A Musical Prescription for Health and Wellbeing

Musical Prologue

The Mozart effect was first described by Dr Tomatis and investigated by Rauscher, Shaw and Ky (1993) in terms of the positive effects of listening to Mozart music on spatial-temporal reasoning. This was quickly misinterpreted by the masses as evidence that listening to Mozart music increases IQ. Since then, on-going debate and research has been focused on examining whether music plays a significant role in one’s health and wellbeing. As part of the 2011-2012 MMB invited speaker series, we had the pleasure of having the passionate Professor Raymond MacDonald share with us his thoughts and recent research on this topic.

His discussion stemmed from the premise that everyone is musical and suggested ten aspects of music which make it conducive to improving wellness:

- Music is ubiquitous
- Music is emotional
- Music is engaging
- Music is distracting
- Music is physical
- Music is ambiguous
- Music is social
- Music is communicative
- Music affects behaviour
- Music plays a key role in identity
MacDonald gave evidence for the usefulness of each of these aspects. For example, music as distracting was illustrated in a study in which pain tolerance increased when listening to favourite music compared to doing a diverting cognitive task (Mitchell, MacDonald & Brodie, 2006).

It was argued that each of these aspects is important for musical improvisation, which MacDonald described as having great potential to be involved in the improvement of health and wellbeing. He contested the idea that improvisation is the preserve of elite jazz musicians. The majority of research in this area has been focused on this musical genre, yet it has been suggested that we all participate in improvisatory dialogues from infancy (Trevarthen, 2008), which would imply that improvisation is not restricted to a specific style of music. MacDonald affirmed this view by playing video clips of very young children engaging in musical improvisation.

**Music – An Intersection of Life**

MacDonald provided us with an inclusive view of music across many aspects of life and how musical activity in each of these domains can increase the wellbeing and quality of life.

‘Conceptualising music health and wellbeing as a field of study’ diagram used by Professor MacDonald
* Music Education

The positive influence that music instruction can have on cognitive skills was discussed. Research has shown that music instruction can promote brain neuroplasticity at both the structural and functional level (Pantev & Herholz, 2011). In addition, modest to significant associations between music training and cognition have been reported in domains such as speech and language (Manuela, 2009), reading (Moreno et al., 2009), spatial-temporal reasoning (Rauscher & Hinton, 2011) and arithmetic (Rauscher & Hinton, 2011). For example, reading and pitch discrimination abilities in speech were enhanced after 6 months of music training in 8 year-old non-musician children (Moreno et al., 2009). With regards to the mechanisms supporting transfer effects, recent evidence suggests that executive functions may play a mediatory role between music instruction and IQ (Dege, Kubicek & Schwarzer, 2011). However, whilst the value of music training shouldn’t be taken lightly, MacDonald cautioned against using it as a magical substitute for additional tuition in weaker academic subjects.

* Music Therapy

This discipline seeks to establish music as a clinical tool in affecting positive change in the health and wellbeing of individuals. Improvisation is a key technique used in music therapy. MacDonald elaborated on a study that interviewed cancer patients attending group music therapy. The findings demonstrated that the improvisatory nature of the sessions enabled participants to expressively communicate and connect with others through music, providing a sense of control over their illness and a shared bond with fellow patients (Pothoulaki, Flowers & MacDonald, in press).
Community Music

MacDonald commented on the recent growth both in public singing and in papers published on this topic which emphasise its benefits. For example, participating in live music has been shown to relieve apathy in elderly people suffering from dementia (Holmes, Knights, Dean, Hodkinson & Hopkins, 2006). Studies in this area seem to reveal more consistently positive results with the older generation as compared to the younger population (Hampshire & Matthijsse, 2010). The growth of a musical identity and social bonding is evident in choirs and musical ensembles, supporting the view that music can aid health and wellbeing.

Everyday Uses of Music

The great accessibility to music has led to music being an essential part of everyday life. Music impacts on many aspects of life: mood, psychological state, self-esteem, social grouping and concentration.

MacDonald highlighted the use of music as self-medication, through mood regulations and stress relief. Music is used by the masses as a free therapy within their control, governed by personal playlists, (Saarikallio & Erkkilä, 2011). Music can act as a form of company, or silence filler. The musical identities of the individuals and social networks provide support, improved confidence, feeling of control and even distraction from symptoms of illness, (Gallagher, Lagman, Walsh, Davis & LeGrand, 2009).

Future Musical Dialogues
MacDonald presented an inspiring talk on the uses of music in health and wellbeing incorporating many aspects we could all relate to, for example using music for mood regulation. Describing the four uses of music within psychology and education as being interrelated was an interesting way to represent the field in conjunction with other areas. It is clear to see that from the studies cited in this blog; this subsection of music psychology is still in its infancy with large scope for further research.

Longitudinal studies could provide a more substantial long-term effect of music’s role in health and wellbeing. Through the use of observational studies and experimental paradigms, causal evidence could be obtained. If such findings could be obtained, application to music therapy and education could be better informed and improved.

The role of improvisation was a key feature in MacDonald’s lecture. Improvisation has links to all four aspects of the music, health and wellbeing diagram. MacDonald described how improvisation brings a freedom to the individual allowing for self-expression, not available in many other forms of expression. It is from this that improvisation should be encouraged and developed across all areas of music.

The everyday uses of music within wider society are at the forefront of research at the moment with growing choirs, media interest and a need for community in times of austerity. The role of music in individual lives beyond singing could be investigated further and be used to inform new approaches in music therapy and education.
MacDonald is a leading force in music, health and wellbeing and his passion for the subject truly came across. Definitely whet the research appetite!

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References


