such as the arts and health, social welfare, urban development and academic sectors, are of the utmost importance. The presence of enabling factors such as resources, policies and champions in the community makes such initiatives more likely to take root and scale up. Jensen (2018b) describes interdisciplinary work in the arts and health as complex, and points out that the fact that these sectors operate based on different institutional logics is a source of challenges.

Observations on factors contributing to success or failure:

- In the case of interventions in healthcare institutions, the staff needs to be accurately informed about the programme and its potential outcomes, and different departments inside the institution need to be onboard with the process to ensure success. Changes of roles in a management team and commitment withdrawal from key personnel regarding the intervention during a process can have negative impacts on the effectiveness of its implementation (Bolmsjö et al., 2014).
- Disruptions during interventions taking place in care centres and health institutions may occur (van Dijk et al., 2012).

Pathways

Most of the studies recruited participants for the purpose of the study. Around 40 studies described using a **formal referral** programme through healthcare or social organisations. The beneficiaries of these projects are people with health problems or those who are at risk of exclusion. A similar number of studies referred to cultural or community activity contexts where individuals **participated by choice**, such as singing in a choir or going to performances. A smaller number of interventions took place within universities and **professional training** programmes, where people were already enrolled.

In cases where the recruitment of participants is done through public communication channels, finding the right channels and language to address beneficiaries (e.g., limiting the use of technical or medical terms) plays an important role. There are also ethical and legal aspects to manage with care, such as the handling of personal data and images (that is, GDPR compliance) and collecting participant or parental consent prior to an intervention.

Children or their guardians could perceive referral to an activity as negative (Barnes, 2014).

B. People

Here we have grouped findings based on those involved in the cultural activities. These are the participants or beneficiaries on the one hand, and facilitators (organisers, artists, trainers, mediators and support staff), on the other.

Participants

The studied interventions involved various **population samples** from all continents. They included mothers and infants, pre-school children, children, adolescents and youth, adults and older individuals, students of all ages in learning contexts and working adults. There are interventions focused on women (e.g., older women, women with cancer) or men (e.g., men in rehabilitation programmes), disadvantaged population segments (e.g., people living in poverty or people living in remote areas), people with disabilities and people with different health conditions.

Sample sizes varied from 3–5 individuals in case studies up to 8–20 people in group interventions, and larger samples (e.g. 100, 3,000, 12,000, 50,000) in the case of surveys and longitudinal studies.

Considerations related to equitable and inclusive access to culture, social support and healthcare needed to be taken into account. Barriers to enrolment and engagement can include the lack of a safe and healthy household appropriate for health-promotion activities (de-Graft Aikins & Akoi-Jackson, 2020), a lack of resources for art-related materials and their proper sanitation (Teksoz et al., 2017), and lack of access and literacy related to internet services and technology (Tan & Tan, 2021; Dowson & Schneider, 2021). They also include existing health conditions and the financial cost for travelling to and from activities (Britten et al., 2017).

Facilitation

A variety of approaches is being presented by the reviewed studies. There are initiatives where the cultural experience is **designed and delivered by artists** or where participants co-create the intervention with the artists. Activities such as creative workshops or art classes are facilitated by **artists or art educators**. In the case of art and creative therapies, the interventions are led by trained **and certified art therapists**. Experimental contexts also involved **medical staff, psychotherapists and social workers** engaging with creative methodologies or collaborating with artists. Projects involving arts in public space and urban design are led by **designers, artists and architects**.

Observations on factors contributing to success or failure:

- Collaboration between the artist or art facilitator and the medical care team is necessary in the case of health-related interventions, given the different skill sets each type of professional can bring to the process, the possibility to enrich the culture-health field and also the immediate experience of the beneficiaries (Goldenberg, 2018).
- Research on the effects of art-based interventions on people with specific health conditions is only possible if researchers have a sufficient understanding of these medical conditions. Thus, an interdisciplinary approach, including medicine, art or art therapy, psychology and education, is recommended (Gick & Nicol, 2016).
- Facilitators are advised to adapt the content of the creative interventions to the participants' needs and health-promotion goals (Yuen et al., 2011).
- The key to an effective singing group is a leader with the appropriate training, skills and competencies to support participants (Lewis et al., 2016), and with the appropriate facilitation techniques (Skingley et al., 2018).
- Health professionals involved in arts and health activities would benefit from training to learn how to make use of creative activities (Thompson & Kreuter, 2014), and are encouraged to partner with artists and cultural organisations (Yuen et al., 2011).
- Bringing cultural interventions in healthcare institutions may be met with resistance by medical staff and caregivers, who are sceptical about the success of such programmes, may hesitate to participate in the project because of lack of art-related skills, and may find the process too demanding in terms of time and energy (Zeisel et al., 2018). The staff needs to be accurately informed on the programme and its potential outcomes (Bolmsjö et al., 2014). Caregivers may be intimidated by research observations being made (van Dijk et al., 2012).
- The complex setting of projects and the involvement of many professionals, researchers and artists might

confuse participants (Bolmsjö et al., 2014).

- Participants highlighted the importance of the group that they were part of, as well as the skills of the musical director (Moss et al., 2018).

C. Project

In the Project category, we presented our observations related to the design of the interventions and the determinants for success and failure mentioned by the authors of the studies. These correspond to Project Attributes in the INNATE framework. Aspects related to Engagement are mentioned in the description of the various attributes.

Format

There is a variety of intervention formats mentioned in the studies. Below, we present a non-exhaustive list of formats, including occasional or regular cultural participation activities (e.g., playing an instrument, choir singing and reading groups), creative workshops, art classes, processes involving a series of meetings of creative exploration leading to the production of an artwork or performance and art therapy in individual or group settings.

The formats also are specific to the type of art disciplines involved:

- Dance: dance classes, social dancing (e.g., ballroom, Latin, improvisation, hip hop), community dancing, body movement and movement therapy;
- Music: group or choir singing, community singing, workplace choir, therapeutic group singing, singing interventions, online group singing, playing a musical instrument, collaborative composition workshops, interactive music making, composition and performance, recorded and live music listening, live music performances within care facilities, brainwave music listening, sound installation, music therapy and singing bowls therapy;
- Literature: reading groups, individual reading, creative writing and journaling;
- Storytelling: sharing oral stories, digital storytelling, transmedia games and legacy video creation;
- Architecture and design: design of healthcare environments, urban design, urban installation, urban furniture and the design of public space;
- Photography and Film: photo-a-day practice, photo voice, photography based storytelling, filmmaking, watching video and TV content;
- Museum: guided tours and discussions, group visits followed by creative workshops, arts and nature museum intervention, art intervention;
- Theatre: monologue-based theatre, shared personal stories through drama, drama based interventions at community level, transforming qualitative health research data into dramatic form, self-revelatory performance, drama therapy, drama-centred, school-based peer education, interactive drama, folk theatre, applied theatre, playback theatre group, attending theatre performances, creative arts therapy, forum theatre, theatre production and conversations with audience member, acting classes, abstract Scripted-IMPROV;
- Circus: clown interventions and circus training;
- Visual Arts: viewing a visual artwork; drawing, painting, sketching and crafts; visual storytelling, drawing the disease, exhibition and exhibition visits, visual arts classes, participatory arts project, creative visual arts workshop and interactive drawing;
- Multiple art forms: attending cultural events and facilities endowed in the city's structure, creative workshops combining multiple art forms, art classes, creative art interventions, Creative Expressive Art Therapy, community arts, community language radio, art-in-nature activities, community festivals and community arts installation.

Dose

Among the reviewed studies, more than two-thirds involved **multiple participation occasions**. These took different formats depending on the programme objectives. Programmes taking place in a healthcare context included a minimum of six sessions, and, most frequently, 10–12 weekly sessions. There were also interventions that involved daily or multiple sessions per week for a longer period of time, such as six months or one year.

Most of the studies on cultural participation programmes taking place in arts and community centres also involved **multiple visits** from the beneficiaries.

A smaller number of the studies involved **one-off participation** and took place in regular cultural consumption venues, such as theatrical performances or festivals, and in specific healthcare situations, such as during blood sampling or diagnosis.

Observations on factors contributing to success or failure:

- The assessments of well-being conducted over the 10 sessions of a pottery workshop for people with dementia suggested that taking part in a creative arts activity may improve several aspects of well-being over a period of several weeks, and that results appeared to indicate that the maximum impact on these variables may be achieved after only three sessions (Pérez-Sáez et al., 2020).
- In the case of the use of music for people with respiratory disease, the greatest effect was obtained through long-term weekly lessons with the expectation that the student practiced between lessons (Goldenberg, 2018).
- Projects may at times be perceived as overwhelming, especially if they involved many activities and steps (Baker et al., 2019).

Design

Targeted intervention design

The design of the interventions should be **adapted** in accordance with the expected outcomes, especially in the case of activities aimed at physical and mental health. A good understanding of the needs and social conditions of the target group is needed.

Type of participation

More than two thirds of the studies included in this scoping review referred to art-based interventions that **actively involved beneficiaries in the creative process**. The most effective type of interventions in terms of health and well-being seemed to rely on active participation.

Receptive participation was also found to produce valuable effects, as it was the case with experiences of music listening (Fiore, 2018) and watching visual artworks (Law et al., 2021), which can have a calming and stress-reducing effect in specific conditions. Note that measuring the contribution to health or well-being of receptive voluntary engagement with the arts was more difficult than targeted interventions, since the factors influencing the production of outcomes were more difficult to isolate and control.

Individual or Group Setting

Out of the studies that offer such details, around one-quarter referred to **individual cultural experiences** (e.g., drawing, painting, digital arts or art therapy), half took place in a **group situation** (theatre-based activities, dance, group singing or group workshops) and another quarter **combined individual with group cultural engagement** opportunities (e.g., art classes followed by individual practice). The choice of setting by programme designers was related to the desired outcomes, and no particular approach in this respect was superior to another.

Observations on factors contributing to success or failure:

- Group lessons and a positive student-teacher relationship offered social interaction and support, which lowered the chances of dropping out (Goldenberg, 2018).
- When engaging students in an extra-curricular activity, one approach that proved successful was the creation of a club that allowed them to practice and improve social connection and bonding in an informal context.

What seemed to be a disadvantage was the students' schedules, which were complex and different from one another, meaning, therefore, that some of them could not participate in all of the sessions (Stockwell, 2016).

- Working in smaller groups to enable opportunities for self-expression to each participant was important. There were also sensitive aspects to take into account. For instance, in a school programme, breaking the class into groups made some students upset (Ahmed & Schwind, 2018).
- Another school project found that an open and flexible group setting promoted a trustful and supportive environment in which students could express themselves without fear of judgement (Vitalaki et al., 2018).
- School programmes which used peer leaders and added community interventions had increased effects (improved social skills, increased knowledge and positive attitudes related to health behaviour in the short term) (Joronen et al., 2008).
- In the case of creative activities for adults with mental health problems, group work raised tensions due to individual preferences (Slattery et al., 2020).
- A major challenge for an activity that involved a small group of individuals was vulnerability to absenteeism (Moors et al., 2020).

Artistic content and integrated activities

Artistic content is generally concerned with the essential meaning or aesthetic value of a work of art, and the emotional or intellectual message of an artwork. The arts and culture activities covered by the studies in the scoping review are very diverse. In some cases, studies assessed the impact of participation in activities by the agendas of cultural institutions such as theatres, museums and cinemas, and reflected a diversity of artistic expressions. In other cases, the artistic content was shaped in relation to specific aims and needs, and the artwork itself played an essential role in contributing to positive health outcomes.

In the first case, where voluntary engagement with the art was encouraged, as it could bring personal or collective well-being benefits, the content and quality of the artistic programme was very relevant. When having the intention of increasing opportunities for people to enjoy cathartic or meaningful experiences, the result of cultural participation was highly dependent on artistic choices such as art forms, artworks and artists. In general, projects initiated or hosted by arts institutions paid special attention to artistic quality and looked to connect the user experience to the themes and contents of their programmes and collections. The presence of the artist, curator or cultural mediator were key to ensuring that experiences were meaningful and aligned with a certain vision and value proposition.

In the second case, when tailor-made interventions were created to support social and health outcomes, the artistic content became secondary. Nevertheless, the choice of artistic content was still important, since it would determine the quality of the experience and response from the participants. However, there art featured as an instrumental part of the project, and the aesthetic quality of the art might be secondary to achieving the primary objectives (that is, stimulating memory, exercise and preventing isolation).

In both cases, the **process** of artmaking and engagement with the arts played an important role. When designing the format and content of interventions, an increasing demand **to involve participants** in this process was observed.

Observations on factors contributing to success or failure:

- Co-creation processes could be empowering but it was important to pay careful attention to the power dynamics that were inherent in groups and among the participants and artists (Sonn et al., 2015).
- While stimulating creativity brought a number of positive individual and social outcomes, it should also be considered that, in certain situations where negative emotions such as sadness, uncertainty, stress, anxiety, anger, frustration and fear increase, some people could encounter limitations in expressing their creativity (Elisondo, 2021).
- Activities that promoted a sense of control had a great impact on people during COVID-19, as some may have felt that they had limited or no control over what was happening in the world. Instead, focusing on things and activities that could be controlled had benefits in terms of psychological well-being (Elisondo, 2021). Novelty and challenges were important factors within this context; quarantines and lockdowns provided both an opportunity for, and a need to come up with, creative ideas for leisure and work (Elisondo & Melgar, 2021).
- Certain population groups such as older working-class men tended not to engage as eagerly with certain forms of artmaking which were not perceived as desirable in their social circle (Murray & Crummett, 2010).
- Performance anxiety was noted as a challenging aspect in group singing (Williams et al., 2018), theatre

(Bolmsjö et al., 2014), dancing (Zajenkowski et al., 2015) and other creative activities involving presenting creative outputs to an audience (Baker et al., 2019). Thus enjoyment and the quality of experience of participants needs to be prioritised.

Observations on factors contributing to success or failure of music-based activities:

- Under the influence of what the author calls 'negative' music, an individual initiates a strategy of enhancing positive emotions to reduce the perception of negative emotions, thus achieving self-protection (Qin, 2020).
- The state of flow appeared when participants were able to fully enjoy and connect with singing, so that singing could absorb their focus and increase their emotional sensitivity (Buetow et al., 2014).
- Music-based interventions in health settings seem to be well accepted and immediately perceived as pleasant and potentially beneficial by children and parents (Caprilli et al., 2007).
- The melody and tempo were perceived as the most valuable musical elements in music listening experiences aimed at decreasing student stress and anxiety levels (Fiore, 2018).
- An experimental musical adaptation of the playground (involving the installation of various musical instruments and elements in a regular playground) facilitated play and involvement with peers for children with autism, using their attraction to the sound and the opportunity to use the instruments (Kern & Aldridge, 2006).
- In some cases, participants experienced physical discomfort (e.g., an irritated throat), reduced self-confidence in relation with their singing ability and negative mood change due to frustration with the type of song, as well as fatigue from the length of the session (Abell et al., 2017).

Observations on factors contributing to success or failure of drama and storytelling-based activities:

- Social interaction was facilitated by projects that involved sharing stories (Pearce & Lillyman, 2015).
- When writing stories for health promotion, suggested techniques include choosing a point of view (whether first or third person), establishing the conflict scenario, shaping the story, adding details, focusing on emotions and asking for feedback constantly (Thompson & Kreuter, 2014).
- School-based drama interventions in health promotion should take into account that learning is based on self-reflection and interactions between the environment and person. The differences between actual and fictional contexts, and discussion of these, also contributed to learning (Joronen et al., 2008).
- Art practices that proved supportive in therapeutic interventions for people with depression successfully used non-verbal components that were able to bypass language barriers, as well as culturally adapted uses of art and creativity that were able to reduce stigma and integrate psychological support for more people. They could also be adapted for remote therapy (Omylinska-Thurston et al., 2021).
- Sharing stories heightened ongoing feelings of anxiety and vulnerability (Flicker et al., 2020), while participants described barriers to sharing including the need to be selective with whom they shared (Slattery et al., 2020).
- Staging and performing personal stories had the potential to harm relationships with family members and health professionals seeing the play, or cause hurt feelings in the audience (Kamo et al., 2008).

Observations on factors contributing to success or failure of dance and movement-based activities:

- A study showed that moderate exercise (e.g., a warm-up) before a dance activity may increase available attentional resources required for the efficient performance (Zajenkowski et al., 2015).
- The sensory features of art forms were an important benefit during the COVID-19 pandemic, because they helped people (adults and children) to be grounded in the present moment. The fact that people used their hand and fine motor skills helped them to move their focus from their anxious thoughts to their artwork (Armstrong & Ross, 2021).

Observations on factors contributing to success or failure of urban design for well-being:

- In a healthcare context, environmental conditions such as excessive lighting or noise may negatively influence blood pressure, heart rate and psychological well-being. Design settings that favour safety, social interaction, improved acoustic conditions and exposure to natural settings promoted patients' orientation, and reduced

stress and the risk of falling (Daykin et al., 2008a). Quality design has been said to consist of environmental sustainability and ecological values, social and cultural interactions and values, and resilience of engineering and building construction. Spaces need to be person-centred, welcoming and accessible to support privacy and security of patients and staff. (Anåker et al., 2017).

- Places that are green, active, prosocial and safe promoted community and individual health and well-being. Aesthetic factors and considerations that enhanced relaxation and the sense of security, enlarged access to green space, and provided opportunities for physical activities and social gathering, with facilities appropriate for different age groups, are needed (McCay et al., 2017; Centre for Urban Design and Mental Health, 2016).
- People tended to favour spending more time in open, public spaces and to be in areas that are visually inspiring and enhanced a sense of relaxation. Designing public spaces based on aesthetic understanding of citizens' preferences, with soothing colours or near green spaces, can assist in motivating relaxation. (Alyari, 2018).
- The involvement of communities throughout the design, prototyping and implementation phases supported the adoption of urban solutions once finalised (Spencer et al., 2019).
- Multifunctional furniture may be designed in such a way that it can enable noise reduction, encourage social interaction and game-playing, as well as providing seating space (Zhu et al., 2021).

Factors contributing to success or failure of online interventions:

- Online delivery was felt to be less personal, as interaction between participants was more challenging. The psychosocial impacts were highly valued, but more difficult to achieve in the online format. Technological difficulties prevented some people from participating, which in a wider perspective implied a limited access to digital health and social resources. The decision not to engage in online activities was also related to the fact that the noise created at home during online participation could disturb neighbours (Philip et al., 2020).
- There are promising results that digital interventions such as remotely-delivered music therapy can prove effective. However, technology use in elderly people with dementia presents many obstacles and the interventions need to be adapted to their level of understanding (Dowson & Schneider, 2021).
- Online interventions made it impossible to control the physical environment (noise, conditions and access to materials or instruments) that may vary between participants and could influence their engagement (Fiore, 2018).
- When talking about technology and digitalisation, an important aspect to take into consideration is the access and literacy that people have when relating to internet services and using technology (Tan & Tan, 2021).

Activity resources and materials

A few of the studies also refer to the type of materials involved in the activities.

- Use of nature-sourced materials was recommended (Chang & Netzer, 2019).
- In a healthcare setting, every patient needs their own materials and these must be appropriately disinfected between uses (Teksoz et al., 2017).
- When using recorded music in interventions, the quality of earphones or speakers being used may alter the recording and the resulting experience (Fiore, 2018).
- When using interventions based on technology, an important aspect to take into consideration is the access and literacy ability that people have when relating to internet services and using technology (Tan & Tan, 2021), (Dowson & Schneider, 2021).
- Using a photo camera may include obstacles for stroke survivors, as a stroke may affect their mobility, vision and ability to understand the symbols on camera (Levin et al., 2007).
- Organising leisure opportunities is time consuming for staff and does not always fit in with other duties. There were administrative challenges, such as being able to get residents ready in time, transporting the residents to the rehearsals and the need to organise other health-related care. There were important resource implications in units where there was a very high level of dependency (Fenech, 2009).

Research and evaluation of activities

- When looking to replicate existing interventions or set up projects aimed at improving levels of health and well-being, one needs to pay attention to the fact that, given the heterogeneity of studies, the diversity of interventions and the different intervention durations, it is difficult to generalise from them (Fiore, 2018; Daykin et al., 2018).
- A further difficulty is the overlap between clinical and non-clinical research, with some interventions that were described as music therapy seeming to have similar attributes to those that were not described in this way (Daykin et al., 2018).
- When looking to measure the effect of a specific intervention, it was difficult to differentiate the effect of the art-related intervention from that of other factors, like ongoing medical treatment or the environment (Goldenberg, 2018).
- Overall, a general limitation for studies that used self-reported questionnaires (especially in the case of the pandemic-related studies) was self-selection bias, as there was no control over how accurately people completed the assessments (Morse et al., 2021).
- Fraser et al. (2015) signalled a need for programmes of research (instead of teams conducting single studies) to enable the development and application of conceptual frameworks. It is worth noting that, in the meantime, Warran et al. (2022) have developed the INNATE Framework for the design, implementation and assessment of arts in health activities.

DISCUSSION OF RESEARCH FINDINGS

The present scoping review included 310 documents with different methodologies, including meta-analysis, systematic reviews, scoping reviews, randomised controlled trials, non-randomised/quasi-experimental observational studies, mixed-methods studies, text and expert opinion papers, qualitative studies and policy reports. They were conducted around the world, on all continents, with most papers coming from the UK, European Union Member States, the USA, and Canada. There were some studies carried out in two or more countries.

To answer our research questions about what the existing evidence is regarding the effects of culture on health and well-being, and which specific forms of cultural participation appear to have a more positive impact, we analysed and extracted well-being outcomes and grouped them under four main themes:

1. **Culture and Health**
2. **Culture and Subjective Well-being**
3. **Culture and Community Well-being**
4. **Culture and COVID-19**

Evidence from a total of 137 studies was included in the Culture and Health chapter, with 117 in Culture and Subjective well-being, 131 in Culture and Community Well-being and 12 in Culture and COVID-19. Several articles have been included in two or more chapters since they presented outcomes with relevance to more than one theme.

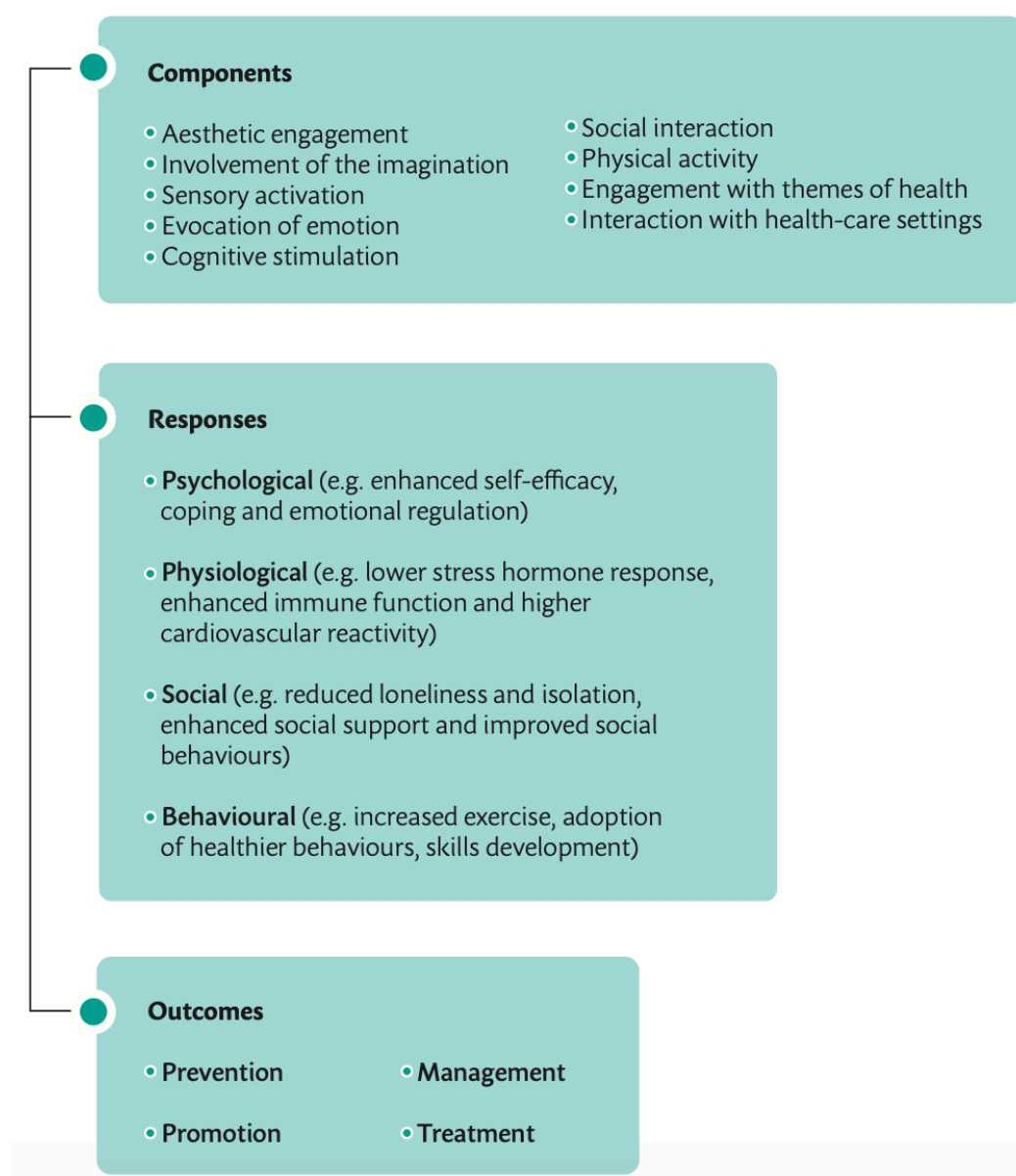
Table 2. Number of studies with evidence of art-related well-being outcomes included under the four thematic headings.

Thematic chapter	N° of studies included
Culture and Health	137
Culture and Subjective well-being	117
Culture and Community well-being	131
Culture and COVID-19	12

Many articles were relevant for more than one of our focus areas, showing that cultural engagement with the arts may generate complex well-being related outcomes. This complexity is captured via different research methods. The research methodology chosen changed depending on the specific outcomes that studies set out to measure, and in relation to the various definitions of well-being. Broadly speaking, studies identified benefits of cultural participation under three main outcome categories: (1) health, (2) psychological and (3) social. Benefits were considered at the individual, organisational and community levels.

According to the theoretical model proposed by the WHO Report (Fancourt & Finn, 2019), arts activities can be seen as complex, multimodal interventions, involving different types of engagement mechanism that facilitate health and well-being outcomes. Arts activities can involve aesthetic engagement, imagination stimulation, sensory activation, cognitive stimulation, social interaction, physical activity or engagement with health or well-being related themes or settings. These components – usually in combination – determine responses at psychological, physiological, social and behavioural level, thus mediating health and well-being outcomes (Fancourt & Finn, 2019).

Figure 3. A logic model linking the arts and health.



Source: World Health Organisation (Fancourt & Finn, 2019).

Most of the clinical trials and experimental studies included measured effects at the individual level in the context of a specific group, and only a limited number of articles set out to explore community-level impact. Moreover, there were only a few studies that used longitudinal and large population samples. Thus, some considerations regarding collective well-being in this report were made based on effects at the individual level (e.g. reduction of stress in students or improved physiological measures in elderly adults), and which have the potential to produce wider community benefits when scaled up (e.g., social inclusion, more equitable access to healthcare or community services).

(a) What is the existing evidence of the effects of culture on health and well-being?

To present our findings in a condensed form was difficult, since the complexity of interventions and their outcomes combined with the diversity of research approaches and strengths of evidence cannot be captured in brief or presented from a single perspective. Thus, in the following pages we present a summary of our findings from several perspectives. Table 3 presents the overview of outcomes, structured around the main four themes. Table 4 presents a summary of the health and well-being outcomes backed by evidence from systematic reviews, meta-analyses and randomised control trials, which are generally considered as strong evidence in a biomedical context.

Table 3. Categories of health and well-being outcome associated with arts and cultural participation, identified by the scoping review.

1. Culture and health

a. Prevention and Promotion

Healthy living and health-promoting behaviours
Health communication
Prevention of ill health
Maternal mental health and mother-infant bonding
Care-giving

B. Management and Treatment

Mental health conditions
Neurodevelopmental and neurological disorders
Noncommunicable diseases
Acute conditions

2. Culture and subjective well-being

A. Personal Fulfilment and Engagement

Acquiring and developing skills
Self-expression
Empowerment
Increased social engagement, bonding and inclusion
Sense of identity and belonging

B. Personal Orientation

Resilience
Positive behaviours
Empathy
Confidence and Self-Value

C. Experiences of Emotions

Improved mood
Positive emotions
Emotional regulation
Reduced anxiety and depression
Reduced stress, improved relaxation and flow
Bereavement support

D. Personal Evaluations of Life

Improved well-being and quality of life
Life satisfaction and motivation
Finding of meaning
Improved knowledge and reflectivity

3. Culture and community well-being

A. Social Inclusion

Social bonding and inclusion
Inclusion of disadvantaged groups
Increasing social engagement and reducing isolation
Reducing stigma
Well-being and inclusion of refugees

B. School- and Work-related Well-being

School-related well-being
Work-related well-being

C. Quality of Built Environment and Well-being

Environmental design in healthcare
Public space design

D. Community Development

Well-being, quality of life and active citizenship
Environmental awareness
Public engagement in health-policy development
City cultural profile and well-being

4. Culture and Covid-19

Creative activities as preferred leisure
Innovative strategies to cope with challenges
Resilience
Reducing stress and short-term anxiety
Delivery of public health information
Counteract negative effects of social isolation

In the table below, we summarise the evidence from systematic reviews, meta-analyses and randomised controlled trials regarding the relevance of arts and cultural participation to improving health and well-being.

Table 4. Art-related health and well-being outcomes supported by evidence from systematic reviews, meta-analyses and randomised control trials.

Significant associations are found between:

Overall well-being

Cultural participation AND Health promotion
Cultural participation both receptive and active AND Quality of life in people of all ages
Cultural participation AND General and psychological well-being of people both healthy and suffering from illness
Engagement with music, dance, reading and visual arts AND Physical, psychological, and social well-being

Health and health related well-being

Active cultural participation of elderly people AND Increased social engagement, decreased anxiety and depression, and improved functioning
Engaging in creative activities and art therapies AND Improved health related quality of life in patients with chronic health conditions (including ankylosing spondylitis, chronic structural heart disease, cancer, mental illness)
Arts activities AND Prevention of further cognitive decline and aging support for elderly adults with cognitive impairments
Singing AND Physical, psychological and social benefits for people with chronic obstructive pulmonary diseases
Singing-based early postpartum interventions AND Improved maternal emotional state and mother-infant bonding
Art and environmental design in mental health care units AND Improved well-being of patients and staff and improved perceptions of the healthcare environment
Listening to pre-recorded music AND Reduced anxiety before and after surgery
Use of arts AND Support in pain reduction and pain management
Use of music and drawing/painting AND Anxiety alleviation in children undergoing medical interventions

Personal/Subjective well-being

Participation in the arts AND an improved sense of belonging in adults and elderly individuals
Watching visual artworks AND Stress reduction
Sketching AND Experiencing flow
Community singing AND Reduced feeling of loneliness among elderly adults
Music/singing AND Resilience in adults
Reading AND Development of empathy among students and adults
Reading AND Meaning-finding
Engagement with art AND Life satisfaction
Engagement with art AND Reduced anxiety and depression levels
Engagement with art AND Improved mood and emotional regulation
Engagement with art AND Increased confidence, self-confidence and self-valuing

Community well-being

Active cultural participation AND Increased social inclusion and bonding
Engagement with creative activities AND Creative skills that can support personal and professional development
Participation in creative activities AND Well-being of students and learning communities through development of cognitive, emotional and social skills
Use of arts AND Inclusion of disadvantaged groups
Use of arts AND Increased resilience
The use of creative activities AND Development of innovative coping strategies during the COVID-19 pandemic

(b) Which specific forms of cultural participation appear to have a more positive impact?

An added value of our scoping review was that it also aimed to identify the **types of cultural experience** in order to understand which formats of intervention may prove more effective.

Table 5. Number of studies by type of cultural participation.

Thematic chapter	N° of studies included	Active cultural participation	Receptive cultural participation	Active and receptive cultural participation
Culture and Health	137	105	16	15
Culture and Subjective well-being	117	94	13	10
Culture and Community well-being	131	101	20	10
Culture and COVID-19	12	6	5	1

More than two-thirds of the studies included in this scoping review referred to art-based interventions that **actively involve beneficiaries in the creative process**. The most effective type of interventions in terms of health and well-being seemed to rely on active participation. **Receptive participation** is also found to produce valuable effects, as is the case with experiences of listening to music and watching visual artworks – an experience that can have a calming and stress-reduction effect in specific conditions. One has to bear in mind that measuring the contribution to health or well-being of receptive voluntary engagement with the arts is more difficult than targeted interventions, since the factors influencing the production of outcomes are more difficult to isolate and control. While most of the evidence favours active cultural participation, a large population study showed a slight but consistent stronger relationship between receptive cultural activities and anxiety and depression in both women and men (Cuyper et al., 2012).

Receptive cultural experiences had a certain potential to support health promotion, especially by providing creative means of health communication, such as improved knowledge and an understanding of health-related subjects. In specific cases, activities like music listening may also have benefits in terms of pain management (Huang et al., 2016), improved physiological measurements (Stanhope & Weinstein, 2020) and reduced anxiety around medical procedures (Caprilli et al., 2007). There are also positive associations between **overall cultural participation**, involving both **receptive and active forms**, and self-reported physical health or life satisfaction, yet no causative relation between voluntary cultural engagement and health could be identified on the basis of existing studies (Wziak-Biaowska, 2016; Wziak-Biaowska & Biaowski, 2016). The vast majority of studies show that active engagement with arts and creative activities was necessary to produce health and well-being outcomes.

Among the studies screened, certain art forms and intervention models appeared more frequently. This does not necessarily mean that other art-based approaches were less effective, but that they may have been less studied or less represented in the databases we searched as our resources.

Table 6. Art disciplines and associated outcomes.

Art discipline	Associated outcomes
Music	<ul style="list-style-type: none"> • Active and receptive engagement with music can improve physical, psychological, and social well-being; • Group singing supports the well-being and health of people with respiratory conditions, people with Parkinson's and dementia, and of elderly people in general; • Community singing helps reduce feelings of loneliness among elderly adults; • Singing-based interventions are effective in improving maternal emotional states and mother-infant bonding; • Playing a musical instrument requiring long-term engagement is associated with cognitive benefits in adults; • Music/singing helps development of resilience in adults; • Music listening is associated with pain and stress reduction; • Benefits of singing at personal level: positive emotional outcomes, social engagement and connection and increased quality of life; • Social benefits of singing: building social support, enabling collaboration, providing a sense of identity and belonging, preventing loneliness and social isolation, improving social functioning, promoting community development, helping reduce inequalities and fostering solidarity and cohesion and improving access to healthcare and arts.
Theatre	<ul style="list-style-type: none"> • Active participation in drama activities (acting classes, improvisation) fosters cooperation and communication skills, social engagement, self-expression and positive mood; • Theatre is often used for health communication. It supports mental health promotion and helps with destigmatising certain health-conditions; • Receptive participation in theatre productions is especially suited for prevention-focused messages or as a tool to engage audiences that are part of marginal groups, and, therefore, do not benefit from equal access to health information.
Dance	<ul style="list-style-type: none"> • Dance supports physical, psychological, and social well-being; • Dance increases social engagement and physical functioning in elderly age; • Dance encourages social competences and reduction of risk behaviours in youth; • Dance is frequently used in the management of Parkinson's disease (physical and psycho-social outcomes); • Dance therapies are increasingly used to link individual perceptions of embodiment to sociality and community identities.
Visual Arts	<ul style="list-style-type: none"> • Visual arts enable physical, psychological, and social well-being; • Visual arts in various forms – e.g., drawing, painting and photography – are used to help patients express their physical and emotional states. They also facilitate self-reflection and the finding of meaning for people with various health conditions including cancer and diabetes; • Viewing an artwork may reduce stress; • Active engagement in visual arts activities enables self-expression, self-reflection, social inclusion and empowerment, and helps overcoming communication barriers.

Literature	<ul style="list-style-type: none"> • Reading and writing improve psychological and social well-being; • Writing enables self-expression; • Reading is associated with the finding of meaning and reduction of risk behaviours; • Reading supports development of empathy among students and adults; • Storytelling (including digital storytelling) enables liberation from disempowering identities for refugees and people fighting disease, assists people with sense making in difficult situations and promotes interpersonal closeness.
Circus activities and clowning	<ul style="list-style-type: none"> • Circus training can enhance the social development and well-being of children diagnosed as being on the autistic spectrum. • Clowns' interventions prove effective in reduction of anxiety and stress in hospitalised patients and their parents.
Photography and Film	<ul style="list-style-type: none"> • Photography is used as therapeutic support for people with mental illness, enabling reflection and selfactualisation; • Photography activities enable self-expression, empowerment and communication in young people; • Watching films and videos facilitates knowledge acquiring and relaxation; • Films and video recordings can be used effectively as vehicles for health promotion and education, especially in relation to youth due to the accessibility of this medium.
Creative activities	<ul style="list-style-type: none"> • Creative activities cultivate creative skills that can support personal and professional development; • Creative activities facilitate work-related well-being; • Engaging with creative activities helped people develop innovative strategies to cope with difficulties during the COVID-19 pandemic; • Participation in arts festivals and community events generate well-being at a community level; • Arts organised as social events help fight isolation, especially in the cases of elderly people or people with chronic illness; • Creative art therapies, combining multiple arts techniques and actively engaging participants, are used as complementary therapies in various healthcare settings; • Engaging in creative activities and art therapies contribute to improved health related quality of life in patients with chronic health conditions, including ankylosing spondylitis, chronic structural heart disease, cancer and mental illness.
Museum and art venues	<ul style="list-style-type: none"> • Publicly available infrastructure – e.g., art venues, community centres and other public spaces – plays a key role in facilitating community arts and well-being; • Museum and art galleries are identified as having an important social role for health promotion, well-being and social inclusion.
Architecture, heritage and design	<ul style="list-style-type: none"> • The aesthetic experiences related to visiting a cultural heritage site can enable stress reduction and well-being increase. • The quality of design of built environments is found to influence people's experiences in healthcare settings, impacting well-being and social connections; • Urban design is proposed as a mediator in tackling urban social issues.

Below, we summarise some observations that the studies' authors have made on factors that seem to support effective arts interventions.

The cultural experiences presented by the studies most frequently took place in **cultural spaces** and contexts (e.g., art venues or public spaces during festivals), **schools and community centres**, and **healthcare spaces** such as hospitals and care centres. There was also a fair number of projects referring to **home-based activities**, and a few referring to **online cultural participation**. A high number of the reviewed studies had designed interventions for the purpose of research. In addition to these studies, some aimed to assess pre-existing cultural projects or voluntary participation in culture.

A variety of approaches was presented by the studies. There were initiatives where the cultural experience was **designed and delivered** by artists or where participants co-created the cultural experience with the artists. Activities such as creative workshops or art classes were facilitated by **artists or art educators**. In the case of art and creative therapies, the interventions were led by **trained and certified art therapists**. Experimental contexts also involved **medical staff, psychotherapists and social workers** engaging with creative methodologies or collaborating with artists. Projects involving arts in public space and urban design were led by **designers, artists and architects**.

Partnerships between sectors were of the utmost importance. Specifically, attention was paid to partnerships between **the arts and the health, social welfare, urban development and academic sectors**. The presence of enabling factors such as resources, policies and champions in the community made such initiatives more likely to take root and scale up.

The designs of the interventions should be **adapted** in accordance to the expected outcomes, especially in the case of activities aimed at physical and mental health. Therefore, a good understanding of the needs and social conditions of the target group was needed.

Almost all art programmes aiming to benefit health involve a targeted cultural intervention design. This entails that expert knowledge rooted both in arts and health and science is necessary in order to create effective interventions. An advantage of art interventions targeting health and well-being is that they are **often well-received**. In the case of interventions in healthcare contexts, people are open to practices that may brighten their medical experiences (e.g., hospitalised children, children undertaking medical tests and people with chronic conditions having to spend significant amounts of time undergoing medical treatment), and may also lighten the caretakers' burden.

The studied interventions involved various **population samples** from all continents, with sizes varying from one individual (Shik, 2013), and 3–6 individuals (Vaiouli et al., 2015; Lewis et al., 2016) up to more than 50,000 people (Cuyper et al., 2012). Target groups included mothers and infants, pre-school children, children, adolescents and youth, adults and elderly individuals, students of all ages in learning contexts, working adults, disadvantaged population segments, people with disabilities and people with various health conditions.

Considerations related to equitable and inclusive access to culture, social support and healthcare needed to be taken into account. Barriers to enrolment and engagement included the lack of a safe and healthy household appropriate for health-promotion activities, existing health conditions, the financial cost of travelling to and from activities, the lack of resources for art-related materials and inequalities related to access and literacy in using technology.

Among the reviewed studies, more than two-thirds involved **multiple participation occasions**. These took different forms depending on the programme objectives. Programmes taking place in a healthcare context included a minimum of six sessions, and, most frequently, 10–12 weekly sessions.

Most of the projects took place in a **group situation** (e.g., theatre-based activities, dance, group singing and group workshops), while others referred to **individual cultural experiences** (e.g., drawing, painting, digital arts or art therapy) and others **combined individual with group cultural engagement** opportunities (e.g., art classes followed by individual practice).

The content and quality of artistic programmes was highly relevant, both in the cases where **voluntary engagement with the art** was encouraged and when specific interventions were created to **support social and health outcomes**. In both cases, the **process** of artmaking and engagement with the arts plays an important role. When designing the format and content of interventions, a need **to involve participants** in this process was observed.

Additional Remarks

Our study sought to contribute to increasing the knowledge base of the existing evidence on the effects of cultural participation on people's health and well-being. One thing to bear in mind when reading and using the results we present as arguments is that, in most cases, the benefits described imply associations rather than causal relationships.

Moreover, negative outcomes have been mentioned. For example, in some cases, during singing activities some participants experienced physical discomfort (an irritated throat), reduced self-confidence in relation with their singing ability, negative mood change due to frustration with the type of song or fatigue from the length of the session (Abell et al., 2017). The complex setting of projects and the involvement of many professionals, researchers and artists might have confused participants (Bolmsjö et al., 2014). Sharing stories may heighten ongoing feelings of anxiety and vulnerability (Flicker et al., 2020), and have the potential to harm relationships or cause hurt feelings (Kamo et al., 2008).

The strengths of our research included the fact that it reviewed a vast and diverse literature, approaching the subject, not only from a health perspective, but also from the perspective of the various dimensions of subjective and community well-being. The review includes research from the 2020–2022 period, adding new evidence to the conclusions of previous landmark studies, such as the WHO Report (Fancourt & Finn, 2019). Furthermore, it includes a dedicated chapter presenting and analysing existing research on the role that cultural participation played in people's lives during the COVID-19 pandemic. The fact that our review studies the type of cultural participation and more frequently used forms of art can be considered added value. Our study also sought to throw light onto particular factors that influence the impact level of cultural interventions for health and well-being.

The study has a number of limitations: it only searched through two databases (Scopus and PubMed), and it exclusively considered literature available in English. This may have resulted in the exclusion of other relevant articles. Given the fact that health and well-being are very broad concepts, which are defined in different ways by various sources, our search terms may have covered all the possible valuable aspects of our focus theme not very accurately.



POLICY CONSIDERATIONS

The Findings of the Data Extraction: What Works and What Could Work Better

Our original goal with this section was to compare the findings of the data extraction with existing policies. However, the literature search resulted in a very small number of results establishing explicit links between culture, health, well-being and policy.

Nevertheless, despite the absence of a broad range of academic literature dedicated to this topic, the scoping review found evidence that is relevant from a policymaking perspective. Specifically, evidence of relevance to considering how cultural activities can strengthen the links between citizens, existing health support and services, and health policymaking, and hence addressing the question:

(c) Which policies in the field of culture might contribute, directly or indirectly, to maximising the benefits of cultural activities in improving the health and well-being of citizens?

The answer to this question will be organised into three parts:

1. **Actors in the culture, health and well-being space**
2. **Policy approaches linking culture, health and well-being – or what works**
3. **Key lessons learned – or what doesn't work yet**

Before advancing, and for the sake of clarity, it is important to define the main terms of this section:

- **Culture** is understood as combining:
 - a) the cultural and creative sectors as defined by the European Commission in the regulations of Creative Europe (European Commission, 2018c);
 - b) the cultural practices of non-cultural professionals that support goals such as inter-cultural dialogue and heritage protection, as understood in the Strategy for International Cultural Relations (European Commission, 2016);
 - c) and other cultural practices led by amateurs.
 This inclusive, all-encompassing definition reflects the limitations placed by the EU treaties regarding its competence in culture. That is, if the Union is to 'carry out actions to support, coordinate or supplement the actions of the Member States' (TFEU, Article 6; European Union, 2007b), the former must recognise the diversity of understandings of culture across the Union. The policies suggested in this section are compatible with these definitions, whether more or less specific.
- **Health**, as identified in the preamble to WHO's Constitution, is defined as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 1947), going beyond a medical approach. Surprisingly, the Constitution does not mention culture;
- **Well-being** is the subject of lively debates and, hence, a term on which there is no international consensus. For the purposes of this section, it is understood as a positive state allowing citizens to participate fully in society. This follows WHO's 1986 Ottawa Charter for Health Promotion, which sees health as 'a resource for everyday life, not the object of living' and as 'a means to an end which can be expressed in functional terms as a resource which permits people to lead an individually, socially and economically productive life' (WHO, 1986);
- **Culture for health and well-being** is understood as an emerging interdisciplinary field supporting the inclusion of cultural practices in treatment and prevention toolkits, built upon:
 - 1) the evidence accumulated by bottom-up actors and researchers of the multidimensional contribution of culture towards health and well-being;
 - 2) and the recognition by policymakers of the sector's potential long-term contribution to the transition towards a well-being economy.

Thus, **the policy recommendations support an expanded and holistic understanding of the value of culture by EU policymakers; that is, one that also reflects its contribution to the well-being of citizens and communities, strengthening the resilience of the Union from a bottom-up approach.**

The inclusion of culture in existing health toolkits is particularly important after the pandemic, which brought to the fore the persistence of health inequities across the EU. In this context, the field of culture for health and well-being identifies new possibilities to provide access to health and well-being, in the framework of both treatment and prevention, to citizens across all social groups. Simultaneously, it provides new opportunities for artists and cultural workers to develop their work in new contexts, expanding audiences and supporting the sector.

Actors in the Culture, Health and Well-being Space

Table 7. Scoping Review: Key Actors in the Culture, Health and Well-being Space.

Scoping Review: Key Actors in the Culture, Health and Well-being Space
1. An Emerging Community of Practice
2. Beneficiaries
3. The Role of Political-Administrative Authorities

This subsection analyses the results of the scoping review (Chapter II) and the main factors determining the effectiveness of interventions (Chapter III) with a policy lens. That is, this subsection does not aim to identify specific contexts or people, to use the terminology of the INNATE framework (Warran et al., 2022). That is developed in detail in Chapter III. Rather, this subsection looks in a more general way at the findings, to identify the main relations between the different stakeholders that compose the emerging policy field of culture for health and well-being.

1. Culture for Health and Well-being: An Emerging Community of Practice

The evidence uncovered in the scoping review suggests that maximising the potential of culture for health and well-being requires recognising and engaging with the (often not yet fully codified) knowledge held by an emerging and multidisciplinary community of practice (Wenger, 1998). This can be defined as a domain of formal and informal knowledge exchange, as well as community-building comprised of individuals with shared support for a specific practice.

To be clear, extending the concept of community of practice to this field does not deny the fact that the culture and the health sectors (as well as other sectors involved in this field of practice) are connected to specific disciplines, and that they have hierarchies, histories and languages of their own. Rather, **communities of practice refer to groups of individuals that 'share a concern or a passion for something they do and learn how to do [...] better as they interact'** (Wenger, 2009). That is, the members of this emerging community of practice are not expected to abandon their disciplinary affiliations. Instead, alongside their professional (or other) positions, this concept highlights their shared identity – in this case, members are united by the common goal of increasing awareness of the positive health benefits of culture.

From the cultural side, interventions with positive impacts might be delivered by not only **artists** – e.g., van Dijk et al., 2012), which discusses the results of a theatre intervention for people with dementia living in nursing homes offered by professional actors –, but also **cultural managers, museum educators, curators and other workers, community groups** (e.g., Camic, 2008), **cultural organisations** (including art venues, public space during festivals and museums), **art educators and amateur practitioners** (e.g., Reagon et al., 2016) interested in this topic. At the European level, this could be potentially extended to cultural networks and platforms. In other words (as is highlighted by the subsections “determinants of success or failure” in Chapter III), a wide range of contexts, people and projects (Warran et al., 2022) is associated with successful interventions.

That said, the scoping review reveals **the importance of the quality of artistic and cultural engagement** in enabling health and well-being benefits, and thus **the specificities of cultural activities** in this context (see Chapter III, Section B. Project, subsection Artistic Content). In this context, it is also important to protect **the mental health and well-being of actors involved** in the implementation of cultural activities in the sensitive environment of healthcare.

This is described in the 'first, do no harm' principle (Jensen, 2014), and echoed by the European Care Strategy's statement that 'providing care has major consequences for informal carers, including negative effects [...] on their mental health' (European Commission, 2022).

From the health and social side, the evidence supports a **community of care approach, which is broader than** (but compatible with) **the traditional paradigm of medicalised care**, and which focuses on medical and paramedical staff, pharmacists, etc. Specifically, the importance of **community centres and social workers** is recognised by several papers – e.g., Cordero Ramos & Muñoz Bellerin (2019), which considers art interventions with marginalised groups combining social work and theatre. Moreover, research confirms the increasing importance of the **cultural community development model**, which focuses on the long-term benefits of creative community-building – e.g., Basting (2018) on the integration of people with dementia, or Nelson (2010) on its implementation in public schools. Likewise, cultural interventions can also contribute to **better integrating other stakeholders in health management strategies, such as carers** – e.g. Goodley & Runswick-Cole (2011) on the use of theatre to foster the integration of children with disabilities, which also fostered the participation of carers.

Further confirming the emerging links between culture and health actors, research also highlights the potential of arts and culture to provide information regarding **local community support or health services** (Ta Park et al., 2020) or, more simply, regarding disease control and prevention – e.g. Ghosh et al. (2006) on malaria.

2. Beneficiaries

The evidence suggests that **all citizens might gain health and well-being benefits from cultural activities**, both on an individual level (as active or receptive participants) or when taking into account the social benefits derived from resilient communities, for example (see section Agenda Setting, point 3. Supporting Welfare and Prosperity). All citizens are, thus, the **end beneficiaries** of these programmes.

The scoping study also highlights the need to develop cultural health interventions **adapted to specific groups**. For example, one study revealed that Latin dancing can be more successful at engaging elderly Latinos in programs supporting cognitive health (Marquez et al., 2017). This suggested that **policy frameworks connecting culture and health and well-being must be flexible enough to accommodate not only the specificities of cultural practice** (requiring space for experimentation, both formal and otherwise) **but also, when relevant, individuals' needs and their cultural particularities or preferences**. For more details, see Chapter III, sections B. People and C. Project, subsections Determinants of success or failure. On this topic, research also stresses the positive benefits of cultural community events designed to support refugees, immigrants and asylum seekers (e.g., Philipp et al., 2015).

3. The role of political-administrative authorities

Finally, findings suggest that **political-administrative authorities** can take on different roles to strengthen the culture for health and well-being space: they can support or facilitate programmes led by professional cultural workers, amateur practitioners and other actors engaged in a community of care model, as discussed above. For example, research highlighted the benefits of designing public spaces based on an understanding of citizen preferences, supporting social participation and positive emotions (Alyari, 2018), and the positive value of art and environmental design in mental health care units (Daykin et al., 2008a).

Although the scoping review uncovered evidence of several experiments and projects made possible by the explicit or implicit support of local politico-administrative authorities (such as those mentioned above), the culture for health and well-being space can only be reinforced and its full benefits unleashed across the Union **if authorities take on the role of enablers of bottom-up experimentation and network building and, simultaneously, in the case of the EU, provide top-down strategic guidance and other forms of support**.

Policy Approaches Linking Culture, Health and Well-being or What Works

Having recognised the role of cultural, social and health stakeholders and political-administrative authorities, and the differences and overlaps between target or patient groups and end beneficiaries, it is necessary to understand what the scoping review uncovered regarding the main links between culture, health and well-being.

Table 8. *The Main Links between Culture, Health and Well-being.*

The Main Links between Culture, Health and Well-being
1. Health promotion, disease prevention, management and treatment
2. Active (health) citizenship

1. A more holistic approach to health and well-being: prevention, promotion, management and treatment

As the scoping review details, there is substantial evidence that arts and cultural activities can support prevention, management and treatment of disease. This section will not repeat this evidence, which is detailed and analysed in the previous pages of this report (for details, see sub-chapter II. 1 Culture and Health and the first heading in Table 3. Categories of Outcomes, in chapter III. Discussion of research findings).

Moreover, from a policymaking point of view, it is important to highlight that cultural activities can also contribute to removing social and cultural barriers that impede such disease prevention and treatment. This is clear when one considers evidence regarding the results of participatory theatre intervention in terms of reducing LGBTQI+ stigma in Swaziland and Lesotho (Logie et al., 2019).

Additionally, cultural activities can support not only disease prevention, management and treatment but also the promotion of health and well-being, shifting the focus away from specific illnesses or the lack thereof to a more holistic understanding of health – e.g., Rodgers & Furcron (2016) on the impact of a youth dance program in reducing high-risk behaviour in young people and support participants' competence in important life skills, or Cordero Ramos & Muñoz Bellerin (2019) regarding the impact of theatre in social work, particularly for the recovery of fragmented identities among people facing social exclusion. In the most extreme cases, such interventions can help individuals leave the "misery circle" of illness, social isolation and worsened illness (see Irons et al., 2020a).

More specifically, evidence suggests that cultural interventions can support both individual and community well-being. In Bungay & Vella-Burrows (2013), individual well-being is highlighted by the benefits of dance on young people in physical terms and in their overall feeling of well-being; in Cantu & Fleuriet (2018), on the benefits of art classes on both the health of the brain of older adults and their self-reported happiness; in Yuen et al. (2011), on the benefits of participation in community-based theatre activities for elderly adults with chronic conditions both in terms of psychological well-being and health related quality of life; and in Visser & Op 't Hoog (2008), on the benefits of creative art to oncology patients, who reported namely improved overall quality of life and meaning of life). Community well-being is highlighted in Eleni and Georgios (2020), on the impact of a community dance program for preschool and primary school students in their social relations as well as collaborative and communication skills; in Pearce & Lillyman (2015), on the self-reported increase in self-esteem of elderly participate in creative arts projects and especially when collaborating with a different generation, pointing to the intergenerational potential of these programmes; or in Philipp et al. (2015), on the potential of community festivals to support community cohesion and social capital). For more details, see the second and third headings in Table 3.

2. Culture for active (health) citizenship

Finally, the review suggests that cultural participation can support the engagement of patients in their own health strategies and active citizenship. Indeed, some research highlights that cultural activities can be opportunities to stimulate conversations around different medical options – e.g., the case of theatre performance, which can stimulate engagement with the complexities of prenatal screening, as per Hundt et al. (2011). It can also strengthen the

relations between citizens and health policymaking – e.g. in the case of complex topics such as predictive genetic testing (Nisker et al., 2006), which highlights the potential of culture to engage diverse groups of citizens on the one hand, and inform them of diverse policy options and trade-offs before eliciting public opinion on the other.

More broadly, research also highlights the role of cultural interventions in unleashing the potential of citizens to become health change agents – e.g. Kamo et al. (2008), on the impact of community drama made by primary school students in East Africa focused on HIV treatment; or Swe et al. (2020), on the use of forum theatre to increase public engagement and raise awareness around antibiotic use in Myanmar. The development of illness-friendly communities is also possible – e.g., Kontos et al. (2021), on the benefits that dance can have for people living with dementia and their families.

This suggests that cultural engagement can support a multidirectional approach to health policymaking; that is, combining both top-down and bottom-up elements (Hundt et al., 2011) and, thus, being more inclusive and closer to citizens' concerns.

To give another example, community-centred practices such as traditional storytelling can enhance Community-Based Participatory Research (CBPR), raising awareness of the social determinants of health⁵ while also taking into account community concerns – e.g. Gray et al. (2010), regarding the potential of art-based CBPR in reducing health disparities among Native Americans. This said, as with any other policy interventions, to avoid further reinforcing health inequities, the recruitment of participants in such cultural projects should dedicate resources towards ensuring diversity among participants and engaging socially isolated individuals (Davidson et al., 2014).

⁵ For clarity, the WHO identifies the Social Determinants of Health as 'the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems' (WHO, n.d.).

Key Lessons Learned: Challenges or What Could Work Better

To conclude, there are two main lessons that can be taken from the scoping review: firstly, there are several untapped overlaps between culture and health action and policies; secondly, it is necessary to overcome the rather piecemeal and haphazard state of this emerging field, and to create systematic opportunities for collaboration, research, education and training. Only then can the cultural sector fulfil its potential in terms of addressing the many challenges faced by the European Union (identified later in this report).

Table 9. Key Lessons Learned: Challenges.

Key Lessons Learned: Challenges
1. Culture and Health Action and Policies: a Multitude of Untapped Overlaps
2. Further Opportunities for Research, Education and Training, and Collaboration

1. Culture and Health Policies: a Multitude of Untapped Overlaps

Cultural activities can be incorporated into health policy in multiple ways: as part of **routine medical care** (e.g. Forouzan-deh et al., 2020, Irons et al., 2021), as a form of **auxiliary treatment** (Qin, 2020), supporting **preventive action** – e.g., group music therapy sessions prevent loneliness among cancer patients (Daykin et al., 2007) – or in the context of broader policies supporting **well-being** (e.g., Liddle et al., 2012). They can be incorporated in **care scenarios** (Pérez-Sáez et al., 2020), **individualised** to accommodate to citizen preferences (Hammar et al., 2011), **integrated in community group practices** or offered as **optional** or even extracurricular **activities** (e.g. Daykin et al., 2008b).

More broadly, cultural practices can support the development of a regained sense of dignity by people facing exclusion – e.g., Cordero Ramos and Muñoz Bellerin (2019) on the impact of theatre in social work with people facing social exclusion – and supporting individuals' ability to manage their **health, thus reinforcing health agency**; that is, 'individuals' ability to achieve health goals they value and act as agents of their own health' (Ruger, 2010).

Finally, supporting this overlap could contribute to **reinforcing the cultural field**, giving new opportunities to the sector as a whole – by encouraging capacity-building activities, new sources of income and funding and, more broadly, by creating an environment that is supportive of experimentation – and also to artists and cultural operators to expand their skills and fields of work. This would reinforce the fragile cultural ecosystem and continue to add to the ongoing expansion of artistic and cultural practices towards cross-sectorial cooperation.

2. Despite the accumulated evidence, there is a need for further opportunities for research, education and training, and collaboration

Despite the accumulated evidence summarised above, if the field of culture for health and well-being is to fully unleash its potential benefits across the Union, there are several needs that should be addressed.

Firstly, as the chapter IV. Discussion of Research Findings makes clear, the existing evidence varies in terms of the quality of the evidence base, generalisability and potential impact. This leads to a variety of **research needs**. That said, there is broadly a need for more ex-ante and ex-post research focused on several types of health interventions. **Addressing this need would contribute to overcoming the current ad-hoc approach, which reinforces unequal access to cultural interventions** for health and well-being and, therefore, health inequities. This is evident, for example, regarding singing classes in the United Kingdom for lung disease, which are currently either dependent on charitable support or self-funded by participants (Lewis et al., 2016).

Secondly, there is a clear need for **education and training**. This would allow, for example, clinical staff to improve the application of cultural activities (Qin, 2020), to increase support towards specific groups – e.g., individualising cultural activities to support People With Disabilities (Hammar et al., 2011), to find new ways to understand the patient experience (potentially improving care practices (Laing et al. 2017)), and **to increase knowledge of the effects of such interventions**, maximising the benefits of their use – e.g., nursing staff (Blumenfeld & Eisenfeld, 2006).

This would also **impact the cultural sector**: in terms of awareness (by putting culture as a driver for change, but also

allowing cultural operators to be more aware of the potentiality of their intervention), skills (by opening opportunities for those in the sector to improve and expand their ways of working with new stimuli and knowledge), and in terms of the status of artists and cultural workers (that is, by contributing to clarify the many roles that they can play in the society).

More broadly, such education and training can **contribute to overcoming barriers and other biases** that result from the lack of knowledge by health stakeholders of the health and well-being benefits of cultural interventions – e.g., Jones et al. (2017), on the contribution of experiences with artworks to the personal development of medical staff, as well as their increased awareness of art as an important health tool – ; and research by Warmth et al. (2020) on the impact of theatre, using narratives from discriminated Black women to support healthcare providers' understanding of inequity-.

Thirdly, although positive impacts are more likely when there is a **structured collaboration** between medical care and cultural facilitators with clear protocols (Goldenberg, 2018; Yuen et al., 2011; Lewis et al., 2016), there is a need to overcome the ad-hoc basis of such partnerships. More details regarding the design of these interventions are provided below.

All in all, the scoping review foregrounds the richness of **the cultural sector as an untapped resource with the potential to support the health and well-being of its citizens in multiple ways**. Given this fact, there is a clear rationale for the European Union to recognise and take advantage of this potential.

Policy Recommendations - or What Can Be Done?

Based on the key ideas that emerged from the data extraction, this section makes several recommendations, both broad and specific, to unleash the benefits of culture for health and well-being in the European Union. A more targeted version of these recommendations will be delivered at the end of the project, taking into account the lessons of the bottom-up pilots developed in the context of the CultureforHealth project.

Whereas the previous section only referred to the literature uncovered in the scoping review, this section combines such findings with the lessons gained from policies and initiatives led at the EU, national, regional and local levels, which were collated during the mapping of Programmes, Initiatives and Projects on Culture for Well-being and Health (also implemented in the context of the CultureforHealth project).

The Competences of the EU in the Fields of Culture and Health

Before making such recommendations, however, it is important to place them within the legal framework of the EU.

The competencies of the EU in the fields of culture and health are limited. In both cases, direct intervention or EU-initiated reforms are not possible. This is made clear by Article 6 of the Treaty on the Functioning of the EU (European Union (2007) – which comes into force in 2009 – which states that the Union does not have exclusive or shared competence regarding areas such as the 'protection and improvement of human health' and culture. Rather, the EU can only 'support, coordinate or supplement the actions of the Member States' regarding both policy fields. That is, the EU is allowed to develop legally binding acts in these fields; however, they cannot require national harmonisation of laws or regulations. That said, the Union may also develop non-legislative activities (for more, see Culture Action Europe & Dâmaso, 2021).

However, regarding the cultural field, Article 167(2) TFEU does identify within the scope of action of the EU the development of action aimed at 'encouraging cooperation between Member States' (European Union, 2007b). As for the field of health, Article 168(1) TFEU states explicitly that 'Union action, which shall complement national policies, shall be directed towards improving public health, preventing physical and mental illness and diseases and obviating sources of danger to physical and mental health. Such action shall cover the fight against the major health scourges, by promoting research into their causes, their transmission and their prevention (European Union, 2007b).' To do so, as Article 168(2) TFEU explains, the Union can 'encourage cooperation between the Member States' and 'lend support to their action' (European Union, 2007b).

Although Member States are to coordinate their action among themselves in liaison with the Commission, the latter can 'take any useful initiative to promote such coordination, in particular initiatives aiming at the establishment of guidelines and indicators, the organisation of exchange of best practice, and the preparation of the necessary elements for periodic monitoring and evaluation (Article 168(2) TFEU, European Union, 2007b).' This does not deny the ability (or the responsibility) of Member States to set their own health policies, organise the delivery of care, and allocate resources in this regard (Article 168(7) TFEU, European Union, 2007b).

In other words, **the Treaties allow the Commission to support research and exchange examples of best practice leading to the establishment of guidelines and indicators (Article 168(2) TFEU, European Union, 2007b) to monitor and assess the results of treatment and prevention (Article 168(1) TFEU, European Union, 2007b).** This can be combined with the legal possibility to develop action that supports and supplements the cultural action of Member States regarding non-commercial cultural exchanges (Article 167(2) TFEU, European Union, 2007b). Therefore, even if the EU's competencies in both policy fields are limited, **the Treaties make possible a set of actions to maximise the potential impact of culture in supporting individual and community health and well-being.**

The recommendations included in this section also expand to other policy fields. For the sake of clarity, regarding education policy, the Union may encourage cooperation between Member States, as well as supporting and supplementing their action (Article 165 TFEU, European Union, 2007b). As for social policy, the Union 'may take initiatives to ensure coordination of Member States' social policies,' (Article 4 TFEU, European Union, 2007b). Finally, regarding cohesion policy, the Union 'shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion' (Article 174 TFEU, European Union, 2007b).

Agenda Setting: Key Policy Principles or What Goals Should Guide These Policies?

The section Findings of the Data Extraction identified a set of promising points. According to the evidence, cultural interventions can:

1. support health prevention and treatment;
2. underpin a more holistic approach to health focused on well-being;
3. strengthen active (health) citizenship.

However, the section also highlighted two main challenges:

1. the untapped overlaps between culture and health action and policies
2. the need for further opportunities for research, education and training, and collaboration. In the context of these potentials and challenges, the questions to which this section and the following respond are:

(c) Which policies in the field of culture might contribute, directly or indirectly, to maximising the benefits?

(d) What synergies are necessary with other policy fields?

Before making specific recommendations, it is important to identify **the broad principles or goals framing such policies**, which we detail below: those supporting the recognition by policymakers of the potential of culture to contribute to health treatment and prevention; those supporting the links between culture, health and well-being as an emerging interdisciplinary field of knowledge and practice; and those maximising the potential of culture to promote an economy of well-being.

Table 10. Key Policy Goals.

Key Policy Goals
1. Awareness
2. Interdisciplinarity
3. Support in Welfare and Prosperity

1. Awareness

At a time when health and mental health are political priorities across both the Member States (Bauer-Babef, 2022) and the Commission, it is important to ask whether the review found evidence⁶ that the benefits of culture have been used to produce strong results and maximise the impact of investment in this regard.

Unfortunately, the results of the scoping review are clear: **there is a significant gap between, on the one hand, the wide range of studies demonstrating that culture can have an impact on health and well-being, both in individual terms and at the community level, and, on the other hand, the limited studies demonstrating that policymaking reflects this evidence.**

Since cultural policy can be defined as 'what governments choose to do or not to do in relation to culture' (Bell and Oakley, 2015), this finding is relevant in itself. The generalised inaction by policymakers identified by the scoping review is parallel to (and may be explained by) the absence of systematic evidence regarding the links between these policy fields until only very recently. Indeed, as noted before, the Ottawa Charter for Health Promotion (World Health Organization, 1986) did not include cultural participation as an enabler of good health.

⁶ The authors of the present report recognise the tension between the hierarchies of evidence that are central to the medical sciences on the one hand, and the much broader understanding of evidence that underpins the arts and humanities on the other. This explains why the recommendations made later in this chapter include a systematic examination and mapping of such overlaps and differences.

In other words, to translate this finding into the language of 1) actors, 2) resources and 3) policy content, cultural and health actors (in the form of both practitioners and academics) have been gradually developing the culture for health and well-being space with minimal or virtually non-existent support from political-administrative authorities. This has allowed them to gather evidence regarding a set of enablers and barriers supporting or hindering the benefits of cultural intervention on health and well-being (see Determinants of Success and Failure' in 'IV. Discussion of Research Findings'). Currently, the existing policies reflecting this work and evidence are minimal.

However, some progress has been made, as demonstrated by the 2021 Geneva Charter on Health Promotion for Well-being for All (WHO, 2021), which acknowledges the important role of cultural elements for health and well-being promotion when it refers to the need to ensure 'that people and communities are enabled to take control of their health and lead fulfilling lives with a sense of meaning and purpose, in harmony with nature, through education, culturally relevant health literacy, meaningful empowerment and engagement (WHO, 2021).' Moreover, the Charter argues that ensuring that 'everyone [who] enjoys a long, healthy life and lives well' requires transitioning 'to more sustainable, equitable societies and to learn from [...] cultures – especially indigenous cultures – how to create more sustainable, equitable societies' (WHO, 2021).

As for the few published policies in the fields of culture for health and well-being in Europe, one must begin by stressing the extremely limited number of documents found on this topic. Within the EU, and at the time of writing, the main exception is Finland (discussed in detail by Laitinen et al., 2020). Activities connecting art and health emerged in the beginning of the 1990s, and 'the first government-level cross-ministerial programme promoting health and well-being through art and culture began in 2010', leading to the establishment of cooperation practices between Ministry of Education and Culture, the Ministry of Social Affairs and Health, the Ministry of Employment and the Economy and the Ministry of the Environment (Laitinen et al., 2020). Finnish municipalities also recognise the role of art and culture, as evident in the fact that, 'according to the evaluation of basic public services in 2017, more than 70 per cent of municipalities had included art and culture in their welfare report (Laitinen et al., 2020).' Although the article discusses the roles given to the arts and health field and those given to cultural institutions at different levels (national, regional and municipal), it also stresses that 'the publicly funded cultural institutions have not yet used their full potential to take part in developing and implementing arts and health activities (Laitinen et al., 2020).'

Crucially, there are emerging links between this field and education and training institutions, and an increasing number of research projects across Finnish institutions such as the National Institute for Health and Welfare (ECDC) and Center for Cultural Policy Research Cupore, as well as universities of applied sciences. However, and again, 'despite the rather lively research activity, arts and health as a research field is not yet established in Finland (Laitinen et al., 2020).' In any case, it should be noted that Finland not only officially acknowledges and supports the links between culture and health and well-being, but also institutionalises this support with a strategy that links the Ministries of Education and Culture, and Social Affairs and Health (Ministry of Education and Culture of Finland, 2016). In practical terms, this model is translated into shared employees, national networks, cultural profiling in care planning and cultural instructors – e.g., musicians, arts and culture graduates and other individuals hired by social welfare and healthcare services to support elderly people (Cutler et al. 2021).

Also of note is a symposium organised by the WHO on the arts and health in the Nordic region. The symposium report (WHO, 2019b) focuses on the Skåne and Nordic regions of Sweden. It is worth quoting this document at length. It states that:

'In Region Skåne, integrating arts and health into policy has been particularly successful. In 2014, the regional parliament approved an overall strategy for culture and health with a focus on children, elderly people and people with mental ill health. In practice, this has resulted in the implementation of several promising interventions [...] including: arts in hospitals (engaging patients with the world of art through dialogue and co-creation with artists); hospital clowns (stimulating patients with a focus on humour and fantasy); and culture on prescription (a type of social prescribing that enables health-care practitioners to refer people to arts and creative activity programmes) (WHO, 2019b).'

However, several main policy challenges are indicated in this report, namely: meeting the evaluation standards used in health care, 'a lack of national arts and health strategies; the inconsistent application of systematic evaluation approaches; and a need for more cross-sectoral working and political support (WHO, 2019b).'

More recently, the Swedish Skåne region published its own Arts and Health strategy for the period 2022-2030 (Utveckling Skåne, 2022). The document was developed jointly by the health and culture sectors, and was built on principles such as broad sector-wide cooperation and the development of sustainable structures financed by the region.

Finally, promising early evidence regarding the positive impact of culture-based **social prescribing**⁷ (What Works Wellbeing, 2020) justifies the increasing number of pilot projects and policies that encourage its use. Examples can be found in Belgium, England and Ireland, although the use of different models to structure the delivery of these activities must be acknowledged. For example, in Ireland, GPs and other frontline healthcare professionals can refer patients to a social prescribing coordinator (White & Salamon, 2010) – the equivalent to what is known as a “link worker” in England (NHS, 2020) – while a pilot project in Brussels allowed doctors to directly prescribe museum visits to support the mental health of their patients (Fota, 2022).

Social prescribing reflects ‘a new relationship between people, professionals, and the health and care system’ (NHS, 2020). This being said, each context in which social prescribing is embedded may organise this relationship in different ways. In England, for example, the component ‘social prescribing and community-based support’ is defined as one of six interlinked components, which also include: shared decision making; personalised care and support planning; enabling choice, including legal rights to choice; supported self-management; and personal health budgets and integrated personal budget (NHS, 2020).

These limited examples reiterate the fact that **the recognition of health and well-being as a political priority across the Union, the accumulated scientific evidence of the benefits of culture in this regard and international discussions regarding health promotion are yet to meet in a systematic manner.** Therefore, the first goal or principle that underlies the recommendations made in the following sections is:

Increasing the awareness by political-administrative authorities in different fields (primarily culture and public health but also others, such as education) at all levels (EU, national, regional and local) of the potential of culture to support, as the evidence demonstrates, individual and community health and well-being.

This argumentation is supported by further evidence, which demonstrates that there are Return Investments to be had in long-term investment in public health interventions (Masters et al., 2017). Indeed, despite their limits, the existing data provides sufficient evidence to support action by policymakers. This is why increasing the awareness of such authorities is a policy priority or goal. This said, it is important to be explicit about the **rejection of an instrumentalisation of culture** in this context and, more specifically, of well-being data (Oman, 2021). Although the scoping review demonstrates that cultural projects can have health and well-being benefits, the evidence also shows that this is only due to the cultural logic and value of such interventions. Seeing culture simply as a means to achieve benefits in a domain that is external to it (in this case, health and well-being) would likely decrease its impact. This would be a counter-productive strategy and, in a more practical sense, a false economy. Rather, the idea is that the health and well-being benefits of actively participating in a cultural activity, for example, are inseparable from the cultural particularities of such a context of engagement. To unleash and maximise the benefits of cultural action, it is necessary to support it as such – and not simply as an enabler of something else.

2. Interdisciplinarity

Additionally, policymakers reading this report may occasionally experience cultural elements as obstacles to – rather than enablers of – change in their work. For example, the implementation of measures such as the Nutriscore, an essential part of the EU Green Deal (European Commission, 2019a) with the Farm to Fork strategy (European Commission, 2020d), has been slowed down by the argument that policies to limit unhealthy foods can stigmatise local and national products, understood as part of cultural heritage and identity.

The scoping review and the policy documents surveyed so far suggest that culture can indeed be used to promote health, but only if its actors (professional and others) are given the conditions and the space to do what they know best: cultural creation and experimentation. Without adequate funding, training and governance structures, the potential health and well-being benefits of such work cannot be unleashed. Thus, the second goal or principle that underlies the recommendations made in the following sections is:

Seeing culture, health and well-being as an emergent interdisciplinary field of knowledge and practice requiring adequate funding, training and governance.

⁷ The World Health Organization defines social prescribing as ‘a means of connecting patients to a range of non-clinical services in the community to improve their health and well-being. It builds on the evidence that addressing social determinants of health such as socioeconomic status, social inclusion, housing, and education is key to improving health outcomes (WHO, 2022b).’

That is, there is a **need to disseminate existing knowledge and to support the education or training of health specialists, cultural workers and other relevant stakeholders** (e.g., social workers and relevant individuals in community health contexts). Indeed, 'the development of the culture–well-being link brings with it an increased demand of specialists and professionals that may operate in designing, promoting, implementing and monitoring such activities, calling for new professional profiles that sit at the boundaries between culture, psychology, medicine, and nursing (European Commission, 2020g).'

On the one hand, consequent training requires **the support of cultural actors by sharing evidence regarding what works and how**. This could be developed in connection to calls for up- and re-skilling the current EU Skills Agenda (European Commission, n.d.). On the other hand, regarding **health actors**, there should be an updating of the skills of the workforce, as discussed under the EU Pact for Skills (European Commission, 2020c), as well as forecasting and planning for the skills of the future generations of health professionals. In this direction, the European Commission's Communication on a European Skills Agenda for sustainable competitiveness, social fairness and resilience (European Commission, 2020b) details a number of key areas for action, including strategic national upskilling, fostering transversal and skills for life. Furthermore, as included in the opinions by the EC Expert Panel on Effective Ways of Investing in Health (EXPH), there is a need to invest in 'capacity and ability to determine relevant knowledge and good practices as related to vulnerable groups by [...] appropriately adapting them into the [...] local culture (European Commission, 2020b).' The panel also stated that 'workforce capacity needs to be developed to ensure health promotion practitioners are equipped with the required competencies to implement current knowledge, research and best practice in health promotion (European Commission, 2019a).' Addressing these calls and needs requires **ring-fencing research funding and supporting dedicated education and training opportunities for health specialists, cultural workers and other relevant stakeholders** (e.g., health, urban design, education and social service providers) at local, national and European levels.

However, a piecemeal approach to this topic is unlikely to be sufficient to maximise the full benefits of culture for health and well-being across the European continent. Rather, the links between these disciplines have the potential to result in a new interdisciplinary field of knowledge and practice, whose emergence **reflects broader and parallel shifts in discussions regarding health and culture**. The former is increasingly recognised as significantly wider than the treatment of disease, while the latter is increasingly understood as more than a professional sector of activity whose main contribution to society is the advancement of the history of art. An explicit engagement with health promotion and prevention reinforces the broader role of culture in society, and empowers it to take a crucial role in promoting just, equal and sustainable societies, supporting the Agenda 2030 (UN General Assembly, 2015). In common, these emerging disciplinary changes place health and culture as policy fields that also include within their scope **strengthening capabilities⁸, thus supporting individual and community flourishing**.

Indeed, as the review demonstrated, culture has the potential to support not only health and well-being but also an **informed citizenry** that is actively engaged with policymaking. Moreover, 'the literature finds a strong association between cultural participation and trust, dialogue, empathy, political and civic engagement and related dimensions of a cohesive democratic society (European Commission, 2020, citing namely Campagna et al., 2020; and Jeannotte, 2017).' Therefore, the relevance of 'cultural access goes much beyond entertainment, and concerns basic dimensions of individual and public health, social connectedness, and resilience (European Commission, 2020g).'

However, unleashing this potential requires not only strategic, top-down support that maximises the potential benefits of existing resources but also provides a space for citizens to participate in decision-making, increasing public support for these collaborations. **Hence, the governance of these collaborations requires a permanent negotiation between top-down and bottom-up elements**. In doing so, the awareness of the benefits of cultural participation for health and well-being could support the emergence of a broad 'consensus basis for a rethinking of the role of culture in European societies' (European Commission, 2020g).

⁸ Although this discussion goes beyond the scope of this report, capability refers here to Sen's and Nussbaum's capability approaches (1992 and 2011, respectively), which focus on 'what the person is free to do and achieve in pursuit of whatever goals or values he or she regards as important' (Ruger, 2010). For a discussion of this term applied to health, see Ruger 2010; for a discussion of the approach applied to cultural policy, see Nærlund, et al. (2020) and Wilson et al. (2017).

3. Supporting Welfare and Prosperity

Some policymakers may be wary of investing in cultural interventions for health and well-being due to existing constraints on available budgets, particularly in the post-COVID-19 context. Is it financially savvy, they may ask, to support yet another set of cultural activities? The question is seemingly obvious, but it may be based on flawed assumptions.

Firstly, **supporting culture for health and well-being programmes does not necessarily require designing funding and other instruments from scratch.** Rather, the first important decision that can be made by policymakers in this context is to support cultural actors so that they can do their work with an added recognition of the health and well-being benefits of such work or practices. Ideally, this will be followed by dedicated programmes. However, as is demonstrated later in this chapter, cultural interventions can also be embedded in existing programmes and instruments.

Secondly, **the current focus on disease treatment rather than health prevention is a false economy.** Data from Eurostat makes this point clear. In 2019, while some EU members dedicated more than 10 per cent of GDP to health-care expenditure (e.g. Germany and France spent 11.7 per cent and 11.1 per cent, respectively) (Eurostat, 2019), “preventive health care in the EU accounted for around 0.3 per cent of GDP in 2019” (Eurostat, 2022b). **If cultural interventions can be preventive of disease and support individual and community well-being** (as the scoping review demonstrated), **they are likely to contribute to long-term health budget savings.** Thus, evidence supports the embedding of “cultural policies and projects into an integrative approach to welfare (...), addressing some of the most pressing trade-offs of today’s European welfare systems, such as the trade-off between quality of care and allocation of resources” (European Commission, 2020g). This is why the third goal or principle that underlies the recommendations made in the following sections is:

Maximising the potential of culture to support welfare and prosperity by promoting an economy of well-being.

This potential provides a strong rationale to overcome the mismatch between the evidence on health promotion and current patterns of healthcare expenditure – indeed, only three per cent of health budgets are spent on prevention, even though non-communicable diseases account for up to 80 per cent of healthcare costs (Health Inequalities, n.d.1). Rather, **it makes sense to invest in activities that contribute to health promotion in the long-term, guided by a holistic approach** that complements the biomedical model. Culture, for reasons such as its adaptability to diverse audiences with specific needs (from the young to the old, but also individuals in working age) supports this approach. As the WHO stated, **‘the arts provide cost-effective interventions for complex health challenges that may not have current health-care solutions,** while alleviating pressures on limited health resources (WHO, 2019b).’

Doing so requires addressing existing health inequalities; that is, ‘differences in health status occurring among individuals or groups or, more formally, the total inter-individual variation in health for a population, which often considers differences in socioeconomic status or other demographic characteristics’ (WHO, 2015), and therefore supporting health equity, that is, ‘the absence of systematic disparities in health (or in the major social determinants of health) between groups with different levels of underlying social advantage/disadvantage – that is, wealth, power, or prestige’ (Braveman & Gruskin, 2003). In turn, addressing these differences requires paying attention to the social determinants of health (SDH); that is, ‘the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life’ (WHO, n.d.). Thus, contrary to common belief, the SDH can influence health more than healthcare or lifestyle choices.

In other words, ‘health and illness follow a social gradient: the lower the socioeconomic position, the worse the health [...] It is estimated that 80–85 per cent of what is important in tackling health inequalities sits outside the control of health systems (Health Inequalities, n.d.2).’ That is, **supporting health and well-being for all requires addressing the underlying causes of health inequality, and, thus, broader forms of inequality.** The culture for health and well-being approach could be embedded within initiatives such as EU4Health, which paves the way for a European Health Union (European Union, 2021), following the results of projects such as the Joint Action Health Equity Europe (JAHEE, n.d.), and embedded in other priorities, such as the European Pillar of Social Rights (whose principle 16 addresses health, alongside other principles that cover the SDH) (European Union, 2017).

However, **the welfare benefits of the links between culture, health and well-being can be seen in an even more ambitious and long-term manner.** Rather than merely comparing costs of health prevention programmes (namely cultural) against those of health treatment, the former could also be seen **as a long-term investment in individual and community prosperity.** This logic echoes the vision of EuroHealthNet (2022a) and supports what the OECD (2019) and the Finnish Presidency of the Council of the European Union in 2019 named as the Economy of Well-being; that is, the ‘capacity to create a virtuous circle in which citizens’ well-being drives economic **prosperity,** stability and resilience, and vice-versa, that those good macroeconomic outcomes allow to sustain well-being investments

over time (OECD, 2019).’ Indeed, in the Economy of Well-being model, public and private investments in the determinants of health – which could include cultural interventions – supports a healthy and sustainable workforce, and hence economic resilience, based on a restorative approach to the economy EuroHealthNet (2022a). In other words, in this approach there are **‘multiple pathways through which the health sector co-creates societal gains across other sectors, both directly and indirectly’** (EuroHealthNet, 2022a).’ This holistic and multi-pathway approach echoes the United Nations 2030 Agenda. Particularly relevant in this context are the Sustainable Development Goals number 3 (good health and well-being) and number 11 (sustainable cities and communities), which can be understood as supporting self-reinforcing loops (Dawes, 2019).

Thus, the culture for health and well-being space supports current policy debates, that expand the narrative around health and health systems away from a predominantly biomedical approach to health creation and maintenance, echoing ongoing debates regarding the European Health Union (European Commission, 2020a) and European Parliament’s Special Committee on the COVID-19 pandemic (European Parliament, 2022a). Simultaneously, it reiterates what EU citizens want the Union to do for health and well-being, as suggested in proposal 9: a broader understanding of health included in the final recommendations of the Conference on the Future of Europe, which supports a ‘holistic approach to health, addressing, beyond diseases and cures, health literacy and prevention’ (Conference on the Future of Europe, 2022). More broadly, an economy of well-being could underpin a **society of well-being**, that is, a model of social organisation in which human and planetary well-being are placed at the centre of policymaking, potentially leading to a reorganisation of the latter and to a rethinking of the traditional siloed approach that frames policy development. Although a discussion of this idea goes beyond the scope of this report, it is important to mention that references to it can be increasingly found in research from fields indirectly connected to the culture, health and well-being space, such as leisure and labour studies (e.g., García, 2016; Ferraro et al., 2015).

This approach **connects the space of culture for health and well-being with ongoing discussions and priorities at the level of the EU focused on enabling services and solutions rooted in communities.** For example, the Action Plan for the Implementation of the European Pillar of Social Rights (European Union, 2017) includes several principles directly relevant to the cultural and creative sector and services focused on: the right to equal opportunities, healthcare, long-term care and disability care, and essential services. In the context of the post-pandemic Recovery and Resilience Facility (European Commission, n.d.6), a number of EU and European policy processes could also be supported by strengthened links between the arts and culture, and health and social care sectors. In particular, the European Semester and the implementation of the Recovery and Resilience Facility, via national plans for rebuilding economic, social and health systems offer significant leverage. By demanding that restored and reformed health and social care systems prioritise better health promotion and preventive approaches, and invest in people and communities’ assets and skills, the value of arts and culture for health and well-being can be recognised.

Although this approach has benefits for wider society, it can also be targeted at ‘socially marginalised or excluded communities, to promote integration and to improve resilience’ (European Commission, 2020g), and to address structural inequities. In this context, the European Commission’s strategic frameworks for the integration of migrant and refugee population, such as its Action Plan on Integration and Inclusion 2021–2027 (European Commission 2020), are important references.

Policy Programme - or What Kind of Impact Can Be Expected and How Can It Best Be Facilitated?

The report's recommendations are inspired by the three principles presented above. But before making recommendations, it is important to highlight:

- The multiple types of impact that culture can bring to health and well-being;
- The interdisciplinary and multi-levelled approach to policy that is being proposed.

Activating All Culture-Health-Well-being Impact Pathways

The results of the scoping review, combined with other documents (e.g., policies and the findings of other scoping reviews), suggest that there are multiple and occasionally overlapping pathways linking culture on the one hand and health and well-being on the other. Supporting them simultaneously would maximise culture's potential in this regard.

For the sake of clarity, the report organises these dimensions of impact into five pathways: two at the individual level (highlighting the fact that cultural engagement can support physical and mental health, as well as subjective well-being), two at the community level (focusing on benefits surrounding social connectedness or belonging, and active, resilient communities), and one at the economic level (supporting a well-being economy).⁹ It should also be noted that the impact pathways identified below are interdependent and cut across the different themes that are identified in Chapter II. Research Findings. That said, some dimensions of impact are more closely connected to some themes than others (e.g., subjective well-being).

Table 11. Types of Impact and Pathways of Impact

Type of Impact	Impact Pathways
Individual	1. Culture -> physical and mental health 2. Culture -> subjective well-being
Community	3. Culture -> social inclusion 4. Culture -> engaged, resilient communities
Economy	5. Culture -> well-being economy

1. The first pathway focuses on the effect of cultural engagement on physical and mental health.

The benefits included in this pathway cover prevention and promotion, and management and treatment (as is evident in particular in Chapter II. Research Findings, Theme 1. Culture and Health). This can also be described as the relation between activities that combine physical movement, psychological and emotional engagement (such as dance) and their impact on 'the integration of the psychological and physical components of well-being' (European Commission, 2020g). Due to the strong overlaps between mental health and 'emotional regulation', we also include the ability to control fear and anxiety, to manage boredom and to 'cultivate positive feelings' (European Commission, 2020g) in this pathway. As a recent WHO report stated, 'investment in the arts means investment in improving social integration and cohesion, and can contribute to mental well-being for all'. Thus, 'arts and cultural activities can form an important part of an organized mental health and psychosocial support response (WHO, 2022a).'

⁹ This typology combines the categories of outcomes identified in Chapter II. Research Findings, with an adaptation of the dimensions identified by Pier Luigi Sacco included in the report summarising the Workshop for the Experts of the EU Member States on Culture for Social Cohesion (European Commission, 2020g). That is, it combines a number of Sacco's culture-well-being pathways into one (subjective well-being), and proposes a new dimension focused on their broader economic impact.

Studies from the scoping review that illustrated this point include Camic & Chatterjee (2013), which suggested strong positive correlations between cultural activities and health in the general population; Bungay & Vella-Burrows (2013), which demonstrated that creative activities promote behaviour change and healthy lifestyles, as well as increased confidence and social skills in adolescents; and Stanhope & Weinstein (2020), which showed that singing bowl therapies lead to improvements in blood pressure, heart rate, respiratory rate and the peripheral capillary oxygen saturation of adults. All of these studies focus on prevention and promotion.

This pathway is also supported by Fancourt et al.'s 2020 literature review, which found strong evidence for the use of the arts to reduce physical decline in older age, the use of book reading to support child social development, and the use of music or reading for speech and language development amongst infants and children (Fancourt et al., 2020), and promising evidence for the use of the arts to support cognition in older age (Fancourt et al., 2020). This pathway is further confirmed by Gardner et al.'s (2021) review of the evidence of arts-based engagement on individuals and communities for the Healthcare Improvement Studies Institute, which concluded that 'a few [individuals] reported on (sic) intention to change behaviour as a consequence of the activity' (Gardner et al., 2021).

Specific recommendations inspired by this dimension of impact could aim namely to link culture for health and well-being with:

- the EU4Health Programme of Work (particularly, with its goal to improve and foster health in the Union by supporting disease prevention and health promotion);
- the WHO European Region processes and their work on Mental Health (for example, through the Pan-European Mental Health Coalition; WHO, 2022c);
- mental health interventions along the life course (an approach supported by WHO/Europe);
- discussions included in the Council Recommendations on the Long-term Care, and the Green Paper on Ageing (e.g., supporting healthy and active ageing; Council of the European Union, 2021b);
- broader EU campaigns, such as the Healthy Lifestyle Campaign (European Commission, 2021d), establishing the circle between nutrition, movement and culture as the basis for holistic well-being

2. The second pathway focuses on the impact of culture on subjective well-being.

Rather, the second dimension of impact focuses on subjective well-being (discussed in depth in Chapter II. Research Findings, Theme 2. Culture and Subjective Well-being). For example, 'neuroscience research documents how music listening, thanks to its strong capacity to activate key neural reward circuits, can be considered as one of the most pleasurable human experiences (European Commission, 2020g).' This pathway has 'effects in various directions. For instance, the fact that fiction generates intrinsic rewards adds up to the fact that it can help improve social cognition and pro-sociality (European Commission, 2020g).'

Studies from the scoping review that illustrate this point include Skingley et al. (2016), which demonstrated that participating in community singing can have benefits for health and well-being, and Liddle et al. (2012), which showed that playing musical instruments and painting can lead to improved emotional well-being of women over the age of 80.

This pathway is also supported by a literature review of more than 3,500 studies (Fancourt et al., 2020), which focused on the potential of the arts in 'the prevention of ill health, promotion of health, and management and treatment of illness across the lifespan', and found strong evidence for the use of the arts to improve well-being (that is, positive psychological factors) in adults and promising evidence for the use of the arts to support well-being in children and young people. The contribution to well-being of free time for artistic activities was also highlighted by Haroon et al.'s (2020) review of the evidence for the What Works Centre for Well-being.

It should be noted that this pathway also includes the links between culture and a sense of purpose. In other words, 'the eudaimonic dimension of well-being, that is, the pursuit of activities that strongly relate to meaningfulness in life. In this regard, participation in community arts has been documented as an especially important driver (European Commission, 2020g).' Studies from the scoping review that illustrate this point include Billington (2019), which showed that reading supports meaning-finding, and Laing et al. (2017), which demonstrated that watching digital stories made by paediatric and adolescent or young adult oncology patients proved effective in supporting healthcare professionals to find purpose in their role.

There also is evidence that participation in creative activities facilitates a sense of meaning in people with cancer (Visser & Op 't Hoog, 2008) and in those suffering from mental illness (Hilse et al., 2007), and supports sense-making in bereaved parents (Bosticco & Thompson, 2005). This is not far from current discussions within the EU. Indeed, one could read the European Commission's decision to offer mindfulness courses and support "forest bathing" for EU officials working on climate change (Booth, 2022) as an example of cultural activities (understood in a broader sense)

that support a sense of ownership and purpose in life.

Specific recommendations inspired by this dimension of impact could focus namely on:

- supporting funding lines and programmes dedicated to arts practices that are participatory and group or community-based;
- supporting research dedicated to better understanding the links between cultural interventions and well-being, and the social determinants that are involved in or may be barriers to these processes;
- supporting culture for health and well-being with funding lines and programmes directed at improving health and well-being at work; e.g., by establishing links between arts and cultural projects and workplaces in the context of the EU OSHA healthy workplaces campaign (which calls for a Psychosocial Occupational Risks and Prevention Directive; see EU OSHA, n.d.)

3. The third pathway connects cultural experiences with social inclusion.

This pathway is important 'in promoting social cohesion goals such as trust-building and mutual recognition among people from different ethno-cultural backgrounds, also as a form of conflict resolution and transformation (European Commission, 2020g).'

Studies from the scoping review that illustrate this point include Abell et al. (2017), which provided evidence of the impact that group singing can have on the social connectedness of people with Parkinson's. Particularly, more evidence illustrating this pathway can be found in Chapter II. Research Findings, Theme 3. Culture and Community Well-being, subsection A. Social Inclusion.

This pathway is also supported by Fancourt et al.'s (2020) literature review, which found strong evidence for the following outcomes, suggesting that it can be trusted to guide policy: the use of the arts to support aspects of social cohesion, and the use of music to support infant social development. Additionally, the same literature review found promising evidence for the following outcome, suggesting that it can be trusted to guide policy in most situations: the use of the arts (other than reading) to support child social development

Specific recommendations inspired by this dimension of impact could focus namely on linking culture for health and well-being with:

- funding lines and programmes directed at supporting social inclusion, young people and young adults, children, minorities, refugees and other groups;
- cohesion and development funding;
- discussions taking place in the context of the New European Bauhaus Initiative (European Commission, 2021a)

4. The fourth pathway links cultural engagement with engaged, resilient communities.

This fourth pathway is evident in particular in Chapter II. Research Findings, Theme 3. Culture and Community Well-being, subsections B. School and Work-Related Well-being, C. Quality of Built Environment and Well-being, and D. Community Development. This echoes the connection, established by Pier Luigi Sacco (European Commission, 2020g) between vibrant cultural contexts and rich heritage on the one hand, with 'place-specific forms of resilience' on the other. As mentioned before, unleashing this pathway of impact requires paying attention to issues of cultural equity, and thus to 'ensuring that culturally diverse forms of art are available and accessible to a range of different groups across the life-course, especially those from disadvantaged minorities (WHO, 2019).'

Studies from the scoping review that illustrate this point include See et al. (2020), which demonstrates evidence of the impact of theatre on increased public engagement around antibiotic use, and Cueva et al. (2016), which also demonstrates evidence of the impact of visual art, particularly of watching digital stories, on increased knowledge and understanding on cancer.

This pathway is confirmed by Gardner et al.'s (2021) review of the evidence of arts-based engagement. The authors write that 'there are several examples of arts-based approaches empowering individuals within the target community to make decisions, manage their own lives or contribute to their communities. A key feature of these has been members of the target community creating or co-creating artistic outputs for wider engagement (Gardner et al., 2021).'

This review also 'found [...] two examples of activities leading to cultural or community-level impact.'

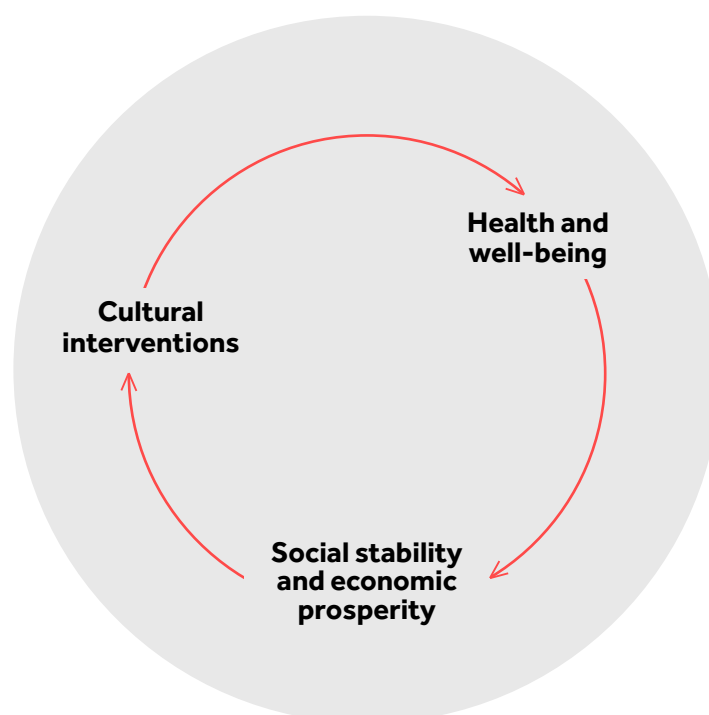
Specific recommendations inspired by this dimension of impact could focus namely on linking culture for health and well-being with:

- EU and national Recovery and Resilience processes, namely but not only targeting groups with complex needs such as refugees;
- cohesion and development policy funding

5. The fifth pathway connects culture and health with a well-being economy.

While the causal relation in the previous pathways goes from cultural intervention to individual or social health or well-being, this pathway of impact is circular: cultural interventions support health and well-being, which reinforce social stability and economic prosperity, and thus support continued investments in culture for health and well-being. As the pandemic highlighted, psychosocial risks, and stress in particular, are significantly affecting citizens' physical and mental health. Although the findings summarised in the fourth heading (Culture and COVID-19) in Table 3: Categories of outcomes are to be highlighted in this context, all studies that illustrate the potential of culture to contribute to health and well-being support this pathway.

Figure 4. The circular relation between culture and the well-being economy.

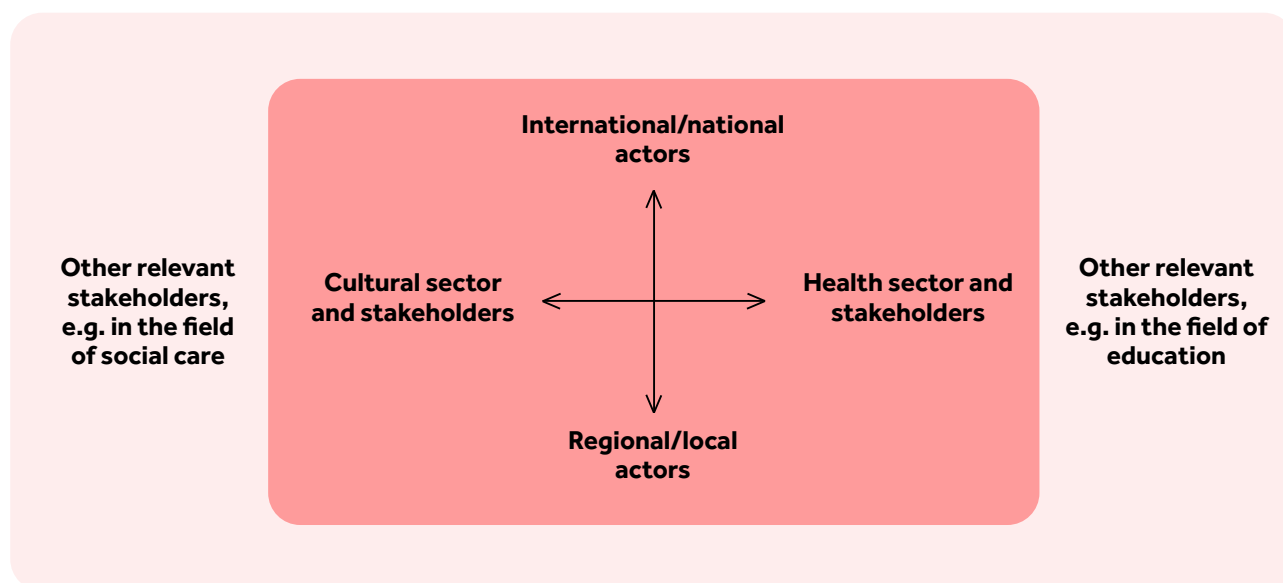


Specific recommendations inspired by this dimension of impact could focus on:

- linking culture for health and well-being with the EU4Health Programme of Work (particularly, with its goal to 4) strengthen health systems, their resilience and resource efficiency);
- establishing links between arts and cultural projects and the Health in All Policies approach as well as work around the European Health Union – particularly its Europe's Beating Cancer plan (European Commission, 2021b);
- more broadly, recognising the contribution of culture and health to the green transition.

An Interdisciplinary and Multi-Levelled Approach to Policy Action

Figure 5. Culture for Health and Well-being: Levels and Disciplines



Additionally, maximising the impact of culture on health and well-being requires deploying the potential of multiple policy levels. Indeed, as the New Agenda (European Commission, 2018a) recognises, national, regional and municipal policymakers are key actors in culture-led development. At the same time, 71 per cent of respondents to the Special Eurobarometer 466 stated that quality of life can improve when citizens live close to places related to Europe's cultural heritage (Data Europa, 2017). Altogether, these two points suggest that local or urban planning activities that recognise the importance of cultural access may maximise health and well-being; they can be supported by European-level policies and programmes. At the European level, the linkages between culture, health and well-being could be connected to the New European Bauhaus (European Commission, n.d.12), the EU Urban Policy Agenda (European Commission, n.d.13) and the European framework for action on cultural heritage (European Commission, 2019c).

Therefore, **urban and local decision-makers, as well as European politico-administrative authorities, emerge as key actors supporting the maximisation of the potential of culture for health and well-being.** As discussed earlier, this multi-levelled approach should also be combined with an interdisciplinary approach fostering opportunities for collaboration between stakeholders from and beyond the policy fields of culture and health.

Figure 5 (above) provides a simple visualisation of these relations, which, it must be noted, are not organised hierarchically. Rather, echoing the community of care model, the **relationship between levels and disciplines should be understood as inherently collaborative, as well as flexible** enough to adapt to different needs, contexts of practice, types of knowledge (not only that of specialists but also, for instance, tacit or social), and ways of working. This reflects the collaborative ownership of these projects, which can be described as **partnership-based, developed across disciplinary boundaries and inserted in iterative processes of continued bottom-up and top-down learning.**

Specific recommendations inspired by this dimension of impact could focus on:

- Supporting a stakeholder mapping focused on the European Union; this could include researchers working in academic disciplines whose theoretical models could contribute to the development of this emerging field (e.g. sociology, philosophy, anthropology);
- Facilitating conversations and knowledge sharing between different stakeholders at multiple levels, without forgetting specific interest groups such as young people;
- Creating or reorienting programmes and funding to support experimentation and scaling-up across local, regional and national levels

Specific Policies and Targeted Investment Measures

This subsection focuses on the delivery of practical recommendations for policymakers at the EU level, and is inspired by the principles identified in the previous section.¹⁰

Culture and health policies

The goal of **maximising the contribution of cultural interventions to individual and social health and well-being** (both as treatment and prevention, and in ways that support equity), **and hence the effectiveness and the resilience of national health systems**, requires concerted action across four areas:

1. **Dedicated strategic and financial support**
2. **Knowledge and awareness building**
3. **Training and peer learning**
4. **Localising culture, health and well-being R&D and policy discussions**

Dedicated strategic and financial support

1.1 **Include culture as an integral part of the EU's health strategy and as a core pillar of its upcoming mental health strategy.** The approach shall be comprehensive, holistic, focusing on long-term health promotion and disease prevention and shall address health inequalities.

1.2 **Increase investment in prevention and health promotion.** If cultural activities can prevent disease and support individual and community well-being, they are likely to contribute to long-term health-budget savings. Cultural activities are also a **cost-effective** way to support more equal access to health and broader efforts targeting the social determinants of health. They should be based on the combined resources of three different major budgets (health, culture and social care), be consistent with the timeframe required to achieve the potential benefits and ensure fair remuneration of all actors involved.

1.3 **Embed dedicated provisions** that recognise the health and well-being benefits of cultural activities **in policy documents** at the European, national, regional and local level.

1.4 Promote the use of **culture-based social prescribing across the EU.**

Also, and more specifically:

- **Establish funding lines** co-financed by different budgets, such as culture, health, social action and education¹¹;
- **Fund research** focused on culture for health and well-being linkage **regarding which there is limited evidence** and, in the case of existing evidence, supporting longitudinal studies, RCTs or similarly robust qualitative methods to better understand the interrelations between individual, community and other variables associated with the successful deployment of culture as an active factor for health and well-being;
- **Fund research examining what constitutes evidence in the arts and health contexts**, including a systematic overview of conceptual and epistemological overlaps and differences, and a map of specific needs and opportunities for **cross-sectoral engagement between the Commission's Directorates-Generals** (such as DG SANTE, DG EAC, DG EMPL);
- **Create dedicated calls and financial support dedicated to research, knowledge transfer, peer-learning and capacity building** in existing EU programmes (see below), without, however, diminishing existing financial support to other cultural programmes and practices;
- **Support pilots evaluating** the encouragement of cultural engagement in this context with **cultural**

¹⁰ As mentioned before, more details regarding these policy recommendations (operational instruments, implementation and evaluative elements) will be included in a subsequent part of the project (task III), which will reflect the lessons taken from the pilots associated with the CultureForHealth project.

¹¹ As has already been argued by the WHO (2019, 56), based on UNDP's cross-sectoral co-financing approach (UNDP, 2019).

Knowledge and awareness building

2.1 **Recognise cultural activities as complementary to traditional medical responses** to both ill health and its prevention, the multiple dimensions that connect culture to health and well-being, and, in particular, culture's contribution to the economy of well-being. Strive for equal-level cooperation between the cultural, health and other stakeholders involved in the design and implementation of these activities.

2.2 **Support further research** in the field of culture for health and well-being, with particular emphasis on advancing the knowledge of the impact factors and mechanisms, to enable maximisation of the benefits of culture in this context. Increase the number of large-scale, large sample, cross-country research initiatives. More research is also needed into the health and well-being effects of digital participation in cultural activities.

2.3 **Raise awareness of the evidence** regarding the health and well-being benefits of cultural activities and, more broadly, of the **cost effectiveness** of supporting a more comprehensive, equal and long-term approach to health policy across the EU.

Also, and more specifically,

- Coordinate and **facilitate the development of mechanisms for the exchange of experiences, languages and best practices** between culture and health experts through the allocation of **financial support for a dedicated European network**. Special attention should be given to 'sharing knowledge and practice of arts interventions that countries have found effective [...] to promote health, improve health behaviours or address health inequalities and inequities (WHO 2019, 55);'
- Support further research in the arts for health and well-being space, namely supporting the co-design and development of **cross-country, transdisciplinary, long-term pilots of qualitative and quantitative monitoring criteria as well as KPIs monitoring the impact of culture on health and well-being**, noting their enablers and barriers. Subsequently, if deemed relevant, supporting the embedding of these KPIs in ongoing and future projects in the culture for health and well-being space. Attention should also be paid to 'studies that examine interventions scaled up to larger populations, or studies that explore the feasibility, acceptability and suitability of new arts interventions (WHO 2019, 55).' More broadly, there is a need to **continue to develop knowledge on the linkages between arts activities and improved health and well-being** (see figure 3);
- Related to the previous point, **support further research regarding the potential contribution of culture to health equity;**
- Support **knowledge gathering and experimentation focused on under-examined but policy-relevant topics**, such as the contribution of cultural engagement to **mental health in the workplace**, or emerging topics such as the long-term contribution of **culture for conflict prevention**, transformation, resolution and post-conflict action, **and to support those directly affected by conflicts** (Council of Europe, 2013);¹²
- Support research and pilots to **examine the possibility of developing double culture and well-being indicators and monitoring criteria** – that is, encouraging health organisations to embed cultural activities in their work and, simultaneously, as previously noted by the WHO, 'encouraging arts and cultural organisations to make health and well-being an integral and strategic part of their work' (2019, 56). This could also apply to **broader policy domains and goals, such as the Sustainable Development Goals**. In this context, cultural indicators could be added to the EU SDG indicator set (European Commission, 2019d);
- Support knowledge exchange and pilot projects testing different **culture on prescription** models in view of their potential mainstreaming in the European Union;¹³
- **Foster structured dialogue with civil society organisations** and patient groups to give input to policy action from the Commission in this regard. Ideally, this would take the shape of a **dedicated permanent forum**. Alternatively, it could happen for instance in the context of so-called Voices of Culture or, in the context of DG SANTE, by setting up a specific dedicated annual network as part of its EU Health Policy Platform (European Commission, n.d.2);
- **Develop EU-wide communication campaigns** that promote 'public awareness of the potential benefits of

¹² This echoes one of the recommendations made in a joint WHO and Culture For Health policy paper focused on the role of culture in supporting the mental health of forcibly displaced people: 'artistic methods and practices can contribute to skill-building among those involved in humanitarian responses. Integrating artistic methods into mental health awareness-raising and other types of training can help to improve active listening, cultural competence and diversity sensitivity. In humanitarian responders, these skills can greatly contribute to community empowerment and participation (WHO 2022a, 4).'

¹³ This recommendation joins that of WHO's 2019 report, which suggested 'considering the introduction, or strengthening, of lines of referral from health and social care to arts programmes, for example through the use of social prescribing schemes (WHO 2019, 56).'

Training and peer learning

3.1 **Develop curricula and encourage joint training, as well as life-long learning** involving culture, social and health stakeholders **on an equal level, in culture for health and well-being** for: a) university students in the cultural, medical and social areas; b) established practitioners and professionals; and c) capacity building on an institutional level (e.g., in museums, theatres, or health or care centres).

3.2 **Support the development of training** that encompasses mechanisms to **take care of the mental health and well-being of actors involved** in the implementation of cultural activities. In the sensitive environment of healthcare, caregivers, artists, cultural managers and other stakeholders can face challenging situations. **Enable and financially support peer learning and the exchange of good practice guidelines** on the topic across borders and sectors.

More specifically:

- Support, coordinate and encourage **opportunities for exchange and mutual learning on an equal level** of language, values, and ways of working (e.g., principles and technical procedures) between culture, health and other relevant experts and practitioners;
- Support the inclusion of **modules** (combining theoretical and practical elements) **focused on the benefits of art and culture for health and well-being in training and professional development programmes for health professionals such as doctors, nurses, pharmacists (already working as such and students) and other stakeholders** (e.g., as part of broader training or modules focused on the social determinants of health, responses to health inequalities, strategies to deliver community and integrated care and best cross-sector collaboration practices), and, equally, **dedicated health and well-being modules in education, training and professional development programmes for art and culture professionals and workers**. This could be developed in connection to the EU Skills Agenda (European Commission, 2020f) and the EU Pact for Skills (European Commission, 2020c).
- Promote **targeted knowledge dissemination and training to support the skillset and the capacity of artists and cultural workers to deliver cultural projects** with health and well-being benefits, particularly when working with specific groups (e.g., the elderly, retired people, young people, individuals with special needs);
- Promote **targeted knowledge dissemination among policymakers to support the widespread inclusion of culture-based social prescribing** within the toolkit of General Practitioners, local health agencies and other health stakeholders.

Localising culture, health and well-being R&D and policy discussions

4.1 Support the **creation of a dedicated platform** enabling policy discussions and exchange of knowledge on culture, health, and well-being. In the short-term, this platform could be driven by EU Member States (for example, in the context of the Work Plan for Culture 2023-2026) or, alternatively, by a think tank or a university. In the mid-term, it could be **embedded in an already existing EU-level health organisation, agency, or other structure**. In the long-term, the interdisciplinarity of the culture, health and well-being fields would justify the creation of an independent organisation dedicated to advancing the field through R&D, cross-border peer learning, training, capacity building and policy recommendations, which could take the form of a **Centre for European Culture, Health and Well-being**.

4.2 **Encourage Member States, regions, cities and organisations** to establish **their own culture for health and well-being strategies, and to assign dedicated finance and personnel** to the promotion of integrated culture and health policies and interventions. Embed these actions in the work of local health, cultural and social institutions. Such strategies should recognise that change takes time, and thus prioritise the goal of their long-term impact.

Additionally:

- Recognise, disseminate and promote best practices by **supporting the creation of a European Year for Culture, Health and Well-being; a European Culture, Health and Well-being Award; and/or an Annual Festival of Culture for Health and Well-being**. To enable knowledge and best practice exchange, the latter could be hosted, for example, by ECOC cities.

¹⁴ This is echoed by the European Care Strategy's statement that 'providing care has major consequences for informal carers, including negative effects [...] on their mental health (European Commission, 2022).'

Synergies with other policy fields

Maximising the multidimensional impact of culture on health and well-being also requires **establishing synergies with existing policies, programmes and actions in other policy fields, supporting a holistic approach to health.** This echoes the WHO's 2019 report, which recommended noting 'the cross-sectoral nature of the arts and health field' (WHO 2019, 56). As suggested earlier, this goal could be implemented through integrating collaboration in the culture and health domains in actions aimed at supporting:

- European strategic priorities and tools such as the **European Green Deal** (European Commission, 2019a), **the European Pillar of Social Rights and its Implementation Action Plan** (European Union, 2017), **the Urban Agenda for the EU** (European Commission, 2021f);
- European values such as **internal cohesion, and education policies and labour markets responsive to economic, social and environmental change.**

Targeted Investment Measures

The following Targeted Investment Measures would support the policies identified in the previous section.

1. Maximising the multidimensional impact of culture on health and well-being requires guaranteeing that art and cultural programmes are embedded in existing programmes and actions, such as:

- **EU4Health**, particularly supporting its disease prevention action (European Commission, n.d.5);
- the **Recovery and Resilience Facility**, e.g. following up the implementation of cross-sectoral policy solutions in national recovery and resilience plans to make Member States' economies and societies more resilient (European Commission, n.d.4) and beyond them;
- the **European Care Strategy** (European Commission, 2022a) and broader discussions included in the Green Paper on Ageing (European Commission, 2021c);
- **the NCDs Healthier Together Initiative**, particularly in the strand focused on health determinants, mental health and CVDs (European Commission, 2022b);
- **the Europe's Beating Cancer Plan** (especially in its prevention aspects, European Commission 2021a);
- **EU campaigns** such as the Healthy Lifestyle Campaign or the OSHA healthy workplaces campaign;
- programmes and action that continue the goals of the **European framework for action on cultural heritage** (2019-2020), especially pillar 1 (cultural heritage for an inclusive Europe: participation and access for all) and pillar 2 (cultural heritage for a sustainable Europe: smart solutions for a cohesion and sustainable future), namely **the New European Bauhaus** and its goal of regeneration of urban or rural spaces;
- and by guaranteeing that the **outcomes and impact** of these programmes are measured and evaluated properly, that is, in the long-term and with a wide range of methodologies (quantitative and qualitative).

2. Maximising the multidimensional impact of culture on health and well-being also requires creating dedicated programmes, funding opportunities and actions in other policy fields.

This goal could be implemented through **new investment measures** such as:

- creating dedicated strands of financial support to projects measuring impacts, collecting data and evidence, establishing and keeping up mechanisms to implement cross-sectoral collaborations between culture, health and **research and education** in existing EU programmes and actions such as:
 - The **European Skills Agenda** (e.g., by embedding culture and health collaborative work as one of the commitments guiding Action 1: A Pact for Skills – see European Commission, n. d.9. and European Commission, 2020c);
 - **Erasmus+** (e.g., by embedding arts/culture and health collaboration within its Key Action 2: cooperation among organisations and institutions; and 3: support to policy development and cooperation; European Commission, 2021e);

- **Horizon Europe** (e.g., by creating a dedicated funding opportunity focused on the impact of art and culture on health and well-being, either in cluster 1: 'Health', supporting health throughout the life course and/or health care systems, or in cluster 2: 'Culture, Creativity and Inclusive Society', focusing on the role of culture to support social and economic transformations, European Commission, n.d.3)
 - supporting measuring impacts, collecting data and evidence, establishing and keeping up mechanisms to implement cross-sectoral collaborations between culture, health and **social policy** in existing EU programmes and actions such as:
- **European Social Fund Plus** (ESF+), supporting its work focused on the social integration of people at risk of poverty and social exclusion, for instance by including arts and culture organisations within the remit of the future European Competence Centre for Social Innovation;
- the EU's **strategic frameworks for addressing child poverty and social exclusion** (e.g., supporting the aspects of the EU Child Guarantee related to healthcare, leisure and cultural inclusion);
- creating dedicated strands of financial support to projects supporting measuring impacts, collecting data and evidence, establishing and keeping up mechanisms to implement cross-sectoral collaborations between culture, health and **regional cohesion policy** in existing EU programmes and actions; **INTEREG 2021-2027** – in particular, supporting its work on a more social Europe, bringing Europe closer to citizens and better regional governance.
 - supporting measuring impacts, collecting data and evidence, establishing and keeping up mechanisms to implement cross-sectoral collaborations between culture, health and regional **development policy** in existing EU programmes and actions such as:
- **European Regional Development Fund** (ERDF) 2021-2027 to improve regional art, culture and health infrastructure, particularly by supporting its work to achieve Policy Objective 4: a more social and inclusive Europe implementing the European Pillar of Social Rights and Policy Objective 5: a Europe closer to citizens by fostering the sustainable and integrated development of all types of territories and local initiatives.

Culture, Health and Well-being: Addressing European Challenges

As mentioned in the introduction, this scoping review is important in light of several present and emerging challenges faced by Europe. Although this report was not structured around those challenges, this section proposes a different reading of the scoping review findings. In doing so, it establishes new links between existing needs and pathways for future action.

1. The need for an increased focus on health promotion and prevention

The importance of health promotion and prevention across the human lifespan is well known. However, in the EU, **public and private expenditure on preventive care accounted for only 2.8 per cent of total health expenditure in 2018** on average, with the highest shares recorded in Italy (4.4 per cent) and Finland (4.0 per cent) (Eurostat, 2021). The tension between existing knowledge on the one hand, and investment patterns on the other, becomes stronger when one considers the existence of research suggesting that focusing on health promotion and prevention is a highly cost-effective investment (UK Health and Security Agency, 2016). Additionally, taking into account the social determinants of health, focusing on health promotion and prevention could also potentially pre-empt the reinforcement of health inequalities – see the challenge entitled **‘The association between ill health and patterns of inequality’** for more.

This challenge could be addressed by recognising the health benefits of culture and thus increasing the spending on mixed-methods approaches, such as activities with potential benefits in terms of prevention and health promotion, based on the combined efforts of health, culture, social care and other budgets. In this context, one could also consider using arts and culture for health communication and increased public engagement during the development of health policies.

Case stories:

Several studies found positive associations between participation in both receptive and creative cultural activities and good health (Cuypers et al., 2012; D Wziak-Biaowolska, 2016; Wziak-Biaowolska & Biaowolski, 2016; Ekholm et al., 2016).

There is also evidence associating viewing a visual artwork with stress reduction and systolic blood pressure reduction (Law et al., 2021), and the aesthetic experience related to visiting a cultural heritage site with stress reduction (cortisol levels) and an increase in well-being (Grossi et al., 2018). Group singing was found effective in improving respiratory and cardiovascular function, cognitive function and psychological well-being, (Hagemann, 2021), reading in improving mood and mental states (Jensen et al., 2020) and dance activities in improving mood, reducing depression and anxiety symptoms, relieving pain and enhancing physical functioning (Baltà Portolés, 2021, Cruz-Ferreira et al., 2015, Brustio et al., 2018, Kim & Lee, 2016).

Multiple studies suggest that attending theatre performances with health-related subjects increases awareness of and understanding of various health conditions (Burns et al., 2018; Cueva et al., 2016; Ghosh et al., 2006).

2. A growing mental health crisis

The mental health crisis, exacerbated by the COVID-19 pandemic, is one of the main challenges facing policymakers today, as has been recently recognised by the European Parliament (2022b). This issue is **particularly present in 15–24-year-olds**, among whom mental health issues have doubled in the last two years. Indeed, several longitudinal studies of adolescents in the USA, the Netherlands and Peru detected an increase in depressive symptoms during the pandemic (Barendse et al., 2021). Around the world, suicide is the 'fifth most prevalent cause of death for adolescent boys and girls aged 10–19; for adolescents 15–19, it is the fourth most common cause of death, after road injury, tuberculosis and interpersonal violence. (UNICEF, 2021).'

Additionally, cases of depression, loneliness and stress among the child population have risen dramatically. To give some examples, in Croatia there were 57.1 per cent more suicides in 2020 in the 15–25 age group, 70 per cent of all suicides in Bulgaria occur in youth, and self-harm and suicide attempts by Italian teenagers increased by 30 per cent between the autumn of 2020 and spring 2021 (Taylor, 2022). The mental health crisis is exacerbated by a series of indirect and direct reasons (such as the pandemic, climate anxiety, war, economic and energy crises).

That said, the COVID-19 pandemic – as a physical health crisis with impact on the mental health of the population, which is often described as a second but silent pandemic – only reinforced a pre-existing crisis. As a European Parliament brief puts it, 'according to the Health at a Glance: Europe 2018 report, **one in six people across EU countries – about 84 million individuals – had a mental health issue in 2016**', well before the pandemic (EPRS, 2021).

Thus, a focus on 'action that minimises risk factors and maximises protective factors in key areas of children's and adolescents' lives, especially the family and school' (UNICEF, 2021) is not only highly important in the post-Covid context, but also likely to remain topical in the future. **The challenge lies in making the shift towards a more preventive approach to mental health issues among young people. Culture can support this paradigmatic change.**

As is stated in a recent article on the notion of preventive psychiatry for young people, 'universal public health approaches targeting school climate or social determinants (demographic, economic, neighbourhood, environmental, social and cultural) of mental disorders hold the greatest potential for reducing the risk profile of the population as a whole (Fusar-Poli, 2021).'

This is echoed in the European Parliament's statement that 'any EU mental health strategy aimed at children and young people must first and foremost provide them with opportunities to be heard [...] a successful strategy must involve [...] cultural institutions.' Therefore, 'a holistic understanding of health [...] includes overall physical, mental and social well-being, and requires comprehensive prevention and healing strategies, including cultural and sporting activities, and promoting the development of creative and social skills (European Parliament, 2022b).'

More broadly, the workload and drain caused by the pandemic on health professionals and beyond has led to an increase in levels of **anxiety and depression** (EPRS, 2021). A survey conducted in Europe in 2021 (Statista, 2022) shows that 66 per cent of respondents in Poland, 59 per cent in Czechia and 45 per cent in France experienced or were close to work-related burnout (classified by the WHO as a syndrome resulting from ill-managed chronic workplace stress), while a study conducted in Spain during the pandemic found that the burnout syndrome among healthcare professionals ranked at 43.4 per cent (Torrente et al., 2021). Moreover, as the 2021 World Happiness Report noted, there was also a noticeable association not only between the pandemic and the rise in mental ill health, but also an increase of inequalities within the population and between social groups in this regard (World Happiness Report, 2021).

Finally, culture is also increasingly recognised as supporting the **social reinsertion** of individuals who faced a period of homelessness (Scherer et al., 2016), ill health (Reynolds et al., 2008; Fenech, 2009), prison (Kelaher et al., 2014) or other difficult situations (e.g., **adolescents in a court-referred residential treatment**, Bittman et al., 2009 and **men with disabilities in community rehabilitation**, Fulton et al., 2016). This requires establishing structured links between the culture, health and social care systems.

All in all, there is an urgent need to address the mental health of the population and in particular of the most vulnerable social groups. However, the supply side frequently lags behind demand due to funding and staffing issues. Linking culture and arts with health interventions (for example, as part of primary health care delivery) offers potential gains, while also saving national, regional and local budgets and social expenditure in the long-term. According to OECD estimates (OECD, 2018), in 2015, mental health disorders cost Europe over €600 billion (around 4 per cent of GDP). Specifically, depression and anxiety alone have an estimated cost to the global economy of US\$ 1 trillion per year in lost productivity (WHO, 2016a). Indeed, **integrated public health solutions have been found to have a high Return on Investment (ROI) ratio** (1 to 14 on average, 1 to 27 for nation-wide interventions – see Masters et al., 2017).

As the scoping review highlighted, culture can increase awareness of mental health challenges and offer contexts for people to manage them via cultural participation before and during, instead of after other forms of management and treatment. Unleashing this potential would require limited (if any) changes to the programming of cultural organisations. That said, deploying large-scale strategies such as cultural social prescription could further reinforce the contribution of the sector in terms of mental health promotion and mental illness prevention. **Particularly, studies organised according to category 1. Culture and Health** (Prevention of ill health and Management and Treatment of Mental Health Conditions) and **2. Culture and Subjective Well-Being** (further organised into the following categories: A. Personal Fulfilment and Engagement; B. Personal Orientation; C. Experiences of Emotions; D. Personal Evaluations of Life) provide ideas that may inspire action aimed at addressing this challenge in the future.

This challenge could be addressed by funding cultural activities with potential benefits in this context by supporting cross-sector partnerships to widen access to these activities, and enabling further research in the field of culture for mental health and well-being. While doing so, it is important to develop mechanisms to take care of the mental health and well-being of actors involved in the implementation of cultural activities in this context.

Case stories:

Results showed that participation in receptive and creative cultural activities was associated with good health, good satisfaction with life, low anxiety and depression scores (Cuypers et al., 2012).

Reagon et al. (2016) found that group singing led to reduced anxiety and depression in people living with mental illness. Furthermore, Williams et al. (2018) showed that group singing led to improved emotional states, senses of belonging and self-confidence.

Wulff et al. (2021a) found that singing-based early postpartum interventions led to improved maternal emotional state and mother-infant bonding.

Coulton et al. (2015) found that old people's active engagement with art enabled a decrease of anxiety and depression. Dunphy et al. (2019) further presented evidence that such benefits were the result of improved physical, intra-personal, cultural, cognitive and social factors.

Active engagement with a variety of creative activities such as singing, dancing, creative writing, drama, visual arts and crafts benefited individuals with mental health problems through improved emotion regulation strategies (Dingle et al., 2017; Fancourt & Ali, 2019), increased experience of positive emotions (Dingle et al., 2017; Slattery et al., 2020), well-being (Leckey, 2011) and improved self-acceptance and identity in relation to being mentally ill (Buchan, 2020; Ørjasæter & Ness, 2017; Slattery et al., 2020; Sitvast & Springer, 2020).

Hilse et al. (2007) and Dowrick et al. (2012) found that reading activities supported adults with mental-health difficulties by reducing depressive symptoms and improving personal meaning and social connection.

3. The need to support the broader health and well-being of young people

Alongside their mental health, supporting the broader health and well-being of young people is another important challenge facing European policymakers. In a 2012 report, the WHO identified the social determinants of health and well-being among young people. The report notes that young people 'face many pressures and challenges, including growing academic expectations, changing social relationships with family and peers and the physical and emotional changes associated with maturation. These years mark a period of increased autonomy in which independent decision-making that may influence their health and health-related behaviour develops. **Behaviours established during this transition period can continue into adulthood** (WHO, 2016c).' That is, supporting the health of young Europeans at such a crucial moment of their lives can also be seen as an investment in the future health and well-being of the citizens and inhabitants of the European Union.

Particularly, studies organised according to category 3. Culture and Community Well-Being, subcategory B. School and Work-Related Well-Being provide ideas that may inspire action aimed at addressing this challenge in the future.

This challenge could be addressed by promoting cultural activities tailored to this specific age group and making them available through cultural, educational, social and health setting, ensuring access to youth from underprivileged communities. The use of culture-based social prescribing could also help to address it. More broadly, as with several other challenges, supporting the health and well-being of young people would be facilitated by the recognition that cultural activities are complementary to traditional medical responses for both ill health and its prevention.

Case stories:

A large-scale survey showed that active participation of adolescents in cultural activities is associated with **better reported health, life-satisfaction, and self-esteem** in adolescents, with a higher frequency of participation being associated with better-reported outcomes (Hansen et al., 2015). creative engagement in adolescents was also found to be associated with **mental well-being and resilience** (Efsthathopoulou & Bungay, 2021) and promotion of **healthy lifestyles**, such as engaging in physical activity and reduction of risk behaviours (Bungay & Vella-Burrows, 2013).

Mak & Fancourt (2020) found that daily reading for pleasure in childhood was associated with better behavioural adjustment in early adolescence.

Active engagement with art supported **emotional regulation** in schoolchildren (Moula, 2021) and early-age children (Gao et al., 2021).

Young people engaged in photography activities have reported experiencing a reduced feeling of isolation and marginalisation (Charles & Felton, 2020).

Pellicciari et al. (2013) found that theatre activities supported patient care and quality of life in children and young adults with eating disorders in hospital care.

The development of creative skills could support personal and professional development, as well as the ability to navigate life in the case of children (Kucirkova et al., 2014; Barnes, 2014) and youth (Rodgers & Furcron, 2016).

Creative activities can contribute to the **empowerment** of students from disadvantaged groups (Mazza, 2012) and **self-expression** in the case of students (Chang et al., 2019).

Use of accessible technology like mobile phones as a platform for engagement in creative activities may be an attractive **learning tool** for children and adolescents from educationally disadvantaged communities (Duarte-García & Sigal-Sefchovich, 2019).

4. Ongoing changes to labour markets, patterns of work and the economy

A further challenge that is currently faced by the European Union regards the **ongoing changes to labour markets, patterns of work and the economy**. These changes predated COVID-19 but were also exacerbated in many ways by the pandemic. Among other issues, a discussion paper by the McKinsey Global Institute on the future of work in Europe (Smit et al., 2020) suggested that the future impact of automation on occupational categories is likely to be differentiated, and that this is likely to 'accelerate the concentration of potential net job growth' (2020). This may be accompanied by increased diversity and flexibility of working patterns and organisational preferences. Simultaneously, the transition to the green economy will require profound changes, not only by carbon-intensive economic sectors but also, more broadly, towards different patterns of consumption and ways of living. To face this challenge, it is important to **strengthen critical thinking and the capability to deal with complex challenges in a transversal way**.

Schools have an important role to play in this context by providing widespread access to artistic education and cultural activities. Interestingly, the McKinsey Global report states that the future concentration of jobs is likely to take place in places with 'highly educated workforces with a strong representation of STEM skills' (Smit et al., 2020), among other characteristics (with STEM referring to science, technology, engineering and maths). The report's lack of recognition of artistic skills – evident in its failure to refer to STEAM, a similar acronym also including the arts – is in contradiction with the statement that 'creative and arts management roles could increase by more than 30 percent' (Smit et al., 2020). This echoes statements by organisations such as the World Economic Forum regarding the importance of creativity as a skill in the economy of the future (WEF, 2019).

More broadly, the overlapping changes to the labour market and to ways of work, as well as to the current economic paradigm, require focused action to pre-empt their negative impact on the health and well-being of workers. This requires not only preventing burnout and the reinforcement of what has recently been described as the Great Resignation, but also increasing workers' well-being and sense of purpose. Pre-empting the potentially negative impact of these changes on individuals' health and well-being requires a broader commitment to, and sense of caring for, the well-being of workers. Indeed, most people currently living with mental disorders are employed (Leka & Jain, 2017).

Culture can support the EU and other stakeholders in facing these challenges in many ways. Particularly, studies organised according to category 3. Culture and Community Well-Being, subcategory B. School and Work-Related Well-Being provide ideas that may inspire action aimed at addressing this challenge in the future.

This challenge could also be addressed by promoting cultural activities and by making them available through education, training, workplaces, rehabilitation and other relevant settings. The cross-sectoral work required to address this challenge reinforces the need to encourage Member States to establish their own culture for health and well-being strategies, and to assign dedicated finance and personnel to the promotion of integrated culture, and health policies and interventions.

Case stories:

Health service workers singing in a work-place choir perceived **an improvement in their mental health, a reduction of depression** and an enhanced **social connectedness, personnel engagement and enjoyment** (Moss & O'Donoghue, 2020). Engaging with creative activities also enabled **personal growth and development of collaboration skills** in medical students (Jones et al., 2017; Nagji et al., 2013).

Involvement with the arts helped people acquire new abilities and **strategies to cope** with stressful experience (Sun & Buys, 2016), self-imposed limitations (Yuen et al., 2011) and bullying (Ta Park et al., 2020).

Healthcare workers and caretakers involved in music and singing interventions experienced **reduced stress, increased motivation, energy and job satisfaction, and feel more caring** (Shibazaki & Marshall, 2017; Osman et al., 2016; Shuber & Kok, 2020; Anderson & Gustavson, 2016) and better able to deal with their burdens (Leonard & Libera, 2020).

Viewing a visual artwork can have the effect of a **reduction of stress** (Law et al., 2021). Singing and music listening helped reduce stress in students (Fiore, 2018). Participation of adults with burnout symptoms in a series of creative workshops led to **lower levels of burnout** (using a scale of high to medium or low), a higher level of **well-being** and a higher number of **positive experiences** (Cacovean et al., 2021).

Arts and crafts were proven to be successful when used as **occupational therapy in rehabilitation** (Fulton et al., 2016) and **leisure occupation for people who are not active on the labour market** due to old age (Edwards & Owen-Booth, 2021) or illness (Reynolds et al., 2008; Fenech, 2009).

Active cultural participation enabled the **acquisition and development of skills** such as **collaboration and communication** (Chang et al., 2019; Eleni & Georgios, 2020; Gao et al., 2021; Pearce & Lillyman, 2015; Jones et al., 2017; Barnes, 2014; Lister et al., 2009), and technology skills (Gilliam et al., 2012) that can support personal and professional development of adults in the workplace (Chang & Netzer, 2019).

5. An ageing population

The European Union also faces **a demographic challenge: in 2021, 20.8 per cent of the EU population was aged 65 and over** (Eurostat, 2022a). By 2050, this figure is expected to rise to almost 30 per cent of the total population, and between 2016 and 2060, the proportion of people aged over 80 is expected to more than double, to 12.1 per cent. Simultaneously, 'the working age population (those aged 15–64) in the EU is expected to decline by 11.6 per cent. As economic growth until now has been fuelled to a large extent by workforce growth, a smaller labour force might have **adverse effects on the European economy and social systems** (European Commission, n.d.1).'

Additionally, the **health and well-being issues faced by this population are manifold**. Recent evidence suggested that 40 per cent of elderly adults experienced loneliness, and between 7–17 per cent were socially isolated (Health Commons, 2019). In 2050, it is expected that **38.1 million people will be in need of long-term care in the European Union** (Council of the European Union, 2021). Additionally, while life expectancy for women in the EU was, on average, 5.7 years longer than that for men (according to 2020 data), most of those additional years tended to be lived in poor health. More, healthy life years at birth was estimated at 64.5 years for women and 63.5 years for men. It should also be noted that care for the elderly is traditionally done by women in a family setting; this creates an additional burden alongside their working and family life, which may contribute to decreased well-being, if not to mental health problems. More, 'people who are isolated [and lonely] have a 50 per cent greater risk of dying earlier than who are connected, [and] have higher rates of stress, anxiety, depression and cognitive decline. Isolation increases the risk of dementia with 64 per cent (Health Commons, 2019). The number of people with dementia is [...] set to double by 2050 (Alzheimer Europe, 2019).'

Active ageing (understood as 'helping people stay in charge of their own lives for as long as possible as they age and, where possible, to contribute to the economy and society' (European Commission, n.d.1)) **prolongs the time before there is a need for long-term care** and its corresponding high costs. Unless healthy ageing is promoted, an ageing population decreases the percentage of the workforce in good health, which increases the need for long-term care and health expenditure, and slows economic growth. Thus, among other things, failure to promote healthy ageing can contribute to the gradual reduction of the percentage of the workforce that remains in good health, an increase for the need for long-term care and health expenditure associated with such care, and slower economic growth.

Healthy and active ageing – one of the main priorities of the EU's health and social inclusion policies (European Commission, n.d.1) – can be promoted through coordination of health, long-term care and other services, as well as **the promotion of healthy and sustainable lifestyles** (EuroHealthNet, 2021). Indeed, older people who experience loneliness and social isolation have a 50 per cent greater risk of dying earlier, and an increased risk of dementia by 64 per cent more than those who feel socially connected. They also have higher rates of stress, anxiety, depression and cognitive decline. It is not absurd to suggest that these figures may be connected to the fact that up to 30 per cent of all GP visits in England are directly linked to non-medical problems, such as social isolation and loneliness (NHS, n.d.).

It is crucial, then, that the EU's forthcoming European Care Strategy is 'future-oriented', seeking 'to prevent and minimise care needs. Improved living and working conditions over the life course are key in achieving this (Eurofound, 2022).' Doing so will improve the resilience of the EU's health systems, one of the key points of the European Health Union, which is in turn one of the EU's priorities for 2019–2024 (European Commission, 2020a), and will make it easier to guarantee long-term care of good quality to all, which is point 18 in the Joint Action Plan on the Social Pillar (European Commission, 2017).

By contributing to active ageing and opposing loneliness and isolation, culture can support the EU's active ageing strategy, promoting health and well-being, and potentially contributing to a decrease in the number of people in long-term care. **Particularly, studies organised according to category 1. Culture and Health, subcategory A. Prevention and Promotion** provide ideas that may inspire action aimed at addressing this challenge in the future.

This challenge could be addressed by promoting cultural activities tailored to this specific age group, making them available via care and community settings, and supporting cultural venues such as museums, libraries and art centres to programme dedicated activities involving the active engagement of elderly people. These actions are cost-effective investments that can potentially enable a longer period of active ageing, alleviating pressure on relatives and unpaid caregivers, and delaying the need for costly long-term care. The use of culture-based social prescribing could also help address it. More broadly, health and care practitioners and professionals would be more likely to support the suggestions above, if they encountered curricula dedicated to the health and well-being benefits of culture during their education and training. This reinforces the need to develop specialised modules.

Case stories:

Participation in community singing helped **reducing feelings of loneliness** among elderly adults (Coulton et al., 2015). Feng et al. (2020) found that elderly people at a high risk of future dementia engaged in choral singing benefited from improved cognitive functions and ageing support.

Marquez et al., (2017) found that participation in dance classes positively affected the cognitive function of elderly people.

Elderly women actively engaged in music and painting benefited from increased functional capacity (Liddle et al., 2012), while dancing reduced their risk of falls (Cruz-Ferreira et al., 2015, Britten et al., 2017). Group singing had positive effects on the health and well-being of elderly people (Fu et al., 2018, Skingley et al., 2016).

Both receptive forms of cultural participation (e.g., theatre-going) and active ones, such as involvement in drama, singing and visual arts activities, are successful in increasing the social engagement of elderly people (Meeks et al.,

2020; Keisari et al., 2020; Cantu & Fleuriot, 2018; Pearce & Lillyman, 2015; Petrovsky et al., 2020; Brustio et al., 2018; Brustio et al., 2018).

Active participation (singing, visual arts) helped reduce isolation and feelings of loneliness of elderly people (Davidson et al., 2014), including of those living in disadvantaged urban communities (Murray & Crummett, 2010)

6. The association between ill health and patterns of inequality

Another challenge that must be mentioned in this context is the association between ill health and patterns of inequality. Specifically, health inequalities "reduce economic and social productivity and lead to higher healthcare and welfare cost" (EuroHealthNet, 2019). Research shows that each year €960 billion of the EU's GDP (9.5 per cent) is lost due to inequalities in health (WHO, 2016b). In this context, "a 50 per cent reduction in gaps in life expectancy would provide monetised benefits to countries ranging from 0.3 per cent to 4.3 per cent of GDP" (EU4Health, 2019).

It is important to note that 90 per cent of health inequalities can be explained by five factors: quality of health care; financial insecurity; poor quality housing and local environment; social exclusion; and lack of decent work or poor working conditions (WHO, 2019c). That is, **the social determinants of health have a bigger impact on individual health than lifestyle**, which continues to be the focus of traditional approaches to prevent non-communicable diseases. Rather, evidence suggests that socio-economic and environmental factors accumulate and affect health. Specifically, the gap in health between the poorest and richest is proportionately attributed to the following factors: 35 per cent to income security and social protection, 29 per cent to living conditions, 19 per cent to social and human capital, 10 per cent to health services and 7 per cent to employment and working conditions (WHO, 2019a).

In this context, **cultural actors such as museums and libraries could be redefined as community well-being spaces**; that is, as entry points for widespread access to social, educational or health services. The latter would be delivered to the whole population, but also targeted at specific groups requiring specialised support, such as the unemployed, the homeless and those in rehabilitation. This echoes EuroHealthNet's proposal of 'making local communities "umbrella settings for health"' and supporting 'integrated community care initiative[s]' (EuroHealthNet, 2022b).

This idea also echoes the ongoing discussions regarding the role of cultural institutions in fostering social inclusion and social justice, as evidenced by the new definition of museum that, at the time of writing, has been proposed by ICOM and is yet to be voted on: 'a museum is a not-for-profit, permanent institution in the service of society [...] Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing (ICOM, 2022).'

There is scope, therefore, for research and action focused on better understanding the potential impact of culture in action 'on the social, environmental and economic determinants of health', contributing to achieving greater equality in health outcomes, namely in the context of the Joint Action "Health Equity in Europe" (European Commission, 2018b).

If health inequalities and inequities are taken into account in the design of strategic action plans, **all the studies mentioned in the scoping review could inspire action** aimed at addressing this challenge in future. More specifically, this challenge could be addressed across the EU with dedicated research and development targeting the links between ill health, patterns of inequality and cultural interventions. These efforts could be led by a dedicated team; e.g., the research and policy staff of a Centre for European Culture, Health and Well-being.

Supporting further research in the field of culture for health and well-being to advance knowledge of the benefits of cultural interventions to address, and prevent the reinforcement of health inequalities, could also help respond to this challenge. That said, it is important to highlight that, while cultural activities can support broader efforts targeting the social determinants of health, such activities cannot address health inequity or its health consequences on their own.

Case stories:

Cultural participation was found to increase knowledge and awareness of various health conditions among **underserved communities** and provide support networks for disadvantaged individuals suffering from illness (Leckey, 2011; Leenders et al., 2011; Chung et al., 2009; Yuen et al., 2011; Cueva, 2010).

Social inclusion was facilitated by active participation in art activities taking place in **cultural venues** such as theatres and museums (Camic & Chatterjee, 2013). Access to a public infrastructure can be an entry point for social services, networks of support and a source of community for the socially excluded (Scherer et al., 2016).

Participation in creative activities facilitated **empowerment** and hope for personal and **educational development of disadvantaged youth** (Mazza, 2012).

Health workers' participation in a community theatre experience helped in **preventing discrimination and fostering community empowerment** for elderly **LGBT people in care centres** (Hughes et al., 2016).

Theatre and art workshops have effectively been used in social work for the **recovery of fragmented identities** and improving self-confidence and self-worth among the **homeless** (Cordero Ramos & Muñoz Bellerin, 2019; Silva et al., 2018). Theatre activities also created a respectful environment for adult learners from **diverse ethnic and cultural backgrounds** to engage in meaningful conversations (Cueva, 2010).

A community-based woodwork group was found to support **men with disabilities in community rehabilitation** to achieve their rehabilitation goals and improve socialisation (Fulton et al., 2016).

7. Promoting active citizenship

A further challenge lies in promoting active citizenship. As a highly complex entity, this topic is central to the future of the European Union, and has been increasingly recognised as such, as illustrated by the 2021-2022 Conference on the Future of Europe. However, this does not remove the need to continue to expand opportunities for citizen-led debates and discussions to take place, and to improve public accountability regarding decision-making at the European level and beyond.

This challenge can be rephrased as that of **empowering citizens**, so that they have the tools and the knowledge that will allow them to engage actively in decision-making regarding their lives and future. This echoes what is increasingly discussed in the heritage sector as participatory governance: the principle that communities should be able to participate in making and interpreting decisions regarding the management of their cultural landscape. This approach could be extended to other topics.

Indeed, the simultaneous phenomena of apathy and political polarisation require an expanding awareness of participatory tools. Empowering people in all walks of life is crucial if they are to be actively engaged in decision-making regarding their lives and future. This is likely to **support individual and collective adaptability and resilience** (RICS, 2021) in the context of an increasingly volatile, uncertain, complex and ambiguous world. Yet fulfilling this potential requires not only rethinking the role of cultural infrastructure in the European continent, but also supporting the sector with sustained funding and opportunities to foster and maintain strong and sustaining relations with local communities.

Cultural spaces – from libraries to art centres, whether big or small – could offer opportunities for communities to meet, participate in discussions and act on local and European challenges. **Particularly, studies organised according to category 3. Culture and Community Well-Being, subcategory D. Community Development** provide ideas that could inspire action aimed at addressing this challenge in future.

This challenge could be addressed by promoting participatory arts projects and other cultural activities tailored to this goal. Additionally, it is necessary to raise awareness (namely, among those who manage cultural spaces) of the evidence-based health and well-being benefits of cultural interventions in this regard.

Case stories:

During the COVID-19 pandemic, involvement with arts and creative activities proved to be a preferred strategy for people in isolation (Morse et al., 2021) and supported increased well-being and resilience. Creative activities were used as a **buffer for negative consequences** of quarantine and enabled **coping with challenges by using innovative strategies** (Kapoor & Kaufman, 2020). Studies have also evidenced **creativity as a resilience** factor in developing new projects and postponed affairs, adaptability, communication, situational control, flexibility (Elisondo, 2021). Singing helped with **emotional coping and bonding** (Corvo & De Caro, 2020).

Participatory arts projects enabled **community well-being, foster leadership skills and encourage people to take up new roles and responsibilities in their communities** (Cameron et al., 2013).

8. Supporting the mental health of forcibly displaced people

Finally, in the years ahead, the European Union is likely to continue to face the challenge of **supporting the mental health of forcibly displaced people**, including those fleeing the war in Ukraine, as described in a 2022 paper by the WHO, developed in collaboration with the CultureForHealth project (WHO, 2022a). Indeed, more than 11.9 million people had to leave their homes because of the war in Ukraine in the first half of 2022 alone. In this context, it is important to support the mental well-being of these individuals; this includes supporting the preservation of their personal identity and heritage, and acknowledging their experiences.

As the WHO paper highlights, **displaced people** – whether due to conflict or because of natural disasters, persecution, violence or human rights violations – **experience significant loss, physical hardships and other stressors** that can result in psychological distress. By promoting social inclusion, social cohesion, social acceptance and belonging, arts activities can support psychological, behavioural and social processes that are linked with improved mental well-being. This echoes what the IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings (IASC, 2007) identify as the types of interventions by government and other actors that can support the mental health and well-being of forcibly displaced people.

The challenge lies, however, in overcoming a patchy and fragmentary approach to this issue. Rather, art and culture could be embedded in a holistic and guaranteed strategy, focused on the health and well-being of forcibly displaced people. More, as the report highlights, 'artistic expression is an indicator of, and a contributor to, vibrant, resilient and healthy societies. Therefore, **investment in the arts means investment in the well-being and social cohesion of both forcibly displaced people and their host communities** (WHO, 2022a).' **Particularly, studies organised according to category 3. Culture and Community Well-Being, subcategory A. Social Inclusion** provide ideas that may inspire action aimed at addressing this challenge in the future.

This challenge could be addressed by the recommendations outlined in the WHO publication. It states that '1. [...] [...] Supporting arts, arts therapies and cultural activities can benefit the mental health and well-being of all people, whether they are forcibly displaced or members of host communities. 2. Arts and cultural activities can form an important part of an organised mental health and psychosocial support response [...]. Incorporat[e] artist led initiatives, arts therapies and arts interventions into the response. 3. People working in museums, libraries, performance venues, cultural centres, heritage sites and other cultural spaces, should consider how their venues can support forcibly displaced people, for example by showcasing their art, creating community theatre plays, organising musical events and concerts, or developing relevant educational activities. 4. In humanitarian responders, [active listening, cultural competence and diversity sensitivity] skills [brought about through artistic methods and practices] can greatly contribute to community empowerment and participation (WHO, 2022a).'

Case stories:

Engagement in community arts facilitated an increased **quality of life and enjoyment of life** as well as a **sense of community belonging** for new refugees and asylum seekers. Attending the presentation of an arts installation on the life of refugees also resulted in increased **awareness** on the life of refugees among community members (Philipp et al., 2015).

Through theatre and storytelling, young migrants and refugees may benefit by liberation from disempowering identities and the re-defining of relationships (Clayton & Hughes, 2015), as well as gain increased knowledge and confidence (Roberts et al., 2017).

There is evidence that music and singing can support **resilience** in participating adults (Daykin et al., 2018 and Sun & Buys, 2016). Creative activities improved the resilience of trauma survivors (Diamond & Shrira, 2018).

Conflicts of interest

There is no conflict of interest in this project.

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APPENDICES

Appendix I: Summaries of the Studies Included in the Scoping Review

This appendix presents one-paragraph summaries and extracts from all the studies included in the scoping review. It is intended to support researchers and cultural, social and health professionals interested in more details about a specific study listed in the synthetic tables in Chapter II. Research Findings. The studies are organised under the same thematic headings as in Chapter II, namely (1) Culture and Health; (2) Culture and Subjective Well-being; 3. Culture and Community Well-being; and (4) Culture and COVID-19. Within each thematic heading, however, the studies are grouped by art discipline to enable a different reading of the data extraction than the synthetic tables in Chapter II. For complete and perfectly accurate data, we recommend readers to study the full-text articles listed in References.

1. Culture and Health

Music

A small-scale, non-randomised experimental design investigated the effects of singing on health-related quality of life in people with Parkinson's disease (PD), their families and caregivers. All participants reported improved functioning in at least four of the six categories, including physical, mood, cognitive functioning, social connectedness, flow-on effects and sense of self. The experiment concluded that 'group singing may help to enhance health related quality of life for people with PD. Three participants reported negative experiences in one of three categories: (1) physical, an irritated throat due to overuse; (2) sense-of-self, reduced self-confidence due to a decline in singing ability; and (3) mood, due to frustration with the song type, fatigue from session duration or the reminder of memory decline when unable to recall lyrics. These negative reactions appear to mirror the functional limitations of PD that prevent participants from engaging to their full desire based on past abilities and expectations (Abell et al., 2017).'

A non-randomised, small-scale trial investigated maternal singing to their pre-term infant during feeding times, and tested its effect on infant behaviour and health in the neonatal intensive care unit environment. The study results suggested that 'maternal singing had a more general role in overall stress reduction rather than a contingent effect on feeding or weight gain. Nevertheless, it also positively influenced parents and nurses use of singing during feeding, nursing staff's general appreciation towards mothers' singing or music in the NICU, and their perceptions of its palliative effects (Blumenfeld & Eisenfeld, 2006).'

A small-scale RCT investigated the effects of 24 'weekly singing classes on maximal respiratory pressures (PEmax), spirometric measurements, and Quality of life of patients with COPD. It showed that singing is a feasible practice among patients with moderate to severe COPD in stable clinical conditions. The results suggest that singing led the patients to breathe at lower FRC levels during and just after practice. The most important functional finding was the positive influence of singing on PEmax. The improvement of PEmax associated with singing could also contribute to better coughing. Accordingly, singing may acutely promote small and transitory reductions of pulmonary dynamic hyperinflation, and to preserve PEmax in the long run. Singing classes are an amusing, non-risky and well-tolerated activity for selected subjects with COPD. Its regular practice may also improve Quality of life and preserve the PEmax of these patients (Bonilha et al., 2009).'

A Cochrane systematic review including data from 26 studies involving 2,051 participants presented strong evidence for the beneficial effect of listening to music for preoperative anxiety. All studies implemented pre-recorded music listening interventions and demonstrated significant effects on the reduction of anxiety measures (that is, psychological self-report scale) compared to control group. The authors concluded that these results echoed three former Cochrane reviews on music interventions for anxiety reduction in medical patients, and argued that there is enough strong evidence to suggest that music interventions are a useful alternative for psychoactive medications to treat pre-operation anxiety (Bradt et al., 2013).

A study aimed to identify how group singing might benefit Parkinson's disease patients. The results showed a potential increase in neurorehabilitative care regarding the quality of life of the patients. What seemed to help the most was the experience of connectedness and flow. A state of connectedness was a source of pleasure among participants, as they were able to connect both with themselves and others through the music they were singing. The state of flow appeared when participants were able to fully enjoy and connect with singing in a way that would absorb their focus and increase their sensitivity (Buetow et al., 2014).

Another mixed-methods pilot study investigated community singing group impact on people with a dementia (PWD) and their caregivers. Its major findings 'revealed that Singing Together Group was a very positive experience for the participants, helping to stabilise stress, anxiety, and quality of life for PWD. Being able to participate in a singing group challenged their own beliefs about not being able to sing and no longer fitting into 'normal' activities. Through a supportive and engaging process PWD participants were able to take risks of learning new songs, rhythms and movements in a socially inclusive environment. The study demonstrated the importance of considering the dyad of care partners in dementia care and the need to provide opportunities for people to do informal social activities together which focus on the PWD's strengths rather than their weaknesses and which support the relationship as well as promoting the well-being of both care partners. Carers seeing their relative able to behave normally in a social situation may help them retain a sense of the PWD's selfhood and, by providing the opportunity for peer support, help reduce their own isolation. Indications are that a good experience in a singing group might give PWD the confidence to try out and engage in other social activities that they have discontinued and so this may pave the way back into social integration (Camic et al., 2013).'

Music and various music-therapy interventions have significant relevance for pain and stress management. Strong evidence was provided that live music interventions can reduce pain and distress before, during and after medical procedures in children undergoing blood tests. Moreover, the same study highlighted that this activity is readily accepted and immediately perceived as pleasant and potentially beneficial by both children and parents (Caprilli et al., 2007).

A randomised controlled trial evaluated the effectiveness of community group singing designed for older people, focusing on mental health and quality of life. Participants seemed very interested and willing to take part in the singing groups. The group setting offered them the opportunity to balance the feeling of loneliness, and feelings of anxiety and depression were lowered while they participated in the group singing, and were still present three months after. However, the results were not being sustained six months later, which could suggest that the group activities themselves were the greatest asset (Coulton et al., 2015).

During the COVID-19 pandemic, many support activities moved online, including singing groups. One scoping review focused on people with dementia and their caregivers, and how they responded to the online organisation of singing groups. There seemed to be promising results regarding digital interventions and from remotely delivered music therapy. However, technology use in older people with dementia presented many obstacles, and interventions needed to be adapted to their levels of understanding. All in all, there was a need for constant development of innovation and communication through different digital instruments (Dowson & Schneider, 2021).

A large-scale survey of general adults in the Danish population using a random sample of 25,000 participants examined the health effects of daily music making, including at least one hour per day of either playing an instrument or singing. The main study results indicated that daily music-making was associated with reports of better health, compared to individuals who reported none. For women, another major significance was found: those who reported daily music-making activities reported better physical or mental health compared to the control group (Ekholm et al., 2016).

A small-scale randomised controlled clinical trial (RCT) tested the effects of a group music therapy voice and singing intervention on speech, singing, and depressive symptoms in individuals with Parkinson's disease (PD). The results demonstrated that 20 weekly group voice and singing sessions had a positive influence on improved singing abilities, with slight improvements in speech and potential prevention of the deterioration of speech ability. The researchers suggested that the improvements in singing skills may have 'prevented deterioration in speech function. In addition, since the intervention was focused on achieving improvement in speech and singing characteristics, being more technical by nature rather than focusing on improving symptoms of depression. Therefore, different protocols may be more suitable when decreasing depressive symptoms is the primary focus of the intervention (Elefant et al., 2012).'

An RCT which focused on the health effects of group singing in mothers suffering from postnatal depression found significant improvements in women diagnosed with moderate to severe postnatal depression symptoms. Some 134 participants were randomised into either group singing with their babies, group play workshops or as a control. The singing group participated in 10 weekly sessions. Overall, compared with the play or control group, the singing group presented a non-significant trend of quicker improvement in post-natal depression symptoms, though significance in improved symptoms was demonstrated for mothers in the singing group that dealt with higher levels of depression symptoms (Fancourt & Perkins, 2018).

People who care for somebody with cancer face many challenges, including emotional ones. A non-randomised study focused on psychosocial interventions, more specifically singing, as a way of reducing anxiety, depression and improving well-being. Taking into consideration previous positive results on the benefits of singing on cancer patients, the study can be promoted to cancer caregivers as well. Some considerations about these possible results are stating that choir singing provides emotional experiences, a sense of identity, social support, resilience and the chance to develop musical skills (Fancourt et al., 2019).

A randomised active-controlled trial which included elderly Singaporeans at high risk for developing dementia assessed the effect of singing on cognitive decline. Some 93 participants were randomised into two groups: one took part in a weekly one-hour choral singing meeting and the other took part in a one-hour health education session for a period of two years. Both interventions had the same frequency and duration. Apart from measuring the change in cognitive function during the period of the study, secondary outcomes such as brain magnetic resonance imaging metrics, blood markers of immunosenescence and peripheral markers of oxidative damage were measured. The findings of the study support the fact that choral singing is an intervention with significant potential with regard to cognitive health in ageing. Moreover, the study reported a low drop-out rate, with one successful factor being the repeated measurement of brain imaging, cognitive function and markers of biological ageing. However, the study did not include a non-intervention control group and only included a small sample size. This study is the first randomised trial in the world to systematically assess the effects of singing on the cognitive decline in the elderly, and more specifically on immune system, brain imaging and oxidative damage markers (Feng et al., 2020).

A non-randomised quasi-experimental pilot study found that a group-singing programme for older adults in senior living communities was well-received and that similar programmes could promote memory, language, speech information processing, executive function and respiratory muscle strength. 'Singing demonstrated significant cognitive improvements for phonological and animal verbal fluency tests and immediate word recall tests after the three-month group-singing programme. A significant post-test changes indicated that the group-singing programme with breathing training may potentially promote respiratory muscle strength in order to delay ageing-related respiratory declines. Participants reported they were most appreciative of live musical accompaniments, deep breathing exercises, and round singing. Interestingly, the participants did not appreciate the informal socialisation time at the end of each session and did not think their social life was improved based on participating in this programme. The timing and location of programme might be other influential factors. The communities offered many programmes and scheduled them one following another (Fu et al., 2018).'

A systematic review and meta-analysis focused on music interventions for physiological stress responses to surgery included

eighteen studies with 1301 participants, of which eight studies were included in the meta-analysis. All studies in the meta-analysis implemented a recorded music intervention in which patients listened to music in different stages of the surgery (before, during and after). In most trials, the study team selected the music, and in the majority the music chosen was described as 'soft, soothing or relaxing'. In general, the meta-analysis found significant effect in the music group compared to controls in reduction of physiological stress markers, where music listening before operation decreased the pre-surgery neuroendocrine cortisol stress response (Fu et al., 2019).

A small-scale RCT demonstrated that choir singing combined with respiratory muscle training for 12 weekly sessions improved respiratory muscle strength and quality of life in patients with chronic structural heart disease (Ganzoni et al., 2020).

Several studies have explored the role of music and singing as a treatment for respiratory symptoms, showing positive effects as both physiological and psychological therapy. Many studies support the use of singing as an adjunctive treatment for respiratory diseases and ailments to complement standard medical care. Physical benefits include increased respiratory muscle strength, reduction of dyspnoea and perceived respiratory symptoms. Psychological outcomes included improved mood, vitality, social functioning, reduced mental pain and increased overall quality of life. Participants perceived singing as an effective therapy that was fun, improving mood, teaching breathing and breath control, and as a good exercise for the lungs as well as having improved physical function. They also identified social benefits related to joining a singing group and interacting with other patients or teachers. Singing was also considered to have limited risks and low cost. By attending regular lessons participants would naturally benefit in multiple quality of life domains, contributing to a possible placebo effect (Goldenberg, 2018).

A systematic review on the existing evidence on choral research concluded that there is an international consensus on varied beneficial health effects from collective singing (that is, choirs and singing groups). These included the physical benefits of improved cardiovascular and respiratory function, improved immunity and brain function. Psychological benefits included mood alteration and emotional expression, identity development and improved inner and external communication skills. Social benefits included an improved sense of social inclusion and belonging, improved social skills and provision of a platform for social bonding. Furthermore, collective singing may lead to educational benefits, including improved reading skills, language development and speech production (Hagemann, 2021).

A non-randomised experimental trial investigated the effects of music therapeutic caregiving (MTC) on persons with dementia (PWD) and their caregivers during morning care situations. During the MTC intervention, PWD scores for expressions of resistant behaviours were lower in the mean number of seconds, with significant decreases observed for three variables. This indicated that MTC might be a way for PWDs to experience caring in a less problematic way because they express less resistance to it. PWDs' expressions of positive emotions increased significantly, while negatively expressed emotions decreased in mean number of seconds, but not to a significant degree during MTC. PWDs' expressions of general alertness, which included participating in a task, eye contact and looking around the room and responding increased significantly during MTC. MTC might be an effective nursing intervention for PWD, as the subjects of this study seemed to experience morning care situations as less uncomfortable and perhaps more joyful, as evidenced by a decrease in resistant behaviour and an increase in positive emotions (Hammar et al., 2011).

A non-randomised study compared the effects of two different therapeutic approaches on brain activity recorded by magnetoencephalography in association with laser-heat pain, to describe the effects of music therapy on pain perception. The study's findings implied that the two music treatment modalities investigated influenced pain perception via at least two processes involving changes in delta and gamma band activity at various phases of the pain processing system. Participants redirected their attention away from the painful stimuli and toward the music (Hauck et al., 2013).

A systematic review and meta-analysis demonstrated beneficial effects of music interventions during the post-operative period. The review identified 73 studies, of which 72 were included in the quantitative meta-analysis. Most studies implemented a music-listening intervention and presented a wide variation in the types of music used (whether they were chosen by a patient or a researcher), the duration and dose of music, the stage in which music was played (before, during or after surgery) and the method of provision (that is, whether headphones, music pillows or other devices were used). Nevertheless, the meta-analysis concluded that there were significant beneficial effects in the use of music interventions for patients in the recovery period after surgery. Compared to the control group, music intervention reduced pain, anxiety and use of analgesics after surgery and improved patient satisfaction. When patients chose their music, a non-significant trend for pain reduction was found. Music interventions were also effective when patients were put under general anaesthetic (Hole et al., 2015).

Significant relief of orthodontic pain was reported by individuals listening to brainwave music (BWM), compared to cognitive behavioural therapy (CBT), an established pain-management technique in psychotherapy. BWM therapy is a highly tailored biopsychological method of pain management (Huang et al., 2016).

A pilot study found group singing to be beneficial in the case of patients with chronic pain in a multidisciplinary chronic-pain clinic. Because they encourage a better use of the respiratory system, singing interventions can result in a multiple range of positive feelings, including increased self-esteem, confidence, motivation and empowerment. The study also noted how singing is an enjoyable social activity that provides bonding experiences and positive social interaction. Singing interventions connect patients with others having the same health condition. This form of peer support can help patients overcome the "misery circle", where illness leads to social isolation that in turn worsens the illness. These favourable findings might support the introduction of group singing in the clinic's pain-management programme (Irons et al., 2020a).

A non-randomised pre-post-test experimental design focused on the effects of a group-singing intervention on Quality of life and mental health in 95 people with Parkinson's (PwPs) from different care centres in Australia, the UK and South Korea. The study findings affirmed that group singing can promote better Quality of life and mental well-being. After a six-month weekly group singing programme, participants experienced reduced anxiety, stress, and perceived stigma as well as enhanced social support. Overall,

these positive results were similar in both Eastern and Western countries as well as across gender, although there were some differences. Given ageing populations and protracted Parkinson's disease progression in developed countries, group singing therapy could become part of mainstream treatments to improve the Quality of life of PwPs (Irons et al., 2021).'

A systematic review on the effects of group singing on persistent pain in people with long-term health conditions reported on outcomes from 13 trials including 318 participants. The review concluded that 'there is limited support for the effects of group singing on chronic pain in people with longterm health conditions. Group singing appears to have the potential to reduce pain intensity, pain interference and depression based on the limited corpus of studies with variable quality. Qualitative data in this review also highlighted that singing programmes were enthusiastically received by participants and had positive impacts on the physical, psychological, and social aspects of participants' lives suggesting a variety of mechanisms (Irons et al., 2020b).'

For young children with autism enrolled in community-based, inclusive childcare programmes, outdoor play can be a major challenge. An experimental musical adaptation of the playground did not improve social interactions of children with autism significantly, but did facilitate their play and involvement with peers by being attracted to the sound and the opportunity to use the instruments. The song interventions produced desirable peer interaction outcomes, and the collaborative, consultative approach enabled teachers to implement interventions successfully in ongoing playground routines. In addition, peer-mediated strategies increased peer interactions and meaningful play on the playground (Kern & Aldridge, 2006).

A different systematic review of clinical benefit for singing in respiratory disease (that is, singing for lung health or SLH) included six studies, involving 343 participants and interventions that varied in length between four to 36 weeks. 'There has been a rapid spread of singing groups across the United Kingdom. SLH has the potential to have a positive impact on the lives of people with lung disease, improving health status and social participation. The benefits of singing can be considered in three broad categories (physical, psychological, and social), though these necessarily overlap and interact. Beneficial mechanisms include breathing pattern can be modified by conscious attention or training to influence use of inspiratory and expiratory muscles. Skills acquired during singing may help to avoid the rapid 'breath-stacking' pattern of breathing in COPD, where dynamic hyperinflation reduces inspiratory reserve volume and worsens breathlessness. These improve respiratory muscle and/or lung and airway mechanics, prolonging expiratory time, allowing a reduction in operating lung volumes. Controlling expiration through singing techniques may have analogous effects, being useful when managing and recovering from episodes of extreme breathlessness. Singing may also enhance sputum clearance as both dynamic lung volume and airflow are increased, features present in conventional physiotherapy techniques. Singing, by allowing conscious attention to breathing in a context associated with the positive achievement of song, is an activity that a respiratory patient can do well, receiving well-earned praise and thus boosting self-esteem. Participation itself may improve physical activity levels, which are known to be reduced even in people with early COPD. Key to an effective singing group is a leader with the appropriate training, skills, and competencies to support participants. Singing for breathing does not yet have any accredited training programme for group leaders. Competencies, standard operating procedures or protocols will need to be developed. Care will be needed to ensure that language is mutually understood (Lewis et al., 2016).'

Another RCT tested the effects of 'group singing therapy on depression symptoms and quality of life of 60 Chinese patients with stable chronic obstructive pulmonary disease (COPD)'. The researchers concluded that group singing therapy might help decrease depressive symptoms and improve quality of life. The beneficial effects increased with the lengthening of the duration of therapy. Furthermore, it was an enjoyable and well accepted experience by the participants (Liu et al., 2019).

A post-hoc observational study on the Zurich Disability Prevention Trial aimed to investigate the association between playing a musical instrument and cognitive function in older adults that do not suffer from cognitive impairment. Results suggest that playing a musical instrument does, indeed, have benefits both immediate and long-term, and might be a protective factor for cognitive disabilities. The reason for this is that playing an instrument is an activity that stimulates cognitive function, and implicitly also executive functions. Therefore, for people playing a musical instrument in the present, there are long-term benefits in maintaining a good quality of life, but also due to the fact they have more social contacts through these activities, positively influencing their social connections and quality of life (Mansky et al., 2020).

Another qualitative study explored the subjective experiences of a community singing group for people with chronic obstructive pulmonary disease (COPD). 'The participants described the group environment as a safe place in which they could relax and enjoy themselves, in which gradually they felt they had shared ownership. They described feeling at ease regarding their health state and limitations with a group of people who shared similar experiences. Additionally, feeling being cared for. Another influential factor related to the medical staff involvement. Performing to an audience boosted their confidence and gave them a sense of achievement. They also appreciated the opportunity to perform as a contribution to their local community as well as wider audiences. In addition to the enjoyment of the group, the shared purpose engendered a sense of shared responsibility (McNaughton et al., 2016).'

A small-scale observational study on community singing groups for individuals with chronic obstructive pulmonary disease (COPD) demonstrated that long-term participation was feasible, improved exercise capacity and assisted in anxiety reduction (McNaughton et al., 2017).

A special programme was designed to assist patients after laryngectomy (that is, removal of their voice box), usually in the advanced stages of throat cancer. Rehabilitation after such surgery requires patients to perform repeated breathing, voicing, articulation and tongue movement exercises to support their communication abilities. However, speech therapists report difficulties in the maintenance of motivation and the engagement of patients in such activities. Accordingly, special beatboxing training was designed in collaboration with a professional beatboxer, which included online video being used independently or during speech therapy. The participants reported this activity as useful, fun and enjoyable, as well as motivational for continuous participation. During this, they could work on their essential voice and breathing activities, use their unique vocal characteristics and deepen their breathing techniques (Moors et al., 2020).

Choir attendance in 54 health service workers from different regions of Ireland was found to positively increase the perception of the mental health of the workers, as well as decreasing depression rates. Despite the positive effects, the evidence was limited quantitatively and there were some difficulties noted in measuring the health-related benefits of art interventions. The qualitative findings indicate that having a workplace choir can enhance social connectedness, personnel engagement and enjoyment at the workplace. However, it is important to acknowledge that the participants were mostly staff who graduated university, had overall good health, reported average stress levels and had relatively high work engagement scores. In such an initiative, it is important to employ a professional musician and to ensure that the financial costs are covered (Moss & O'Donoghue, 2020).

A non-randomised experimental trial investigated the effects of music therapy, focusing on maternal singing and the preterm infant's signs of engagement with maternal vocalisations. 'This study showed that music therapy can enhance preterm infants' signs of engagement during the interaction by increasing their eye-opening frequency, especially when the infants are in awake states at the beginning of the interaction. Moreover, music therapy can promote maternal intuitive abilities, resulting in an increase of the amount of singing, particularly in non-religious mothers. Our findings underscore the importance of supporting maternal infant-directed singing in the NICU, which can act as a protective factor for mother-infant interactional competences and connectedness (Palazzi et al., 2021).'

A small-scale RCT investigated online group singing for lung health (SLH) in people with long-term respiratory conditions. Despite the transition from face-to-face to online participation due to the COVID-19 pandemic, the study findings suggested that online group singing sessions 'enhanced clinically significant impacts on depression scores and improved balance confidence in people with COPD (Philip et al., 2020).'

Another small observational study demonstrated positive evidence of a singing group on lung health in people with chronic respiratory conditions. 'Singing induced acute physiological responses, increased minute ventilation and breath volumes. Such responses were like a moderate-intensity physical activity response' (Philip et al., 2021).

Health-related quality of life was investigated in a study on group singing for adult amateur singers with chronic health conditions. Overall, the study lacked sufficient evidence and had several methodological limitations, with the need for larger and more well-designed studies being clear. However, some results are worth mentioning, such as the benefits of singing in participants with health conditions like COPD, chronic pain and quadriplegia compared to control groups in RCTs. These positive results may be due to the training effects on respiratory muscle strength and impaired lung function by singing, which improve health-related quality of life (Reagon et al., 2016).

A large longitudinal cohort observational study investigated 'whether adolescent musical instrument engagement and continued musical instrument engagement over the adult life course were separately associated with higher episodic memory, as well as rate of decline.' Some 5,718 individuals were assessed at age 18, 36, 65 and 72. 'A significant association between musical instrument engagement and memory was found. Separately, both high early-life involvement and continued instrument engagement in adulthood were significantly associated with higher cognition scores at baseline, after adjusting for covariates. Musical engagement was associated with non-musical cognitive reserve and may delay the onset of clinically meaningful cognitive impairments later in life. Critically, the late-life benefits can be seen from musical engagement irrespective of the timing of engagement. Therefore, musical instrument engagement in adolescence or adulthood may help to improve cognitive domains such as episodic memory but may not reduce the rate of decline (Romeiser et al., 2021).'

A mixed-method study including 131 participants demonstrated that a 14-week community singing programme for older people 'was both acceptable and beneficial for the health and well-being' (Skingley et al., 2016). For those in pre-existing good states of health, participation appeared to maintain well-being. Individuals reported on positive influences on their increased 'motivations, satisfaction, preferences, and changing experiences over time (Skingley et al., 2016).'

A qualitative study including 37 interviews with people with COPD provided width description on their positive experiences from participation in community singing. These included experiences of improved respiration 'such as opening the lungs and loosening breathing'. Influential aspects of the programme included the facilitators' teaching methods, the exercise component of the sessions and a subconscious effect of relaxing, 'getting over' the breathing and forgetting about the breathing problems as one concentrates on getting the songs right. Additionally, other positive benefits related to the opportunity to create new social connections (Skingley et al., 2018).

Benefits in terms of distress, Positive and Negative Affect, anxiety, depression, fatigue, tension, anger, confusion and vigour have been reported from singing bowl therapies. Health outcomes include improvements in blood pressure, heart rate, respiratory rate, peripheral capillary oxygen saturation, cutaneous conductance, and anterior-frontal alpha values (Stanhope & Weinstein, 2020).

Another small-scale, non-randomised experimentally designed study examined whether singing could improve voice, respiratory pressure and quality of life in people with Parkinson's disease. 'The results of this study support the use of singing therapy to increase respiratory pressure and Quality of life in persons with Parkinson's disease. While results did not reveal significant improvements in all vocal outcome measures, there was still a mild improvement. Continued singing therapy may reveal that immediate improvements in respiratory control led to longer term improvements in voice. Engaging in singing therapy may be an alternative for increasing adherence to voice and respiratory exercises in persons with Parkinson's disease (Stegemöller et al., 2017).'

A prospective intervention study based on a participative programme in a community involved weekly singing rehearsal sessions over a period of 18 months for 117 participants aged between 18 and 71 years in Australia. Singing did not lead to a decrease in a psychological stress directly, but indirectly lowered depression levels, increased the quality of life, resilience levels, social support and social connectedness among the participants in the singing group. Moreover, the participants have reported a better management of mental health conditions and an increase in the way they perceived their ability to cope with stressful experiences. There was a significant decrease in the visit times to acute health services observed, as well as an increase in visit times to preventive

health services (Sun & Buys, 2016).

An exploratory case study investigated the influences of a child-centred, improvisational music therapy intervention in three kindergarten children with autistic spectrum disorder. A mixed baseline design, which followed the children's reaction in different phases of the intervention, together with their parents' and teacher's perceptions after the intervention, suggested that the music therapy intervention enhanced emerging skills including improved joint attention and active actions of social engagement (Vaoui et al., 2015).

A short literature review focused on health effects from orchestral music-making or listening to music in older adults with dementia or who were post-stroke. This review concluded that there was enough evidence demonstrating such activities are highly connected with psychological benefits such as improved mood and engagement; improved social functioning, a better sense of belonging and reduced social isolation; improved physical and health-related behavioural outcomes; and an improved cognitive function. The authors argued that there is need for additional research to examine the effects of different types of music and the ability of participants to make musical choices as part of their musical activities (Warran & Frederick Welch, 2019).

One systematic review aimed to assess 'the viability of choir singing to improve mental health and well-being in people with a mental health condition'. Some 13 articles involving 667 participants were included. 'There was considerable consensus between studies on perceived benefits' including enjoyment of singing, experiencing improved emotional states, and developing a sense of belonging and self-confidence. 'To reduce pressure on participants, the programmes place more emphasis on enjoyment than quality of the singing. The overall quality of evidence in this review is of moderate to high risk of bias, therefore, further research is needed to gain stronger evidence of the impacts of choir singing on mental health.' Furthermore, 'performance anxiety was noted by most studies as a challenging aspect of group singing for people with mental health conditions. Potentially anxiety could be a barrier to some people participating in singing programmes (Williams et al., 2018).'

An RCT that included 120 mother-infant dyads demonstrated that 'an early postpartum singing-based intervention led to positive immediate effects as significantly lower cortisol levels as well as an improved maternal emotional state and mother-infant bonding.' Additionally, 'a correlation analysis revealed that the frequencies of the use of music and singing at home were associated with improved well-being and mother-infant attachment (Wulff et al., 2021a).'

Theatre

An observational study of a theatre performance on dementia conducted for the public at a community festival assisted in transforming audience perceptions on dementia from a strong Negative Affect to a slightly more Positive (or relaxed effect). This method appeared to be influencing and increasing public awareness of dementia (Burns et al., 2018).

Regarding service evaluation, an 'interactive drama was found to have an effect on the responses of people with complex neurological disabilities resident in a long-term care facility. Whilst the impact on individuals with cognitive dysfunction was variable it was clear that those with mild and moderate dysfunction were likely to benefit to some degree. Interactive drama has therefore been shown to be an appropriate casual leisure occupation for people with mild to severe physical and cognitive dysfunction (Fenech, 2009).'

A mixed-method study of a community-based health education programme for bio-environmental control of malaria in rural India, used kalajatha folk theatre to promote health education and possibly effect behavioural changes to the rural community. 'The immediate behavioural changes especially on maintenance of general hygiene was not observed. However, the first essential step towards achieving behaviour change communication in the community was achieved by providing correct and scientific information on malaria control and prevention (Ghosh et al., 2006).'

Another observational study of 'a short theatre performance developed by an interdisciplinary team of scientists, social scientists, and artists, was used as a vehicle for stimulating debate and engagement with the complexities of prenatal screening. Knowledge translation through applied theatre is an effective tool for engaging the public but the impact subsequently is unclear. Applied theatre can be a transformative process for all those involved with it and it can be a multidirectional engagement tool. It did elicit debate and engagement with health policy and current practice post-performance, but the extent of the engagement and its lasting effects were not captured by the evaluation and presents a methodological challenge (Hundt et al., 2011).'

A community drama (entitled Skits) made by primary school students in East Africa focused on HIV treatment and prevention. The children have acted as health-change agents, effectively imparting knowledge to their communities through participatory approaches. However, witnessing the dramas did not change adults' knowledge of the facts about certain aspects of HIV/AIDS (Kamo et al., 2008).

A theatre workshop developed at a centre for children and youth with eating disorders was found to support participants in various ways, including lowering defence mechanisms and some symptoms, enhancing a patient-focused approach and improvements in the level of the perceived quality of life during the hospitalisation period (Pellicciari et al., 2013)

Circus training can enhance the social development and well-being of children diagnosed as being on the autistic spectrum. One example of qualitative research based on substantial experience derived from long-term interventions of qualified practitioners shows that circus training 'allows children with autism to be exposed to a sense of chaos in which they draw on their senses, making a creative virtue of the kind of order that they are used to imposing, or trying to impose, on their day-to-day world. Circus values their eccentricities, individual preferences, talents and modes of expression, while at the same time encouraging them to rely on and interact with other children and trainers in order to execute a trick or acrobatic sequence, or to make an audience laugh (Seymour & Wise, 2017).'

In a qualitative study, forum theatre was used to increase public engagement around antibiotic use in Myanmar. 'It allowed audiences to gain health knowledge related to appropriate antibiotic use; And to express their ways of solving issues around antibiotics use by interacting with actors and other audience members. At the same time, our team were able to learn what the communities understand about antibiotics and how they make decisions of using antibiotics in real-life scenarios as well as their ways of tackling the issues related to the themes performed understand antibiotic use for febrile illness and to raise awareness about appropriate use of antibiotics in the community (Swe et al., 2020).'

A mixed-methods study focused on evaluating the impact of the participation in a programme entitled Seasoned Aers at the Samford for You (SAASY), which consisted of an acting class delivered for six weeks and four public performances. The aim of this study was to improve the psychological well-being and health-related quality of life of the elderly. On the General Well-being Schedule (GWBS) scale, the participants had a significantly and clinically higher score, most notably as regards the physical component at the post-assessment stage. The participants reported an increased sense of self-advocacy and self-worth, coped with self-imposed limitations better, had an improved health-related quality of life and greater sense of psychological well-being (Yuen et al., 2011).

Nonpharmacological (ecopsychosocial) interventions such as Abstract Scripted-Improv (SI) are high-quality interventions that include semi-improvised drama performances designed specifically for individuals with dementia. In a sample of 178 individuals with dementia, the results of such studies highlighted the increase of Positive Affect and engagement, and a decrease in Negative Affect and engagement. For 29 individuals who were diagnosed with depression on the Geriatric Depression Scale-Short Form, the depressive symptoms lowered at the post-assessment stage. The general quality of life did not register any changes, but the increase in Positive Affect during intervention emphasises the fact that quality of life was higher while participants were involved in the intervention (Zeisel et al., 2018).

Dance

A review of evidence of the health and well-being influence of dance commenced by the European Dance Network (EDN) included recent evidence in the field (such as the WHO 2019 report, quantitative and qualitative studies, as well as various initiatives and programmes) highlighted the health and well-being benefits of dance activities within diverse populations. These included: social inclusion in patients with dementia and their carers; enhanced developmental maturity and school preparation in young children; improved physical functionality and activity, body image and health knowledge; better attitude and behaviour in the general population; support of cognitive decline; improved strength, flexibility, motor ability, aerobic endurance, muscle mass and body composition in older adults; promotion of subjective well-being among healthy young people (relating to issues such as resilience building and confidence boost); improved stress management and prevention; reduced postnatal depression and anxiety and depression in children and adolescents; and reduced depression symptoms in older adults – all specifically derived from Dance Movement Therapy. Dance activities were also found to be beneficial in the reduction of PTSD symptoms, and to have improved quality of life in people with acute health conditions such as chronic pain, cerebral palsy, stroke survivors and other acquired brain injuries. Dance was found to be effective in pain reduction for cancer patients and for pain support in end-of-life care. It also improved the symptoms of diabetes and social coping (Baltà Portolés, 2021).

A small-scale, quasi-experimental pilot trial focused on a contemporary dance programme for female community-dwelling older adults. The programme was 'designed to modify both physical and psychosocial risk factors of falls was found feasible, increased physical activity levels, decreased sedentary behaviours, and yielded improvements in balance. Additionally, it improved participants' mood and decreased their fear from falling (Britten et al., 2017).'

Some 163 older adults participated in a study which aimed to explore how dancing affects mobility performance and how dance activity affected people's Quality of life and social participation. This intervention was created to promote mobility and psychosocial function in a socially active environment by using various dancing styles in a group and with a partner. The results indicated that, after the intervention, both static and dynamic mobility were improved. Furthermore, our findings revealed an improvement in dual-task abilities, which are prevalent tasks in everyday life. Dance is, after all, a rhythmic exercise that involves a combination of physical and mental abilities. In conclusion, dancing is a sustainable type of physical training since it can be practiced in a variety of settings, requires little or no expensive equipment and is well-suited to the physical limitations of older persons (Brustio et al., 2018).

A study using creative dance and traditional Portuguese singing produced some intriguing results. 'The purpose of this research, a randomised controlled trial, was to look at the impact of creative dance on physical fitness and life happiness in 57 older women. The intervention took place over a 24-week period and included 50-minute creative dance classes. Results indicated that, given the chronic medical illnesses, low fitness levels and functional restrictions that come with growing older, creative dance may have beneficial impacts on physical fitness and life satisfaction in older females, and hence may play a key role in the prevention of falls (Cruz-Ferreira et al., 2015).

A small-scale RCT demonstrated that long-term participation in community-based dance exercise, in this case an Argentinian Tango programme, contributed to positive effects for individuals with Parkinson Disease on disease severity and physical function. 'Through a socially engaging and enjoyable skill-based exercise, the dance programme improved anti-Parkinson medication use, movement disorder and gait velocity' (Duncan & Earhart, 2012).

A randomised controlled trial tested the influence of an eight-month-long Greek traditional dancing exercise programme in patients with schizophrenia. The study results demonstrated this type of activity improved functional capacity and Quality of life in these patients, and suggested that Greek traditional dancing may be used as an alternative from of physical exercise for patients with schizophrenia (Kaltsatou et al., 2015).

A qualitative inquiry explored the experience of Korean middle-aged women from participating in line dancing as a leisure activity. The participants reported three major health benefits, which were psychological, physical and social benefits enhanced by their repeated ongoing participation (Kim & Lee, 2016).

An observational study on a person-centred creative-dance intervention involving people with dementia showed that this type of intervention may lead to significant beneficial effects on their social engagement well-being and Quality of life, improved gait and balance confidence and also reduced perceived stress in their caregivers. The researchers noted this new intervention and its sustainability potential should be tested further (Koh et al., 2020).

A large-scale RCT tested the neurological impact of 10 months of international ballroom dancing classes in elderly people with amnesic mild cognitive impairment. The results showed that compared to the control group, which did not participate at all, the participants in the dance group had significantly improved cognitive function at the end of intervention, and also showed improved performance in daily functionality, mood and behaviour. Furthermore, the control group had a significant cognitive decline (Lazarou et al., 2017).

A randomised control trial showed that engaging older Latinos living in the USA in programmes of interest to them, in particular Latin dancing or health education classes in Spanish, could influence cognitive health (Marquez et al., 2017).

The findings of a study aimed to evaluate the influence of ballroom dancing on fatigue, body image, self-efficacy and functional exercise capacity for patients with cancer showed that ballroom dancing could improve these factors. In fact, long-term participation may be associated with high self-efficacy and an active lifestyle. 'However, the dance training had no significant effects on fatigue or body image. Ballroom dancing may improve functional exercise capacity, and dance experience may be associated with a high self-efficacy and active lifestyle, which can be beneficial for cancer patients during and after treatment. As ballroom dancing seems to improve physical activity and well-being and can promote intimacy between partners, this intervention has the potential to support cancer survivors in various levels (Thieser et al., 2021).'

A study assessing the impact of the practice of adapted hip-hop dancing by children and adolescents with cerebral palsy found an effective improvement in Quality of life and biopsychosocial profile scores. The influence of adapted hip-hop dancing was positive in the children's' physical, emotional and social capacities; that is, transfer and basic mobility; sporting and physical function; global function and symptoms; the reduction of symptoms related to the scales of emotional and behaviour problems; and an increase in symptoms related to social competence. 'In addition to promoting psychomotor and physical work and influencing functionality, this pleasant activity is a potential option for better social integration and quality of life of children/ adolescents with cerebral palsy (Withers et al., 2019).'

Circuses and Clowning

A systematic review examined the effects of hospital clowns' interventions with children and adolescents with acute or chronic medical conditions. The review included 13 quantitative and 11 qualitative studies with 1,612 patients. The major results of the review indicated that provision of hospital clowns' interventions for procedural support and as part of routine medical care in chronic conditions can lead to beneficial health effects in hospitalised young patients, including reduction of pain, anxiety and cancer-related fatigue. Furthermore, the patients' psychological and emotional reactions and overall sense of well-being were improved (Lopes-Júnior et al., 2020).

A systematic review and meta-analysis focused on the effects of medical clown intervention for the management of anxiety and pain in paediatric patients, as well as their parents' anxiety. The review included 19 studies, of which 16 were eligible for the meta-analysis. The main results of the meta-analysis indicated that therapeutic clown interventions were significantly effective in the reduction of stress and anxiety levels in hospitalised paediatric patients and their parents (Sridharan & Sivaramakrishnan, 2016a).

A systematic review and meta-analysis examined the effects of therapeutic clowning on pre-operative psychological distress in hospitalised children and on their parents' anxiety levels. Only eight trials were included in the review, along with just seven in the meta-analysis. Despite wide methodological differences within the included trials, the main results of the meta-analysis showed that clown therapy demonstrated beneficial effects on the reduction of psychological measures of stress and anxiety in hospitalised children before operation, as well as a reduction in their parents' states of anxiety (Zhang et al., 2017).

Visual Arts

For oncology patients undergoing chemotherapy, painting that involved the support of a professional artist, either in the day unit or at home, has been found to be beneficial, leading to a higher Quality of life and lower levels of depression in cancer patients. The effects were stronger in oncology patients who had a history of experience in an art therapy programme involving painting. The findings of the study support the idea that art therapy such as watercolour painting is feasible for oncology patients under active cancer treatment. Performing these activities in groups where social interaction is promoted is an important factor. However, the effect of this intervention was diminished by previous experience with art therapy involving painting leading to a lower level of improvement in Quality of life and depression in individuals with prior experience of such therapy (Bozcuk et al., 2017).

A case report or qualitative evaluation that involved watching digital stories created for cancer education courses helped with health promotion on various ways: 'increased knowledge and understandings on cancer, information sharing with the youth in their communities. The viewing of digital stories prompted the telling of viewer stories, which added to viewers' knowledge and understanding. Due to the personal nature of digital stories, they powerfully connected with viewers both cognitively and affectively,

linking realms of wisdom, and by so served as a motivator for wellness behavioural change (Cueva et al., 2016).'

A cohort study examined the mental health effects of an Arts on Prescription project in adolescents aged between 13–16 years. Some 91 participants have joined a series of 10-week, two-hour-long visual art workshops. The activities were taught by a professional artist and included wire sculpting, clay modelling, painting and collage. The participants could choose whether to work individually or in groups. Pre-to-post measures indicated significant improvements immediately after participation in the cases of mental well-being and resilience, though these effects were found to not be sustained by a three-month follow up assessment (Efsthathopoulou & Bungay, 2021).

A large-scale RCT showed that painting was effective in alleviating preoperative anxiety in children undergoing elective surgery. The authors concluded 'this method was efficient, easy, and economical, without any side effects for, and suggested that nurses can collaborate with medical teams to use such methods as part of the routine medical care for paediatric patients (Forouzandeh et al., 2020).'

Individuals with middle- to late-stage dementia went through a 12-week MIM (Memories in the Making) programme focused on a 60-minute session with watercolour painting materials. At the end, there were no significant changes in the residents' well-being reported by the staff during the programme. However, interns reported significant improvements in five well-being related domains (interest, sustained attention, pleasure, self-esteem and normalcy) from the beginning to the middle and at the end of the MIM programme. One limitation of the study was the fact that the programme was developed for individuals at a higher functioning level than the actual participants. Another limitation was the fact that it was difficult to quantify the benefits of art interventions for people with dementia, and their well-being could be influenced by an external observer introducing subjective interpretations of the behaviour of the participants (Gross et al., 2015).

A qualitative study reported the findings of 16 medical students who had a previous experience with original artwork in a narrative-based programme meant to educate medical students. This mentioned that art lead to reflection on past experiences, personal growth, personal development, self-discovery, awareness of art as an important tool and an enhanced sense of collaboration among participants (Jones et al., 2017).

The effects of drawing were investigated in a study where the aim was to explore how the illness and hospitalisation of children was associated with the emotional and cognitive characteristics of their drawings related to their experiences with the pain. The findings of the study demonstrated that the 'pain stories' of the children can be identified from their drawings, and might be useful in providing guidance for interventions aimed at reducing pain, distress and anxiety (Kortessluoma et al., 2008).

A scoping review found promising evidence for the effects of looking at visual artworks in reducing stress. Out of 14 studies on self-reported stress, 13 of them mentioned reduction in stress after viewing artworks, and all of the four studies that examined systolic blood pressure also reported such reductions. Fewer studies examined heart rate and heart-rate variability, cortisol, respiration and other physiological outcomes. Moderating factors were considered to perhaps include the setting, individual characteristics, artwork content and viewing instructions. Studies involving active engagement with art, review papers or qualitative studies were excluded. More robust research using standardised methods and randomised controlled trial designs was concluded to be necessary for future research (Law et al., 2021).

The Creative Recovery Project was implemented in Lockhart River in 2008, Aurukun in 2009 and Mornington Island in 2010 (all in Queensland, Australia). The main aim of this project was to engage individuals from indigenous populations with mental health problems in weekly workshops focused on learning skills related to the visual arts, and to support them in expressing their emotions, thoughts and experiences among the people around them. The weekly workshops were performed under the supervision of artist mentors from an art centre. The findings of the project reported that this is a sustainable and culturally appropriate model for engaging Indigenous individuals with mental health problems living in remote areas. In this project, creativity was seen as an instrument for social inclusion and could have the potential to provide a unique opportunity for social enterprise (Leenders et al., 2011).

Drawing has been used as a therapeutic method for thinking about a disease from different point of view from the medical standpoint, due to the fact that patients focus on their feelings and experience of the disease. Thirty-eight women with systemic lupus erythematosus attended psychological meetings of 'My Life' courses, in which they were asked to draw their disease and comment on it. This method can be used in order to gain more information from the patient which might not be gained from tests or interviews alone. Drawing is a therapeutic and diagnostic method that makes patients open up to share their experiences, feelings and opinions. Recently published articles emphasise the fact that lupus patients feel that they are not understood by their doctors. Therefore, the disease drawing could be seen as helpful in understanding the psychological state of the patient (Nowicka-Sauer, 2007).

In the preliminary evidence for a project description – Meet Me at MoMA, (the Museum of Modern Art in New York City, USA), a monthly programme for individuals in the early and middle stages of Alzheimer's disease – project researchers stated that the museum 'features guided tours and interactive discussion in its galleries, and gives those living with the disease an expressive outlet and a forum for dialogue. Specially trained Museum educators engage participants in lively interactions by focusing on iconic works of art. The programme has shown that the act of looking at art can be a rich and satisfying experience for people with Alzheimer's disease and their caregivers.' Initial evidence from the project included reports from 34 individuals (comprising patient 17 dyads and a caregiver). Self-report scale data suggested a positive change in mood attributable to the programme for both the person with Alzheimer's and the caregivers. The take-home evaluations uniformly expressed positive sentiments as well (Rosenberg, 2009).

Creative workshops have the potential to influence the well-being of individuals. Thirty-one individuals diagnosed with severe mental illnesses took part in a creative workshop focused on diverse types of creative techniques, and mostly on visual arts such as painting, drawing, collage, sculpture and printmaking. The findings reported an improvement in social inclusion and an increase in psychological well-being. A recommendation to increase the impact of the intervention was to hold such creative workshops away

from clinical institutions and in a public space, and to include individuals without a diagnosis of severe mental illnesses as a control (Saavedra et al., 2018).

The impact of creative art-based activities was examined in a group of chronic stroke patients. A programme named LACE engaged participants in 2.5-hour weekly activities held every seven weeks, including such disciplines as drawing, painting, collage and handicrafts. The purpose of these meetings consisted of finding meaning in daily struggles, and visualising the strengths of individuals to live with the stroke, connecting with themselves and others in different places. The findings of the study emphasised the fact that these activities have a positive influence over general well-being, more specifically on engaging patients' bodies, stimulating their brains and rejuvenating their spirits. They have reported an enhanced sense of enjoyment, self-appreciation, self-expression and social connection with others (Sit et al., 2017).

A small-scale non-randomised and quasi-experimental design and clinical practice guidelines study showed that 'interactive drawing can assist children with type 1 diabetes to express their knowledge and attitudes regarding body and illness perception; to enhance the doctor-patient communication by increasing doctor's understanding and awareness of the patient's personal understanding of their illness; and, to reduce communication interferences that may arise by their caregivers' interpretative mediation (Vanelli et al., 2018).'

Photography and Film

A meta-analysis was used to determine what therapeutic advantages and limitations adults with mental health concerns have encountered through participatory photography. The results indicated that, for at least some people with mental-health issues, participatory photography appears to be a promising therapeutic technique. More research is needed to see how beneficial it is compared to other therapies and with larger groups of participants (Buchan, 2020).

Another study focused on people with aphasia and how photography, as a Photovoice method, could help them in communication and self-expression. Participants took part in group discussions centred on stroke or aphasia, which offered them the opportunity to share coping mechanisms that helped them in their daily lives. However, using a camera created some obstacles for such people, because strokes affect their mobility, cause vision impairments and inhibit their abilities to understand the symbols on the cameras. Overall, the Photovoice method offered people motivation and the feelings of control and empowerment (Levin et al., 2007).

A theoretical perspective article suggested that patients in mental-health care institutions may use and be benefited by photography, due to its experiential principles. Specifically, the activity of focusing the camera may help the processes of self-reflection and self-actualisation, and raise awareness (Sitvast & Springer, 2020).

Literature

Storytelling and the use of narratives may also be useful in supporting the processes of grieving and bereavement. A theoretical framework provided through case studies described how bereaved parents used storytelling and sharing the narratives of their lost children's illnesses and death through their mourning processes. The process of story creation involves the construction of the teller's memory structure. Accordingly, storytelling may be useful in making sense of their situations and in reaching a cathartic release (Bosticco & Thompson, 2005).

The beneficial effects of storytelling were explored in a case study that included a young woman and a trained nurse with the purpose of co-constructing stories within a longitudinal clinical intervention. The purpose of the study was to enhance psychosocial well-being in the young woman a year after having a stroke. Co-constructing stories had a positive effect on the well-being of the participant. The story evolved step by step and was stimulated by the trust offered by the participant-nurse relationship. The storytelling process was facilitated by the active participant observation, the systematic use of worksheets, the engaging conversation focused on psychosocial aspects of the case and structural organisation (Bronken et al., 2012).

The contribution of multimedia content personalisation to the stimulation and sharing of long-term memories of people with mild to moderate dementia was examined and theoretically explained in a case study. Three people with dementia who were selected from a dementia support group created unique multimedia stories with written captions and audio-recorded voiceovers, using their own photos or images found online. To summarise, the study could not state whether the strategy helped persons with dementia access their long-term memories, but could infer that a particular app's supportive use was a helpful instrument in helping participants to access their long-term memories (Critten & Kucirkova, 2019).

Legacy-making intervention was implemented in adults with cancer in order to evaluate how it impacted their Quality of life. The purpose of this intervention, adapted from Dignity Therapy (psychotherapy to relieve psychological and existential distress in patients at the end of life), was to create legacy videos of people who had a terminal illness as a gift for their families. This intervention seemed to be feasible and acceptable, as it allowed cancer patients to process their experiences with their diagnosis, and also to be able to support their families on this challenging journey. As a further step, Dignity Therapy could be adapted to an online format, in a self-guided manner (DeSanto-Madeya et al., 2021).

A mixed-methods study found a number of benefits from a 12-month weekly reading group conducted in an ambulatory mental health service. The study found that routine participation in a reading group assisted in the reduction of depressive symptoms, and subjective processes related to group dynamics and facilitation, including enhancement of 'social awareness and communicative skills, and group processes including reflective and syntactic mirroring'. The researchers highlighted the importance of the group's

facilitator's expertise, including the choice of suitable literature and found that the interpretation of narrative and of poetry was crucial in holding and opening key ideas or central concerns. It also 'capture[d] details of participant contributions which helped whole group understanding. Additionally, the group location was perceived as influential, as the group which met at the mental health drop-in centre was easier to recruit and was much more willing to engage with the literature for its own sake from the very outset of the study. By contrast, the group which met at a GP surgery unit initially tended to view the literature as something 'prescribed' to them in direct relation to their mental health problems. The location of the latter reading group in (often different) doctors' offices may have encouraged this perception, where the former reading group had a designated and more informal space for the group each week.' Nevertheless, the facilitator's expertise seemed to overcome those barriers (Dowrick et al., 2012).

A qualitative study investigated the influence of poetry reading and writing in adults with previous mental-health difficulties. Participants had many years of poetry-writing experience. During a weekly poetry-reading group, they shared and discussed their poems with other group members. Two participants describe that the poetry-writing process helped them to better connect with their inner self in relation to the world around them, which led on to the core concept of enhanced personal meaning. In addition, 'communicating and sharing personal meaning led to experiences of connection between people. The connection with oneself, together with the experiences and interpretations of other people, may lead to a widening horizon and a greater awareness of aspects of one's life. The participants described positive (beneficial and enhancing) and negative (inhibiting and harmful) experiences of creation, communication, connection, and awareness while writing and sharing poetry (Hilse et al., 2007).'

A quasi-experimental study which tested the effects of a group storytelling programme entitled TimeSlips Intervention on people with dementia found that participation in this twice-weekly, six-week programme increased positive mood and improved communicational skills. The researchers concluded that more frequent sessions might be needed to show any long-term effects (Phillips et al., 2010).

A study focused on creative arts publication evaluated the influence of this type of activity on medical students and staff. A creative arts journal was used as an intervention, and participants had to submit, edit and read it. Results from the observation of this activity showed that a creative arts journal is an appropriate vehicle with which to promote and encourage medical staff and faculty students to express themselves, and also to strengthen their professional relationships (Rodríguez et al., 2012).

A four-day digital story-making workshop for people with dementia and their carers was evaluated with regard to its support in different aspects of dementia care. Despite fear or anxiety regarding the use of such technology, patients were able to produce their own stories, and by doing so, positive influences were reported regarding their social interactions, self-expression abilities and improved sense of well-being. The researchers suggested that this type of activity could support nursing students in building an understanding of their patients' conditions and strengthen their therapeutic alliance (Stenhouse et al., 2013).

Design and Architecture

A systematic review examined the impact of art, design and environmental conditions on health and subjective well-being in mental-health care settings. The review covered 19 studies on the health effects of art and environmental design, and patient and staff perspectives on such interventions. Key findings of the review included evidence that environmental conditions such as excessive lighting or noise could negatively influence blood pressure, heart rate and psychological well-being. Nonetheless, addressing environmental conditions by using art installations, exposure to natural (as opposed to urban) settings, 'reorganisation of the physical environment from non-social to group arrangements of ward dayrooms', changing the carpet floor to a vinyl covering and changes in acoustic conditions to promote patients' orientation reduced stress and the risk of falling, improved perceptions of the health-care environment and the overall well-being of staff (Daykin et al., 2008a).

A large-scale, national-level epidemiological study based on the Scottish Neighbourhood Statistics database compared the influences of environmental conditions – specifically rural versus urban living environments – on the 'risk of anxiety, depression, and psychotics in general population. Major findings pointed out that urban living environments were associated with higher rates of prescription for psychotropic medication for anxiety, depression, and psychosis (McKenzie et al., 2013).'

Museums

A qualitative inquiry involving 17 mental-health service users assessed the experiences they gained from participating in guided tours in four different museums. These were followed by creative workshops in two of the museums, and included the activities of painting and sculpture. Thematic analysis revealed two major themes experienced by the participants, where the museum visits and creative workshops had enhanced senses of self-empowerment and realisations of new meanings in life. These elements seemed to constitute basic foundations in the process of recovery. Nevertheless, the positive influence of the museum visits was not evident in all cases and was highly impacted by the interaction with the tour guide (Jensen, 2018a).

Heritage

An experimental evaluation of the effects of aesthetic experiences related to visiting a cultural heritage site found a noticeable impact on individual physical and mental health in terms of stress reduction (cortisol levels) and well-being increase. The intensity of the cultural experience was significantly correlated to the response. The study underlines the potential of the arts and culture as a new platform for public health practices and new approaches to welfare policy design (Grossi et al., 2018).

Multiple Art Forms

A systematic review from 1989 to 2020, that included 56 studies focused on a total of 1,532 people with Parkinson's disease, explored four diverse art engagement methods involving active participation: theatre, music therapy, dance and singing. These were evaluated for motor function, quality of life, speech and cognition. The most explored art method was dance (with 38 studies), followed by singing (12 studies), music therapy (four studies) and theatre (two studies). The findings suggested that engaging in art is a beneficial therapeutic method for individuals with Parkinson's disease, although a significant limitation was that none of the studies made a comparison with interventions based on other art methods. Currently, it is not possible to identify which of the art methods was the most beneficial, and for which outcomes (Barnish & Barran, 2020).

Recently, growing evidence of the varied health and well-being effects of reading has been compiled into one book for the first time. This included research studies, practical guides, research methodologies, implementation guides and theoretical frameworks provided by groups of practitioners, researchers, clinicians, and policymakers from many disciplines. The book encompassed a few dozen case studies of reading groups and highlighted the "shared reading" experience in varied settings in particular; this was with regard to different populations and subjects, including psychiatric patients, elderly people, dementia patients, hospitalised patients, inmates in prison and other distinct secure settings, those coping with autism, and patients in a pain clinic. Literature reading in a shared group context provided multiple opportunities for individuals to repair and create social connections, enhance mutual understandings, enable self-expression, improve mood, assist in finding new meaning and purpose, and process complex emotional or physical experiences, or trauma. Another section of the book provided theoretical biological frameworks to further explain how literature reading might improve cognitive abilities and brain function, strengthen neural pathways and influence emotional networks and modes of thinking. Specifically, fiction-reading was highlighted as enabling complex emotional processes related to an individual's 'theory of mind' development, positively influencing the ability to gain deeper understanding of others' mental states and develop high empathy skills (Billington, 2019).

A 'rapid review' explored the effects of participating in creative activities on the health and well-being of children aged between 11 and 18 years', and took place in community settings or as extracurricular activities in mainstream schools. Building on an earlier systematic review undertaken by Daykin and colleagues (Daykin et al., 2008b), the review in question included studies published between 2004 and 2011, but excluded therapies such as art, drama and music. The rapid review included 20 papers that involved 3,354 participants. It found similar limitations as in the Daykin et al. (2008b) review in terms of the strength of the conclusions based on methodological rigour. In quantitative studies, these are related to validated outcome measures, response rates, attrition and lack of statistical power, but in qualitative studies, flaws related to a lack of detailed description of the process of data collection or analysis. Nevertheless, the review's findings indicated 'that participating in creative activities could be a useful health-promoting strategy in terms of increasing levels of physical activity. Interventions were effective methods of educating children and young people about the consequences of indulging in risky behaviours. Furthermore, arts/creative projects have the potential to address young people's sense of self-worth and life skills as a mechanism for promoting behaviour change and healthy lifestyles. [Creative activities could constitute] a means of increasing knowledge and educating young people about prevention of teenage pregnancy and HIV/AIDS; Taking part in the different creative activities was empowering and reengaged excluded young people, helping to build self-esteem and confidence, which are linked with mental well-being. Creative activities have also been used to promote behaviour change and healthy lifestyle; children and young people were less likely to misuse substances, their behaviour improved and there was development of a range of interpersonal skills. The most commonly reported outcome in all the studies was increased confidence. Also increased self-esteem, sense of achievement, empowerment, social skills, and positive behavioural changes were consistently reported outcomes throughout the review. Drama was a particularly effective health education intervention because events are used from everyday life and the visual format demonstrates examples of how to deal with difficult situations; it also allows discussions to be depersonalised while dealing with issues from a teenager's point of view. Dance was used as an alternative to sport, to increase access to physical activity and physical exercise. In addition to the physical benefits of dance, participants have been motivated to take part because of the overall feeling of well-being they experienced with a sense of achievement and connection as a result of participating (Bungay & Vella-Burrows, 2013).'

Over a five-year period, an observational study investigated the mental-health outcomes of in-patients who participated in art- and craft-based creative therapy at a private psychiatric hospital. Some 403 participants took part in group activities, such as drawing or painting, crafting, sewing, tailoring, knitting and embroidery. The study provided encouraging results. Participation in creative activities seemed to aid people with mental health problems, as there were observed reductions both in self-reported and clinician-rated symptoms. The establishment of positive correlations between involvement in a creative activity group and measurable mental-health outcomes gives doctors and consumers more confidence in the therapeutic advantages offered through creative activity participation (Caddy et al., 2012).

An observational study examined the process and health outcomes of a 10-week arts on prescription programme in 202 adults with varied mental health conditions, including experiences of anxiety, depression, stress, low sense of well-being, stress from chronic pain or illness, behaviour issues and recent life crises. Participants were referred by their general practitioner, or other health professionals such as physical therapists, to a surgery unit. The arts on prescription programmes named Art Lift were of small groups of three to 10 people guided by an artist, usually resident in the surgery unit, and included a variety of creative art forms: poetry, ceramics, drawing, mosaic and painting. Almost 80 per cent of the referred patient attended the workshops, while the 50 per cent who completed the 10-week programme including a majority of the older females. The health outcomes indicated significant improvements on the mental well-being scale from pre-to-post participation (Crone et al., 2013). When updated, the results of Crone et al. (2013) presented longitudinal data from a seven-year period from 1,297 participants referred to similar eight- or 10-week arts on prescription programmes. The results similarly indicated that about 50 per cent completed their prescribed intervention and, of those, around 70 per cent engaged in the intervention (as rated by their art guide). Among those individuals who completed and engaged with the intervention, a significant increase in mental well-being was demonstrated from pre-to-post participation. The

research concluded that arts interventions have high impact potential for improved well-being in engaged participants, even those with multiple morbidities (Crone et al., 2018).

A cross-sectional study conducted in Norway on a population of 50,797 adult participants collected and analysed data on both receptive and creative cultural activities on perceived health, anxiety, depression and satisfaction. The results showed that participation in receptive and creative cultural activities was significantly associated with good health, satisfaction with life, and low anxiety and depression scores in both genders. This population-based study suggested there were gender-dependent associations between cultural participation and the perception of health, anxiety, depression and satisfaction with life among the participants. In contrast with other studies, it showed a slight but consistent stronger relationship between the receptive cultural activities and satisfaction with life, anxiety and depression in both women and men. In women, the association between active cultural participation and perceived health was stronger, while in men, attending receptive, rather than creative, cultural activities was more strongly associated with all health-related outcomes. The results support the inclusion of cultural activities in health promotion and health-care (Cuyppers et al., 2012).

'Large-scale epidemiological population surveys in Sweden, Norway, the UK and the USA have demonstrated strong positive correlations between cultural activities and health. Medium- and smaller-scale quantitative and qualitative studies involving museums, art galleries and material objects in Australia, Canada, the UK and the USA, among other countries, have begun to build an evidence base to address specific problems and issues that are ideally suited for public health interventions and programmes (Camic & Chatterjee, 2013).'

A systematic review on the impact of creative arts interventions aimed at addressing depression in older adults included 75 papers and articles (with 17 on art, 13 on dance, four on drama and 41 on music). The major findings showed significant beneficial effects specifically regarding interventions led by creative arts therapists. The mechanisms of change included a variety of processes and outcomes: 'physical (e.g., increased muscle strength; neurochemical effects, such as endorphin release), intra-personal (e.g., enhanced self-concept, strengthened agency and mastery; processing and communication of emotions), cultural (e.g., creative expression, aesthetic pleasure), cognitive (e.g., stimulation of memory), and social (e.g., increased social skills and connection), that were all considered to contribute to reduced depression and symptoms (Dunphy et al., 2019).'

Concerning emotional regulation strategies, one particular study focused on arts-based group participation with the purpose of observing emotional effects in adults living with mental health conditions. The results showed that both intrinsic and extrinsic emotion regulation strategies were found to be effective. Also, the activities used – choir singing and creative writing – helped in increasing positive emotions due to the fact that doing something in a group setting brought pleasure to participants (Dingle et al., 2017).

Another study analysed data from 11,248 people with depression and compared them with the same number of individuals without depression, with both the groups being engaged in the arts. The results highlighted a significant but very small lower general use of self-reported emotional regulation strategies among individuals with depression when they were involved in art, along with lower use of self-development strategies (such as higher self-esteem), a reduced use of approach strategies (such as appraisal) and the same constant use of avoidance strategies (such as distraction). The findings suggested that individuals with depression still experience positive effects for emotional regulation that can further help in identifying the benefits of art interventions in lowering depression symptoms. These findings were related to arts, visual arts, literature-related exercises, and craft and design, but were different for digital, electronic and online art (Fancourt & Ali, 2019).

A large-scale survey conducted with more than 8,000 Norwegian adolescents examined the associations between participation in cultural activities and self-reported physical and mental health. Cultural activities included reading books, listening to music, playing an instrument, meeting and training, visiting a library or cinema, acting in the theatre, attending music or sports events and choir singing. The survey results indicated that active participation in cultural activities is associated with better reported health, life-satisfaction and self-esteem in adolescents. Social attendance and training at sports were also linked with better self-perceived health, life-satisfaction, good self-esteem and low anxiety and depression symptoms. The frequency of participation was found to be impactful, where routine participation was associated with better reported outcomes compared to less active adolescents (Hansen et al., 2015).

An observational pre-post repeated measures study examined the effects of a 12-week arts on prescription programme in 66 participants who were dealing with anxiety, depression, social isolation and chronic pain. Half of the participants received a two arts on prescription sessions during a two-year period. Participants were presented with various art forms that were chosen to help them explore their personal creative and artistic skills. The study results demonstrated significant improvements in all-round well-being during and after participation. Participants experienced improved mood and reduced tension with every weekly workshop, as well as after the arts on prescription sessions ended (Holt, 2020). A qualitative report on an arts on prescription project in Denmark provided subjective reports of participants with a mental health condition who joined a 10-week arts on prescription programme. The programme, named Culture Vitamins, offered diverse activities twice a week, and on average included singing in a choir, guided reading, being introduced to the city archives, listening to music, visiting museums and theatres and a nature hike. The participants reported on various beneficial effects following their participation, including increased energy, motivation and self-esteem, improved self-awareness, a sense of joy, reduced panic attacks and a better level of self-care (Jensen, 2019).

A scoping review of the evidence-based use of varied arts and cultural interventions in Scandinavian countries aimed to map major interventions used to promote mental health and well-being in varied populations. The review included more than 20 quantitative and qualitative articles, and provided various examples of art and culture interventions promoting different health outcomes. For children and adolescents, examples included a community music therapy group for the inclusion of disadvantaged adolescents, and the effect of music classes on the reduction of physiological stress markers in young children. Dance projects were found to improve mental health and well-being in female teenagers, while theatre and drama workshops provided in school improved

verbal and communication skills in children aged between 13 and 16. For working adults, arts on prescription projects involving small groups of adults, usually lasting for 10 weeks and including activities such as visual art making, music and singing, and theatre and museum or gallery visits, were shown to have meaningful effects on mental health and well-being. Other examples included meaningful effects from choral singing in an improved psychosocial work environment, and shared reading groups improving mental health and well-being. For elderly people, the major projects reported included the Alzheimer's Association in Denmark, which trained over 1,000 care staff in 500 residential homes on how to engage in 'reminiscence dance' with the residents, to promote the physical benefits of movement and coordination training, as well as meaningfulness, well-being and social contact. Additionally, the use of music, including music therapy and music therapeutic caregiving, is widespread in Denmark and Norway, where caregivers, music therapists and residential home staff are trained to use music and singing to decrease stress, improve cooperation in daily living and enhance general well-being (Jensen et al., 2020).

A literature review covering 20 articles focused on interventions including art therapy, creative art and arts on prescription reported various physical and mental health benefits during such interventions. Art therapy and participatory creative arts interventions demonstrated beneficial effects for various health conditions among oncologic patients and those with chronic pain and COPD (chronic obstructive pulmonary disease), where the benefits ranged from improvements in their physical functions, reduced depression and anxiety, and improvements in mood and psychosocial resources. There was wide evidence produced from the use of arts on prescription programmes, and these resulted in improved mental well-being and working environments. Furthermore, such programmes and other art interventions in health settings were found to improve the quality of well-being in the workplace in health workers too (Jensen & Bonde, 2018).

A qualitative study focused on patients in palliative care found that creative activities are useful in easing life in proximity to death for individuals with advanced cancer, a study found. They are considered a method of learning ways to cope with limited physical ability and existential problems. Such tools could be very important in establishing new ways of handling difficulties and challenges in palliative care, and help understand how enriching parts of life can be maintained. The findings of the study were derived from patients who were able to attend between one and three sessions every week based on their preferences, current situations and needs. The creative activities consisted mostly of painting, pottery, gardening and woodwork (la Cour et al., 2007).

A large-scale, longitudinal, observational study surveyed 5,058 older women in Australia, investigated the relationship between artistic activities and the physical and mental health of the women, by focusing on how change in participation over time is related to changes in social activity and support, health status and health-related quality of life. Women who experienced improved functional capacity were more likely than those with no improvement to take up artistic activities, and those who took up such activities were more likely to experience improved emotional well-being. Women who ceased to participate were more likely than those who continued to experience a decline in mental health. Approximately 11 per cent of Australian women in their eighties are participating in artistic activities such as painting pictures or playing a musical instrument. While some may not continue with these activities during a three-year period, a similar number take them up, indicating that women in their eighties continue to try new activities or revisit old ones. Women who start participating are more likely than those who do not to experience an improvement in the instrumental activities of daily living. Women who stop participation are more likely than those who keep going to experience a decline in mental health-related quality of life, while women who begin such activities are more likely to experience improved emotional well-being. The findings provide support for policies and programmes that promote artistic activities among older women, as participation appears to be tied to emotional well-being (Liddle et al., 2012).

Creative arts therapy (CAT) and music therapy may improve quality of life in paediatric cancer patients undergoing therapy. All participating patients and parents reported satisfaction with such interventions and stated that they would like to see the programme continue, concluded Madden et al. (2010).

Data collected from in-depth interviews with participants who had experienced long-term mental health problems and who took part in a theatre and music workshop concluded that this approach changed the experiences of identity of the participants individually and collectively. The participants reported that they developed a broader picture of their identity by doing creative work with others, and changed from their previously stigmatised identity as being mentally ill to a more positive outlook. This narrative of themselves grew as they developed new identities (Ørjasæter et al., 2017).

A systematic review 'evaluated the effect of exposure to CAT on psychological symptoms and QUALITY OF LIFE among patients with cancer. The review included 27 trials of 1576 patients, with main findings indicating that exposure to CAT reduces symptoms of anxiety, depression, and pain and improves QUALITY OF LIFE among cancer patients after treatment. The magnitude of the effects is generally diminished during follow-up. Anxiety reduction was strongest for studies in which (1) the intervention was administered by a non-CAT therapist and (2) a waiting list or usual-care comparison was used. However, the question why a CAT therapist's involvement was less beneficial remained unclear. Pain reduction was largest for studies conducting interventions during inpatient treatment and with homogeneous cancer groups in outpatient settings. Significantly smaller reductions occurred in heterogeneous cancer groups in outpatient settings. Although openness to experience may predicate the use of provider-directed CAM (complementary and alternative medicine), clinical distress has predicated the use of self-directed CAM. The authors also suggested that Patients do not necessarily expect clinicians to believe in the philosophy of CAM, but they do want medical approval and to know that their CAM choices are reasonable and safe. The effects of CAT exposure on cancer-related fatigue are more difficult to interpret. These effects may be modality dependent such that movement-based creative expression has effects more comparable to those seen in exercise studies than other CAT modalities (Puetz et al., 2013).'

A small-scale RCT investigated the effects of both singing and painting on the emotional well-being and chronic-pain management of patients with mild Alzheimer's Disease. Painting was superior in its reduction of depressive symptoms and anxiety, while singing had a significant beneficial effect on the stabilisation of episodic verbal memory. The authors suggested that the beneficial effects of painting could be related to the individual format, and might perhaps be more appropriate for individuals experiencing

introverted needs related to the depressive state, in contrast to the social format, exposure and collaboration that is required in singing groups (Pongan et al., 2017).

A randomised control trial investigating the influence of traditional Chinese music and painting on the physical and psychological functions of hospitalised patients with ankylosing spondylitis (AS) showed that, after eight weeks of intervention, the recovery and quality of life of the patients were significantly improved. The intervention effect of music therapy and painting was better than that of routine treatments on patients with AS, and music therapy had the best effect on patients' physical and psychological functions. The study suggested that music therapy could be used as an important auxiliary treatment. The comparison results showed that the physical functions of the music group were significantly higher than those of the painting group. Music therapy had the best effect on sleep and energy, satisfied psychological needs like independence, belonging, and competence, reduced psychological stress, alleviated eating difficulties and improved the sexual functions of patients with AS. Painting therapy was better than routine treatment in improving the patients' quality of life. People used painting to express feelings and cognition, thereby venting negative feelings and improving mental health. Correspondingly, mental health also positively affected physical health (Qin, 2020).

A qualitative analysis based on a longitudinal study exploring the outcomes of an arts referral programme for patients in primary care demonstrated that the programme provided a range of personal and social benefits. Participants were able to self-manage aspects of their health-related conditions and were able to make progress towards better physical and mental health. The intervention groups were comprised of individuals from local communities and were not grouped according to specific medical needs. Group interaction was encouraged but people were not required to speak about personal issues. Lead artists received training to prepare for working with a diverse group of patients without being asked to act as a therapeutic facilitator or counsellor. The evidence suggests that arts-based referral programmes have a range of benefits for participants that may not yet have been fully appreciated (Redmond et al., 2019).

A qualitative study seeking to understand the meanings of artmaking among a group of women living with the occupational constraints and stigma of chronic fatigue syndrome/myalgic encephalopathy (CFS/ME) found that artmaking was typically discovered once participants had accepted the long-term nature of their condition, and sought to adjust their occupations to the constraints of their ill-health. Participants tended to be familiar with craft skills or had family members interested in arts and crafts, and some desired a means to express their grief and loss. Once established as a leisure activity, artmaking increased subjective well-being mainly through providing increased satisfaction with daily life, positive self-image, hope and contact with the outside world. Participants recommended provision of occupational and recreational counselling earlier in the illness trajectory (Reynolds et al., 2008).

Evidence from a systematic review of the therapeutic effectiveness of creative activities on mental well-being suggested that creative activities can have a healing and protective effect on mental well-being. Their therapeutic effects promoted relaxation, provided a means of self-expression and reduced blood pressure, while boosting the immune system and reducing stress. The articles noted that establishing the benefit of participating in creative arts is difficult because of a lack of consistency of a clear definition, but it is important to identify their potential as a therapeutic and transformational tool rather than an intervention for therapeutic diversion (Leckey, 2011).

A case-study with a young Asian-American woman in a community-based mental-health programme described how art activities were implemented throughout her mental health services, and by doing so, assisted her with identifying personal goals and improved her sense of general well-being. The authors explained that creative art activities can play a special role for this ethnic demographic by mitigating cultural and language barriers, and by their potential for empowering influence in the discovery of self-resources. In this way, it can eventually have a positive influence on mental well-being (Shik, 2013).

As can be seen from the summaries mentioned above, engagement in creative activities is overwhelmingly beneficial for individuals with mental problems. A longitudinal qualitative study, acting as a one-year follow-up after a series of creative workshops in Australia, revealed that participants enjoyed taking part in diverse creative activities in a group setting, especially with the presence of peer mentor support. The participants had the opportunity to create individual artwork, write poems, dance, play musical instruments and make a mural and develop a song, as a means to share their recovery story with others. The stories of the individuals became a beacon of positivity over time, and were shared with people around themselves more often and in a more comfortable way. Long-lasting effects regarding confidence, feelings of value, connectedness, self-acceptance and understanding of personal mental health problems were observed. However, the writing activity was the least popular of all the art activities, and working in groups raised tensions among some participants with different ideas (Slattery et al., 2020).

A creative-play intervention consisting of building toys had a positive impact among a sample of hospitalised school-age children. Playful interaction between nurses and children led to improved care, which was tailored to the needs of the children and generated better communication among children, attendants and nurses. Thus, creative play intervention was shown to possibly reduce the adverse effects of hospitalisation on the psychosocial well-being of children and their families, and seemed to be an effective, feasible and sustainable mechanism for improving nursing care. The creative play-based method allowed children to express themselves, gain an active role within the hospital environment and reduce fear, enabling satisfying experiences (Teksoz et al., 2017).

Courses focused on creative art offer oncology patients different ways to cope with their diagnoses by using self-expression and creativity. Thirty-five participants with breast cancer benefited from a Cancer and Creative Art course focused mostly on chalk drawing, painting, clay modelling and art therapy, combined with visualisation, imagery exercises, relaxation and concentration. Most of the findings were positive, though most of the eight weekly sessions were short and more time was deemed to be needed in the allocation of follow-up discussions. The participants reported positive emotions, an increased level of creativity, greater awareness of being alive, an improved overall quality of life and sense of meaning. However, the patients' general mood was not changed overall (Visser & Op 't Hoog, 2008).

Using data from the biennial longitudinal Polish household panel study for that part of the Polish population aged over 16, a study

confirmed a positive association between attending cultural events and self-reported health. The study did not confirm a positive causative relationship and no evidence was found to corroborate a positive impact from attending cultural events on physical health (Wziak-Biaowolska & Biaowolski, 2016).

An observational study based on data from more than 7,000 individuals from the Swiss population set out to investigate the potential benefits in self-reported and physical health or life satisfaction from voluntary engagement with the arts (that is, playing an instrument, singing, painting or sculpture) or receptive cultural participation (attending the cinema, theatre, opera or exhibitions). The study found little evidence to justify health-promotion messages regarding involvement with the arts. In the Swiss population, long-term health and well-being did not significantly improve from involvement in cultural and artistic activity in general or in any cultural activity at any frequency. As the author mentioned, the findings did not, however, go against the idea that active or receptive cultural participation could be beneficial to health and well-being when guided by qualified therapists to treat specific health-related problems (Wziak-Biaowolska, 2016).

2. Culture and Subjective Well-being

Music

A total of 19 women who were aged between 21 and 75, and were either healthy or suffering from health issues such as fatigue, anxiety and depression, took part in a qualitative study to explore how singing in a choir could influence their own health and well-being. The participants sang over periods of six months to 20 years. The results highlighted that choral singing could influence their well-being by the perception of singing as significant for survival, promoting social inclusion, experiencing joy in singing and using singing as a way of social connection. All led to a higher sense of belonging, self-confidence, self-esteem and identity (Batt-Rawden & Andersen, 2020).

One study reported that music and various music-therapy interventions had a significant relevance for pain and stress management. Strong evidence was provided that live-music interventions can reduce pain and distress before, during and after medical procedures in children undergoing blood tests. Moreover, the same study highlighted that this activity is accepted well by both children and parents, and immediately perceived as pleasant and potentially beneficial (Caprilli et al., 2007).

An observational study examined the extent to which a choir programme associated with the British Armed Forces supported military wives, partners, and families. Some 637 participants took part in this study and attended singing groups. The core repertoire seemed to help in building a bond, and performances were rated as enjoyable according to the majority of respondents. Several respondents stated that the choir had assisted them in coping with major mental-health issues, while others described an overall sense of well-being and happiness, as well as a release of tension and stress. Also, for some, singing in the choir provided a sense of fulfilment, accomplishment and purpose (Clift et al., 2016).

A randomised controlled trial evaluated the effectiveness of community group singing designed for older people, focusing on mental health and quality of life. Participants seemed very interested and willing to take part in the singing groups. The group setting offered them the opportunity to balance the feeling of loneliness, and feelings of anxiety and depression were lowered while they participated in the group singing, and were still present three months after. However, the results were not being sustained six months later, which could suggest that the group activities themselves were the greatest asset (Coulton et al., 2015).

A systematic review of well-being outcomes for music and singing in adults brought robust arguments in support of these activities in enhancing well-being and reducing or preventing depression in adults throughout life. Regular participation in community music and singing activities was proven to enhance and maintain well-being, and prevent isolation, depression and mental ill health in older people. The study showed that targeted music and singing interventions can contribute to improved mood and reduced anxiety in specific groups including young adults, pregnant women and prisoners. Furthermore, interventions such as group singing may lead to improvements in well-being and quality of life for adults with a range of chronic conditions, and in sensitive settings such as palliative care (Daykin et al., 2018).

Art engagement was also approached in a comparative study that aimed to explore whether the involvement of Holocaust survivors in art differed from survivors without any involvement in terms of different markers of resilience and psychological vulnerability. Moreover, this study also included non-Holocaust survivors. The final sample included 154 community-dwelling elderly people who reported present engagement in art, symptoms of PTSD, a general level of psychological distress, subjective perceptions of ageing and resilience. Engagement in art involved engagement in one or more types of art, including music, writing, the plastic arts and drama. The results revealed that Holocaust survivors who either were or were not involved in art reported higher level of PTSD symptoms compared with the comparison group. Higher resilience was observed in Holocaust survivors who engaged in art compared with all the survivors not engaged in art, and the comparison group who were either engaged or not in art (Diamond & Shrira, 2018).

Another study focused on arts-based group participation with the purpose of observing emotional effects in adults with mental-health conditions. Results showed that both intrinsic and extrinsic emotional regulation strategies were found to be effective. Also, the activities used – choir singing and creative writing – helped in increasing positive emotions, due to the fact that doing something in a group setting brought pleasure to participants (Dingle et al., 2017).

During the COVID-19 pandemic, many support activities moved online, including singing groups. A scoping review focused on people with dementia and their caregivers, and how they responded to the online organisation of singing groups. There seemed to be promising results from digital interventions and remotely delivered music therapy. However, technology use in older people with dementia presents many obstacles and the interventions need to be adapted to their level of understanding. All in all, there is a need for constant development of innovation and communication through different digital instruments (Dowson & Schneider, 2021).

People who care for somebody with cancer are facing many challenges, including emotional ones. A non-randomised study focused on psychosocial interventions, more specifically singing, as a way of reducing anxiety and depression, and improving well-being. Taking into consideration previous positive results on the benefits of singing on cancer patients, it could also be promoted to cancer caregivers. Some considerations about these possible results state that choir singing provides emotional experiences, a sense of identity, social support, resilience and the chance to develop musical skills (Fancourt et al., 2019).

A study analysed data from 11,248 people with depression and compared it with the same number of individuals without depression, with both the groups being engaged in arts. The results highlight a significant but very small lower general use of self-reported emotional regulation strategies when involved in art among individuals with depression, along with a lower use of self-development strategies (such as higher self-esteem), reduced use of approach strategies (such as appraisal) and the same constant use of

avoidance strategies (such as distraction). The findings suggest that individuals with depression still experience positive effects for emotion regulation that can further help in identifying the benefits of art interventions in lowering the depression symptoms. These findings were related to arts, visual arts, literature-related exercises, craft and design, but were different for digital, electronic and online art (Fancourt & Ali, 2019).

An online pre-composed receptive music experience significantly decreased students' stress and anxiety levels. The melody and tempo were perceived as the most supportive musical elements for this goal (Fiore, 2018).

A systematic review on the existing choral research evidence concluded that there is an international consensus on the varied beneficial health effects from collective singing (that is, choirs and singing groups). These included the physical benefits of improved cardiovascular and respiratory function, and improved immunity and brain function. The psychological benefits included mood alteration and emotional expression, identity development and improved inner and external communication skills. Social benefits included an improved sense of social inclusion and belonging, better social skills and the provision of a platform for social bonding. Furthermore, collective singing may lead to educational benefits, including improved reading skills, language development and speech production (Hagemann, 2021).

A non-randomised experimental trial investigated the effects of music-therapeutic caregiving (MTC) on persons with dementia (PWD) and their caregivers during morning care situations. During the MTC intervention, PWD scores for expressions of resistant behaviours were lower in mean number of seconds, with significant decreases observed for three variables. This indicated that MTC might be a way for PWD to experience caring in a less problematic way because they express less resistance to it. PWD expressions of positive emotions increased significantly, while negatively expressed emotions decreased in mean number of seconds, but not to a significant degree during MTC. PWD expressions of general alertness, which included participating in a task, eye contact and looking around the room and responding, increased significantly during MTC. MTC might be an effective nursing intervention for PWD, as the subjects of this study seemed to experience morning care situations as less uncomfortable and perhaps more joyful, as evidenced by a decrease in resistant behaviour and an increase in positive emotions (Hammar et al., 2011).

For young children with autism enrolled in community-based inclusive childcare programmes, outdoor play can be a major challenge. An experimental musical adaptation of the playground did not improve the social interactions of children with autism significantly, but did facilitate their play and involvement with peers by attraction to the sound and the opportunity to use the instruments. The song interventions produced desirable peer interaction outcomes, and the collaborative, consultative approach enabled teachers to implement interventions successfully in ongoing playground routines. In addition, peer-mediated strategies increased peer interactions and meaningful play on the playground (Kern & Aldridge, 2006).

Another RCT tested the effects of 'group singing therapy on depression symptoms and quality of life of 60 Chinese patients with stable chronic obstructive pulmonary disease (COPD)'. The researchers concluded that group singing therapy may help decrease depressive symptoms and improve quality of life. The beneficial effects increased with the lengthening of the duration of therapy. Furthermore, it was an enjoyable and well accepted experience by the participants (Liu et al., 2019).

A post-hoc observational study on the Zurich Disability Prevention Trial aimed to investigate the association between playing a musical instrument and cognitive function in older adults not suffering from cognitive impairment. Results suggested that playing a musical instrument does, indeed, have both immediate and long-term benefits, as it may be a protective factor for cognitive disabilities. The reason behind this is that playing an instrument is an activity that stimulates cognitive function, and, therefore, executive functions by implication. For people playing a musical instrument in the present, there are benefits in the long-term for maintaining a good quality of life, but they also benefit in the present due to having more social contacts through these activities, which positively influences their social connections and quality of life (Mansky et al., 2020).'

A qualitative study explored subjective experiences of a community singing group for people with chronic obstructive pulmonary disease (COPD). The participants described the group environment as a safe place in which they could relax and enjoy themselves, in which gradually they felt they had shared ownership. They described feeling at ease regarding their health state and limitations with a group of people who shared similar experiences. Additionally, feeling being cared for. Another influential factor related to the medical staff involvement. Performing to an audience boosted their confidence and gave them a sense of achievement. They also appreciated the opportunity to perform as a contribution to their local community as well as wider audiences. In addition to the enjoyment of the group, the shared purpose engendered a sense of shared responsibility (McNaughton et al., 2016).'

Choir attendance among 54 health-service workers from different regions of Ireland was found to positively increase perception of the mental health of workers as well as decrease depression rates. Despite the positive effects, the evidence was quantitatively limited and some difficulties in measuring the health-related benefits of art interventions have been noted. The qualitative findings indicate that having a workplace choir can enhance social connectedness, personnel engagement and enjoyment at the workplace. However, it is important to acknowledge that the participants were mostly staff who graduated university, had overall good health, reported average stress levels and had work engagement scores relatively high. In such initiative, it is important to employ a professional musician and to ensure that the financial costs are covered (Moss & O'Donoghue, 2020).

Data collected from in-depth interviews with participants who had experienced long-term mental health problems, and who took part in a theatre and music workshop, concluded that this approach changed the experiences of the participants individually and collectively. The participants reported that they had developed a broader picture of their identity by doing creative work with others and changed their previous stigmatised identification with being mentally ill to a more positive one. The narrative of themselves increased while they developed new identities (Ørjasæter et al., 2017).

Another qualitative study focused on older adults from PACE (Programme of All-Inclusive Care for the Elderly) and evaluated the benefits of choral singing in older adults of low socio-economic status. Participants seemed to enjoy taking part in the choir, as it was an opportunity to do something pleasant and uplifting. Singing was an activity that aligned with participants' values and inter-

ests and therefore made them reminiscent about singing in their homes and at church as children. On the other hand, some participants felt that the songs were too religious for them and would've liked to have more options they could choose from. Also, what seemed to help was the feeling of bonding between participants, even though some were very focused on performance and perceived the fact that others had limited talent as an obstacle for the group. All in all, this activity was a successful one, and the study contributes to the promotion of choir singing in older adults as a form of engagement and connection (Petrovsky et al., 2020).

A randomised control trial investigating the influence of traditional Chinese music and painting on the physical and psychological functions of hospitalised patients with ankylosing spondylitis (AS) showed that, after eight weeks of intervention, the recovery and quality of life of the patients were significantly improved. The intervention effect of music therapy and painting was better than that of routine treatments on patients with AS, and music therapy had the best effect on patients' physical and psychological functions. The study suggested that music therapy could be used as an important auxiliary treatment. The comparison results showed that the physical functions of the music group were significantly higher than those of the painting group. Music therapy had the best effect on sleep and energy, satisfied psychological needs like independence, belonging, and competence, reduced psychological stress, alleviated eating difficulties and improved the sexual functions of patients with AS. Painting therapy was better than routine treatment in improving the patients' quality of life. People used painting to express feelings and cognition, thereby venting negative feelings and improving mental health. Correspondingly, mental health also positively affected physical health (Qin, 2020).

Health-related quality of life was investigated in a study on group singing for adult amateur singers with chronic health conditions. Overall, the study lacked sufficient evidence and had several methodological limitations, with the need for larger and more well-designed studies being clear. However, some results are worth mentioning, such as the benefits of singing in participants with health conditions like COPD, chronic pain and quadriplegia compared to control groups in RCTs. These positive results may be due to the training effects on respiratory muscle strength and impaired lung function by singing, which improve health-related quality of life (Reagon et al., 2016).

A study with a 2 x 5 mixed-measures design highlighted the fact that creativity was higher in the group of participants who listened to happy music while performing a divergent creativity task, compared with those participants who performed their task in silence. The specific types of music included in the study consisted of four classical music pieces that varied with regard to their qualities of arousal and valence. Regarding convergent creativity, no effect of music was identified. The study provided practical implications regarding the use of listening to music to promote creative thinking in cost-efficient ways in scientific, organisational and educational settings. However, one limitation consisted of the fact that some participants were exposed to the happy music twice while performing the convergent creativity tasks, and they were mainly participants with a higher level of education and included a higher proportion of females and people of a Western cultural origin (Ritter & Ferguson, 2017).

Various benefits of music on the entire cycle of care for people suffering from dementia – including family members, nursing staff and the patients themselves – have been reported. After live music concerts in healthcare and residential care facilities, patients with dementia were generally calmer, more responsive and easier to care for. This in effect had nursing staff feeling less stressful, and more cooperative and caring. This led to staff experiencing increased levels of motivation, energy and job satisfaction. Family members also reported an increase in the quality of interactions with patients, as the music stimulated new memories and partially restored lost or diminished aspects of personality (Shibazaki & Marshall, 2017).

A qualitative study including 37 interviews with people with COPD provided width description on their positive experiences from participation in community singing. These included experiences of improved breathing 'such as opening the lungs and loosening breathing'. Influential aspects of the programme included the facilitators' teaching methods, the exercise component of the sessions, a subconscious effect of relaxing, of 'getting over' the breathing and of forgetting about the breathing problems as the participant concentrated on getting the songs right. Additionally, positive benefits related to the opportunity to create new social connections (Skingley et al., 2018).

As can be seen from the summaries mentioned above, engagement in creative activities is overwhelmingly beneficial for individuals with mental problems. A longitudinal qualitative study, acting as a one-year follow-up after a series of creative workshops in Australia, revealed that participants enjoyed taking part in diverse creative activities in a group setting, especially with the presence of peer mentor support. The participants had the opportunity to create individual artwork, write poems, dance, play musical instruments and make a mural and develop a song, as a means to share their recovery story with others. The stories of the individuals became a beacon of positivity over time, and were shared with people around themselves more often and in a more comfortable way. Long-lasting effects regarding confidence, feelings of value, connectedness, self-acceptance and understanding of personal mental health problems were observed. However, the writing activity was the least popular of all the art activities, and working in groups raised tensions among some participants with different ideas (Slattery et al., 2020).

A systematic review on the effects of singing bowl therapies (combining elements of meditation and music therapy) included four trials. The population included patients with metastatic cancer and chronic spinal pain. 'The review concluded on benefits of improved distress, Positive and Negative Affect, anxiety, depression, fatigue, tension, anger, confusion and vigour, as well as improvements in blood pressure, heart rate, respiratory rate, peripheral capillary oxygen saturation, cutaneous conductance and anterior-frontal alpha values (Stanhope & Weinstein, 2020).'

A prospective intervention study based on a participative programme in a community from Australia involved weekly singing rehearsals sessions over a period of 18 months for 117 participants aged between 18 and 71 years. Singing did not lead to a decrease in a psychological stress directly, but indirectly lowered depression levels, increased the quality of life, increased resilience levels, social support and social connectedness among the participants in the singing group. Moreover, the participants reported a better management of mental health conditions and an increase in the way they perceive their ability to cope with stressful experiences. There was a significant decrease observed in the visit times to acute health services and an increase to visit times to preventive health services (Sun & Buys, 2016).

Prenatal music and singing interventions proved to be effective and easy to implement when improving the mood and well-being of pregnant women and to support mother-infant bonding before birth. A randomised controlled study conducted in Germany on 172 pregnant women showed promising effects with the use of music, and in particular singing, on maternal well-being and perceived closeness to the unborn child. There were more significant positive effects in the singing intervention compared to the music-listening intervention on valence, cortisol, perceived closeness to the unborn child and self-efficacy, as well happiness levels. The study indicates that the active part of singing may have an additional positive effect on happiness, that is possibly explained by findings that singing leads to an increased release of the endorphins associated with feelings of happiness. Also, singing seems to have a larger stress-reducing impact on the cortisol stress response than listening to music (Wulff et al., 2021b).

Collaborative composition workshops were observed in order to evaluate the impact on subjective and psychological well-being in older adults. What seemed to help in these workshops was the sense of group ownership, as opposed to composer ownership, over the creative process. Both composers focused on facilitating the process, so that the composition work could mostly be derived from participants' input. Another important aspect was the creation of a safe space so that participants would feel included and comfortable. Also, overcoming the fear of failure is important for the success of the workshops. The PERMA framework (that is, Positive Emotions, Engagement, Positive Relationships, Meaning and Accomplishment) was used to evaluate the benefits of the activity, and the results showed that participants' experiences were almost entirely associated with the five dimensions of PERMA (Waddington-Jones et al., 2019).

Theatre

Theatre was used for children with communication difficulties to help improve their relational skills and creativity. Children had the opportunity to share their stories in a safe context and were therefore able to fully commit to play, as they knew they were respected and receiving attention. In this way, they were able to improve their well-being by acquiring a sense of environmental security and self-control. Along with improvement in well-being, positive results were recorded in speaking and listening skills (Barnes, 2014).

Using drama therapy with the aim of addressing mental-health problems in college students revealed benefits regarding the improvement of the six mental-health indicators assessed (decision-making ability, self-awareness, interpersonal and communication skills, self-expression, self-cognitive reconstruction and social role ability). The level of self-awareness and decision-making was more positively influenced in males when compared with females (Chang et al., 2019).

An observational article explained how drama and movement therapy were incorporated into the treatment plans of two adolescents who had been long-term in-patients at a hospital unit for teenagers. The results indicated that the drama and movement therapy sessions complemented this holistic pain-management approach and, most importantly, helped the teenagers 'feel good'. In conclusion, for certain young people who are disabled by pain or immobility, this approach, which incorporated the use of music, movement and gesture to create a space to explore new ways of being and growing capacities, is an innovative way of contributing to existing therapy programmes (Christie et al., 2006).

The effects of Playback Theatre on older persons' cognitive functions and well-being were explored in a non-randomised study that took place in Singapore. The fact that Playback Theatre was well embraced and perceived as improving participants' mental and emotional well-being was encouraging, and implied that it had the potential to be a valuable and practical community programme. Playback Theatre should be investigated further and tested in a bigger, randomised controlled trial (Chung et al., 2018).

A qualitative study aimed to explore how during a workshop and over time, 24 adult learners in Alaska described their experience with Readers' Theatre as cancer education. As a vehicle for cancer education, Readers' Theatre fostered healing, regeneration, validation and adjustments in information, attitudes and beliefs, all of which inspired action. Readers' Theatre provided a safe space for individuals to bravely engage with the difficult subject of cancer, as it reflected hope in the midst of reflection on the disease (Cueva, 2010).

A mixed-methods study had the aim of measuring the impact of creative drama on Head Start Dual Language Learners. The emotional and social skills of the participants improved significantly after taking part in the creative drama, with the participants reporting improved cooperation skills, better emotion management, improved social interactions and an increased level of confidence (Gao et al., 2021).

The integration of life-review principles and Playback Theatre was explored with the aim of bringing up and discussing the life stories of the participants from adult day centres in order to improve their well-being and health. A total of 27 individuals aged from 63 to 91 participated in one of the three Playback Theatre groups in 12 weekly sessions. The results suggested that this integrative framework has the potential to be considered as an artistic intervention in the adult day-centre communities. The benefits might include undergoing a personal transformation and raising the social engagement in the community (Keisari et al., 2020).

A study aiming to measure how attending live theatre might enhance the well-being of season-ticket holders aged 60 and older found that attending performances is a combined social, cognitive and affective experience that goes beyond entertainment. Improving positive mood is the most important benefit of attendance with respect to the impact on well-being. Social engagement, belonging and flow were significantly associated with increased Positive Affect following performances. These factors did not contribute directly to change in well-being, but they contributed significantly to cumulative Positive Affect, suggesting that there may be an indirect effect of these theatre benefits on well-being through their impact on Positive Affect (Meeks et al., 2020).

A qualitative inquiry focused on medical students' experiences from participation in a quarterly theatre-based module course. The students described that participating in that programme enhanced their sense of well-being and personal growth, provided opportunities for self-expression and exploration, and, by doing so, also supported their subjective development as future physicians (Nagji et al., 2013).

The results of a theatre intervention according to the Veder method for people with dementia living in nursing homes indicated the clear added value of a living-room theatre activity when offered by professional actors. Positive effects on behaviour, mood aspects, speech and social engagement during and after the interventions were observed. Apathy and social isolation, common among people with dementia in nursing homes, was reduced. Effects also include more laughing, recalling memories, alertness, and less confusion and social isolation (van Dijk et al., 2012).

A mixed-methods study focused on evaluating the impact of the participation in a programme entitled Seasoned Aers at the Samford for You (SAASY) consisted of an acting class delivered for six weeks, and concluded with four public performances. The beneficial effects of participation in community-based theatre activities for older adults with chronic conditions living in low-income housing or senior living communities consisted of improvements in psychological well-being and health-related quality of life. Notably, physical health benefits for older adults with chronic conditions were significant, while improvements in indicators related to general well-being and coping with pain proved both statistically and clinically significant. Psychosocial benefits were also observed. The participants reported an increased sense of self-advocacy and self-worth, coped with self-imposed limitations, improved their health-related quality of life and their psychological well-being (Yuen et al., 2011).

An exploratory study investigated the effects of a Forum Play intervention on healthcare staff awareness and attitudes towards staff abuse against gynaecological patients. Sixteen half-day workshops were provided during one year in a women's' clinic. Self-reports from participating staff suggested that the Forum Play workshops increased their awareness and ability to act when witnessing abusive behaviour by healthcare workers. However, the number of reported situations of staff abuse was not reduced (Zbikowski et al., 2020).

Scripted-Improvisation (SI), an intervention that consists of semi-improvised drama performances specifically designed for persons with dementia, showed promising outcomes: increases in Positive Affect, decreases in negative engagement and reductions in depressive symptoms. While the overall quality of life did not change, the study suggests that the quality of life of patients was higher during the intervention. The authors also suggest engaging activities like SI may support people with dementia to replace behavioural disturbances with positive engagement behaviours (Zeisel et al., 2018).

Dance

A review on evidence of the health and well-being influences of dance, commenced by the European Dance Network (EDN), included recent evidence in field (such as the WHO 2019 report, quantitative and qualitative studies, as well as initiatives and programmes), highlighted health and well-being benefits of dance activities within diverse populations. These included: social inclusion in patients with dementia and their carers; enhanced developmental maturity and school preparation in young children; improved physical functionality and activity; improved body image; improved health knowledge, attitude and behaviour in general population; support of cognitive decline; improve strength, flexibility, motor ability, aerobic endurance, muscle mass and body composition in older adults; the promotion of subjective well-being among healthy young people (relating to issues such as resilience building and confidence boost); improved stress management and prevention; reduced postnatal depression; reduced anxiety and depression in children and adolescents; and reduced depression symptoms in older adults – all specifically by involvement in Dance Movement Therapy. Dance activities were also found beneficial in reduction of PTSD symptoms, and improved the quality of life in people with acute health conditions such as chronic pain, cerebral palsy and post-stroke symptoms (and those of other acquired brain injuries). Dance was found effective in pain reduction for cancer patients and pain support in end-of-life care. It also improved the symptoms of diabetes and social coping (Baltà Portolés, 2021).

Some 163 older adults participated in a study which aimed to explore how dancing affects mobility performance and how dance activity affected people's Quality of life and social participation. This intervention was created to promote mobility and psychosocial function in a socially active environment by using various dancing styles in a group and with a partner. The results indicated that, after the intervention, both static and dynamic mobility were improved. Furthermore, our findings revealed an improvement in dual-task abilities, which are prevalent tasks in everyday life. Dance is, after all, a rhythmic exercise that involves a combination of physical and mental abilities. In conclusion, dancing is a sustainable type of physical training since it can be practiced in a variety of settings, requires little or no expensive equipment and is well-suited to the physical limitations of older persons (Brustio et al., 2018).

The purpose of another randomised controlled trial was to look at the impact of creative dance on physical fitness and life happiness in 57 older women. The intervention took place over a 24-week period and included 50-minute creative dance classes. Results indicated that given the chronic medical illnesses, low fitness levels, and functional restrictions that come with growing older, creative dance may have beneficial impacts on physical fitness and life satisfaction in older females, and therefore might play a key role in the prevention of falls (Cruz-Ferreira et al., 2015).

A community dance programme for preschool and primary school students (aged five to seven years) was carried out in the context of their education at centres of creative activities for children, and had a positive effect on the social relations that the students developed there. They noticeably improved their collaborative and communication skills (Eleni & Georgios, 2020).

A randomised control trial showed that engaging older Latinos living in the USA in programmes of interest to them, in particular Latin dancing or health education classes in Spanish, could influence cognitive health (Marquez et al., 2017). A quasi-experimental study had the aim of evaluating whether the duration of participation in a youth dance programme helped the subjects reduce and avoid risky behaviours, and gain competence in important life skills. A scale used to measure psychological health (Piers-Harris 2) was administered to the individuals over three years. Out of six subscales, scores on the Physical Appearance and Attributes subscale identified a statistically significant difference in what concerns third-year participants who scored higher than first- and second-year participants. Most of the participants appreciated the programme, found it useful and indicated important gains in life

skills (Rodgers & Furcron, 2016).

The findings of a study aimed to evaluate the influence of ballroom dancing on fatigue, body image, self-efficacy and functional exercise capacity for patients with cancer showed that the activity could improve functional exercise capacity and long-term participation might be associated with a high self-efficacy and active lifestyle. 'However, the dance training had no significant effects on fatigue or body image. Ballroom dancing may improve functional exercise capacity, and dance experience may be associated with a high self-efficacy and active lifestyle, which can be beneficial for cancer patients during and after treatment. As ballroom dancing seems to improve physical activity and well-being and can promote intimacy between partners, this intervention has the potential to support cancer survivors in various levels (Thieser et al., 2021).'

Body movement was studied in relation to socio-emotional development in preschool children. Based on this curriculum, children were able to express their ideas and impulses through a collaboration between language and movement. By including more types of representation, they were able to react to their body's needs and physical sensations, and therefore an integrated sense of body and emotion became associated with the perception of self as a cognitive, emotional and social being (Thom, 2010).

A study assessing the impact of the practice of adapted hip-hop dancing by children and adolescents with cerebral palsy found an effective improvement in Quality of life and biopsychosocial profile scores. The influence of adapted hip-hop dancing was positive in the children's physical, emotional and social capacities; that is, transfer and basic mobility; sporting and physical function; global function and symptoms; the reduction of symptoms related to the scales of emotional and behaviour problems; and an increase in symptoms related to social competence. 'In addition to promoting psychomotor and physical work and influencing functionality, this pleasant activity is a potential option for better social integration and quality of life of children/ adolescents with cerebral palsy (Withers et al., 2019).'

Another study on dance and body movement aimed to examine if these types of activities could improve focus on bodily communication between trainee nurses and patients. Results showed that, on the one hand, dance generated joy, trust, openness and bonding, and was therefore considered a pleasant activity, while on the other hand, it was considered challenging and helped students develop somatic awareness and self-contact. Moreover, dance helped students to learn to manage their own emotions, so when they got in contact with patients, they could maintain professional boundaries without being emotionally overwhelmed (Winther et al., 2015).

A study aiming to compare mood changes between three different types of dance activities – recreational and competitive dancers doing ordinary training and competitive dancers taking part in a dance competition – revealed that dance can elicit changes in mood. However, situational context had to be taken into consideration when explaining the influence of dance on mood. Competition is related to approach behaviour, namely high energy, but also induces tension, the evolutionary function of which could be preparation for emergency, while recreational dance produces positive changes in mood. Although tension decreased moderately during the performance, dancers taking part in a competition felt less pleasure after dancing than recreational and competitive dancers in 'ordinary' training (Zajenkowski et al., 2015).

Circuses and Clowning

See the entries for this category above.

A systematic review examined the effects of hospital clowns' interventions with children and adolescents with acute or chronic medical conditions. The review included 13 quantitative and 11 qualitative studies with 1,612 patients. The major results of the review indicated that provision of hospital clowns' interventions for procedural support and as part of routine medical care in chronic conditions can lead to beneficial health effects in hospitalised young patients, including reduction of pain, anxiety and cancer-related fatigue. Furthermore, the patients' psychological and emotional reactions and overall sense of well-being were improved (Lopes-Júnior et al., 2020).

A systematic review and meta-analysis focused on the effects of medical clown intervention for the management of anxiety and pain in paediatric patients, as well as their parents' anxiety. The review included 19 studies, of which 16 were eligible for the meta-analysis. The main results of the meta-analysis indicated that therapeutic clown interventions were significantly effective in the reduction of stress and anxiety levels in hospitalised paediatric patients and their parents (Sridharan & Sivaramakrishnan, 2016a).

A systematic review and meta-analysis examined the effects of therapeutic clowning on pre-operative psychological distress in hospitalised children and on their parents' anxiety levels. Only eight trials were included in the review, along with just seven in the meta-analysis. Despite wide methodological differences within the included trials, the main results of the meta-analysis showed that clown therapy demonstrated beneficial effects on the reduction of psychological measures of stress and anxiety in hospitalised children before operation, as well as a reduction in their parents' states of anxiety (Zhang et al., 2017).

Visual Arts

For oncology patients undergoing chemotherapy, painting with the support of a professional artist in the day unit or at home was found to be beneficial in leading to a higher quality of life and lower levels of depression in cancer patients. The effects were stronger in oncology patients who had previous experience of a painting art-therapy programme. The findings of the study support the idea that art therapy such as watercolour painting is feasible for oncology patients under active cancer treatment. Performing these activities in groups where social interaction is promoted was an important aspect. However, the effect of this intervention was diminished by previous experience with painting art therapy, leading to a lower level of improvement in quality of life and de-

pression in individuals with such a history (Bozcuk et al., 2017).

A study of university students (mostly first- and second-year psychology undergraduates) using a 2x2 between-subjects design emphasised the fact that sketching resulted in higher experience of flow and a lower perception of the difficulty in a creative mental synthesis task. The findings of the study were the first to empirically prove that sketching increases the flow experience and does not depend on an associated decrease in general working memory overload (Cseh et al., 2016).

A cohort study examined the mental health effects of an arts on prescription project in adolescents aged between 13–16 years. Some 91 participants have joined a series of 10-week, two-hour-long visual art workshops. The activities were taught by a professional artist and included wire sculpting, clay modelling, painting and collage. The participants could choose whether to work individually or in groups. Pre-to-post measures indicated significant improvements immediately after participation in the cases of mental well-being and resilience, though these effects were found to not be sustained by a three-month follow up assessment (Efsthathopoulou & Bungay, 2021).

Individuals with middle- to late-stage dementia went through a 12-week MIM (Memories in the Making) programme focused on a 60-minute session with watercolour painting materials. At the end, there were no significant changes in the residents' well-being reported by the staff during the programme. However, interns reported significant improvements in five well-being related domains (interest, sustained attention, pleasure, self-esteem and normalcy) from the beginning to the middle and at the end of the MIM programme. One limitation of the study was the fact that the programme was developed for individuals at a higher functioning level than the actual participants. Another limitation was the fact that it was difficult to quantify the benefits of art interventions for people with dementia, and their well-being could be influenced by an external observer introducing subjective interpretations of the behaviour of the participants (Gross et al., 2015).

A qualitative study reported the findings of 16 medical students who had a previous experience with original artwork in a narrative-based programme meant to educate medical students. This mentioned that art lead to reflection on past experiences, personal growth, personal development, self-discovery, awareness of art as an important tool and an enhanced sense of collaboration among participants (Jones et al., 2017).

A systematic review examined the effects of making and viewing visual arts interventions on subjective well-being in working adults diagnosed with mental health conditions. The interventions included painting or drawing, art appreciation and viewing, the creation and exhibition of art, and crafts including ceramics and sculpture. The review included eight qualitative and quantitative studies. Quantitative evidence suggested that mandala painting had a beneficial effect in the reduction of PTSD symptoms, and that craft-making techniques such as ceramic painting and flower arranging can increase a subject's self-reported Quality of life in individuals dealing with PTSD. Qualitative findings suggested that active participation in visual arts may enhance well-being by promoting social connectedness and bonding through shared art activities, a sense of achievement and appreciation when finishing an art project or attending art classes on a frequent basis. Participation in such a project may lead to continuous participation in other projects and so influence a sense of activity in daily living, reduce stigma and support new meaning and identity formation (Julier et al., 2018). The effects of drawing were investigated in a study where the aim was to explore how the illness and hospitalisation of children was associated with the emotional and cognitive characteristics of their drawings related to their experiences with the pain. The findings of the study demonstrated that the 'pain stories' of the children can be identified from their drawings, and might be useful in providing guidance for interventions aimed at reducing pain, distress and anxiety (Kortessuoma et al., 2008).

A scoping review found promising evidence for the effects of looking at visual artworks in reducing stress. Out of 14 studies on self-reported stress, 13 of them mentioned reduction in stress after viewing artworks, and all of the four studies that examined systolic blood pressure also reported such reductions. Fewer studies examined heart rate and heart-rate variability, cortisol, respiration and other physiological outcomes. Moderating factors were considered to perhaps include the setting, individual characteristics, artwork content and viewing instructions. Studies involving active engagement with art, review papers or qualitative studies were excluded. More robust research using standardised methods and randomised controlled trial designs was concluded to be necessary for future research (Law et al., 2021).

The Creative Recovery Project was implemented in Lockhart River in 2008, Aurukun in 2009 and Mornington Island in 2010 (all in Queensland, Australia). The main aim of this project was to engage individuals from indigenous populations with mental health problems in weekly workshops focused on learning skills related to the visual arts, and to support them in expressing their emotions, thoughts and experiences among the people around them. The weekly workshops were performed under the supervision of artist mentors from an art centre. The findings of the project reported that this is a sustainable and culturally appropriate model for engaging Indigenous individuals with mental health problems living in remote areas. In this project, creativity was seen as an instrument for social inclusion and could have the potential to provide a unique opportunity for social enterprise (Leenders et al., 2011).

Drawing has been used as a therapeutic method for thinking about a disease from different point of view from the medical standpoint, due to the fact that patients focus on their feelings and experience of the disease. Thirty-eight women with systemic lupus erythematosus attended psychological meetings of 'My Life' courses, in which they were asked to draw their disease and comment on it. This method can be used in order to gain more information from the patient which might not be gained from tests or interviews alone. Drawing is a therapeutic and diagnostic method that makes patients open up to share their experiences, feelings and opinions. Recently published articles emphasise the fact that lupus patients feel that they are not understood by their doctors. Therefore, the disease drawing could be seen as helpful in understanding the psychological state of the patient (Nowicka-Sauer, 2007).

Art activities may offer benefits for people with dementia, making creative arts programmes a potentially effective psychosocial intervention that can realistically and easily be implemented in diverse care scenarios. A study's findings indicated that a pottery workshop may be an effective way of improving the well-being, mood and self-esteem of people with dementia, irrespective of

their limitations and degree of impairment. The evidence also suggested that people with a lower basal mood state could benefit more. During and after the intervention, Positive Affect and well-being scores improved, especially in the domains of pleasure, self-esteem, sustained attention and normalcy, while scores for Negative Affect and sadness decreased (Pérez-Sáez et al., 2020).

A participatory painting programme, that included elderly people, had the aim of exploring the extent that reimagining a landscape is effective in improving perceived well-being. The programme's results demonstrated improved levels of confidence, improvements in self-worth, feelings of safety, calm and tranquillity and reconnections of the present with the past. Painting provided a means to enhance connectedness as well as a way of sharing valuable life experiences. Thinking about a favourite place, painting it, sharing information and displaying the paintings in their homes improved levels of well-being (Rose & Lonsdale, 2016).

Creative workshops have the potential to influence the well-being of individuals. Thirty-one individuals diagnosed with severe mental illnesses took part in a creative workshop focused on various types of creative techniques, mostly focussed on the visual arts, such as painting, drawing, collage, sculpture and printmaking. The findings showed an improvement in social inclusion and an increase in psychological well-being. To increase the impact of the intervention, it was recommended that such creative workshops should be held away from clinical institutions in a public space, and should include individuals without diagnoses of severe mental illnesses (Saavedra et al., 2018).

The impact of creative art-based activities was examined in a group of chronic stroke patients. A programme named LACE engaged participants in 2.5-hour weekly activities held every seven weeks, including such disciplines as drawing, painting, collage and handicrafts. The purpose of these meetings consisted of finding meaning in daily struggles, and visualising the strengths of individuals to live with the stroke, connecting with themselves and others in different places. The findings of the study emphasised the fact that these activities have a positive influence over general well-being, more specifically on engaging patients' bodies, stimulating their brains and rejuvenating their spirits. They have reported an enhanced sense of enjoyment, self-appreciation, self-expression and social connection with others (Sit et al., 2017).

A pilot study investigated the beneficial effects of a community-based self-help group implementing Chinese art practices on bereaved parents. The study's subjects participated in a 20-session brush-painting group. Compared with a small control group, the art group participants exhibited a reduction in the prolongation of the symptoms of grief and improved measures of quality of life (Xiu et al., 2020).

Photography, Film and New Media

The use of photography consists of associations, connections and complex observations that can often remain unexpressed and invisible. Ten young people used disposable cameras to capture their experiences and perceptions of the state of their well-being and mental health with using photography. The results indicated the presence of social isolation, marginalisation and stigma, while mental health was internalised and firmly locked into the private areas of the participants' lives. These results suggested that they conceptualised such experiences as hidden and vulnerable components of themselves. Hope was expressed in the form of spirituality and connection with the environment (Charles & Felton, 2020).

An observational study that included data derived from a worldwide photography project aimed to find out whether digital photography could be used as a daily self-care practice, and whether it influenced community connections. Overall, the photo-a-day practice would be carried out through the small actions and intentions of the people involved, and the meaning people attach to photographs would be examined. However, one big potential failure of this activity was its accessibility, as it required special equipment, or at least a smartphone, which made it appropriate only for that section of a population that had access to such devices (Brewster & Cox, 2019).

A meta-analysis was used to determine what therapeutic advantages and limitations adults with mental health concerns have encountered through participatory photography. The results indicated that, for at least some people with mental health issues, participatory photography appears to be a promising therapeutic technique. More research is needed to see how beneficial it is compared to other therapies and with larger groups of participants (Buchan, 2020).

Digital storytelling interventions in a group setting had positive effects for type 2 diabetes mellitus (T2DM) self-management among Latino patients in rural primary care clinics, a study found. The intervention was enthusiastically received and resulted in increased motivation, self-efficacy, social support and knowledge about diabetes management. Digital stories followed by facilitated discussion might be more effective than digital stories alone, it concluded (Carlson et al., 2021).

Legacy-making intervention was implemented in adults with cancer in order to evaluate how it impacted their quality of life. The purpose of this intervention, adapted from Dignity Therapy, was to create legacy videos of people who have a terminal illness as a gift for their families. This intervention seemed to be feasible and acceptable, as it allowed cancer patients to process the experience with their diagnosis and to support their families on this challenging journey. As a further step, Dignity Therapy could be adapted to an online format in a self-guided way (DeSanto-Madeya et al., 2021).

Storytelling, game playing and digital media proved to be natural tools for addressing youth-oriented issues. Transmedia games used to increase youth agency and to support adolescent sexual health education showed short-term benefits such as improved knowledge, attitudes, and research and technology skills, although long-term health-outcome changes have not been documented. Narrative structures helped young people to relate and translate game topics to their cultural context which, together with availability of basic and cheap technology, made such games potentially effective tools to support the well-being of young people living in challenging conditions (Gilliam et al., 2012).

Another report about case studies described the impact of the Our Story app, which provides digital means to create stories

through an iPad. Such an application 'can provide access to story formats that are otherwise inaccessible to children with complex needs. The authors suggested that such activity can be highly motivating for children with a range of language and socio-emotional difficulties and contribute to their story-sharing and story-creation abilities. The opportunity for user-generated and multimodal content makes Our Story and similar apps well-suited for individualised learning environments and specific pedagogical goals with children with complex needs. This may encourage a wider recognition among special needs educators that personal multimodal stories can become a valuable part of the rich repertoire of stories that children, regardless of their abilities, can enjoy and share with others (Kucirkova et al., 2014).'

Watching digital stories made by paediatric and adolescent or young adult oncology patients proved effective in supporting health-care professionals to find new ways to connect with patients, understand the patient experience and find purpose in their chosen professions. This had the potential of leading to improved care practices and a more sustainable workforce (Laing et al., 2017).

Another study focused on people with aphasia and how photography, as a Photovoice method, could help them in communication and self-expression. Participants took part in group discussions centred on stroke or aphasia, which offered them the opportunity to share coping mechanisms that helped them in their daily lives. However, using a camera created some obstacles for such people, because strokes affect their mobility, cause vision impairments and inhibit their abilities to understand the symbols on the cameras. Overall, the Photovoice method offered people motivation and the feelings of control and empowerment (Levin et al., 2007).

Watching a Korean drama ("K-drama") television show at school that portrayed youth struggles and problems such as bullying and mental health issues promoted improved knowledge, attitude and behaviour in college students, a study found. While knowledge of these themes increased for most students watching the show, behaviours changed significantly among those with experience as victims of bullying at school, and significant changes in attitudes also occurred among those who had never witnessed bullying at school. The study also found that K-dramas were influential in increasing knowledge, attitude and behavioural changes among those with depressive symptoms, as well as those who had experience with depression or anxiety; however, there were no significant changes for those without such experience. Emotional response and readiness to talk more about their personal awareness of bullying increased after watching the show (Ta Park et al., 2020).

Photography and videos were used as a method of involving deaf children and adolescents in the production of a series of films to support socio-emotional interactions between them and their parents. People with hearing deficiencies used sign language, which implied a series of challenges when it came to adapting activities for this type of population. Photography seemed to be a good tool for deaf people to use to document their everyday lives, and to create something new. Moreover, filmmaking enabled deaf young people to have a reflexive and generative approach over their lived experiences. Overall, participating in these processes allowed them to recognise their abilities, to communicate and to express themselves without feeling inhibited by the surrounding social and attitudinal conditions (Young et al., 2019).

While contact with nature has well-known and proven beneficial effects on individual well-being, when direct contact with nature is not available, mediated receptive nature experiences could prove effective. During the COVID-19 restrictions, a short, five-minute exposure to a video of a forest induced a self-perceived relaxing effect and short-term decrease of anxiety level, while no effect was observed in the control group watching a video of urban scenes (Zabini et al., 2020).

Literature

A group of researchers conducted two comparative studies that included 160 participants, aiming to examine the influence of fiction-reading on their development of empathy skills. Compared to non-fiction, readers that became engaged in fiction over at least a week of reading developed higher empathy skills than non-fiction readers. The authors were conservative in their conclusions, explaining that enhanced empathy occurred only when readers became emotionally "'transported in the story", that is, became fully engaged in the story and identified strongly with the main characters (Bal & Veltkamp, 2013).'

Recently, growing evidence of the varied health and well-being effects of reading has been compiled into one book for the first time. This included research studies, practical guides, research methodologies, implementation guides and theoretical frameworks provided by groups of practitioners, researchers, clinicians, and policymakers from many disciplines. The book encompassed a few dozen case studies of reading groups and highlighted the "shared reading" experience in varied settings in particular; this was with regard to different populations and subjects, including psychiatric patients, elderly people, dementia patients, hospitalised patients, inmates in prison and other distinct secure settings, those coping with autism, and patients in a pain clinic. Literature reading in a shared group context provided multiple opportunities for individuals to repair and create social connections, enhance mutual understandings, enable self-expression, improve mood, assist in finding new meaning and purpose, and process complex emotional or physical experiences, or trauma. Another section of the book provided theoretical biological frameworks to further explain how literature reading might improve cognitive abilities and brain function, strengthen neural pathways and influence emotional networks and modes of thinking. Specifically, fiction-reading was highlighted as enabling complex emotional processes related to an individual's 'theory of mind' development, positively influencing the ability to gain deeper understanding of others' mental states and develop high empathy skills (Billington, 2019).

Storytelling and the use of narratives may also be useful in supporting the processes of grieving and bereavement. A theoretical framework provided through case studies described how bereaved parents used storytelling and sharing the narratives of their lost children's illnesses and death through their mourning processes. The process of story creation involves the construction of the teller's memory structure. Accordingly, storytelling may be useful in making sense of their situations and in reaching a cathartic release (Bosticco & Thompson, 2005).

The beneficial effects of storytelling were explored in a case study that included a young woman and a trained nurse with the purpose of co-constructing stories within a longitudinal clinical intervention. The purpose of the study was to enhance psychosocial well-being in the young woman a year after having a stroke. Co-constructing stories had a positive effect on the well-being of the participant. The story evolved step by step and was stimulated by the trust offered by the participant-nurse relationship. The storytelling process was facilitated by the active participant observation, the systematic use of worksheets, the engaging conversation focused on psychosocial aspects of the case and structural organisation (Bronken et al., 2012).

A RCT involving 100 students found that frequent fiction-readers had higher scores on a non-self-report measure of empathy'. The researchers also noted that, compared to non-fiction, fiction reading enhanced the development of empathy specifically within participants with a low baseline grade of "openness" (Djikic et al., 2013).

A mixed-methods study found a number of benefits from a 12-month weekly reading group conducted in an ambulatory mental health service. The study found that routine participation in a reading group assisted in the reduction of depressive symptoms, and subjective processes related to group dynamics and facilitation, including enhancement of 'social awareness and communicative skills, and group processes including reflective and syntactic mirroring'. The researchers highlighted the importance of the group's facilitator's expertise, including the choice of suitable literature and found that the interpretation of narrative and of poetry was crucial in holding and opening key ideas or central concerns. It also 'capture[d] details of participant contributions which helped whole group understanding. Additionally, the group location was perceived as influential, as the group which met at the mental health drop-in centre was easier to recruit and was much more willing to engage with the literature for its own sake from the very outset of the study. By contrast, the group which met at a GP surgery unit initially tended to view the literature as something 'prescribed' to them in direct relation to their mental health problems. The location of the latter reading group in (often different) doctors' offices may have encouraged this perception, where the former reading group had a designated and more informal space for the group each week.' Nevertheless, the facilitator's expertise seemed to overcome those barriers (Dowrick et al., 2012).

A qualitative study investigated the influence of poetry reading and writing in adults with previous mental health difficulties. Participants had many years of poetry-writing experience. During a weekly poetry-reading group, they shared and discussed their poems with other group members. Two participants describe that the poetry-writing process helped them to better connect with their inner self in relation to the world around them, which led on to the core concept of enhanced personal meaning. In addition, 'communicating and sharing personal meaning led to experiences of connection between people. The connection with oneself, together with the experiences and interpretations of other people, may lead to a widening horizon and a greater awareness of aspects of one's life. The participants described positive (beneficial and enhancing) and negative (inhibiting and harmful) experiences of creation, communication, connection, and awareness while writing and sharing poetry (Hilse et al., 2007).

'A large-scale cohort observational study based on a nationally representative data set (namely, the Millennium Cohort Study including 11,180 children born in the UK between 2000–2001), demonstrated a positive longitudinal association between children's reading for pleasure, starting from the age of 11, to their health-related behaviours at the age of 14. 'The potential benefits included lower odds of early onset of cigarette and alcohol use and better fruit consumption (Mak & Fancourt, 2020).'

However, another observational study including 225 young adults aimed to rule out the role of personality, and statistically controlled the most consistent correlates, also identified as "openness", 'along with two other important individual differences: the tendency to be drawn into stories and gender'. Even after accounting for these variables, exposure to fiction still predicted an individual's performance on an empathy task. The study results also demonstrated that exposure to fiction was positively correlated with social support, where exposure to nonfiction was associated with loneliness and was negatively related to social support (Mar et al., 2009).

Creative writing was also evaluated in a two-week arts and athletics summer camp for disadvantaged middle-school-aged children. Activities from the summer camp included creative writing, along with athletic training, art and a set of social skills for youth development, including leadership, public speaking and communication. An advantage of these activities was the fact that they were nonthreatening and culturally sensitive, which allowed all participants to feel a sense of empowerment. In particular, the creative-writing activities promoted a sense of hope for both personal and educational development (Mazza, 2012).

A qualitative case study explored the experience of first-year paramedic students. The students watched a fictional vignette of a patient, and were invited to write their personal responses to it. The creative-writing tasks helped these students to develop their empathy skills and highlighted deeper insights regarding potential patients' experiences of illness. It also helped to broaden their relational awareness and ethical sensibilities (Milligan & Woodley, 2009).

A study focused on creative arts publication evaluated the influence of this type of activity on medical students and staff. A creative arts journal was used as an intervention, and participants had to submit, edit and read it. Results from the observation of this activity showed that a creative arts journal is an appropriate vehicle with which to promote and encourage medical staff and faculty students to express themselves, and also to strengthen their professional relationships (Rodríguez et al., 2012).

Museum

A qualitative inquiry involving 17 mental health service users assessed the experiences they gained from participating in guided tours in four different museums. These were followed by creative workshops in two of the museums, and included the activities of painting and sculpture. Thematic analysis revealed two major themes experienced by the participants, where the museum visits and creative workshops had enhanced senses of self-empowerment and realisations of new meanings in life. These elements seemed to constitute basic foundations in the process of recovery. Nevertheless, the positive influence of the museum visits was not evident in all cases and was highly impacted by the interaction with the tour guide (Jensen, 2018a).

In the preliminary evidence for a project description – Meet Me at MoMA, (the Museum of Modern Art in New York City, USA), a monthly programme for individuals in the early and middle stages of Alzheimer's disease – project researchers stated that the museum 'features guided tours and interactive discussion in its galleries, and gives those living with the disease an expressive outlet and a forum for dialogue. Specially trained Museum educators engage participants in lively interactions by focusing on iconic works of art. The programme has shown that the act of looking at art can be a rich and satisfying experience for people with Alzheimer's disease and their caregivers.' Initial evidence from the project included reports from 34 individuals (comprising patient 17 dyads and a caregiver). Self-report scale data suggested a positive change in mood attributable to the programme for both the person with Alzheimer's and the caregivers. The take-home evaluations uniformly expressed positive sentiments as well (Rosenberg, 2009).

Heritage

An experimental evaluation of the effects of aesthetic experiences related to visiting a cultural heritage site found a noticeable impact on individual physical and mental health in terms of stress reduction (cortisol levels) and well-being increase. The intensity of the cultural experience was significantly correlated to the response. The study underlines the potential of the arts and culture as a new platform for public health practices and new approaches to welfare policy design (Grossi et al., 2018).

Multiple Art Forms

Based on the mid-range Health Promotion Model (HPM), a study that took place in the USA focused on the benefits of knitting among oncology nurses. Over a period of six weeks, nurses were involved in knitting activities, learning how to knit, and practicing both as individuals and in groups. The knitting intervention seemed to help the nurses in managing compassion fatigue and the stress associated with their working shifts. Through knitting, nurses were able to process difficult work situations. As a future practice, the study suggested that nurses should be encouraged and offered support to get involved in activities that could reduce their stress levels and facilitate emotional processing (Anderson & Gustavson, 2016).

Art classes taught by professionals include benefits regarding the overall well-being and can positively influence the health of the brain by stimulating an enhanced ability to focus. This was the conclusion of a study that included 138 older adults who were involved in activities such as drawing, painting, creative writing and mixed media. The study's subjects reported happiness as an important aspect of social and mental well-being due to their feelings of calmness and engagement during the creative activities. Creative engagement should be seen as an important component in therapeutic programming, and a nursing practice should include forms of artmaking that suit the abilities of all individuals (Cantu & Fleuri, 2018).

A qualitative study reported the findings of another study that consisted of urban working adults using two types of artwork: the first one involved using colour pencils, graphite, eraser, crayons, watercolours and paper, and the second involved using natural materials such as handmade paper, teas, blueberries, leaves, seeds, rice, nutshells, cinnamon sticks and others. These creative methods led to stress relief in the workplace and pleasant emotions with regard to the sensory experience of using natural materials, even without prior experience or skills. The participants reported more playful and creative behaviours, and better ability to reflect about their lives outside of work (Chang & Netzer, 2019).

An observational study examined the process and health outcomes of a 10-week arts on prescription programme in 202 adults with varied mental health conditions, including experiences of anxiety, depression, stress, low sense of well-being, stress from chronic pain or illness, behaviour issues and recent life crises. Participants were referred by their general practitioner, or other health professionals such as physical therapists, to a surgery unit. The arts on prescription programmes named Art Lift were of small groups of three to 10 people guided by an artist, usually resident in the surgery unit, and included a variety of creative art forms: poetry, ceramics, drawing, mosaic and painting. Almost 80 per cent of the referred patient attended the workshops, while the 50 per cent who completed the 10-week programme including a majority of the older females. The health outcomes indicated significant improvements on the mental well-being scale from pre-to-post participation (Crone et al., 2013). When updated, the results of Crone et al. (2013) presented longitudinal data from a seven-year period from 1,297 participants referred to similar eight- or 10-week arts on prescription programmes. The results similarly indicated that about 50 per cent completed their prescribed intervention and, of those, around 70 per cent engaged in the intervention (as rated by their art guide). Among those individuals who completed and engaged with the intervention, a significant increase in mental well-being was demonstrated from pre-to-post participation. The research concluded that arts interventions have high impact potential for improved well-being in engaged participants, even those with multiple morbidities (Crone et al., 2018).

A cross-sectional study conducted in Norway on a population of 50,797 adult participants collected and analysed data on both receptive and creative cultural activities on perceived health, anxiety, depression and satisfaction. The results showed that participation in receptive and creative cultural activities was significantly associated with good health, satisfaction with life, and low anxiety and depression scores in both genders. This population-based study suggested there were gender-dependent associations between cultural participation and the perception of health, anxiety, depression and satisfaction with life among the participants. In contrast with other studies, it showed a slight but consistent stronger relationship between the receptive cultural activities and satisfaction with life, anxiety and depression in both women and men. In women, the association between active cultural participation and perceived health was stronger, while in men, attending receptive, rather than creative, cultural activities was more strongly associated with all health-related outcomes. The results support the inclusion of cultural activities in health promotion and health-care (Cuyppers et al., 2012).

A qualitative report on a participatory arts project provided for elderly people in a residential care home described the subjective influences of three art interventions in which residents participated. These included reminiscence arts, seated dance and orchestral

music participation, all of which were provided in the care homes by three separate arts organisations. The participants reported that taking part in the different interventions was a shared experience for them and their carers that positively changed their relationships, promoted social connectedness and reciprocity, and improved their sense of the quality of care provided (Dadswell et al., 2020).

A longitudinal study on ageing assessed the impact of cultural activities such as visiting museums, galleries and exhibitions, going to the theatre, a concert or the opera, and going to the cinema, on changes in cognitive function over 10 years among adults aged over 52. Some 3,445 participants drawn from the English Longitudinal Study of Ageing were assessed in 2004/5 and 2014/15, and assessed for memory and semantic fluency at baseline and follow-up. Independent of demographic, health and social confounders, visiting museums, galleries and exhibitions and going to the theatre, a concert or the opera were associated with a lesser decline in cognitive function. Sensitivity analyses confirmed these effects were unaffected by considerations of mobility or dementia diagnoses. However, going to the cinema was found to have little effect on cognitive preservation. The researchers concluded that 'more frequent cultural engagement is associated with more marked effects, but even annual engagement may be protective (Fancourt & Steptoe, 2018).'

Another observational study focused on digital stories as an instrument for promoting health in 262 participants. Through the creation and sharing of digital stories, the goal was to enable intergenerational information exchange about healthy lifestyle choices, to facilitate tutoring between young and old, and to boost youth self-esteem through respecting identity, cultural customs and community engagement. The findings of this study underlined the fact that digital stories could be especially useful tools for health promotion in communities with rich oral-history traditions, where learning about life is a product of storytelling, as well as in communities aiming to improve local connectivity or intergenerational exchange of knowledge (Fletcher & Mullett, 2016).

A scoping review including 94 studies from 1972 to 2012 investigated the relationship between the arts, ageing and quality of life. The arts included both vocal and instrumental music (40 per cent; $n = 36$); crafts such as flower therapy and making cloth murals (18.9 per cent; $n = 17$); painting or drawing (17.8 per cent; $n = 16$), dance (12.2 per cent; $n = 11$); theatre or drama (12.2 per cent; $n = 11$); writing or vocal narratives, including prose, poetry and storytelling (12.2 per cent; $n = 11$); and photography or film (5.6 per cent; $n = 5$). 'Many of the studies' samples included participants who were already engaged in the arts before the study began (42.2 per cent; $n = 38$). Artistic engagement occurred most frequently in groups (55.6 per cent; $n = 50$) and usually required active (70.0 per cent; $n = 63$) rather than passive engagement (e.g., painting vs. viewing artwork). Participants were most often engaged with the artistic activity multiple times (that is, more than once, 85.6 per cent; $n = 77$). Most studies were led by academics (79 per cent; $n = 71$), with nearly one quarter conducted by non-academics (21 per cent; $n = 19$). This review demonstrated that there is a rather large and varied number of health and quality of life concepts that have been considered to date. The authors concluded that there is a need for programmes of research (instead of teams conducting only one study), the development and application of conceptual frameworks, and multiple perspectives to build knowledge about how the arts contribute to health and quality of life for older adults (Fraser et al., 2015).'

A large-scale survey conducted with more than 8,000 Norwegian adolescents examined the associations between participation in cultural activities and self-reported physical and mental health. Cultural activities included reading books, listening to music, playing an instrument, meeting and training, visiting a library or cinema, acting in the theatre, attending music or sports events and choir singing. The survey results indicated that active participation in cultural activities is associated with better reported health, life-satisfaction and self-esteem in adolescents. Social attendance and training at sports were also linked with better self-perceived health, life-satisfaction, good self-esteem and low anxiety and depression symptoms. The frequency of participation was found to be impactful, where routine participation was associated with better reported outcomes compared to less active adolescents (Hansen et al., 2015).

A qualitative report on an arts on prescription project in Denmark provided subjective reports of participants with a mental health condition who joined a 10-week arts on prescription programme. The programme, named Culture Vitamins, offered diverse activities twice a week, and on average included singing in a choir, guided reading, being introduced to the city archives, listening to music, visiting museums and theatres and a nature hike. The participants reported on various beneficial effects following their participation, including increased energy, motivation and self-esteem, improved self-awareness, a sense of joy, reduced panic attacks and a better level of self-care (Jensen, 2019).

A scoping review of the evidence-based use of varied arts and cultural interventions in Scandinavian countries aimed to map major interventions used to promote mental health and well-being in varied populations. The review included more than 20 quantitative and qualitative articles, and provided various examples of art and culture interventions promoting different health outcomes. For children and adolescents, examples included a community music therapy group for the inclusion of disadvantaged adolescents, and the effect of music classes on the reduction of physiological stress markers in young children. Dance projects were found to improve mental health and well-being in female teenagers, while theatre and drama workshops provided in school improved verbal and communication skills in children aged between 13 and 16. For working adults, arts on prescription projects involving small groups of adults, usually lasting for 10 weeks and including activities such as visual art making, music and singing, and theatre and museum or gallery visits, were shown to have meaningful effects on mental health and well-being. Other examples included meaningful effects from choral singing in an improved psychosocial work environment, and shared reading groups improving mental health and well-being. For elderly people, the major projects reported included the Alzheimer's Association in Denmark, which trained over 1,000 care staff in 500 residential homes on how to engage in 'reminiscence dance' with the residents, to promote the physical benefits of movement and coordination training, as well as meaningfulness, well-being and social contact. Additionally, the use of music, including music therapy and music therapeutic caregiving, is widespread in Denmark and Norway, where caregivers, music therapists and residential home staff are trained to use music and singing to decrease stress, improve cooperation in daily living and enhance general well-being (Jensen et al., 2020).

A mixed-methods study implemented in Australia reviewed the findings of an evaluation of arts organisations that focused on whether those organisations contributed to mental health and well-being at individual, community and organisational levels regarding the concerns of disadvantaged populations, in particular those of prisoners. They focused on art activities like theatre and improvisation, dancing, circus training and performance. This study demonstrated that community arts have potential for personal development in such disadvantaged populations. The most positive factors involved were the atmosphere in which the activities took place, the development of physical skills and awareness in the activities, and improvements in self-confidence (Kelaher et al., 2014).

Creating art can lead to a happy and safe environment and can influence the cultural development component of a community, found yet another study. Art education in the community can help adolescents develop and sustain a healthy personality, an increased level of qualitative creativity and build a positive school culture by enhancing resilience to the trauma of school violence (Kim, 2015).

A qualitative study focused on patients in palliative care found that creative activities are useful in easing life in proximity to death for individuals with advanced cancer, a study found. They are considered a method of learning ways to cope with limited physical ability and existential problems. Such tools could be very important in establishing new ways of handling difficulties and challenges in palliative care, and help understand how enriching parts of life can be maintained. The findings of the study were derived from patients who were able to attend between one and three sessions every week based on their preferences, current situations and needs. The creative activities consisted mostly of painting, pottery, gardening and woodwork (la Cour et al., 2007).

A study that took place in Canada reviewed The Centre for the Arts in Human Development in Montreal, which provided different art activities such as drama, music, painting, dancing and movement as therapy activities for people with developmental disabilities. The benefits of such activities were the enhancement of self-esteem, the development and improvement of social and communication skills, and the debunking of people's preconceptions about the ability and creativity of people with developmental disabilities. Based on these results, the study recommended that other art centres should develop such programmes in order to help a greater number of people (Lister et al., 2009).

Creative arts therapy (CAT) and music therapy may improve quality of life in paediatric cancer patients undergoing therapy. All participating patients and parents reported satisfaction with such interventions and stated that they would like to see the programme continue (Madden et al., 2010).

Creativity has been found to be one of the key therapeutic elements in arts therapies. A pilot randomised controlled study in school arts therapies found evidence of how creativity promoted children's experiences of well-being. Benefits included an increase in awareness about feelings and mood changes, reflections on emotions and thoughts about themselves and others, and emotional relief and enjoyment. The creative activities that children found most beneficial were story making and storytelling, drawings, puppetry, song writing and empowerment activities. Activities involving stories and enactment attracted the most engagement among the children, allowing them to create "crazy" characters who can do silly things without being judged by others. Puppets helped children verbalise difficult things, while writing songs and lyrics helped them express their experiences (Moula, 2021).

A qualitative study reported findings from an evaluation of four creative arts projects with groups of elderly people from a rural community. The aim of these projects was to reduce the level of social isolation and support the participants in accessing social and art-based activities such as dance sessions, film sessions, painting with watercolours, mobility exercises, quilting and other crafts. The evaluation of these projects highlighted that the participants reported increased self-esteem, the development of new skills and a greater level of self-worth. The participants mentioned that it was beneficial for them to make new friends while performing different creative activities, especially collaborating with a different generation (Pearce & Lillyman, 2015).

A 10-day art installation event in the community was created in Bristol, UK, to engage newly arrived refugees, immigrants and asylum seekers. The creative writing group personnel requested the 434 visitors to freely reflect on the project. The event was based on three different themes: homes, histories and hope. The theme of hope was addressed the most frequently, although all the responses to the three themes were positive. Almost half of the participants appreciated the event, and its aim to raise awareness and promote a better understanding of the importance of art and culture in a community setting. The study provided ways in which the individuals can feel supported in the society and more positive (Philipp et al., 2015).

A randomised control trial investigating the influence of traditional Chinese music and painting on the physical and psychological functions of hospitalised patients with ankylosing spondylitis (AS) showed that, after eight weeks of intervention, both recovery and quality of life were significantly improved. Painting therapy was better than routine treatment when improving the patients' quality of life. Patients used painting to express their inner feelings and cognition, thereby venting negative feelings and improving their mental health. Correspondingly, mental health also positively affects physical health. The comparison results show that the physical functions of the music group were significantly higher than those of the painting group (Qin, 2020).

A qualitative study seeking to understand the meanings of artmaking among a group of women living with the occupational constraints and stigma of chronic fatigue syndrome/myalgic encephalopathy (CFS/ME) found that artmaking was typically discovered once participants had accepted the long-term nature of their condition, and sought to adjust their occupations to the constraints of their ill-health. Participants tended to be familiar with craft skills or had family members interested in arts and crafts, and some desired a means to express their grief and loss. Once established as a leisure activity, artmaking increased subjective well-being mainly through providing increased satisfaction with daily life, positive self-image, hope and contact with the outside world. Participants recommended provision of occupational and recreational counselling earlier in the illness trajectory (Reynolds et al., 2008).

A creative-play intervention consisting of building toys had a positive impact among a sample of hospitalised school-age children. Playful interaction between nurses and children led to improved care, which was tailored to the needs of the children and generated better communication among children, attendants and nurses. Thus, creative play intervention was shown to possibly reduce the

adverse effects of hospitalisation on the psychosocial well-being of children and their families, and seemed to be an effective, feasible and sustainable mechanism for improving nursing care. The creative play-based method allowed children to express themselves, gain an active role within the hospital environment and reduce fear, enabling satisfying experiences (Teksoz et al., 2017).

A study exploring the experiences of people with mental health problems with regard to meaningful participation in a music and theatre workshop located in a mental health hospital highlighted the importance of having access to such activities near such institutions. This proved true regardless of admission status, and it was shown that cultural leisure activities should remain independent from therapy and be run by people with professional artistic backgrounds. These conditions enable “illness free zones” to restore personal dignity, give participants chances to be treated as artists or citizens, not just as patients. Participation in creative activities can foster empowerment and participation in the life of local communities from people with mental illness (Ørjasæter & Ness, 2017).

Courses focused on creative art offer oncology patients different ways to cope with their diagnoses by using self-expression and creativity. Thirty-five participants with breast cancer benefited from a Cancer and Creative Art course focused mostly on chalk drawing, painting, clay modelling and art therapy, combined with visualisation, imagery exercises, relaxation and concentration. Most of the findings were positive, though most of the eight weekly sessions were short and more time was deemed to be needed in the allocation of follow-up discussions. The participants reported positive emotions, an increased level of creativity, greater awareness of being alive, an improved overall quality of life and sense of meaning. However, the patients’ general mood was not changed overall (Visser & Op ‘t Hoog, 2008).

Co-creativity can improve the well-being of people with dementia and their caregivers, and contributes to increased agency in the sufferers concluded another study. Co-creativity enabled empathic connections, a sense of equality and the generation of a safe space that facilitated creative involvement and sharing. Co-creative sessions benefited the well-being of people with dementia, particularly with regard to increasing confidence and wellness, and allowing participants to be vulnerable and share their vulnerability with others. The co-creative process facilitates agency through play by providing moments of catharsis and release. Agency was demonstrated in moments when people with dementia assumed leadership of a session, but also in moments of apparent passivity, when the patient was not actively leading a dance or tune but nonetheless remained part of the group and maintained its rhythm. In line with Kontos et al. (2017), agency was embodied that is, physically enacted through gesture, movement (e.g., when leaving a room), music and dance. But it was also cognitive, when participants were able to reflect on their varying levels of engagement (Zeilig et al., 2019).

3. Culture and Community Well-being

Music

A total of 19 women who were aged between 21 and 75, and were either healthy or suffering from health issues such as fatigue, anxiety and depression, took part in a qualitative study to explore how singing in a choir could influence their own health and well-being. The participants sang over periods of six months to 20 years. The results highlighted that choral singing could influence their well-being by the perception of singing as significant for survival, promoting social inclusion, experiencing joy in singing and using singing as a way of social connection. All led to a higher sense of belonging, self-confidence, self-esteem and identity (Batt-Rawden & Andersen, 2020).

A randomised controlled trial evaluated how creative music expression functions as a catalyst for quality of life in 52 adolescents who were placed in a court-referred residential treatment programme. The aim of this intervention was to observe the way certain behaviours and roles improved in adolescents, including school, work and community roles, interpersonal problems, aggression and self-harm behaviours. A number of significant improvements were observed during the six-week programme. The main requisites of this intervention seemed to be empathy, self-control and a willingness to take part in the process (Bittman et al., 2009).

A randomised controlled trial evaluated the effectiveness of community group singing designed for older people, focusing on mental health and quality of life. Participants seemed very interested and willing to take part in the singing groups. The group setting offered them the opportunity to balance the feeling of loneliness, and feelings of anxiety and depression were lowered while they participated in the group singing, and were still present three months after. However, the results were not being sustained six months later, which could suggest that the group activities themselves were the greatest asset (Coulton et al., 2015).

In a study that used a community musician to conduct singing programmes for older people, the main findings were related to isolation prevention. Participants highlighted the social elements of the singing programme, while the study demonstrated the need to develop more effective strategies to recruit socially isolated individuals to benefit from socio-musical engagement (Davidson et al., 2014).

In a qualitative study that aimed to understand the role of music therapy in supportive cancer care the accounts of participants presented the group experience as one of the most positive aspects of the therapy. Loneliness and isolation are common detriments to the lives of people undergoing cancer treatment, and social connection and support in the form of music therapy sessions can help address these issues (Daykin et al., 2007).

A systematic review of well-being outcomes for music and singing in adults brought robust arguments in support of these activities in enhancing well-being and reducing or preventing depression in adults throughout life. Regular participation in community music and singing activities was proven to enhance and maintain well-being, and prevent isolation, depression and mental ill health in older people. The study showed that targeted music and singing interventions can contribute to improved mood and reduced anxiety in specific groups including young adults, pregnant women and prisoners. Furthermore, interventions such as group singing may lead to improvements in well-being and quality of life for adults with a range of chronic conditions, and in sensitive settings such as palliative care (Daykin et al., 2018).

The overview of a music-centred training programme for community health workers and untrained community health volunteers showed that interactional music-making enhances community health workers' skills for building relationships, mobilising members of the community to take responsibility for their own health and to access services, and conducting health promotion activities (dos Santos & Lotter, 2017).

The effect of electroacoustic music was investigated in an educationally disadvantaged community as a means of developing creative skills and promoting social integration in Mexico. The findings of the study mentioned that technology has been seen as an innovative tool in attracting children and adolescents to electroacoustic composition and performance. The authors took into consideration that it is challenging to engage children in activities which require longer periods of time and decided to perform each activity for between 10 and 15 minutes, in addition to varying the activities. The study addressed the use of mobile phones as an educational tool for learning and not just a tool of mass consumption (Duarte-García & Sigal-Sefchovich, 2019).

An online pre-composed receptive music experience significantly decreased students' stress and anxiety levels. The melody and tempo were perceived as the most supportive musical elements for this goal (Fiore, 2018). A systematic review on the existing evidence on choral research concluded that there is an international consensus on varied beneficial health effects from collective singing (that is, choirs and singing groups). These included the physical benefits of improved cardiovascular and respiratory function, improved immunity and brain function. Psychological benefits included mood alteration and emotional expression, identity development and improved inner and external communication skills. Social benefits included an improved sense of social inclusion and belonging, improved social skills and provision of a platform for social bonding. Furthermore, collective singing may lead to educational benefits, including improved reading skills, language development and speech production (Hagemann, 2021).

A pilot study found group singing to be beneficial in the case of patients with chronic pain in a multidisciplinary chronic-pain clinic. Because they encourage a better use of the respiratory system, singing interventions can result in a multiple range of positive feelings, including increased self-esteem, confidence, motivation and empowerment. The study also noted how singing is an enjoyable social activity that provides bonding experiences and positive social interaction. Singing interventions connect patients with others having the same health condition. This form of peer support can help patients overcome the "misery circle", where illness leads to social isolation that in turn worsens the illness. These favourable findings might support the introduction of group singing in the clinic's pain-management programme (Irons et al., 2020a).

A post-hoc observational study on the Zurich Disability Prevention Trial aimed to investigate the association between playing a musical instrument and cognitive function in older adults that do not suffer from cognitive impairment. Results suggest that playing a musical instrument does, indeed, have benefits both immediate and long-term, and might be a protective factor for cognitive disabilities. The reason for this is that playing an instrument is an activity that stimulates cognitive function, and implicitly also executive functions. Therefore, for people playing a musical instrument in the present, there are long-term benefits in maintaining a good quality of life, but also due to the fact they have more social contacts through these activities, positively influencing their social connections and quality of life (Mansky et al., 2020).

Choir attendance in 54 health service workers from different regions of Ireland was found to positively increase the perception of the mental health of the workers, as well as decreasing depression rates. Despite the positive effects, the evidence was limited quantitatively and there were some difficulties noted in measuring the health-related benefits of art interventions. The qualitative findings indicate that having a workplace choir can enhance social connectedness, personnel engagement and enjoyment at the workplace. However, it is important to acknowledge that the participants were mostly staff who graduated university, had overall good health, reported average stress levels and had relatively high work engagement scores. In such an initiative, it is important to employ a professional musician and to ensure that the financial costs are covered (Moss & O'Donoghue, 2020).

The findings of an exploratory study based on an international sample of choristers pointed out the relevance of choral singing in fostering community interaction and well-being. Regular rehearsals were considered to be important social activities and outlets that allowed for social interaction, social connection, bonding and social inclusion. Attending a choir is also a venue for promoting diversity, given that participants get to mix with a wider range of people coming from different age, gender and ethnic groups than would normally be encountered in their communities (Moss et al., 2018).

The outcomes of attending a group singing activity by people with dementia and their carers showed that singing supports social inclusiveness by enabling participation in activities regardless of the stage of dementia. Singing allowed participants to form bonds with people with whom they could relate, therefore facilitating the creation of supportive networks. The programme also helped improve the relationship between carer and patient, and their relationships with other people. The programme was a standardised service model and could therefore be easily replicated. The costs involved in organising singing groups were relatively low, and it did not require highly specialised personnel. A major drawback to which the authors pointed was that all participants were White and of British nationality. The authors encouraged the evaluation of the activity in different regions in order to capture a more diverse population (Osman et al., 2016).

An observational study brought evidence to support the link between active participation in choral singing and social well-being and quality of life in healthy older adults. The outcomes showed that choir members had better verbal and cognitive flexibility, and experienced better social integration compared to members of the control group. Choir practice was shown to have an important impact on socialisation, self-confidence and communication. Participants in choir practice reported that singing together provided enjoyment and fostered social connections that made them look forward to choir practice (Pentikäinen et al., 2021).

Another qualitative study focused on older adults from PACE (Programme of All-Inclusive Care for the Elderly) and evaluated the benefits of choral singing in older adults of low socio-economic status. Participants seemed to enjoy taking part in the choir, as it was an opportunity to do something pleasant and uplifting. Singing was an activity that aligned with participants' values and interests and therefore made them reminiscent about singing in their homes and at church as children. On the other hand, some participants felt that the songs were too religious for them and would've liked to have more options they could choose from. Also, what seemed to help was the feeling of bonding between participants, even though some were very focused on performance and perceived the fact that others had limited talent as an obstacle for the group. All in all, this activity was a successful one, and the study contributes to the promotion of choir singing in older adults as a form of engagement and connection (Petrovsky et al., 2020).

A study with a 2 x 5 mixed-measures design highlighted the fact that creativity was higher in the group of participants who listened to happy music while performing a divergent creativity task, compared with those participants who performed their task in silence. The specific types of music included in the study consisted of four classical music pieces that varied with regard to their qualities of arousal and valence. Regarding convergent creativity, no effect of music was identified. The study provided practical implications regarding the use of listening to music to promote creative thinking in cost-efficient ways in scientific, organisational and educational settings. However, one limitation consisted of the fact that some participants were exposed to the happy music twice while performing the convergent creativity tasks, and they were mainly participants with a higher level of education and included a higher proportion of females and people of a Western cultural origin (Ritter & Ferguson, 2017).

An overview of a series of Sing Your Heart Out (SYHO) workshops for mental well-being reinforced the conclusion that singing in a community context is beneficial for people who have experienced mental-health conditions. Other important aspects of SYHO workshops involved the construction of a safe environment that creates opportunities for developing social skills and rediscovering work-related skills. The researchers also pointed out to how social capital and empowerment are fostered within these workshops (Shakespeare & Whieldon, 2018).

A qualitative study of musical performances taking place within care facilities found evidence to suggest that experiencing live music concerts provides benefits for all those who care for the elderly with dementia. In terms of the enhancements visible at community-level interaction, the study showed how, after the visit by the musicians, practically all employees, nurses and volunteers stated that clients were more cooperative, easier to care for and nurse, and were generally calmer and more receptive. This had the related result that the personnel reported feeling less stressful, more cooperative and more caring overall, and also had greater levels of motivation, energy and job satisfaction (Shibazaki & Marshall, 2017).

Collaboration and social interaction were the key findings of a qualitative research project that aimed to gain participants' views of taking part in Silver Song Clubs, a cluster of community-based singing groups for older people. The researchers pointed out that,

while singing itself may be linked to positive health outcomes in older people, improved mental health and well-being may have been the result of commitment to attending the singing club for a long period of time. The clubs' musical and social aspects drew a wide range of older people, and they may have served as a counter to social marginalisation, which is linked to depression and bad health (Skingley & Bungay, 2010).

A prospective intervention study based on a participative programme in a community involved weekly singing rehearsal sessions over a period of 18 months for 117 participants aged between 18 and 71 years in Australia. Singing did not lead to a decrease in a psychological stress directly, but indirectly lowered depression levels, increased the quality of life, resilience levels, social support and social connectedness among the participants in the singing group. Moreover, the participants have reported a better management of mental health conditions and an increase in the way they perceived their ability to cope with stressful experiences. There was a significant decrease in the visit times to acute health services observed, as well as an increase in visit times to preventive health services (Sun & Buys, 2016).

A randomised controlled trial that aimed to investigate the effect of a therapeutic group singing intervention on a range of outcomes for people with quadriplegia found that music therapy also had positive effects on mood and quality of life outcomes. Slow, deep breathing was found to relieve tension and anxiety, and the therapeutic singing intervention's regulated, deep breathing may have lowered anxiety and stress. The sense of belonging to a group and the shared experiences of musical peak moments and catharsis are linked to the formation of interpersonal ties through group singing. Both groups had opportunities for community reintegration and the development of self-confidence and social skills to help them become more independent. Social support and companionship came as a result of being part of a group, and these are natural antidotes to social isolation and depression, which are both frequent after spinal cord injuries (Tamplin et al., 2013a).

Theatre

In one study, a monologue-based theatre component was introduced to an academic course and had the effect of increasing empathy in undergraduate nursing students (Baker et al., 2019).

An overview of the successful implementation of a cultural community development model highlighted the benefits of this type of practice. Along with the promise of improving quality of life, social networks, organisational flexibility and attitudes toward ageing and dementia, the creative community-building approach fostered long-term approaches to the social integration of people with dementia. It did this mainly by facilitating their intervention into the community as "culture makers", in this specific case through drama-based interventions. The study highlighted the benefits that emerged when care systems engaged with their communities to form partnerships, ending the isolation and over-medicalisation of the citizens in their care. The practice of cultural community development has been shown to transform and improve the lived experience of people living with dementia in care centres (Basting, 2018).

"Health theatre" relies on transforming qualitative health research data into dramatic form, making it more accessible and emotionally engaging for audiences. One article underscored the value of applied theatre as a vehicle for mental health promotion in marginal or minority groups, given that language and cultural barriers often prevent many minority community members from participating in mainstream mental health promotion and community education activities (Blignault et al., 2010).

Another study showed evidence in support of the effects of theatre-going on reversing the public stigma surrounding dementia. This study demonstrated that the public perception of dementia and Alzheimer's disease improved from a strong Negative Affect to a slightly more Positive (or relaxed) Affect, after participants attended a self-revelatory performance on the subject. The authors conclude that theatre performances are an effective support system to help spread knowledge about these diseases and reverse the societal stigma (Burns et al., 2018).

Using drama therapy with the aim of addressing mental-health problems in college students revealed benefits regarding the improvement of the six mental-health indicators assessed (decision-making ability, self-awareness, interpersonal and communication skills, self-expression, self-cognitive reconstruction and social role ability). The level of self-awareness and decision-making was more positively influenced in males when compared with females (Chang et al., 2019).

A different article concluded that school-based peer education centring on the dramatic arts can be a useful tool for promoting wellness and reducing exposure to violence in urban youth. Peer education through drama was found to be particularly helpful because students are more receptive to prevention-focused messages that come from other students, as opposed to adults (Chung et al., 2017).

Theatre can be effectively used in social work in the recovery of fragmented identities among people facing social exclusion such as the homeless. The cultural practice fosters transformation of negative self-perceptions caused by fear, loneliness, misunderstanding, and rejection, and facilitates re-signification and positive self-identification. The theatrical expression enables the individual to regain dignity, to gain perspective and reappraisal, and to engage in collaborative interactions. Self-confidence and self-worth increase as a result of acquiring new capabilities and feeling useful, while recognition from others bring empowerment (Cordero Ramos & Muñoz Bellerin, 2019).

A qualitative study aimed to explore how during a workshop and over time, 24 adult learners in Alaska described their experience with Readers' Theatre as cancer education. As a vehicle for cancer education, Readers' Theatre fostered healing, regeneration, validation and adjustments in information, attitudes and beliefs, all of which inspired action. Readers' Theatre provided a safe space for individuals to bravely engage with the difficult subject of cancer, as it reflected hope in the midst of reflection on the disease (Cueva, 2010). A mixed-methods study had the aim of measuring the impact of creative drama on Head Start Dual Language Learners. The emotional and social skills of the participants improved significantly after taking part in the creative drama, with the

participants reporting improved cooperation skills, better emotion management, improved social interactions and an increased level of confidence (Gao et al., 2021).

One qualitative study looked at how theatre productions can be used to foster the integration of children with disabilities. An important finding was that role-play can enable social participation for children who are conventionally labelled with emotional and behavioural difficulties. The practice was successful in reducing inequalities and improving community solidarity by facilitating participation in artforms that are usually inaccessible for children with disabilities and their carers. The authors called for more infrastructure to support this type of intervention (Goodley & Runswick-Cole, 2011).

A study used theatre as a tool to prevent discrimination and foster community empowerment for older LGBT people in care centres. The project revolved around a community-informed theatre experience that trained healthcare providers and students to identify biased behaviour and to empower them to take action to correct it. This helped to improve the provision of healthcare and ageing services to older LGBT people (Hughes et al., 2016).

There is evidence from one study that theatre interventions in school and health institutions have benefits for children and adolescents in the form of improved social skills, increased knowledge and positive attitudes related to health behaviour in the short term. For these age groups, drama can become “a rehearsal for life”. Limited effects of drama interventions on intentions to smoke were observed. Negative effects were occasionally noted with regard to self-esteem or self-conceptualisation among participating children. The findings suggested that school-based peer education that integrates the dramatic arts is a promising approach for promoting wellness and reducing exposure to violence among urban youth (Joronen et al., 2008).

The integration of life-review principles and Playback Theatre was explored with the aim of bringing up and discussing the life stories of the participants from adult day centres in order to improve their well-being and health. A total of 27 individuals aged from 63 to 91 participated in one of the three Playback Theatre groups in 12 weekly sessions. The results suggested that this integrative framework has the potential to be considered as an artistic intervention in the adult day-centre communities. The benefits might include undergoing a personal transformation and raising the social engagement in the community (Keisari et al., 2020).

A qualitative study found that a drama-based method can enhance interventions that address male participation in HIV treatment and awareness, and diminish facility-based barriers to male participation in such programmes (Komakech, 2020).

A qualitative case study described how special training for caregivers focusing on theatrical improvisation was helpful in assisting the participants to find creative and humorous ways to feel empowered and better able to deal with their daily burdens (Leonard & Libera, 2020).

A participatory theatre intervention was performed with the aim of reducing LGBT stigma in Swaziland and Lesotho, which are the countries with the highest prevalence of HIV. The intervention resulted in a greater understanding of LGBT persons and aspects of their lives, along with increased levels of empathy and enhanced self-reflection on personal biases. Participants reported changes in their perceptions and attitudes, and a higher level of awareness. These types of interventions have the potential to reduce difficulties in HIV prevention and treatment in countries with a high prevalence of HIV. However, the study acknowledged that changes in attitudes could be short-lived. The findings could be further expanded into medical education and national HIV-prevention initiatives, and lead to an increased awareness of HIV prevention in LGBT individuals. There is a need for structural change at different institutional levels in the police and hospitals in order to promote constant self-reflection, learning and policies which are non-discriminatory, and that maintain attitudinal change (Logie et al., 2019).

Theatre-going was found in a study to provide positive emotions, meaningful social interaction and psychological stimulation, all of which can bolster well-being throughout life in older patients. Participants in a focus group attested that the psychosocial benefits derived from the programme contributed to a larger sense of community, connecting individual well-being to community well-being (Meeks et al., 2018).

Another study reported that attending performances as a combined social, cognitive and affective experience had implications for individuals seeking to promote their own well-being, and also possibly for policies that support cultural opportunities, particularly in the arts (Meeks et al., 2020).

A qualitative inquiry focused on medical students’ experiences from participation in a quarterly theatre-based module course. The students described that participating in that programme enhanced their sense of well-being and personal growth, provided opportunities for self-expression and exploration, and, by doing so, also supported their subjective development as future physicians (Nagji et al., 2013).

There is evidence that receptive cultural participation in the form of attending the theatre can be an important tool for public engagement in health-policy development. This comes largely from theatre’s capacity to engage large numbers of citizens with diverse backgrounds and worldviews, and also from its dual potential to inform on possible policy interventions, and to elicit public opinion on the policy issues under consideration (Nisker et al., 2006).

Another study showed that drama-based research and evaluation methods can engage young people in innovative ways that produce rich research findings. The Sharing Stories youth theatre programme improved knowledge of sexual health, increased confidence levels and created positive attitudes towards sexual health. Sexual health appears to be a topic which young people are more likely to discuss with their peers than with a family member (Roberts et al., 2017).

A cluster randomised controlled trial of a classroom-based drama workshop programme intended to improve mental health outcomes among immigrant and refugee youth in special classes showed a small improvement of impairment in first-generation immigrant youth, but an increase in impairment in second-generation youth. The results questioned the potential usefulness of these interventions in those particular settings and concluded that this difference in response needs to be examined more thor-

oughly. The study suggests that these educational settings present particular challenges and may require interventions which specifically address some of the organisational dimensions (Rousseau et al., 2014).

A pilot study used narratives from Black women who had experienced discrimination to inform the development of a professional theatre production. This was performed for healthcare providers and the general public, and showed that theatre was effective in presenting the extent and nature of discrimination in healthcare and society. It also fostered conversations in which audience members reflected on their own potential contributions to discrimination. Audience members declared that the performance increased their conceptual understanding of inequity, their awareness of the problem of inequity in their communities and the likelihood that they would implement change within their own lives related to behaviours that might contribute to inequity (Wasmuth et al., 2020).

The beneficial effects of participation in community-based theatre activities among older adults with chronic conditions living in low-income housing or senior living communities consisted of an improvement in psychological well-being and health-related quality of life. Psychosocial benefits were also observed in this study (Yuen et al., 2011).

An exploratory study investigated the effects of a Forum Play intervention on healthcare staff awareness and attitudes towards staff abuse against gynaecological patients. Sixteen half-day workshops were provided during one year in a women's' clinic. Self-reports from participating staff suggested that the Forum Play workshops increased their awareness and ability to act when witnessing abusive behaviour by healthcare workers. However, the number of reported situations of staff abuse was not reduced (Zbikowski et al., 2020).

Dance

A review of evidence of the health and well-being influence of dance commenced by the European Dance Network (EDN) included recent evidence in the field (such as the WHO 2019 report, quantitative and qualitative studies, as well as various initiatives and programmes) highlighted the health and well-being benefits of dance activities within diverse populations. These included: social inclusion in patients with dementia and their carers; enhanced developmental maturity and school preparation in young children; improved physical functionality and activity, body image and health knowledge; better attitude and behaviour in the general population; support of cognitive decline; improved strength, flexibility, motor ability, aerobic endurance, muscle mass and body composition in older adults; promotion of subjective well-being among healthy young people (relating to issues such as resilience building and confidence boost); improved stress management and prevention; reduced postnatal depression and anxiety and depression in children and adolescents; and reduced depression symptoms in older adults – all specifically derived from Dance Movement Therapy. Dance activities were also found to be beneficial in the reduction of PTSD symptoms, and to have improved quality of life in people with acute health conditions such as chronic pain, cerebral palsy, stroke survivors and other acquired brain injuries. Dance was found to be effective in pain reduction for cancer patients and for pain support in end-of-life care. It also improved the symptoms of diabetes and social coping (Baltà Portolés, 2021).

Some 163 older adults participated in a study which aimed to explore how dancing affects mobility performance and how dance activity affected people's Quality of life and social participation. This intervention was created to promote mobility and psychosocial function in a socially active environment by using various dancing styles in a group and with a partner. The results indicated that, after the intervention, both static and dynamic mobility were improved. Furthermore, our findings revealed an improvement in dual-task abilities, which are prevalent tasks in everyday life. Dance is, after all, a rhythmic exercise that involves a combination of physical and mental abilities. In conclusion, dancing is a sustainable type of physical training since it can be practiced in a variety of settings, requires little or no expensive equipment and is well-suited to the physical limitations of older persons (Brustio et al., 2018).

A community dance programme for preschool and primary school students (aged five to seven years) was carried out in the context of their education at centres of creative activities for children, and had a positive effect on the social relations that the students developed there. They noticeably improved their collaborative and communication skills (Eleni & Georgios, 2020).

An overview was published of a dance programme which aimed to explore how a narrative approach to dancing supports social inclusion for people living with dementia and their families in residential long-term care settings. As opposed to choreographed dancing, a narrative approach to dance encouraged participants to express themselves uniquely through movement. The findings showed how the sociability of persons who live with dementia as expressed through dance relied heavily on embodiment. This contributes to an emerging field of study in dementia that values the body as a source of agency in the discourse on sociability. Sharing Dance Seniors is a catalyst for the formation of dementia-friendly communities, and comes at an ideal time, given the need for a shift in dementia care culture (Kontos et al., 2021).

A study conducted in-depth qualitative interviews with 16 professional contemporary dancers from the UK. They revealed an understanding of dance as a process of creative collaboration, which hints at how expressive arts practice opens up new dimensions of understanding and experience in relation to well-being and self (and other) care (Purser, 2019).

A quasi-experimental study aimed to see if staying in an inner-city youth dancing programme for a longer period of time helped young people avoid risky behaviour and acquire competence in essential life skills. The MITS Stepping Stones class, which uses dance movement to prevent risky behaviour and encourage the adoption of prosocial norms that improve emotional, behavioural, cognitive and moral competence, was investigated. According to the survey results, the majority of Stepping Stones participants described MITS teaching artists as positive role models, said that the programme was extremely useful and reported the gain of various skills. This appears to be compelling proof of dance movement's efficacy as a viable youth-development tool (Rodgers & Furcron, 2016).

An observational study of a dancing project for patients with mood disorders found that dancing can stimulate positive socialising behaviours and discourage isolation. Dancing acts promptly and effectively on the psychological well-being of patients and helps increase self-esteem. As a corollary effect, this helps patients overcome inhibitions and social phobias. Another important outcome of these types of dancing programmes is that they help fight against societal stigmas that reinforce biases about depressive people and their capacity to feel joy (Tavormina & Tavormina, 2017).

Another study on dance and body movement aimed to examine if these types of activities could improve focus on bodily communication between trainee nurses and patients. Results showed that, on the one hand, dance generated joy, trust, openness and bonding, and was therefore considered a pleasant activity, while on the other hand, it was considered challenging and helped students develop somatic awareness and self-contact. Moreover, dance helped students to learn to manage their own emotions, so when they got in contact with patients, they could maintain professional boundaries without being emotionally overwhelmed (Winther et al., 2015).

A study aiming to compare mood changes between three different types of dance activities – recreational and competitive dancers doing ordinary training and competitive dancers taking part in a dance competition – revealed that dance can elicit changes in mood. However, situational context had to be taken into consideration when explaining the influence of dance on mood. Competition is related to approach behaviour, namely high energy, but also induces tension, the evolutionary function of which could be preparation for emergency, while recreational dance produces positive changes in mood. Although tension decreased moderately during the performance, dancers taking part in a competition felt less pleasure after dancing than recreational and competitive dancers in 'ordinary' training (Zajenkowski et al., 2015).

Circus

Circus training can enhance the social development and well-being of children diagnosed as being on the autistic spectrum. One example of qualitative research based on substantial experience derived from long-term interventions of qualified practitioners shows that circus training 'allows children with autism to be exposed to a sense of chaos in which they draw on their senses, making a creative virtue of the kind of order that they are used to imposing, or trying to impose, on their day-to-day world. Circus values their eccentricities, individual preferences, talents and modes of expression, while at the same time encouraging them to rely on and interact with other children and trainers in order to execute a trick or acrobatic sequence, or to make an audience laugh (Seymour & Wise, 2017).'

Visual Arts

A study of university students (mostly first- and second-year psychology undergraduates) using a 2x2 between-subjects design emphasised the fact that sketching resulted in higher experience of flow and a lower perception of the difficulty in a creative mental synthesis task. The findings of the study were the first to empirically prove that sketching increases the flow experience and does not depend on an associated decrease in general working memory overload (Cseh et al., 2016).

A qualitative study reported the findings of 16 medical students who had a previous experience with original artwork in a narrative-based programme meant to educate medical students. This mentioned that art led to reflection on past experiences, personal growth, personal development, self-discovery, awareness of art as an important tool and an enhanced sense of collaboration among participants (Jones et al., 2017). An published overview of an exhibition that was part of a larger community-based Arts in Health initiative pointed out the importance of implementing culturally appropriate models for the meaningful engagement of indigenous people who live in remote communities and experience mental health problems (Leenders et al., 2011).

Similarly, during a participatory arts project aimed at engaging older residents in a disadvantaged urban community, the participants found that creating drawings and exhibiting them had an important impact on social representations of their community. Feelings of loneliness and isolation, and of being forgotten or ignored by the larger community, were alleviated through the opportunity of working together to challenge the negative representation of their community as outsiders. An interesting finding was that older working-class men tend not to engage so eagerly with certain forms of artmaking that are not part of male working-class culture (Murray & Crummett, 2010).

Similarly, a different study assessed the impact and effectiveness of a participatory painting programme with elderly people. The findings confirmed that the relational aspect of the intervention was effective in generating a positive therapeutic environment. Another central finding was that reimagining a landscape can contribute to 'participants' retaining significant places in the mind when physical engagement is limited' (Rose & Lonsdale, 2016).

Photography and Film

The use of photography consists of associations, connections and complex observations that can often remain unexpressed and invisible. Ten young people used disposable cameras to capture their experiences and perceptions of the state of their well-being and mental health with using photography. The results indicated the presence of social isolation, marginalisation and stigma, while mental health was internalised and firmly locked into the private areas of the participants' lives. These results suggested that they conceptualised such experiences as hidden and vulnerable components of themselves. Hope was expressed in the form of spirituality and connection with the environment (Charles & Felton, 2020).

An analysis was published of the impact of sharing digital stories about HIV-prevention activism in Canada that were created by Indigenous youth leaders. The article showed how arts-based models of intervention that amplify stories and voice, foster the growth of Indigenous youth leadership, inspire dialogue and create changes with far-reaching impacts for communities. The project also proved the long-term impact of the involvement of Indigenous peoples in research and health promotion. The authors concluded with a plea for finding new ways of administering public health policies that are culturally safe, decolonising and that respect the self-determination of Indigenous peoples (Flicker et al., 2020).

A qualitative study explored the role of hospice photography taken by the hospice's social workers. The social workers took photos of patients and their families, and their reports stated that this activity was helpful in the processing of end-of-life experience for the patients, their families and the social workers. It also improved their job satisfaction and assisted in building the therapeutic relationship with patients and families (Shuber & Kok, 2020).

One study suggested that recording a drama-based intervention in cancer-treatment education could serve multiple educational and well-being goals in the long term. As audience members, students attended live performances. They would be likely to have more opportunity for in-depth study in the future if combined programmes in drama were broadened to include a number of other subjects, and recorded on video to be viewed more frequently. Students' understanding and empathy for patients improved after taking the drama-combined nursing education for cancer care (DCC) class, according to this study (Suh et al., 2021).

A study used a K-drama show to help address school bullying and mental health, and help-seeking found that K-dramas could be used to support bullying prevention and mental health. The research provided evidence that popular cultural shows such as K-dramas can be fruitfully integrated in policy interventions. The authors of the study remarked that the approach responded to the AAPI (Asian Americans and Pacific Islanders) Bullying Prevention Task Force Report's recommendation for community anti-bullying initiatives for Asian American youth (Ta Park et al., 2020).

Literature

A group of researchers conducted two comparative studies that included 160 participants, aiming to examine the influence of fiction-reading on their development of empathy skills. Compared to non-fiction, readers that became engaged in fiction over at least a week of reading developed higher empathy skills than non-fiction readers. The authors were conservative in their conclusions, explaining that enhanced empathy occurred only when readers became emotionally "transported in the story"; that is, became fully engaged in the story and identified strongly with the main characters (Bal & Veltkamp, 2013).

'Recently, growing evidence of the varied health and well-being effects of reading has been compiled into one book for the first time. This included research studies, practical guides, research methodologies, implementation guides and theoretical frameworks provided by groups of practitioners, researchers, clinicians, and policymakers from many disciplines. The book encompassed a few dozen case studies of reading groups and highlighted the "shared reading" experience in varied settings in particular; this was with regard to different populations and subjects, including psychiatric patients, elderly people, dementia patients, hospitalised patients, inmates in prison and other distinct secure settings, those coping with autism, and patients in a pain clinic. Literature reading in a shared group context provided multiple opportunities for individuals to repair and create social connections, enhance mutual understandings, enable self-expression, improve mood, assist in finding new meaning and purpose, and process complex emotional or physical experiences, or trauma. Another section of the book provided theoretical biological frameworks to further explain how literature reading might improve cognitive abilities and brain function, strengthen neural pathways and influence emotional networks and modes of thinking. Specifically, fiction-reading was highlighted as enabling complex emotional processes related to an individual's 'theory of mind' development, positively influencing the ability to gain deeper understanding of others' mental states and develop high empathy skills (Billington, 2019).

A RCT involving 100 students found that frequent fiction-readers had higher scores on a non-self-report measure of empathy'. The researchers also noted that, compared to non-fiction, fiction reading enhanced the development of empathy specifically within participants with a low baseline grade of "openness" (Djikic et al., 2013).

Storytelling, game playing and digital media proved to be natural tools for addressing youth-oriented issues. Transmedia games used to increase youth agency and to support adolescent sexual health education showed short-term benefits such as improved knowledge, attitudes, and research and technology skills, although long-term health-outcome changes have not been documented. Narrative structures helped young people to relate and translate game topics to their cultural context which, together with availability of basic and cheap technology, made such games potentially effective tools to support the well-being of young people living in challenging conditions (Gilliam et al., 2012).

A large-scale cohort observational study based on a nationally representative data set (namely, the Millennium Cohort Study including 11,180 children born in the UK between 2000–2001), demonstrated a positive longitudinal association between children's reading for pleasure, starting from the age of 11, to their health-related behaviours at the age of 14. 'The potential benefits included lower odds of early onset of cigarette and alcohol use and better fruit consumption (Mak & Fancourt, 2020).'

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However, another observational study including 225 young adults aimed to rule out the role of personality, and statistically controlled the most consistent correlates, also identified as "openness", 'along with two other important individual differences: the tendency to be drawn into stories and gender'. Even after accounting for these variables, exposure to fiction still predicted an individual's performance on an empathy task. The study results also demonstrated that exposure to fiction was positively correlated

with social support, where exposure to nonfiction was associated with loneliness and was negatively related to social support (Mar et al., 2009).

A qualitative case study explored the experience of first-year paramedic students. The students watched a fictional vignette of a patient, and were invited to write their personal responses to it. The creative-writing tasks helped these students to develop their empathy skills and highlighted deeper insights regarding potential patients' experiences of illness. It also helped to broaden their relational awareness and ethical sensibilities (Milligan & Woodley, 2009).

A study focused on creative arts publication evaluated the influence of this type of activity on medical students and staff. A creative arts journal was used as an intervention, and participants had to submit, edit and read it. Results from the observation of this activity showed that a creative arts journal is an appropriate vehicle with which to promote and encourage medical staff and faculty students to express themselves, and also to strengthen their professional relationships (Rodríguez et al., 2012).

A study that focused on a brain-to-brain perspective had the aim of assessing the interpersonal closeness between a human speaker and their listeners. The study found that sharing happy stories produced a better quality of recall and higher level of interpersonal closeness. Frontal interpersonal brain synchronisation (IBS) can be seen as an indicator of whether sharing emotional stories facilitates interpersonal closeness. This study emphasised the fact that both happy and sad stories have the potential to increase interpersonal closeness among individuals. However, the frontal IBS was moderated by happy stories and promoted interpersonal closeness (Xie et al., 2021).

Museum

Social inclusion and well-being outcomes were assessed in a group of people with severe mental illness who participated in a series of activities and workshops within a museum of contemporary art. Even though the activity summed up a period of only 18 hours spread across a month and a half, the quantitative results showed significant increments in social acceptance and social relationships as the project evolved. As a result of these outcomes, the authors encouraged the use of public spaces such as museums (as opposed to clinical settings) for hosting creative practices in the form of artistic workshops and seminars. These activities promote positive social interactions. Another important observation is that, apart from empowering users, activity in the creative workshops at the museum also challenged institutions to improve interdisciplinary collaboration and accessibility for people with SMI (Saavedra et al., 2018).

A study assessed the biopsychosocial effects on adult mental health service users of participation in an arts- and nature-based museum intervention. The project involved engagement with horticulture, artmaking and museum collections. The results showed that "green prescriptions", which involve combining creative arts- and nature-based activities, can significantly impact the lives of adult mental health service users. The findings of this study are consistent with a growing body of research on social prescribing in which community referral can be used to help people achieve better psychosocial outcomes. To fully explain the multiple and potentially synergistic advantages of creative arts and green prescriptions, more study into the relationships between creativity, arts, nature, health and well-being outcomes is needed (Thomson et al., 2020).

A paper presented a rationale for the use of museums and art galleries as sites for public health interventions and health promotion programmes through discussing the social role of these organisations in the health and well-being of the communities. A framework for collaboration between cultural heritage, healthcare and university sectors was proposed to further advance research, policy development and evidence-based practice. Museums are nowadays more aware of the needs and interests of their local communities, offering new types of activities including the development of in-house and outreach programmes for the socially excluded, and addressing challenging healthcare problems in mental health, dementia, cancer, lifelong well-being, health education and social capital. Innovative healthcare and public health intervention programmes can be delivered in alternative venues. Through their different functions, museums and art galleries can successfully address some of the problems related to health promotion, illness prevention, well-being and quality of life for people of all ages, with different risk factors and from different socio-economic and ethnic groups. When people interact with museums and their collections, the objects' material, physical and intrinsic properties trigger a variety of emotional and sensory responses, cognitive associations, memories and projections. Outcomes related to emotional well-being in museums include: a sense of connection and belonging; human capital such as using and improving skills, optimism and hope; moral values and beliefs; identity capital including self-esteem; emotional capital such as resilience; opportunity for success; recognition of achievement; support; quiet, rest and sanctuary; social capital and relationships; meaningful pursuits; safety; a rich museum environment; and access to arts and culture (Camic & Chatterjee, 2013).

Architecture and Design

A scoping review explored the concept of design quality in relation to healthcare environments and identified three themes of relevance: environmental sustainability and ecological values, social and cultural interactions and values, and resilience of engineering and building construction. Quality design needs to meet the complex needs of the stakeholders in a healthcare context, including patients and staff implying that care environments needed to be person-centred, welcoming, accessible and supportive of privacy and security (Anåker et al., 2017).

A case study aimed to explore the influence of environmental perceptual factors on citizens' emotional reactions and behaviours. The researchers focused on the role of ambient colours in public spaces, which can be indicators of the quality of the physical environment. The study's major findings suggested that people tend to favour spending more time in open, public spaces and to prefer areas that are visually inspiring and enhance a sense of relaxation. Accordingly, the authors concluded that designing public

spaces based on an aesthetic understanding of citizens' preferences, involving soothing colours or near green spaces could help in motivation and relaxation. Public spaces with such appropriate functionality could be responsive to people's spiritual needs and so effect a sense of social participation, and produce other positive emotions such as joy and passion (Alyari, 2018).

A systematic review examined the impact of art, design and environmental conditions on health and subjective well-being in mental-health care settings. The review covered 19 studies on the health effects of art and environmental design, and patient and staff perspectives on such interventions. Key findings of the review included evidence that environmental conditions such as excessive lighting or noise could negatively influence blood pressure, heart rate and psychological well-being. Nonetheless, addressing environmental conditions by using art installations, exposure to natural (as opposed to urban) settings, 'reorganisation of the physical environment from non-social to group arrangements of ward dayrooms', changing the carpet floor to a vinyl covering and changes in acoustic conditions to promote patients' orientation reduced stress and the risk of falling, improved perceptions of the health-care environment and the overall well-being of staff (Daykin et al., 2008a).

In a book on urban design and mental health, a special chapter was dedicated to the main strategies by which urban designers can promote community and individual health and well-being in communal areas, based on four main components: greenness, activity, prosocial behaviour and safety. Such strategies include designing affordable, reliable and safe public transportation; designing public space with aesthetic factors and considerations that enhance relaxation and sense of security; enlarging access to green space together with maintaining good management of such areas; and designing public spaces that provide varied opportunities for physical activities and active transport, as well as for social gathering with facilities appropriate for different age groups (McCay et al., 2017).

A large-scale, national-level epidemiological study based on the Scottish Neighbourhood Statistics database compared the influences of environmental conditions – specifically rural versus urban living environments – on the 'risk of anxiety, depression, and psychotics in general population. Major findings pointed out that urban living environments were associated with higher rates of prescription for psychotropic medication for anxiety, depression, and psychosis (McKenzie et al., 2013).

'Mental health in urban areas is a pressing social challenge that is set to grow as the stressors of city living continue. The authors of one study presented a pilot architectural intervention using inclusive design methods that showed promising results in creating vibrancy and reducing suicide-related negative connotations around the riverfront in Derry/Londonderry (in Northern Ireland, UK), as a part of a wider city regeneration plan. The approach engaged communities and experts in the design of interventions that aimed to reduce the mental stress of city living and put the needs of people and communities at the centre of the design process. The article proposed design as a mediator in tackling social challenges, bringing together expertise from health, social work, architecture and governance to provide holistic solutions. The involvement of communities throughout the design, prototyping and implementation phases supported the adoption of urban solutions once they were finalised (Spencer et al., 2019).

A case study on square dancing in China provided a novel example of how urban furniture design could support two different health and well-being outcomes by supporting elderly physical and social activity, as well as fostering intergenerational interaction. Square dancing is a known activity among ageing Chinese individuals, but in recent years, it has been gradually removed from the common public areas where it was usually held, such as big public squares or plazas. This was largely due to elevated noise levels and an increase in negative reactions from younger generations, which were also related to the occupation of public space. A unique urban furniture was designed to compromise between the needs of both generations. On the one hand, it enabled a substantial reduction in sound volume, and on the other hand, the furniture provided seating space, as well as interactive media games that required at least two individuals to participate. By doing this, social bonding was also supported (Zhu et al., 2021).

Crafts

Based on the mid-range Health Promotion Model (HPM), a study that took place in the USA focused on the benefits of knitting among oncology nurses. Over a period of six weeks, nurses were involved in knitting activities, learning how to knit, and practicing both as individuals and in groups. The knitting intervention seemed to help the nurses in managing compassion fatigue and the stress associated with their working shifts. Through knitting, nurses were able to process difficult work situations. As a future practice, the study suggested that nurses should be encouraged and offered support to get involved in activities that could reduce their stress levels and facilitate emotional processing (Anderson & Gustavson, 2016).

A preliminary evaluation of a therapeutic community-based woodwork group for male community rehabilitation programme clients was performed. The pilot project brought evidence that the woodwork group programme assisted community clients in achieving their rehabilitation goals, and provided an opportunity for socialisation for men with disabilities (Fulton et al., 2016).

Multiple Art Forms

A comparative study of two Italian cities aimed to assess the impact of cultural participation on subjective well-being while comparing the opportunities for cultural participation as enabled by the city structure (such as cultural events and facilities). The researchers found that cultural participation, among other factors such as social cohesion and bonding, positively influenced subjective well-being in cities with a well-developed socio-economic status. Such cities can offer rich opportunities for cultural participation in their residents in a form that could influence their subjective levels of well-being more than their levels of income or employment. Referring to cultural policies, the authors concluded that as culture (meaning participation, facilities and events) becomes more available and accepted, so will the effects of well-being become more apparent and cultural strategies will be far more socially sustained (Blessi et al., 2016).

A qualitative study explored the results of a qualitative focus group study that was undertaken to better understand the subjective experiences of community-dwelling, healthy older people who participated in a variety of arts activities. Visual arts activities at home and in community arts groups are referred to as “participatory arts”. The most popular group activity was craft, and the most popular home-based hobbies were craft and photography. Results showed that participatory arts can offer social and emotional support to people as they age, fostering a feeling of purpose and social connection (Bradfield, 2021).

A qualitative study that aimed to measure the effects of a series specially designed, artist-guided creative workshops on a group of 11 people with burnout symptoms. It found that, after seven weeks of intervention, participants tended to experience a lower level of burnout, a higher level of well-being, a higher number of positive experiences and a higher proportion of positive experiences compared to negative experiences. For all the participants, the burnout level decreased from high to medium or low. Activities were carried out in person during COVID-19 restrictions, with appropriate social distancing measures (Cacovean et al., 2021).

Another qualitative study focused on the opportunities for artists and public health experts to learn from one another and collaborate more effectively with local communities. The paper was based on a qualitative review that nurtured roughly 100 different small participatory arts projects throughout 20 of London’s most disadvantaged districts. The report offered a summary of what the artists and the creative process brought to a community setting, and was based on case studies and desk research to assess how policymakers and funders might best support this. A reassuring conclusion is that arts and health professionals do not have to work too hard to create a shared language through which to talk and plan for community health and well-being. Studies on well-being and participatory arts provide insights and frameworks that are adaptable and versatile, allowing them to be used in a range of circumstances (Cameron et al., 2013).

Art classes taught by professionals include benefits regarding the overall well-being and can positively influence the health of the brain by stimulating an enhanced ability to focus. This was the conclusion of a study that included 138 older adults who were involved in activities such as drawing, painting, creative writing and mixed media. The study’s subjects reported happiness as an important aspect of social and mental well-being due to their feelings of calmness and engagement during the creative activities. Creative engagement should be seen as an important component in therapeutic programming, and a nursing practice should include forms of artmaking that suit the abilities of all individuals (Cantu & Fleuri, 2018).

In an article that focused on the activity of the Quadra Arts Centre in Victoria, British Columbia, Canada, a community-based initiative under the Promoting Action Toward Health (PATH) health project, the possibility of creating alternative routes via the arts to implement community-based health-promotion programmes was addressed. The article showed how a community arts centre can recast the delivery of traditional health-promotion activities through art and through its capacity-building role as community coalescer (Carson et al., 2007).

A qualitative study reported the findings of another study that consisted of urban working adults using two types of artwork: the first one involved using colour pencils, graphite, eraser, crayons, watercolours and paper, and the second involved using natural materials such as handmade paper, teas, blueberries, leaves, seeds, rice, nutshells, cinnamon sticks and others. These creative methods led to stress relief in the workplace and pleasant emotions with regard to the sensory experience of using natural materials, even without prior experience or skills. The participants reported more playful and creative behaviours, and better ability to reflect about their lives outside of work (Chang & Netzer, 2019).

A cultural practice guideline contributed to the participatory research literature by reporting the results of a community-academic collaboration established to develop, implement and assess a community-generated intervention to reduce the stigma of depression. This intervention used the arts (including poetry and comedy performances, photography and video) to connect with the community around the theme of depression. The ability for mutual knowledge exchange between academic and community partners is a fundamental benefit of evaluation design within the participatory framework. When planning evaluations for a community-based intervention, this process helped the academic partners better recognise the limitations of their knowledge (Chung et al., 2009).

Another study approached a dialogical method in using film and creative media to liberate young refugees and asylum seekers from disempowering identities. This racist and discriminatory system is manifested in interpersonal interaction in which young asylum seekers and refugees faced repeated dismissals of their identities by the media, government laws and UK institutions. The method used in this study was narrative storytelling, offering these young people the opportunity to tell their life stories and to express themselves in a creative way. Results indicated that the process of making and exhibiting creative work illuminates not only the healing process of those who are discovering themselves, but also the impact on others who recognise themselves in the narratives and emotions produced to a greater or lesser level (Clayton & Hughes, 2015).

An observational study examined the process and health outcomes of a 10-week arts on prescription programme in 202 adults with varied mental health conditions, including experiences of anxiety, depression, stress, low sense of well-being, stress from chronic pain or illness, behaviour issues and recent life crises. Participants were referred by their general practitioner, or other health professionals such as physical therapists, to a surgery unit. The arts on prescription programmes named Art Lift were of small groups of three to 10 people guided by an artist, usually resident in the surgery unit, and included a variety of creative art forms: poetry, ceramics, drawing, mosaic and painting. Almost 80 per cent of the referred patient attended the workshops, while the 50 per cent who completed the 10-week programme including a majority of the older females. The health outcomes indicated significant improvements on the mental well-being scale from pre-to-post participation (Crone et al., 2013). When updated, the results of Crone et al. (2013) presented longitudinal data from a seven-year period from 1,297 participants referred to similar eight- or 10-week arts on prescription programmes. The results similarly indicated that about 50 per cent completed their prescribed intervention and, of those, around 70 per cent engaged in the intervention (as rated by their art guide). Among those individuals who completed and engaged with the intervention, a significant increase in mental well-being was demonstrated from pre-to-post participation. The research concluded that arts interventions have high impact potential for improved well-being in engaged participants, even those

with multiple morbidities (Crone et al., 2018).

A qualitative report on a participatory arts project provided for elderly people in a residential care home described the subjective influences of three art interventions in which residents participated. These included reminiscence arts, seated dance and orchestral music participation, all of which were provided in the care homes by three separate arts organisations. The participants reported that taking part in the different interventions was a shared experience for them and their carers that positively changed their relationships, promoted social connectedness and reciprocity, and improved their sense of the quality of care provided (Dadswell et al., 2020).

The goal of more published empirical, qualitative research was to find out how four older people (aged 60 and over) felt about engaging in community-based creative arts such as drawing or painting and crafting. The participants reported personal benefits from occupational involvement such as a sense of accomplishment they felt after finishing work, and this encouraged them to continue to attend and had a good impact on their mental health. Participants were able to meet and socialise in a comfortable environment, which led to the establishment of friendships. This indicated that occupational therapists can have a significant role to play in promoting community creative arts programmes through social prescribing (Edwards & Owen-Booth, 2021).

Another observational study focused on digital stories as an instrument for promoting health in 262 participants. Through the creation and sharing of digital stories, the goal was to enable intergenerational information exchange about healthy lifestyle choices, to facilitate tutoring between young and old, and to boost youth self-esteem through respecting identity, cultural customs and community engagement. The findings of this study underlined the fact that digital stories could be especially useful tools for health promotion in communities with rich oral-history traditions, where learning about life is a product of storytelling, as well as in communities aiming to improve local connectivity or intergenerational exchange of knowledge (Fletcher & Mullett, 2016).

A scoping review including 94 studies from 1972 to 2012 investigated the relationship between the arts, ageing and quality of life. The arts included both vocal and instrumental music (40 per cent; $n = 36$); crafts such as flower therapy and making cloth murals (18.9 per cent; $n = 17$); painting or drawing (17.8 per cent; $n = 16$), dance (12.2 per cent; $n = 11$); theatre or drama (12.2 per cent; $n = 11$); writing or vocal narratives, including prose, poetry and storytelling (12.2 per cent; $n = 11$); and photography or film (5.6 per cent; $n = 5$). 'Many of the studies' samples included participants who were already engaged in the arts before the study began (42.2 per cent; $n = 38$). Artistic engagement occurred most frequently in groups (55.6 per cent; $n = 50$) and usually required active (70.0 per cent; $n = 63$) rather than passive engagement (e.g., painting vs. viewing artwork). Participants were most often engaged with the artistic activity multiple times (that is, more than once, 85.6 per cent; $n = 77$). Most studies were led by academics (79 per cent; $n = 71$), with nearly one quarter conducted by non-academics (21 per cent; $n = 19$). This review demonstrated that there is a rather large and varied number of health and quality of life concepts that have been considered to date. The authors concluded that there is a need for programmes of research (instead of teams conducting only one study), the development and application of conceptual frameworks, and multiple perspectives to build knowledge about how the arts contribute to health and quality of life for older adults (Fraser et al., 2015).

Another study, from South Africa focused on learners with mild to moderate cognitive functioning between the ages of 12 to 14, and how creativity might be contextualised in the school community. Among the activities proposed and used, the school concert seemed to be the most important form of art that could be used as a tool for change. Another important result from this concert was the improved communication between different stakeholders in the community (Fritz et al., 2013).

Another cross-sectional survey aimed to examine the link between existing opportunities and availability of cultural consumption on psychological well-being. Accounting for a large sample of 1,500 Italians living in non-isolated areas, the research findings demonstrated a positive relationship between cultural activities and individual psychological well-being. Cultural activities considered in the trial and representing varied levels of 'cultural access' included: attending jazz, classical and rock music concerts, opera and ballet, theatre, museums, cinema, disco dance, painting exhibitions, social activities, watching sport, sport practice, and book and poetry reading (Grossi et al., 2011).

A survey based on data from 34 European countries inquired about the effects of cultural heritage on life satisfaction in immigrants. The study's findings suggested that an individual with a higher level of life satisfaction in their birth country tended to also be more satisfied in the country to which they migrated, when compared to immigrants that came from countries with a lower level of life satisfaction. After controlling for factors such as environmental conditions and personal characteristics, and observing the same effect in second-generation immigrants, the researchers interpreted their findings as evidence for the positive effect of culture in the sense of heritage and participation because the observed differences between the participants were their differing cultural backgrounds (that is, their countries of birth) (Hajdu & Hajdu, 2016).

A scoping review focused on art therapy in public schools in Miami, Florida, USA. The history, evolution, current setup and future prospects for the M-DCPS Clinical Art Therapy Department's school art therapy services were described in the resulting article. The goal of the services was mostly to assist pupils with special needs whose art teachers were unfamiliar with how to conduct suitable interventions to address students' issues. There was the opportunity for a wide range of research topics after three decades of delivering art therapy services to students with emotional or behavioural difficulties. The achievements of the department have now informed art therapists all over the USA. It was concluded that art therapy in Miami-Dade County would continue to provide clinical services to students with emotional problems, while also serving as a mental health provider to the educational system and the community (Isis et al., 2010).

Another scoping review of the evidence-based use of varied arts and cultural interventions in Scandinavian countries aimed to map major interventions used to promote mental health and well-being in varied populations. The review included more than 20 quantitative and qualitative articles, and provided various examples of art and culture interventions promoting different health outcomes. For children and adolescents, examples included a community music therapy group for the inclusion of disadvantaged

adolescents, and the effect of music classes on the reduction of physiological stress markers in young children. Dance projects were found to improve mental health and well-being in female teenagers, while theatre and drama workshops provided in school improved verbal and communication skills in children aged between 13 and 16. For working adults, arts on prescription projects involving small groups of adults, usually lasting for 10 weeks and including activities such as visual art making, music and singing, and theatre and museum or gallery visits, were shown to have meaningful effects on mental health and well-being. Other examples included meaningful effects from choral singing in an improved psychosocial work environment, and shared reading groups improving mental health and well-being.

For elderly people, the major projects reported included the Alzheimer's Association in Denmark, which trained over 1,000 care staff in 500 residential homes on how to engage in 'reminiscence dance' with the residents, to promote the physical benefits of movement and coordination training, as well as meaningfulness, well-being and social contact. Additionally, the use of music, including music therapy and music therapeutic caregiving, is widespread in Denmark and Norway, where caregivers, music therapists and residential home staff are trained to use music and singing to decrease stress, improve cooperation in daily living and enhance general well-being (Jensen et al., 2020). A literature review covering 20 articles focused on interventions including art therapy, creative art and arts on prescription reported various physical and mental health benefits during such interventions. Art therapy and participatory creative arts interventions demonstrated beneficial effects for various health conditions among oncologic patients and those with chronic pain and COPD (chronic obstructive pulmonary disease), where the benefits ranged from improvements in their physical functions, reduced depression and anxiety, and improvements in mood and psychosocial resources. There was wide evidence produced from the use of arts on prescription programmes, and these resulted in improved mental well-being and working environments. Furthermore, such programmes and other art interventions in health settings were found to improve the quality of well-being in the workplace in health workers too (Jensen & Bonde, 2018).

A qualitative study provided the perspectives of cultural institutions from Denmark which participated in different arts on prescription programmes. Eight representatives from different institutions (a library, a theatre, a symphony orchestra, local authority nature guides, the Rhythmic Centre and the Museum of Modern Art) participated in a group interview, and shared their standpoints on each institution's experience. Three major themes were raised in the interview: interdisciplinary collaboration was enhanced, and even though collaboration with health providers was unfamiliar to some, it motivated new collaboration and knowledge building; professional skills and service provision were enhanced and strengthened; and awareness was raised, along with the potential for future collaborations with health providers (Jensen & Bonde, 2020).

A mixed-methods study implemented in Australia reviewed the findings of an evaluation of arts organisations that focused on whether those organisations contributed to mental health and well-being at individual, community and organisational levels regarding the concerns of disadvantaged populations, in particular those of prisoners. They focused on art activities like theatre and improvisation, dancing, circus training and performance. This study demonstrated that community arts have potential for personal development in such disadvantaged populations. The most positive factors involved were the atmosphere in which the activities took place, the development of physical skills and awareness in the activities, and improvements in self-confidence (Kelaher et al., 2014).

A qualitative study found that arts-based approaches to social action that allowed youth to share personal experiences of stigmatised topics can promote healing and support their growth as leaders (Kennedy et al., 2020).

The Cultural Plans for Senior Citizens project, run in the framework of the European Capital of Culture in 2011 in Turku, Finland, created a systematic structure in which to introduce creative activities as an integral part of the care of the elderly, to help promote their experience of well-being, self-esteem, social capital and quality of life in long-term care units. The elderly people involved in the project described the cultural activities as bringing meaning into their lives. Sharing the same cultural experiences brought a new social sense among the older people and nursing personnel. The authors observed that the older people had the desire and ability to enjoy creative activities such as cultural events and visits by artists, even at the very end of their life. Given these positive results, long-term care units decided to involve all its 1,500 clients in the cultural plan (Koponen et al., 2018).

Research that explored the benefits of community language radio in Australia found that, apart from enhancing the well-being of its presenters (who had their needs for autonomy, relatedness and competence met through delivering the programmes), the ethnic community broadcasting sector was also a mechanism that fostered migrant well-being in Australia (Krause et al., 2020).

A systematic review found that engaging individuals in creative activities could be one way of promoting social networks in conjunction with improving psychological and physical well-being. While participation might contribute to improvements within the individual's immediate social networks, there was no clear evidence that participation in creative arts resulted in social benefits. The study identified that there was a lack of clarity of the concepts related to well-being, health and culture, and of what studies had measured. It highlighted the need for further research into the effects of creative arts and to clearly identify what is meant by mental well-being in a more systematic and structured way (Leckey, 2011).

A study that took place in Canada reviewed The Centre for the Arts in Human Development in Montreal, which provided different art activities such as drama, music, painting, dancing and movement as therapy activities for people with developmental disabilities. The benefits of such activities were the enhancement of self-esteem, the development and improvement of social and communication skills, and the debunking of people's preconceptions about the ability and creativity of people with developmental disabilities. Based on these results, the study recommended that other art centres should develop such programmes in order to help a greater number of people (Lister et al., 2009). Creative writing was also evaluated in a two-week arts and athletics summer camp for disadvantaged middle-school-aged children. Activities from the summer camp included creative writing, along with athletic training, art and a set of social skills for youth development, including leadership, public speaking and communication. An advantage of these activities was the fact that they were nonthreatening and culturally sensitive, which allowed all participants to feel a sense of empowerment. In particular, the creative-writing activities promoted a sense of hope for both personal and educational

development (Mazza, 2012).

A special programme titled *Retaining Identity* was designed to support people with dementia and their caregivers. During an eight-week programme instructed by professional artists, the caregivers used four visual art activities. Later they brought these activities to their care recipient. The caregivers reported that their participation in artwork creation had varied beneficial influences, including personal growth, awareness and creative discovery. The researchers suggested that this type of training could provide an opportunity for a more balanced exchange of activity and knowledge between people with dementia and their carers (Mondro et al., 2020).

Creativity has been found to be one of the key therapeutic elements in arts therapies. A pilot randomised controlled study in school arts therapies found evidence of how creativity promoted children's experiences of well-being. Benefits included an increase in awareness about feelings and mood changes, reflections on emotions and thoughts about themselves and others, and emotional relief and enjoyment. The creative activities that children found most beneficial were story making and storytelling, drawings, puppetry, song writing and empowerment activities. Activities involving stories and enactment attracted the most engagement among the children, allowing them to create "crazy" characters who can do silly things without being judged by others. Puppets helped children verbalise difficult things, while writing songs and lyrics helped them express their experiences (Moula, 2021).

A systematic review on the interconnectedness between arts and nature and their impact on the health and well-being of children and young people found that arts-in-nature activities offered an inclusive medium to increase nature connectivity, understand environmental issues and explore ways to prevent environmental disasters. This led to higher environmental awareness and pro-environmental behaviours, along with a potential decrease in eco-anxiety. There are a limited number of studies on this connection and quantitative research is still in its infancy. Scaling-up existing interventions may lead to wider recognition and inclusion of arts-in-nature activities in future health guidelines, including green prescribing (Moula et al., 2022).

A paper described the history and development of the Jersey City Public Schools creative arts therapy programme in Hudson City, New Jersey, USA. This included technology-based art therapy, an extended school-year programme, collaborations with school-based mental health workers, professional development, music therapy integrated with academics, community arts events, short-term behavioural programmes and internship opportunities. The article affirmed that creative arts therapists develop effective school programmes through innovation, research and collaborative efforts among peers and other professionals (Nelson, 2010).

A qualitative study reported findings from an evaluation of four creative arts projects with groups of elderly people from a rural community. The aim of these projects was to reduce the level of social isolation and support the participants in accessing social and art-based activities such as dance sessions, film sessions, painting with watercolours, mobility exercises, quilting and other crafts. The evaluation of these projects highlighted that the participants reported increased self-esteem, the development of new skills and a greater level of self-worth. The participants mentioned that it was beneficial for them to make new friends while performing different creative activities, especially collaborating with a different generation (Pearce & Lillyman, 2015).

A few studies focused on how participation in arts festivals and community events generated well-being at a community level. One study suggested that community festivals can help create and maintain social relationships and generate a sense of belonging through the practice of "placemaking" – a common reimagining and repurposing of public space (Brownnett & Evans, 2020).

A qualitative analysis of the impacts of a community arts installation contributed to existing evidence that sharing the arts and cultures of others can increase community cohesion and social capital. The study also explored how public art can be used to improve social inclusion (Philipp et al., 2015).

Publicly available infrastructure plays a key role in facilitating community arts and well-being. Research into the role that a community arts centre played in an ethnic enclave that is under the stress of immigration and gentrification showed how art centres present opportunities for communities to reclaim ownership and to exercise self-determination over their histories (Rubin et al., 2021).

A paper examined how a group of less affluent and often homeless young men experienced and made use of a weekly, publicly funded floor hockey programme. This sport-for-development programme worked as a hub within a network of social solidarity, and as a site for marginalised individuals to negotiate and resist conditions of precarious labour in a divided Western Canadian city. The weekly floor hockey matches proved to be a vital entry point for a wide range of social services and networks of friendship and support, and for many participants, a powerful source of community, hope and love (Scherer et al., 2016).

Virtual workshops on topics such as photography, filmmaking and fashion were used in order to determine how young people engaged in creative processes and how they are able to develop life skills that will help them manage life transitions. Participants seemed to enjoy creating and customising their avatars and interacting with each other in this manner. The activities they took part in helped them to understand themselves better in relation to others. Another important aspect that benefited participants was the fact that they started with activities and information that related to their everyday life, so that they could integrate the new skills easily. This kind of approach promotes interdisciplinary engagement among students (Sclater & Lally, 2013).

A report presented the experience of an extension project that promoted creative strategies to operate with the homeless from an arts and culture perspective through weekly activity workshops. Activities promoted experimentation in the participants, and aiming to express their potential. The results suggested creative activities worked as occupational therapeutic formation. Shared dialogic practices through art allowed the expression of the realities of homeless people, and the denunciation and criticism of a culture stigmatising them. Spaces for strengthening social support networks for participants and the team were created (Silva et al., 2018).

This study provides an overview of the theoretical framing and methodologies that link community arts to the empowerment of individuals and communities through participatory and inclusive practices. Drawing on the case of a project that involved photography and song writing as community-enabled art forms in Western Australia, the paper also points out the importance of mixed methods in implementing art practices. The researchers discuss how both the active (photography, caption writing and song

writing workshops) and passive (a photography exhibition) dimensions of the visual methodologies became crucial community resources during the project (Sonn et al., 2015).

Young people with social, emotional and behavioural difficulties (SEBD) have complex needs that are often not addressed in standard school settings. One study found that, through a change of physical and emotional space, an art intervention helped young people with SEBD to recontextualise their relationship with the social worlds around them. A respite from a situation of conflict at school through a change of physical and emotional space can aid the development of better coping mechanisms. Through interactions with the art project leaders, the young people were introduced to positive images of themselves and were affirmed through praise and encouragement. This, in turn, led some of the participants to reflect on past behaviours and problems, enabling them to see things in a more positive light and to increase their self-esteem, self-confidence and resilience. Creative arts treatments, through the processes of recontextualisation and resignification, can lead to significant social and emotional development for some young people with behavioural challenges. The study does not, however, have any evidence about the long-term effects of this type of intervention (Thompson & Tawell, 2017).

A qualitative study described how participation in an Edinburgh Fringe art festival (in Scotland, UK) enhanced several social processes within its participants, which were related to social collaboration and social inequalities. Participation in the festival motivated collective actions such as networking or exchange of knowledge with others. In parallel, it also illuminated (increased and decreased) social inequalities by factors related to cultural participation, competence and knowledge, financial support or resources for participation, competitiveness and power relations (Warran, 2019).

The author of this study worked with a group using arts-based and participatory methods to explore food poverty. Participants were mainly unemployed, facing hardship and poverty, and self-reported as affected by mental health issues. It concluded that, through artmaking, group members were able to identify with and symbolise a position using visual methods, and thus were able to determine their own representation in the social structure, resist stigma and have their voice heard. This enabled a consideration of the ways in which group art practices and participatory methodologies created an ability to challenge stigmatising discourses and contributed to current debates surrounding the ability to resist stigma and its relationship with well-being (WHO, 2013; Wheeler, 2018).

Photography and videos were used as a method of involving deaf children and adolescents in the production of a series of films to support socio-emotional interactions between them and their parents. People with hearing deficiencies used sign language, which implied a series of challenges when it came to adapting activities for this type of population. Photography seemed to be a good tool for deaf people to use to document their everyday lives, and to create something new. Moreover, filmmaking enabled deaf young people to have a reflexive and generative approach over their lived experiences. Overall, participating in these processes allowed them to recognise their abilities, to communicate and to express themselves without feeling inhibited by the surrounding social and attitudinal conditions (Young et al., 2019).

4. Culture and COVID-19

Music

A text and expert opinion paper developed in Italy evaluated the benefits of singing as a coping mechanism and a way of improving cohesion among Italian citizens during the COVID-19 lockdown. Singing had a strong emotional impact when recent songs with a specific emotional meaning were used and when old songs related to Italian culture were used. Overall, singing seemed to be an instrument of bonding (Corvo & De Caro, 2020).

Photography and Film

In a qualitative study from Brazil, short videos with recommendations were used to educate and help doctors, health workers and medical students work more efficiently. The mechanism behind these videos was to present an objective perspective on reality in order for these healthcare workers to maintain their emotional balance. The benefits of watching the videos for participants included improving reflection in clinical settings, enhancing teaching and communication skills, along with empathy, affectivity and ethical attitudes (Blasco et al., 2021).

A randomised controlled trial implemented in Italy aimed to explore whether a video of forest scenes could promote relaxation through reducing psychological reactions and anxiety levels during the COVID-19 quarantine. Its results showed that watching the video reduced stress levels and seemed to be a short-term solution for decreasing anxiety. However, no long-term benefits were detected (Zabini et al., 2020).

Museums

A scoping narrative review investigated creative responses to COVID-19 by museums in Singapore in order to examine the use of museums as public health resources. The review also investigated the benefits of combining well-being with digital technologies. The pandemic situation had an impact on digitalisation in many areas, including cultural institutions. Museums transformed content and programmes in digital format to maintain contact with people. This initiative tacitly helped with people's mental health and well-being by counteracting negative effects of COVID-19, such as social isolation (Tan and Tan, 2021).

Multiple Art Forms

A mixed-methods study from the UK regarding parent-infant interactions in the pandemic context offered boxes of art resources and guided activities for 10 vulnerable parents and infants to do together at home. This type of art form helped families improve their connection and involvement in shared activities. The art boxes offered a way of improvement for parents' well-being, so that they could be more present and involved in children's activities. Also, through involvement in this activity, children and their caregivers were able to build on their attachments through playful, shared engagement in the arts (Armstrong & Ross, 2021).

In a qualitative study developed in Ghana, different art forms appeared to be contributing to immediate and long-term benefits on public health by health promotion, disease prevention and aesthetically improving the environment. During the COVID-19 pandemic in Ghana, there was a stronger need for long-term solutions. The study reported some negative outcomes, where the art forms used had bad effects on participants. For example, one study used different types of songs for entertainment and education, but the songs were written about fear and conspiracy theories. The misinformation caused by such conspiracy theories became problematic in Ghana when trying to promote vaccination against the disease (de-Graft Aikins & Akoi-Jackson, 2020).

In Argentina during the pandemic, people got much more involved in home-based cultural consumption, such as playing musical instruments, dancing, writing, taking photos, knitting, gardening and cooking, as well as yoga and meditation. These activities contributed to the improvement of resilience, problem-solving skills, imagination and engagement in the divergent thoughts of people who needed to stay in isolation, and therefore enhanced psychological well-being (Elisondo, 2021).

Another scoping narrative review carried out in Argentina during COVID-19 investigated creative activities, emotions and motivation in quarantine. Due to the conditions imposed by isolation, people developed different creative activities such as cooking, gardening, painting, crafting and sewing while spending their time in quarantine. These activities came with emotional benefits, as they generated positive emotions and helped people manage negative feelings (Elisondo & Melgar, 2021).

There was a joint Indian and American scoping narrative review implemented with the aim of evaluating creativity during COVID-19 pandemic. This study intended to underline how engaging in creativity can buffer the negative consequences of living in isolation and in the pandemic context. The results of this review showed that people made use of creativity in order to face the new challenges that aroused during the pandemic. Moreover, people got involved in both active creative activities such as baking, preparing and creating beverages and passive activities such as watching movies and videos (Kapoor & Kaufman, 2020).

Another scoping narrative review from Australia aimed to investigate the role of artistic creative activities in the emotion regulation and mental health and well-being of people during the COVID-19 pandemic. When engaging in ACAs, people used avoidance-based emotion regulation strategies. One of the most frequent activities was watching movies and TV shows, followed by listening to music, cooking or baking and reading books. However, listening to music was the most likely to make participants feel

better and engage with it (Kiernan et al., 2021).

A scoping narrative review that included data from 74 countries explored changes in involvement in creative, non-creative and physical leisure activities, while looking at possible barriers in implementation and psychological well-being at the same time, during the COVID-19 pandemic. During the pandemic, people spent more time on leisure activities that they could practise inside such as home crafting and artisanship, languages, cooking, fine arts, music and the performing arts, than they did on outdoor activities. Also, people preferred creative instead of non-creative activities when it came to their leisure time. Moreover, the creative activities contributed to their well-being as much as keep-fit activities did (Morse et al., 2021).

The results of a survey exploring engagement in cultural activities with reference to well-being and health during the COVID-19 pandemic showed that, during the first months of the pandemic, art consumption increased compared to the period before, with people stating that art helped them to feel better and become more relaxed. Active cultural participation during the pandemic was significantly correlated with Positive Affect, while receptive participation was associated with a decrease in negative feelings. The study suggested that art could be an effective factor to improve human resilience in times of crises (Zbranca et al., 2020).

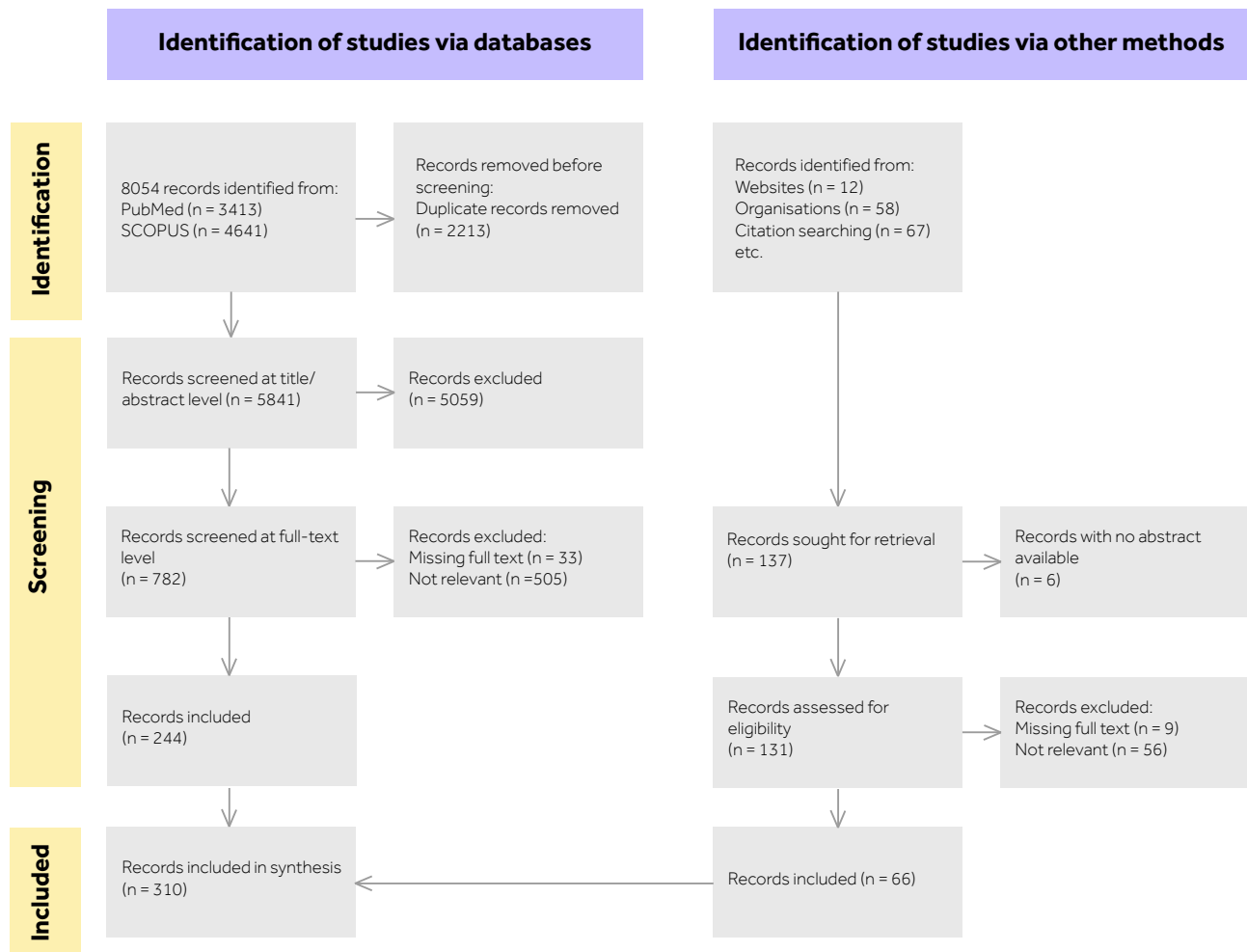
Appendix II: Search Strategy and Terms

Table 1. Search strategy used to search in PubMed and Scopus

Main area	Search block	Search terms
Subjective or individual well-being	Fulfilment and engagement	goal OR purpose
		OR
		satisfaction OR dissatisfaction OR fulfilment
		OR
		engagement OR achievement OR attainment OR accomplishment OR gratification OR realisation
		OR
	Personal orientation	cognitive enrichment OR reflection OR problem solving
		OR
		perspective OR resilience
		temperament OR personality OR identity
		OR
		extroversion OR agreeableness OR openness OR conscientiousness OR neuroticism
	Emotions	psychological engagement OR contentment
		OR
		happiness OR happy OR pleasure OR joy
		OR
		pain OR gain OR loss
		OR
	Evaluations	affect OR emotion OR feeling OR mood
		social comparison OR fairness OR standard OR view OR reflexive OR content OR resilient OR coping
		Well-being OR quality of life OR welfare OR health OR happiness OR life expectancy
		OR
		comfort OR standard of living
Community well-being	Work environment	work OR workplace OR occupational safety
		OR
		burnout OR fatigue OR emotional exhaustion OR affective exhaustion OR physical exhaustion OR cognitive exhaustion
		OR disengagement OR cynicism OR efficacy OR productivity OR motivation
		natural environment OR natural space
		OR
	Living environment	infrastructure OR area OR neighbourhood OR space OR public space
		OR
		urban design OR co-design
		OR
		quality of urban spaces OR well-living
	Urban development	urban OR city OR sustainable OR public OR community OR development

	Sustainability	sustainable development goals OR SDG OR peace OR prosperity OR gender equality OR inequalities OR justice OR partnership
Cultural activities	Referral	prescription OR formal referral OR informal referral OR choice OR advertising OR demand OR community referral OR social prescribing OR cultural prescription
	Participation	active OR passive OR receptive OR co-creation OR co-design OR online OR internet OR asynchronous OR synchronous OR face to face OR digital OR choice OR digitalisation OR one-off participation OR single OR repeated participation OR online participation OR audience participation OR audience development OR public engagement OR cultural intervention OR interactive OR community participation
	Social benefits	education OR mediation OR integration OR marginalisation OR diversity OR intercultural dialogue OR economic inclusion OR solidarity OR cohesion OR inclusion OR empowerment OR trust OR empathy OR political engagement OR civic engagement OR citizen OR volunteer OR voting OR heritage OR inequality OR value OR mobilisation OR rights OR democratic skills OR sense of belonging OR critical thinking OR tolerance OR reflection OR resilience OR identity OR social justice OR trans-cultural dialogue OR community-based OR segregation OR discrimination OR rejection
COVID-19		COVID-19 OR SARS-COV-2 AND natural history OR prevention OR treatment OR isolation OR symptoms OR death OR long-term COVID-19 OR long-term effect OR post-acute OR chronic COVID-19 or post-discharge OR prolonged symptom
Policy		Policy OR plan OR strategy
Type of cultural activity	Type of cultural activity	singing OR dancing OR musical instrument OR drama OR performing in a play OR acting OR drama OR opera OR magic tricks OR circus skills painting OR drawing OR printmaking OR sculpture OR pottery OR calligraphy OR jewellery making OR textile OR crafts OR embroidery OR crocheting OR knitting OR wood crafts OR woodwork OR carving OR furniture making reading for pleasure OR creative writing OR composing music OR stories OR storytelling community arts OR cultural festivals OR fairs OR cultural events OR museums OR galleries OR theatre OR concerts OR exhibitions digital artworks OR computer animations OR filmmaking OR videos OR photography OR radio plays OR television dramas OR creative OR creativity creative OR creativity
Searches included terms with and without an apostrophe and hyphens where appropriate (i.e., well-being and well-being)		

Appendix III: PRISMA flow diagram



Appendix IV: Data extraction form

The data extraction form has been set up the Qualtrics platform and it included the following variables:

Variable	Type
1. GENERAL DETAILS	
1.1. CADIMA ID	Open
1.2. Notes (any thoughts):	Open
2. SPECIFIC DETAILS	
2.1. Type of study: <input type="checkbox"/> Meta-analysis or systematic review (1) <input type="checkbox"/> Scoping review or narrative review (2) <input type="checkbox"/> Randomised controlled trial (individual or cluster) (3) <input type="checkbox"/> Non-randomised/quasi-experimental (4) <input type="checkbox"/> Observational studies (cohort, case-control, cross-sectional, case series, case reports) (5) <input type="checkbox"/> Health economic evaluation study (6) <input type="checkbox"/> Qualitative study (7) <input type="checkbox"/> Prediction/prognostic studies (8) <input type="checkbox"/> Text and expert opinion papers (9) <input type="checkbox"/> Clinical practice guidelines (10) <input type="checkbox"/> Policy brief/policy report (11) <input type="checkbox"/> Mixed-methods study (13) <input type="checkbox"/> Other (please specify): (12) _____	Multiple selection
2.2. Aim/objective(s) of study (copy/paste):	Open
2.2.0. Type of intervention/programme <input type="checkbox"/> Individual (1) <input type="checkbox"/> Group (2) <input type="checkbox"/> Mixed (3)	Single selection
2.2.0.0. Exact type of intervention (copy/paste from the article)	Open
2.3. Country (or countries/region) where the intervention took place:	Open
2.4. Passive/receptive cultural participation (visitor, spectator to cultural events, home based cultural consumption): <input type="checkbox"/> Theatre, opera, dance (1) <input type="checkbox"/> Music (2) <input type="checkbox"/> Film (3) <input type="checkbox"/> Visual arts - artworks, museums, galleries, art exhibitions (4) <input type="checkbox"/> Literature - library visits, readings (5) <input type="checkbox"/> Art festivals and fairs (6) <input type="checkbox"/> Community events (neighbourhood events, celebrations, etc) 7) <input type="checkbox"/> Architecture and heritage sites (8) <input type="checkbox"/> games (9) <input type="checkbox"/> Other (please specify): (10) _____ <input type="checkbox"/> Not relevant (11)	Multiple selection

<p>2.5. Active cultural participation:</p> <p><input type="checkbox"/> Singing (1)</p> <p><input type="checkbox"/> Playing a musical instrument (2)</p> <p><input type="checkbox"/> Theatre/improvisation (3)</p>	Multiple selection
<p><input type="checkbox"/> Dance (4)</p> <p><input type="checkbox"/> Draw/Paint (5)</p> <p><input type="checkbox"/> Photography (6)</p> <p><input type="checkbox"/> Video (7)</p> <p><input type="checkbox"/> Computer generated art (8)</p> <p><input type="checkbox"/> Writing (poems, small text, essays etc) (9)</p> <p><input type="checkbox"/> Crafts (model clay, jewellery, collage etc) (10)</p> <p><input type="checkbox"/> DIY (Bricolage, building toys, objects for my home, etc) (11)</p> <p><input type="checkbox"/> Sewing, tailoring, knitting, embroidery (12)</p> <p><input type="checkbox"/> Other (please specify): (13) _____</p> <p><input type="checkbox"/> Not relevant (14)</p>	
<p>2.6. Where is the cultural participation or intervention taking place:</p> <p><input type="checkbox"/> Home based cultural consumption (1)</p> <p><input type="checkbox"/> Art institution or centre (2)</p> <p><input type="checkbox"/> Social or community centre (3)</p> <p><input type="checkbox"/> Health institution (4)</p> <p><input type="checkbox"/> Street (5)</p> <p><input type="checkbox"/> School (6)</p> <p><input type="checkbox"/> Online (7)</p> <p><input type="checkbox"/> Other (please specify): (8) _____</p>	Multiple selection
2.7. Target group	Open
2.8. Number of participants	Open
<p>2.10. Type of referral</p> <p><input type="checkbox"/> Formal referral (someone - medical, from a social NGO - not from the cultural sector recommends cultural activities etc) (1)</p> <p><input type="checkbox"/> Informal referral (friends, etc) (2)</p> <p><input type="checkbox"/> Participation by choice (participate by own initiative) (3)</p> <p><input type="checkbox"/> Cultural referral (invitation is made by someone from the cultural sector) (4)</p> <p><input type="checkbox"/> Participation through study recruitment (6)</p> <p><input type="checkbox"/> Other_____ (list the term used in the article) (5)</p>	Multiple selection
<p>2.11. Number of sessions</p> <p><input type="checkbox"/> One-off participation (one session) (1)</p> <p><input type="checkbox"/> Multiple occasions ____ (mention the number of sessions or the duration of the intervention e.g., 12 monthly sessions) (2)</p>	Single selection
3. TOPIC AND OUTCOMES	
<p><input type="checkbox"/> Culture and health outcomes (1)</p> <p><input type="checkbox"/> Culture and subjective well-being (2)</p> <p><input type="checkbox"/> Culture and community well-being (3)</p> <p><input type="checkbox"/> Culture and COVID-19 (4)</p>	Multiple selection

<p>3.1. Outcomes focus on...</p> <p><input type="checkbox"/> Prevention and promotion (affect social determinants of health, support child development, encourage health promoting behaviours, help to prevent ill health, support caregiving) (1)</p> <p><input type="checkbox"/> Management and treatment (help people experience mental illness, support care for people with acute conditions, help to support people with neurological disorders, assists with the management of non-communicable diseases, support end of life care) (2)</p>	Single selection
<p>3.2. Outcomes of the intervention:</p> <p><input type="checkbox"/> Psychological (mental health related) (1)</p> <p><input type="checkbox"/> Physiological (e.g., lower stress hormone response, lower BMI) (2)</p> <p><input type="checkbox"/> Behavioural (e.g., increased exercise, skills development, adoption of healthier behaviours) (3)</p>	Multiple selection
<p>3.3. Outcomes of the intervention:</p> <p><input type="checkbox"/> Change in personal goal/purpose/meaning/perspective (1)</p> <p><input type="checkbox"/> Satisfaction/fulfilment/achievement/ accomplishment/gratification/realisation/ contentment (2)</p> <p><input type="checkbox"/> Cognitive enrichment (3)</p> <p><input type="checkbox"/> Reflection/problem solving (4)</p> <p><input type="checkbox"/> Resilience/coping (5)</p> <p><input type="checkbox"/> Psychological engagement (6)</p> <p><input type="checkbox"/> Happiness/pleasure/joy/gain (7)</p> <p><input type="checkbox"/> Pain/loss (8)</p> <p><input type="checkbox"/> Affect/emotion/feeling/mood (9)</p> <p><input type="checkbox"/> Well-being/welfare (10)</p> <p><input type="checkbox"/> Well living (11)</p> <p><input type="checkbox"/> Quality of life (12)</p> <p><input type="checkbox"/> Life expectancy (13)</p> <p><input type="checkbox"/> Standard of living (14)</p> <p><input type="checkbox"/> Comfort (15)</p> <p><input type="checkbox"/> Other (18) _</p>	Multiple selection
<p>3.4. Outcomes of the intervention:</p> <p><input type="checkbox"/> Workplace/occupational safety (1)</p> <p><input type="checkbox"/> Burnout/fatigue/exhaustion (2)</p> <p><input type="checkbox"/> Productivity/motivation (3)</p> <p><input type="checkbox"/> Natural environment (4)</p> <p><input type="checkbox"/> Infrastructure/area/neighbourhood/ space (5)</p> <p><input type="checkbox"/> Urban design and quality of urban spaces (6)</p> <p><input type="checkbox"/> Sustainable development goal (7)</p> <p><input type="checkbox"/> Peace (8)</p> <p><input type="checkbox"/> Prosperity (9)</p> <p><input type="checkbox"/> Gender equality (10)</p> <p><input type="checkbox"/> Community development (11)</p> <p><input type="checkbox"/> LGBT rights (12)</p> <p><input type="checkbox"/> Reduce inequalities (13)</p> <p><input type="checkbox"/> Democratic skills (14)</p> <p><input type="checkbox"/> Diversity/tolerance/integration/ solidarity/cohesion (15)</p> <p><input type="checkbox"/> Intercultural/trans-cultural dialogue (16)</p>	Multiple selection

<input type="checkbox"/> Social justice (17) <input type="checkbox"/> Empowerment (18) <input type="checkbox"/> Trust (19) <input type="checkbox"/> Political engagement (20) <input type="checkbox"/> Mobilisation (21) <input type="checkbox"/> Rights (22) <input type="checkbox"/> Mediation (23) <input type="checkbox"/> Empathy (24) <input type="checkbox"/> Civic engagement/voting/volunteer (25) <input type="checkbox"/> Loneliness/isolation (26) <input type="checkbox"/> Social support (27) <input type="checkbox"/> Heritage (28)	
<input type="checkbox"/> Death/mourning (29) <input type="checkbox"/> Community resilience (30) <input type="checkbox"/> Collaboration (31) <input type="checkbox"/> Identity and belonging (32) <input type="checkbox"/> Other (please specify): (33)	
3.5. Outcomes of the intervention: <input type="checkbox"/> Better mental recovery (1) <input type="checkbox"/> Better physical recovery (2) <input type="checkbox"/> Increased social support (3) <input type="checkbox"/> Resilience (4) <input type="checkbox"/> Other (please specify): (5)	Multiple selection
3.6. Moment in COVID-19 disease progression when culture was used: <input type="checkbox"/> Self or mandated isolation (1) <input type="checkbox"/> Treatment during disease (2) <input type="checkbox"/> Treatment during recovery (3) <input type="checkbox"/> Death/mourning (4) <input type="checkbox"/> Long-term COVID-19 (5) <input type="checkbox"/> Other (please specify): (8)	Multiple selection
3.7. Negative outcomes (authors' notes regarding any evidence of the arts leading to negative effects)	Open
3.8. Determinants of success (copy factors that could have improved/improved the implementation and outcomes of the intervention. Key words: success, gain, benefit, improve, advantage)	Open
3.9. Determinants of failure (copy factors that could have hindered/hindered the implementation and outcomes of the intervention; for example, the skills of the facilitators/artists; tools, resources, etc. Key words: limitation, failure, issue, barrier)	Open
3.10. Key conclusions of study authors (copy/paste from the record)	Open
3.11. Potential to inform policies (authors' conclusion regarding the extent to which the outcomes of the study have the potential to inform public policies, strategies, plans)	Open
3.12. Ethical issues (authors' conclusion regarding any ethical issues in the development and delivery of arts programmes for health)	Open
3.13. Relevant references (screen reference list of the record and copy any relevant references to include in the scoping review)	Open
4. TO SUPPORT THE MAPPING PROCESS	

4.1. Project name (if the record reports the name of a project/initiative/organisation) <input type="checkbox"/> Project or initiative (a single intervention, pilot projects, not very long) (1) <input type="checkbox"/> Programme (long term, recurring, multi-year, comprehensive) (2) <input type="checkbox"/> Policy (strategies, policy papers or policy initiatives) (3) <input type="checkbox"/> Funding scheme (4) <input type="checkbox"/> Unclear (6) <input type="checkbox"/> Name: (5) _____	Single selection
4.1.2. Name of the programme _____	Open
4.2. Lead organisation/institution: name and country	Open
4.3. Lead organisation/institution: type <input type="checkbox"/> Public (1) <input type="checkbox"/> Private -NGO, professional organisations, company (2) <input type="checkbox"/> Health (3) <input type="checkbox"/> Culture (4)	Single selection
<input type="checkbox"/> Social (5) <input type="checkbox"/> Unclear (7) <input type="checkbox"/> Other (please specify): (6)	
4.4. Partner organisation/institution: name and country	Open
4.5. Partner Led organisation/institution: type <input type="checkbox"/> Public (1) <input type="checkbox"/> Private -NGO, professional organisations, company (2) <input type="checkbox"/> Health (3) <input type="checkbox"/> Culture (4) <input type="checkbox"/> Social (5) <input type="checkbox"/> Unclear (7) <input type="checkbox"/> Other (please specify): (6)	Single selection
5. POLICY	
5.1. Policy name/title:	Open
5.2. Implementation level (town, national, regional, institutional):	Open
Name of town, institution (if available):	Open
5.4. Date of enforcement	Open
5.5. Short description (copy/paste – scope of policy, main areas of focus)	Open
5.6. Outcomes (any results regarding the implementation of the policy):	Open

CULTURE FOR — HEALTH

