

Health and Wellbeing:

An Overview of Current Literature

This report was commissioned by the Queensland Symphony Orchestra as part of their Health and Wellbeing Program in 2021.

Jack Walton and Brydie-Leigh Bartleet



ISBN 978-0-646-84540-1

Information contained in this publication may be copied or reproduced for study, research, information or educational purposes, subject to inclusion of an acknowledgement of the source (suggested citation follows).

Suggested citation

Walton, J. & Bartleet, B. L. (2021). *Health and Wellbeing: An Overview of Current Literature*. [Commissioned by the Queensland Symphony Orchestra]. Creative Arts Research Institute, Griffith University.

Author attributions

Dr Jack Walton (Senior Research Assistant): Conceptual work and research design, review of literature and analysis of themes, and co-authoring of report.

Professor Brydie-Leigh Bartleet (Project Leader): Conceptual work and research design, critical review of analysis, co-authoring of report, and project management.

Acknowledgements

The authors would like to thank the Queensland Symphony Orchestra for commissioning this report, and acknowledge the vital input and feedback provided by Chris Freeman AM (Chair, QSO Board) and Toni Palmer (Director, QSO Development).

For additional information

b.bartleet@griffith.edu.au

HEALTH, AND WELLBEING:

An Overview of Current Literature

This report was commissioned by the Queensland Symphony Orchestra as part of their Health and Wellbeing Program in 2021.

Jack Walton and Brydie-Leigh Bartleet

Table of Contents

Table of Contents	2	Communities	13
Executive Summary	3	Special Needs	13
Methodological Note	5	Summary	13
Part 1: Contexts for Music, Health and Wellbeing Initiatives	6	Part 3: Case Studies	14
Music therapy.....	7	Case Study 1: Pittsburgh Symphony Orchestra.....	14
Community music	7	Case Study 2: Hartford Symphony Orchestra.....	16
Music in education	7	Case Study 3: Phoenix Symphony Orchestra.....	16
Music in clinical contexts (non-music therapy).....	8	Reference List	18
Everyday uses of music	8		
Summary.....	8		
Part 2: Outcomes of Music, Health, and Wellbeing Initiatives	9		
Personal outcomes.....	10		
Social outcomes	11		
Aged Care	12		

Executive Summary

This report provides a succinct overview of current literature in the field of Music, Health, and Wellbeing (MHW). It was commissioned by the Queensland Symphony Orchestra (QSO) as part of their new Health and Wellbeing Program in 2021. This overview aims to provide a foundational base that can inform QSO's future programming in this field, and enhance the potential wellbeing benefits offered through QSO's health-related initiatives into the future.

The field of MHW is broad, and programs are currently offered across a diverse range of settings across the world. These **contexts** broadly include therapy, community, education, clinical, and the everyday (MacDonald, 2013). More specific examples range from schools to palliative care wards, community drop-in centres, aged care facilities, detention centres and prisons, mental health hospice facilities, and the homes of individuals, to name a few.

In general, scholarship appears to have focused most strongly on singing and choral activities (Krause et al., 2018), which offer a wide range of benefits including relaxation, emotional release, stress reduction, sense of happiness, stimulation of cognitive capacities, connection with others, sense of contribution, self-confidence, self-esteem, and value, as well as perceived physical benefits (Clift et al., 2008). A very wide range of outcomes have, however, also been studied across instrumental and music-making contexts, styles, traditions, and cultures. On the one hand, the diversity of contexts studied and the methodological complexities involved means that the findings of individual studies are often not broadly generalisable. On the other, this means there are many compelling examples from different contexts and approaches that can inform the programming efforts of QSO in this space.

Bearing in mind the diversity of contexts and approaches, in this report we offer a high-level summary of some of the most compelling health and wellbeing **outcomes** that have been reported in current literature. For the sake of clarity and accessibility, we broadly group these into two overlapping categories: personal outcomes and social outcomes.

Across these two broad areas, the main beneficial outcomes documented in recent literature encompass the following six dimensions:

- Social (e.g. nurturing relationships with others, fostering of community)
- Cognitive (e.g. self-esteem, memory, concentration)
- Emotional (e.g. mood regulation, stress release, happiness)
- Physical (e.g. motor coordination, muscle tone)
- Spiritual (e.g. sense of meaning, feeling of transcendence)
- Identity (e.g. place in community, connections to the past, celebration of culture)

The main conceptual points of departure for understanding the **scope** of this field include *music in/as therapy*, *clinical uses of music*, *music as a resource for social justice and health equity*, and the relationship between *music and public health* (see Ansdell, 2014; Bonde & Theorell, 2018; Horden, 2016; Jacobsen et al., 2019; Sunderland et al., 2018). Though each of these attends to different aspects of MHW (for example, acute treatment of illnesses such as dementia, social bonding, alleviation of stress, and disease prevention), these perspectives are complementary, and together provide a compelling picture of how music can be widely applied to achieve outcomes that bridge many interconnected facets of health and wellbeing.

The review largely focused on literature produced in the past five years, and included over 100 sources from Australia and across the world. This report provides a succinct and easy-to-read synthesis of the key findings from this review for the QSO community interested in learning more about this area. It is not designed to be a comprehensive, systematic literature review. Such reviews have already been completed, and provide a comprehensive syntheses of the literature on MHW in the last decade (see for example Daykin et al., 2016a, 2016b, 2016c; MacDonald 2013; Krause et al., 2018). This report distils their findings, and is presented in three sections: Part 1 focuses on contexts; Part 2 focuses on outcomes; and Part 3 focuses on case studies.

Music, Health and Wellbeing at a Glance

This provides a snapshot of some of the most compelling insights from the field of Music, Health and Wellbeing over the past 5 years.

There is compelling evidence to suggest music can help in addressing:

- Therapeutic outcomes
- Social justice and health equity outcomes
- Public health outcomes
- Health promotion outcomes

Music is not only being used as a treatment or therapy, but also as a vital part of health prevention and promotion due to its protective factors.



Recent studies have identified over

500

potential wellbeing benefits of musical participation.



Music projects provide creative solutions to the United Nations' Sustainable Development Goal #3, Good Health and Wellbeing.

The following resources were used to compile this snapshot:

Ansdell, G. (2014). *How music helps in music therapy and everyday life*. Routledge.

Bonde, L. O., & Theorell, T. (2018). *Music and public health*. Springer International Publishing.

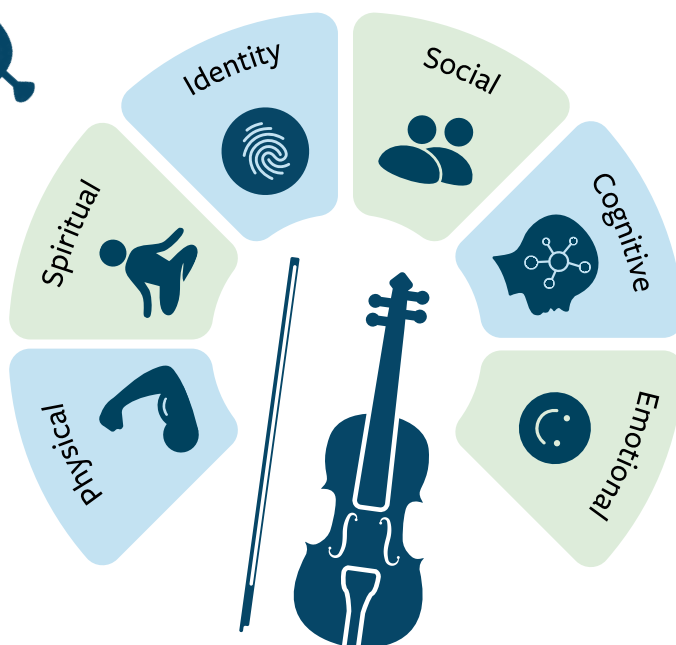
Krause, A. E., Davidson, J. W., & North, A. C. (2018). Musical activity and well-being: A new quantitative measurement instrument. *Music Perception: An Interdisciplinary Journal*, 35(4), 454–474. <https://doi.org/10.1525/mp.2018.35.4.454>

Sunderland, N., Lewandowski, N., Bendrups, D., & Bartleet, B.-L. (Eds.). (2018). *Music, health and wellbeing*. Palgrave Macmillan.

Music, Health and Wellbeing initiatives occur across a vast number of contexts, including therapy, community, education, clinical, and everyday settings.



Beneficial health and wellbeing outcomes from music participation include:



Methodological Note

The contents of this report were synthesised following a qualitative review of academic literature sources. These were selected using a purposeful sampling strategy (Robson & McCartan, 2016). The literature included two main components, (a) notable publications the research team were already familiar with based on their prior research experience in the field, and (b) a broad collection of 95 sources published since 2015.

The guiding purpose of the review was not to provide a systematic or comprehensive synthesis of the literature on MHW (Maxwell, 2006), but rather to provide a foundational base that can inform QSO's future programming in this field, and enhance the potential wellbeing benefits offered through QSO's health-related initiatives into the future. The case studies included in this report were also purposefully selected for their relevance to the MHW theme in the orchestral context.

The contents of the literature were analysed thematically (Braun & Clarke, 2006), following an abductive approach where categories described in this report were elicited by combining, (a) existing typologies within the literature, (b) categories derived by the research team through inductive processes, and (c) the strategic priorities of QSO (Maxwell, 2013). The main strength of this design was its capacity to leverage the existing knowledge and expertise of the research team. Its main challenge and limitation was balancing the narrow scope of this report and its purpose with the vast breadth of the field to be covered.





Part 1: Contexts for Music, Health and Wellbeing Initiatives

Music can be used to mobilize resources in the service of health, wellbeing and development. This is something humans have “always” known and acted upon. The idea that music can help has been cultivated over millennia in a range of cultural contexts. (Stige & Aarø, 2011, p. 3)

The scope of Music, Health and Wellbeing (MHW) activities is vast. This part of the report briefly touches on five main contexts where music is being used to promote health and wellbeing outcomes. These include music therapy, community music, music in education, music in clinical contexts, and everyday uses of music (MacDonald, 2013). This framework provides a simple way to locate what are, in reality, overlapping areas where MHW practices and research are currently operating, and draws on MacDonald’s (2013) terminology and descriptions of such contexts.

The terminology *Music, Health, and Wellbeing* is a somewhat recent development, and embodies the latest evolution of practices and research focused on connecting music and health (Ansdell, 2014; Bonde & Theorell, 2018). Of course, the more general theme of music and healing has appeared in other forms over the last century in Western research and far longer in non-Western cultural settings (Ansdell, 2014). However, this more recent version is perhaps the most expansive edition yet, bringing together elements of therapy, community activity, social justice, education, and public health (Ansdell, 2014; Bonde & Theorell, 2018; Rolvsjord & Stige, 2015; Sunderland et al., 2018).

“[O]verall this new field is advocating a more ecological conception of health and wellbeing in relation to musical involvement—giving equal attention to individuals, groups and communities, and to the social, cultural and musical specifics of their local situations” (Ansdell, 2014, pp. 18–19).

Music therapy

Music therapy is an international health discipline that has developed over the last century (Bonde, 2019; MacDonald, 2013). An important contextual feature of music therapy is that multiple interpretations have developed around the world, reflecting differences in the ways that professional and cultural influences have merged to form the discipline (Bonde, 2019). In Australia, music therapy is provided by accredited practitioners who are registered with the Australian Music Therapy Association (AMTA), and it is formally recognised as a constituent of allied health in most states.

The Australian Music Therapy Association provide the following formal definitions for music therapy and the requirements for accreditation as a Registered Music Therapist (RMT):

Music therapy is a research-based allied health profession in which music is used to actively support people as they aim to improve their health, functioning and well-being. It can help people of all ages to manage their physical and mental health and enhance their quality of life

A Registered Music Therapist (RMT) is a music therapist who is registered with the Australian Music Therapy Association (AMTA). To be eligible to register with AMTA, a Registered Music Therapist needs to complete a certified university course in music therapy and maintain their skills through ongoing professional development as approved by the AMTA. (AMTA, 2012)

Community music

Community music is a broad area of practice that achieves wellbeing outcomes through its focus on participatory, collaborative group work that seeks to engage local communities in creative opportunities across the lifespan (Bartleet & Higgins, 2018). Some examples of initiatives commonly described as community music include community orchestras, choirs, and percussion groups (MacDonald, 2013), however community music activities are “diverse, flexible, and cover a wide range of styles, formats, and approaches” (Hallam & MacDonald, 2016, p. 777). The term *community* itself is complex and multifaceted, and may refer to geographic communities (e.g. the Brisbane community), social groups (e.g. refugees), as well those with what Brown (2002) refers to as having an *evanescent* quality (e.g. a community of like minds; see Vougioukalou et al., 2019). In the last decade, community music and music therapy have been combined more explicitly within the discipline of *community music therapy*, which takes the exploration of “health-promoting connections between individuals and various communities” as its main focus (Stige & Aarø, 2011, p. 3).

Music in education

Educational contexts recognised as part of the MHW landscape include both music education in the sense of learning music, as well as the use of music in educational contexts to achieve non-musical goals—in this there may be overlap with community music and music therapy (MacDonald, 2013). A variety of skills-learning benefits have been associated with learning music for people at a range of life stages (e.g. the enhancement of language and literacy skills, communication skills). Likewise, personal and social growth outcomes (e.g. sense of achievement, confidence, social cohesion) and overall achievement in formal educational settings have been studied (Hallam & MacDonald, 2016).

Music in clinical contexts (non-music therapy)

This category is an elaboration of what MacDonald (2013) refers to as *music medicine*. It aims to distinguish the use of music in clinical contexts as delivered by qualified health practitioners other than registered music therapists (e.g. nurses, social workers, doctors), as well as other agents who may play a role in supporting health and wellbeing through music (e.g. musicians, see Bonde & Theorell, 2018).

A typical type of music medicine intervention may involve patients undergoing operations listening to music to help reduce pain and anxiety perceptions. This is based on the observation that patients undergoing medical treatment in hospital operating theatres suffer from complex sets of conditions including pain, anxiety, and distress and that music listening may offer an opportunity to ameliorate these symptoms. (MacDonald, 2013, p. 4)

Everyday uses of music

This context describes the use of music in everyday life, such as for casual listening, or during exercise. In the everyday context, music may have a range of health benefits, such as supporting stress management, or emotional regulation (MacDonald, 2013). While there is substantial evidence for the possible health benefits of musical engagement in general, it is worth noting that “music engagement also relates to measures of ill-health” (e.g. depression, antisocial behaviours, Saarikallio et al., 2015, p. 210). Saarikallio et al. (2015) suggest that “the health-relevance of music cannot be defined by a single musical act or a particular genre preference, but needs to be considered within the broader context of the individual” (p. 211).

Summary

MHW practices take place across a wide range of contexts that sometimes overlap. This brief overview has described a select number of these contexts: music therapy; community music; music in education; music in clinical contexts; and everyday uses of music. Research shows that context does matter, and that each of these contexts offers different sets of opportunities and limitations for the kinds of wellbeing outcomes that may be achieved for individuals, groups, and communities.





Part 2: Outcomes of Music, Health, and Wellbeing Initiatives

Many MHW outcomes have been reported in the literature. This part of the report distils these outcomes into five short sections. The first two sections summarise these outcomes on a general level, and include (a) *personal outcomes* for individual participants (e.g. psychological and physiological outcomes); and (b) *social outcomes* for groups of participants and the world around them. The remaining sections focus on outcomes relating to the three areas of QSO's Health and Wellbeing program: *aged care*, *communities*, and *special needs*. There is strong potential for each of these contexts to overlap, and so the information presented in these sections may be most useful when considered as a whole.

It is worth noting that a central challenge for interpreting research into the outcomes of MHW initiatives is that it covers an extremely broad territory. For example, in their review of the literature, Krause et al. (2018) identified over 500 potential benefits of musical participation. In their systematic literature review, Daykin et al. (2016c) concluded that the “diversity of the studies and the range of wellbeing measures used means that it is not possible to synthesise the literature as a whole” (Wellbeing outcomes reported section, para. 1). While this diversity makes a succinct interpretation of the field difficult, several high-quality reviews have been undertaken since 2008 which together provide a helpful map of the territory (see Clift et al., 2008; Clift et al., 2018; Williams et al., 2018; Daykin et al., 2016a, 2016b, 2016c; MacDonald, 2013; McFerran et al., 2016; and Krause et al., 2018). Below we synthesise findings from these studies in relation to both personal outcomes and social outcomes.

Personal outcomes

The personal wellbeing outcomes associated with musical participation comprise a diverse mix of benefits that bridge facets of psychology, including cognition, emotion, and identity (Daykin et al., 2016a, 2016b, 2016c; Krause et al., 2018; MacDonald, 2013).

Positive personal outcomes reported in the literature include sense of self (self-esteem, self-worth, self-affirmation, etc.), happiness, mood regulation, satisfaction, pleasure, stress release and mood regulation, the perception of processing and expressing emotions, creativity and imagination, spirituality, sense of belonging, mental health, richness of experience, and overall wellbeing. In addition to these psychological benefits of musical participation, there is some evidence for physiological benefits as well, including the feeling of health, motor coordination, immune system support, improvement of muscle tone, flexibility, and posture, and breathing. (Krause et al., 2018)

A systematic review undertaken by Daykin et al. (2016a, 2016b, 2016c) provides a useful appraisal of the available evidence for a number of these outcomes. While the authors focused on participants' subjective wellbeing in participatory music making and did not include research focused on music therapy or the use of music in acute clinical contexts within their study, their review distinctively addresses a broad range of musical participation studies, and usefully focuses on the quality of evidence produced by these studies. The authors concluded that the strongest evidence for personal outcomes amongst healthy adult populations includes listening to music, which can alleviate anxiety and lead to improvements in overall wellbeing (e.g. Chang et al., 2008; Gupta & Gupta, 2005; Lee et al., 2010).

For healthy older people the best evidence was found to be linked to singing activities, which could support morale and mental health, as well as helping to reduce loneliness, anxiety and depression in comparison with other activities (e.g. Cohen et al., 2006; Coulton et al., 2015). Besides healthy adults and older people, Daykin et al. (2016c) also noted high quality evidence for the use of music therapy in reducing the intensity of stress, anxiety, and depression amongst pregnant women (e.g. Chang et al., 2008; Chang et al., 2015). In parallel publications the authors also studied outcomes for adults and older people diagnosed with chronic illnesses and conditions, as well as those diagnosed with dementia. Amongst these groups, the only high-quality evidence was found for targeted, culturally relevant music interventions amongst nursing students in college environments (which was shown to reduce depression, see Chen et al., 2015), as well as the use of brief music therapy to support wellbeing amongst palliative care patients in hospital settings (see Warth, 2015).

For the same populations (healthy adults and older people, those with chronic health conditions, and those with dementia) several other participatory musical activities were found to have moderate and/or low evidence to support their effectiveness in achieving health and wellbeing benefits for participants. This includes moderate evidence for the use of listening to music to improve mood amongst young adults, including the pairing of music with the use of exercise to reduce anxiety (e.g. Baldari et al., 2010; Campion & Levita, 2014). Similar outcomes were seen for adults, for whom music interventions could also enhance sense of purpose in life. Older people and those from marginalised groups were also seen to benefit moderately from group singing, song-writing, and song sharing (e.g. Baker & Ballantyne, 2013), and prison populations could also alleviate anxiety and anger through listening to music, as well as improving inmates' self-perceptions of wellbeing (see Bensimon et al., 2015; Cohen, 2009). For those with chronic health conditions, targeted, culturally relevant musical activities may help to combat depression in older people in residential and community settings, and a wide range of benefits may be associated with singing (e.g. relaxation, distraction, reduction in anxiety, spiritual uplift, mood, emotional wellbeing, confidence, enjoyment, see Daykin, 2016b).

There is also moderate evidence that participation in musical activities may help to raise awareness of the role of music in participants' lives, which may have the flow on effect of supporting awareness about health and quality of life, and behaviour change in general (Batt-Rawden, 2006; Batt-Rawden & Tellnes, 2011).

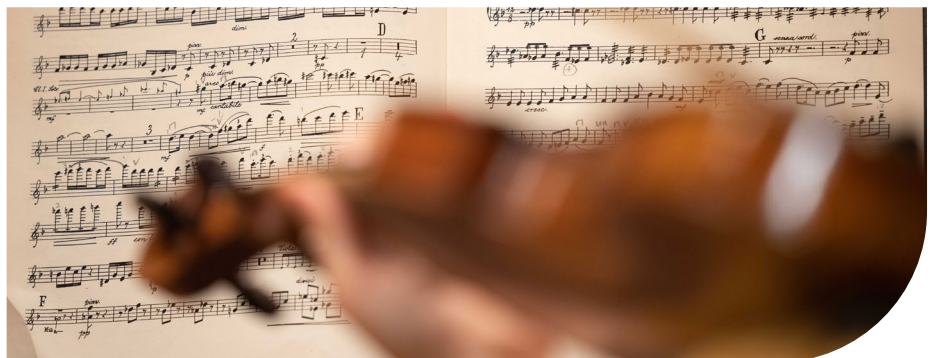
It is important to note that appraisals of evidence quality are not conclusive statements about the worth of a particular intervention, but that they more accurately represent the quality of available data about the effectiveness of such interventions based on specific selection criteria.

Social outcomes

Social outcomes of MHW interventions are those which reflect relationships between people and the world around them (e.g., their communities and environments). In general, there appears to be less information about social outcomes relative to personal outcomes, possibly due to the dominance of psychology in the MHW research landscape. That said, social outcomes may of course co-occur with personal outcomes (particularly in community settings, see MacDonald, 2013).

Within the research on social outcomes, the dominant theme in the literature appears to be the cultivation of community and social connections (Krause et al., 2018; Daykin et al., 2016a, 2016b, 2016c). This includes both the forming of relationships within social settings, as well as the promotion of interaction skills within those settings (Daykin et al., 2016c). Daykin et al. (2016c) conclude that there is high quality evidence that musical participation can reduce loneliness and promote connection with others, especially for older people (e.g. Lee et al., 2010).

A well-recognised medium for achieving such outcomes is choral participation, however there is also some evidence to suggest that songwriting and the performance and/or sharing of songs with others can be meaningful for older adults, and that musical experiences in general may offer them opportunities to express their spirituality and engage in reminiscence (Daykin et al., 2016c). There is also moderate evidence that people belonging to marginalised groups can benefit from group singing, which provides opportunities to “learn, build relationships and engage in a meaningful exchange with the wider community” (Daykin et al., 2016c, Summary of study findings section, para. 9; see Bailey & Davidson, 2002), while the evidence is slightly less strong to suggest that this may also enable the sharing of culture and heritage (e.g. Joseph & Southcott, 2014). The evidence is also less robust for the social benefits of choral participation for adults, though group singing may nonetheless provide some social benefits, and some music interventions may promote workplace wellbeing (Field et al., 1997). The evidence is less conclusive though still suggestive that older adults seek participation in musical projects to develop their social networks and undertake learning (Solé et al., 2010).



For people with chronic illness and/or conditions, voluntary musical participation can enhance relationships, bonding, and connection with others, and musical projects themselves may encourage behaviour change amongst this population in this direction (Daykin et al., 2016b). There is also evidence to suggest that similar outcomes to some extent apply to people with dementia involved in musical programs (e.g. Clark et al., 2018; Ledger & Baker, 2007; Särkämö et al, 2014; Sixsmith & Gibson, 2007).

Aged Care

It is worth noting that the social benefits of participation in community music are closely tied to other benefits that participants may experience—for example, the opportunity to develop social networks may co-occur with the fostering of personal traits and processes, including self-confidence, self-esteem, and self-affirmation (Daykin et al., 2016c; MacDonald, 2013).

The literature on MHW includes a range of studies that address the beneficial outcomes of musical interventions in various aged care contexts (e.g. independent living units, hospice care). Several scholarly reviews have been conducted over recent decades which synthesise this body of research (see for example, Clift et al., 2008; Daykin et al., 2016a, 2016b, 2016c; Istvandy, 2017; Kneafsey, 1997; Lehmborg & Fung, 2010). These studies provide some insight into the wellbeing benefits of music for populations experiencing varying degrees of health, ranging from healthy older people through to those with serious illnesses, notably including dementia. While their study was not focused specifically on aged care contexts alone, Lehmborg & Fung (2010) observed the wellbeing benefits of musical participation for healthy older people to include promotion of sense of physical and mental wellbeing, the slowing of age-related cognitive decline, feelings of pleasure and enjoyment, pride and sense of accomplishment in the learning of new skills, creation and maintenance of social connections, self-expression, and identity construction. The range of interventions that have been explored includes singing (see Clift et al., 2008; Clift et al., 2018) and songwriting (see Baker & Ballantyne, 2013; Clark, et al., 2020). There is an extensive body of literature that concerns the use of music therapy in aged care settings (e.g. Baker et al., 2020). In other cases, music-based interventions have also been studied in combination with other interventions—Istvandy (2017), for instance, found that studies of music and reminiscence therapy generally observed positive effects for mental wellbeing amongst older people, including those in aged care institutions.



Communities

As noted earlier in this report, the context of *the community* is integral to the landscape of MHW. Anthropological and ethnomusicological research suggests that music making may encourage social bonding on a variety of scales, and with a very diverse range of important social effects (Vougioukalou et al., 2019). Community music initiatives may have benefits that include those falling within both the psychosocial domain as well as addressing social justice issues (Hallam & MacDonald, 2016; Sunderland et al., 2018). On the psychosocial side, community music activities provide opportunities for social connection, the cultivation of sense of belonging and social affirmation, the regulation of emotions, mental health, and physical wellbeing (Clift et al., 2008; Hallam & MacDonald, 2016; Krause et al., 2018). On the social justice side, community music programs can provide access and inclusion outcomes (e.g. for young people with Autism Spectrum Disorder, see Whelan, 2018) as well as serving as a natural resource for supporting economic and health equity aims (e.g. in overcoming disaster-related trauma, see Hesser & Heinemann, 2018). An important niche within the literature on community music, in this respect, is the group of studies that have focused on the wellbeing effects of participatory community music for marginal groups, such as asylum seekers (e.g. Lenette et al., 2015), homeless people (e.g. Bailey & Davidson, 2002), drug users undergoing rehabilitation (e.g. Bensimon & Gilboa, 2010), and prisoners (e.g. Bensimon et al., 2015).

Special Needs

Music interventions have been explored within a wide variety of special needs settings ranging from special education, to the care of children and adults with cognitive impairments, to interventions for those that have developed special needs later in life (e.g. through onset of dementia), and palliative care, including paediatric palliative care (see Ludwig, 2019). Many of the benefits described above for community music also apply in this category. In addition to community music approaches, music therapy provides a range of strategies for supporting those with special needs in achieving non-musical goals, and music therapists often work within multidisciplinary teams educational teams to achieve these goals—for example, working with Special School teachers to support students' achievement of learning and wellbeing outcomes (Jacobsen et al., 2019). While music interventions have been observed to have positive outcomes for special needs populations, the neurological mechanisms by which this occurs are not yet well-understood (Brancatisano et al., 2020). In a recent publication, Brancatisano et al. (2020) summarise seven capacities of music interventions which contribute to its therapeutic value in relation to brain functioning. These include the capacity of music as engaging, emotional, physical, synchronous, personal, social, and persuasive, and are related by the authors to benefits spanning cognitive, psychosocial, motor, and behavioural domains.

Summary

The health and wellbeing outcomes discussed in the literature are extremely broad. This section has synthesised these outcomes on a general level (including personal outcomes and social outcomes), and in three specific areas relating to QSO's Health and Wellbeing program (aged care, communities, and special needs). While the evidence around these MHW outcomes is still growing (and there are still major gaps in our understanding about how these outcomes occur), this review has shown that there are many studies with compelling data to suggest that a wide range of health and wellbeing outcomes are possible through music participation. The beneficial outcomes described in this report have been purposefully selected as resources that may serve as starting points for informing the design of QSO's future initiatives in this space.



Part 3: Case Studies

The first two parts of this report have given a brief overview of the contexts and outcomes most commonly reported in current Music, Health and Wellbeing literature. This section focuses on three leading orchestral examples from across the world.

Case Study 1: Pittsburgh Symphony Orchestra

Music and Wellness Program

<https://wellness.pittsburghsymphony.org/about/>

The Pittsburgh Symphony Orchestra (PSO) Music and Wellness Program (established in 1999) is designed to utilise the “expertise of Pittsburgh Symphony Orchestra (PSO) musicians and staff to serve as a resource empowering individuals and communities to use music for the promotion of health and wellness”. The PSO provide the following statements about the program:

Through the Music and Wellness Program, the PSO works with music therapists and other healthcare professionals to bring therapeutic, live music to the Children’s Hospital of Pittsburgh of UPMC, the VA Pittsburgh Healthcare System’s H. J. Heinz Campus, and other facilities in the Pittsburgh area and abroad. PSO musicians lead music and wellness sessions for small yet diverse groups of participants that include patients, their families, and healthcare staff.

The PSO aims to support other organisations with similar goals with resources that include a free handbook for the design, implementation, and evaluation of music and wellness programs.

Sensory-Friendly Performance Series

https://pittsburghsymphony.org/accessibility/sensory_friendly

An example of the Music and Wellness Program is the series of sensory-friendly performances held by the PSO each year. These performances are customised in collaboration with allied health experts “especially for those with autism spectrum disorders or who have other disabilities that create sensory sensitivities”. Further, the PSO incorporates sensory-friendly accommodations into their youth and school concerts to widen access to children with sensory needs. The PSO define a sensory-friendly performance as follows:

Sensory friendly performances are musical experiences customized especially for patrons with autism spectrum disorders or other disabilities that create sensory sensitivities. Designed in consultation with leading occupational therapy experts, sensory friendly performances provide an opportunity for patrons of all ages to engage in multisensory pre-concert activities and enjoy a symphony concert together with family and friends in a relaxed, inclusive environment.

The PSO describe the typical modifications available for sensory-friendly performances as:

- Mitigation of sudden, loud sounds
- Low-level lighting throughout the performance
- Fidgets, earplugs, and noise-cancelling headphones
- Patrons are welcome to leave and re-enter the concert hall throughout the performance
- 100% refund policy for families that are unable to attend, including last-minute changes
- Designated quiet area with relaxing activities
- Family restroom
- Patrons are welcome to talk, clap, sing, and move throughout the performance
- Heinz Hall staff trained to be especially inclusive and accommodating to patron needs
- When concessions are offered, gluten and casein-free options
- Materials to help families prepare for their Heinz Hall experience



Case Study 2: Hartford Symphony Orchestra

<https://hartfordsymphony.org/education-community/community-programs/>

The Hartford Symphony Orchestra (HSO) have established a series of community programs that includes five main projects. It should be noted that the HSO 2021-2022 season has, however, been cancelled due to COVID-19.

Community Friends. This program is intended to foster community by providing connections for HSO attendees who do not have others to share the experience with.

HSO Family Series. This series provides immersive presentations for families which includes both performances and engaging activities that include the HSO Instrument Discovery Lab.

Instrument Discovery Lab. The HSO website provides the following description:

The Instrument Discovery Lab is a musical laboratory that gives children the opportunity to see, hear, touch, and play! Kids have a blast learning how playing a musical instrument is a whole-body experience, and feeling each instrument's vibrations humming differently from head to toe.

Musical Dialogues. The HSO website provides the following description:

Musical Dialogues is a unique series of free concerts which not only presents music performed by Hartford Symphony Orchestra musicians, but also provides audience members an opportunity to engage in dialogue with the musicians, bringing communities together around the beauty and joy of live music. Hosted at various venues across the state of Connecticut, from lunchtime concerts in a local park to holiday favorites at a public library, the Musical Dialogues series connects themes, composers, and repertoire from the HSO's Masterworks series and provides concertgoers with a more intimate opportunity to engage with the music and musicians.

Musicians Care Project. This project was established in 2013 and seeks to "enhance the quality of life for people of all ages whose healthcare needs prevent them from taking part in traditional music performances by providing live, interactive musical experiences". The program sees the HSO travel to a range of healthcare facilities across the state of Connecticut, including hospitals and medical centres.

Case Study 3: Phoenix Symphony Orchestra

B-Sharp Music Wellness, a W.O.N.D.E.R Project

https://phoenixsymphony.org/education-and-community/health--wellness-programs?_ga=2.117982089.1449941914.1625791687-865924224.1625791687

This Phoenix Symphony Orchestra project aims to promote physical, mental, and social wellness. The project involves four initiative areas, including hospitals, homeless shelters, hospices, and Alzheimer's clients. To date the program has led to 68 performances at homeless shelters (serving 20 750 people). A total of 2,321 people have so far been served in hospitals. The following descriptions of specific aspects of the program have been adapted from the Phoenix Symphony Orchestra website.

B-Sharp Music Wellness, a W.O.N.D.E.R. Project: Homeless Initiative

A multi-faceted music wellness experience for healthcare and community facilities that serve the homeless, this unique initiative uses music as a catalyst for joy and self-expression for individuals who often feel powerless and marginalized. The Symphony partners with five facilities: Circle the City, Lodestar Day Resource Center, Tumbleweed Center for Youth Development and St. Vincent de Paul Human Services Campus.

B-Sharp Music Wellness, a W.O.N.D.E.R. Project: Hospitals Initiative

This partnership between hospitals and The Symphony allows for musicians to perform varied and engaging programs in public areas of hospitals for patients, family members and hospital staff.

B-Sharp Music Wellness, a W.O.N.D.E.R. Project: Music and Alzheimer’s Research Initiative

This collaboration between The Phoenix Symphony, College of Health Solutions Research at Arizona State University, College of Nursing and Health Innovation at Arizona State University, ASU Herberger Institute of Music and Music Therapy, Dignity Health and Barrow Neurological Institute, evaluates the impact of weekly music-based programs on long-term care facilities residents, caregivers, facility staff and Symphony musicians measuring stress levels through the use of quantitative biomarker protocols.

B-Sharp Music Wellness, a W.O.N.D.E.R. Project: Alzheimer’s Caregiver Initiative

Designed for individuals with mild to moderate Alzheimer’s disease or other dementias as well as their care partners, the Phoenix Symphony’s Principal Timpanist, Bruce Pulk, delivers exclusive pre-concert chats about the day’s music prior to Sunday matinee Classics Concerts at Symphony Hall.

Summary

These case studies demonstrate a concrete application of some of the ideas and concepts outlined in the first two parts of this report. As the purpose of this overview is to inform QSO’s future programming in this field, and enhance the potential wellbeing benefits offered through QSO’s health-related initiatives into the future, these examples have provided practical illustrations of how this work is being applied in orchestral contexts overseas.



Reference List

- Ansdell, G. (2014). *How music helps in music therapy and everyday life*. Routledge.
- Australian Music Therapy Association. (2012). *What is music therapy?* <https://www.austmta.org.au/content/what-music-therapy>
- Bailey, B. A., & Davidson, J. W. (2002). Adaptive characteristics of group singing: Perceptions from members of a choir for homeless men. *Musicae Scientiae*, 6(2), 221–256. <https://doi.org/10.1177%2F102986490200600206>
- Baker, F. A., & Ballantyne, J. (2013). “You’ve got to accentuate the positive”: Group songwriting to promote a life of enjoyment, engagement and meaning in aging Australians. *Nordic Journal of Music Therapy*, 22(1), 7–24. <https://doi.org/10.1080/08098131.2012.678372>
- Baker, F. A., Stretton-Smith, P. A., Sousa, T. V., Clark, I., Cotton, A., Gold, C., & Lee, Y. E. C. (2020). Resource assessment in trials undertaken in residential care homes: Experiences from the Australian MIDDEL cluster randomised controlled trial research team. *Contemporary Clinical Trials Communications*, 20, 100675. <https://doi.org/10.1016/j.conctc.2020.100675>
- Baldari, C., Macone, D., Bonavolontà, V., & Guidetti, L. (2010). Effects of music during exercise in different training status. *Journal of Sports Medicine and Physical Fitness*, 50(3), 281–287.
- Bartleet, B. L. & Higgins, L. (Eds.). (2018). *The Oxford handbook of community music*. Oxford University Press.
- Batt-Rawden, K.B., 2006. Music: A strategy to promote health in rehabilitation? An evaluation of participation in a ‘music and health promotion project’. *International Journal of Rehabilitation Research*, 29(2), pp.171–173. <https://doi.org/10.1097/01.mrr.0000210047.09668.4f>
- Batt-Rawden, K. and Tellnes, G., 2011. How music may promote healthy behaviour. *Scandinavian Journal of Public Health*, 39(2), pp.113–120. <https://doi.org/10.1177/1403494810393555>
- Bensimon, M., Einat, T., & Gilboa, A. (2015). The impact of relaxing music on prisoners’ levels of anxiety and anger. *International Journal of Offender Therapy and Comparative Criminology*, 59(4), 406–423. <https://doi.org/10.1177/0306624X13511587>
- Bensimon, M., & Gilboa, A. (2010). The music of my life: The impact of the musical presentation on the sense of purpose in life and on self-consciousness. *The Arts in Psychotherapy*, 37(3), 172–178. <https://doi.org/10.1016/j.aip.2010.03.002>
- Bonde, L. O. (2017). Introduction to music therapy. In S. L. Jacobsen, I. N. Pedersen, & L. O. Bonde (Eds.), *A Comprehensive Guide to Music Therapy* (2nd ed., pp. 17–50). Jessica Kingsley Publishers.
- Bonde, L. O., & Theorell, T. (Eds.). (2018). *Music and public health*. Springer International Publishing.
- Brancatisano, O., Baird, A., & Thompson, W. F. (2020). Why is music therapeutic for neurological disorders? The therapeutic music capacities model. *Neuroscience & Biobehavioral Reviews*, 112, 600–615. <https://doi.org/10.1016/j.neubiorev.2020.02.008>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qrp063oa>
- Brown, S. 2002. *Intentional community: An anthropological perspective*. State University of New York Press.
- Campion, M., & Levita, L. (2014). Enhancing positive affect and divergent thinking abilities: Play some music and dance. *The Journal of Positive Psychology*, 9(2), 137–145. <https://doi.org/10.1080/17439760.2013.848376>
- Chang, M.-Y., Chen, C.-H., & Huang, K.-F. (2008). Effects of music therapy on psychological health of women during pregnancy. *Journal of Clinical Nursing*, 17(19), 2580–2587. <https://doi.org/10.1111/j.1365-2702.2007.02064.x>
- Chang, H.-C., Yu, C.-H., Chen, S.-Y., & Chen, C.-H. (2015). The effects of music listening on psychosocial stress and maternal-fetal attachment during pregnancy. *Complementary Therapies in Medicine*, 23(4), 509–515. <https://doi.org/10.1016/j.ctim.2015.05.002>
- Chen, C.-J., Sung, H.-C., Lee, M.-S., & Chang, C.-Y. (2015). The effects of Chinese five-element music therapy on nursing students with depressed mood. *International Journal of Nursing Practice*, 21(2), 192–199. <https://doi.org/10.1111/ijn.12236>
- Clark, I. N., Stretton-Smith, P. A., Baker, F. A., Lee, Y. E. C., & Tamplin, J. (2020). “It’s feasible to write a song”: A feasibility study examining group therapeutic songwriting

- for people living with dementia and their family caregivers. *Frontiers in Psychology*, 11, 1951. <https://doi.org/10.3389/fpsyg.2020.01951>
- Clark, I. N., Tamplin, J. D., & Baker, F. A. (2018). Community-dwelling people living with dementia and their family caregivers experience enhanced relationships and feelings of well-being following therapeutic group singing: A qualitative thematic analysis. *Frontiers in Psychology*, 9, 1332. <https://doi.org/10.3389/fpsyg.2018.01332>
- Clift, S., Hancox, G., Staricoff, R., & Whitmore, C. (2008). *Singing and health: A systematic mapping and review of non-clinical research*. Canterbury Christ Church University. http://www.canterbury.ac.uk/centres/sidney-de-haan-research/pdf-files/Full_reports/Full_Systematic_mapping.pdf
- Clift, S., Gilbert, R., & Vella-Burrows, T. (2018). Health and well-being benefits of singing for older people. In N. Sunderland, N. Lewandowski, D. Bendrups, & B.-L. Bartleet (Eds.), *Music, health and wellbeing* (pp. 97–120). Palgrave Macmillan.
- Cohen, G. D., Perlstein, S., Chapline, J., Kelly, J., Firth, K. M., & Simmens, S. (2006). The impact of professionally conducted cultural programs on the physical health, mental health, and social functioning of older adults. *The Gerontologist*, 46(6), 726–734. <https://doi.org/10.1093/geront/46.6.726>
- Cohen, M. L. (2009). Choral singing and prison inmates: Influences of performing in a prison choir. *Journal of Correctional Education*, 60(1), 52–65.
- Coulton, S., Clift, S., Skingley, A., & Rodriguez, J. (2015). Effectiveness and cost-effectiveness of community singing on mental health-related quality of life of older people: Randomised controlled trial. *British Journal of Psychiatry*, 207(3), 250–255. <https://doi.org/10.1192/bjp.bp.113.129908>
- Daykin, N., Julier, G., Tomlinson, A., Meads, C., Mansfield, L., Payne, A., Duffy, L. G., Lane, J., D’Innocenzo, G., Burnett, A., Kay, T., Dolan, P., Testoni, S., & Victor, C. (2016a). *A systematic review of the wellbeing outcomes of music and singing in adults and the processes by which wellbeing outcomes are achieved: Music, singing and wellbeing for adults living with dementia*. The What Works Centre for Wellbeing.
- Daykin, N., Julier, G., Tomlinson, A., Meads, C., Mansfield, L., Payne, A., Duffy, L. G., Lane, J., D’Innocenzo, G., Burnett, A., Kay, T., Dolan, P., Testoni, S., & Victor, C. (2016b). *A systematic review of the wellbeing outcomes of music and singing in adults and the processes by which wellbeing outcomes are achieved: Music, singing and wellbeing for adults living with diagnosed conditions*. The What Works Centre for Wellbeing.
- Daykin, N., Julier, G., Tomlinson, A., Meads, C., Mansfield, L., Payne, A., Duffy, L. G., Lane, J., D’Innocenzo, G., Burnett, A., Kay, T., Dolan, P., Testoni, S., & Victor, C. (2016c). *A systematic review of the wellbeing outcomes of music and singing in adults and the processes by which wellbeing outcomes are achieved: Music, singing and wellbeing in healthy adults*. The What Works Centre for Wellbeing.
- Field, T., Quintino, O., Henteleff, T., Wells-Keife, L., & Delvecchio-Feinberg, G. (1997). Job stress reduction therapies. *Alternative Therapies in Health and Medicine*, 3(4), 54–56.
- Gupta, U., & Gupta, B. S. (2005). Psychophysiological responsivity to Indian instrumental music. *Psychology of Music*, 33(4), 363–372. <https://doi.org/10.1177/0305735605056144>
- Hallam, S., & MacDonald, R. (2016). The effects of music in community and educational settings. In S. Hallam, M. H. Thaut, & I. Cross (Eds.), *The Oxford handbook of music psychology* (2nd ed., Vol. 1, pp. 776–789). Oxford University Press.
- Hesser, B., & Heinemann, H. N. (2018). Achieving health equity and social justice through music: music as a global resource. In N. Sunderland, N. Lewandowski, D. Bendrups, & B.-L. Bartleet (Eds.), *Music, health and wellbeing* (pp. 227–243). Palgrave Macmillan.
- Horden, P. (Ed.). (2000). *Music as medicine: The history of music therapy since antiquity*. Ashgate.
- Istvandity, L. (2017). Combining music and reminiscence therapy interventions for wellbeing in elderly populations: A systematic review. *Complementary Therapies in Clinical Practice*, 28, 18–25. <https://doi.org/10.1016/j.ctcp.2017.03.003>
- Jacobsen, S. L., Pedersen, I. N., & Bonde, L. O. (n.d.). *A comprehensive guide to music therapy, 2nd Edition*. Jessica Kingsley Publishers.
- Joseph, D., & Southcott, J. (2014). Personal, musical and social benefits of singing in a community ensemble: Three case studies in Melbourne (Australia). *TD: The Journal for Transdisciplinary Research in Southern Africa*, 10(2), 125–137.
- Kneafsey, R. (1997). The therapeutic use of music in a care of the elderly setting: A literature review. *Journal of Clinical Nursing*, 6(5), 341–346.
- Krause, A. E., Davidson, J. W., & North, A. C. (2018). Musical activity and well-being: A new quantitative measurement instrument. *Music Perception: An Interdisciplinary Journal*, 35(4), 454–474. <https://doi.org/10.1525/mp.2018.35.4.454>

- Ledger, A. J., & Baker, F. A. (2007). An investigation of long-term effects of group music therapy on agitation levels of people with Alzheimer's Disease. *Aging and Mental Health*, 11(3), 330–338. <https://doi.org/10.1080/13607860600963406>
- Lee, Y. Y., Chan, M. F., & Mok, E. (2010). Effectiveness of music intervention on the quality of life of older people. *Journal of Advanced Nursing*, 66(12), 2677–2687. <https://doi.org/10.1111/j.1365-2648.2010.05445.x>
- Lehmborg, L. J., & Fung, C. V. (2010). Benefits of music participation for senior citizens: A review of the literature. *Music Education Research International*, 4(1), 19–30.
- Lenette, C., Weston, D., Wise, P., Sunderland, N., & Bristed, H. (2016). Where words fail, music speaks: the impact of participatory music on the mental health and wellbeing of asylum seekers. *Arts & Health*, 8(2), 125–139. <https://doi.org/10.1080/17533015.2015.1037317>
- Ludwig, A. (Ed.). (2019). *Music therapy in children and young people's palliative care*. Jessica Kingsley Publishers.
- MacDonald, R. A. (2013). Music, health, and well-being: A review. *International Journal of Qualitative Studies on Health and Well-Being*, 8(1), 20635. <https://doi.org/10.3402/qhw.v8i0.20635>
- Maxwell, J. A. (2006). Literature reviews of, and for, educational research: A commentary on Boote and Beile's "Scholars Before Researchers." *Educational Researcher*, 35(9), 28–31. <https://doi.org/10.3102/0013189X035009028>
- Maxwell, J. A. (2012). *Qualitative research design: An interactive approach*. Sage.
- McFerran, K. S., Garrido, S., & Saarikallio, S. (2016). A critical interpretive synthesis of the literature linking music and adolescent mental health. *Youth & Society*, 48(4), 521–538. <https://doi.org/10.1177/0044118X13501343>
- Robson, C., & McCartan, K. (2016). *Real world research* (4th ed.). John Wiley & Sons.
- Rolvjord, R., & Stige, B. (2015). Concepts of context in music therapy. *Nordic Journal of Music Therapy*, 24(1), 44–66. <https://doi.org/10.1080/08098131.2013.861502>
- Saarikallio, S., Gold, C., & McFerran, K. (2015). Development and validation of the Healthy-Unhealthy Music Scale. *Child and Adolescent Mental Health*, 20(4), 210–217. <https://doi.org/10.1111/camh.12109>
- Särkämö, T., Tervaniemi, M., Laitinen, S., Numminen, A., Kurki, M., Johnson, J. K., & Rantanen, P. (2014). Cognitive, emotional, and social benefits of regular musical activities in early dementia: Randomized controlled study. *The Gerontologist*, 54(4), 634–650. <https://doi.org/10.1093/geront/gnt100>
- Sixsmith, A., & Gibson, G. (2007). Music and the wellbeing of people with dementia. *Ageing & Society*, 27(1), 127–145. <https://doi.org/10.1017/S0144686X06005228>
- Stige, B., & Aarø, L. E. (2011). *Invitation to community music therapy*. Routledge.
- Solé, C., Mercadal-Brotons, M., Gallego, S., & Riera, M. (2010). Contributions of music to aging adults' quality of life. *Journal of Music Therapy*, 47(3), 264–281. <https://doi.org/10.1093/jmt/47.3.264>
- Sunderland, N., Lewandowski, N., Bendrups, D., & Bartleet, B.-L. (Eds.). (2018). *Music, health and wellbeing*. Palgrave Macmillan.
- Vougioukalou, S., Dow, R., Bradshaw, L., & Pallant, T. (2019). Wellbeing and integration through community music: The role of improvisation in a music group of refugees, asylum seekers and local community members. *Contemporary Music Review*, 38(5), 533–548. <https://doi.org/10.1080/07494467.2019.1684075>
- Warth, M., Keßler, J., Hillecke, T. K., & Bardenheuer, H. J. (2015). Music therapy in palliative care. *Deutsches Arzteblatt International*, 112(46), 788–794. <https://doi.org/10.3238/arztebl.2015.0788>
- Whelan, M. (2018). Promoting social inclusion, equity and well-being for young people with autism spectrum condition: A community music facilitator (and parent) perspective. In N. Sunderland, N. Lewandowski, D. Bendrups, & B.-L. Bartleet (Eds.), *Music, health and wellbeing* (pp. 65–80). Palgrave Macmillan.
- Williams, E., Dingle, G. A., & Clift, S. (2018). A systematic review of mental health and wellbeing outcomes of group singing for adults with a mental health condition. *European Journal of Public Health*, 28(6), 1035–1042. <https://doi.org/10.1093/eurpub/cky115>





QUEENSLAND SYMPHONY
ORCHESTRA