



SING YOURSELF BETTER

The Health and Well-Being Benefits
of Singing in a Choir



SUMMARY



AUTHORS

Hilary Moss

Irish World Academy of Music and Dance, University of Limerick, Ireland

Jessica O'Donoghue

Irish World Academy of Music and Dance, University of Limerick, Ireland

Julie Lynch

Assistant Psychologist, University of Limerick, Ireland

PUBLISHED

Irish World Academy of Music and Dance, September 2017

ACKNOWLEDGEMENTS

The authors of this study would like to thank the Association of Irish Choirs; The Lyric FM Workplace Choir of the Year Competition; the support of colleagues at the Irish World Academy of Music and Dance and all singers who generously took part in this study.

A growing interest in the impact of singing on health and well-being has seen a dramatic increase in the number of research projects in this area in recent years. A growing body of evidence attests to the various health benefits of singing, however to date these studies have been small in size and representative of specific clinical populations. This research explored the health and well-being benefits associated with choir singing from the perspective of the choristers themselves. It is the largest international study to date and the first study to report the health benefits of singing for Irish adults.

Key findings

- ▶ Irish singers reported an overwhelmingly positive response in terms of physical and physiological benefits, social benefits, psychological/emotional benefits and spiritual benefits.
- ▶ Participants spanned a wide range of ages, from 18 – 90, which suggests that people of all ages find singing to be a beneficial activity for their health and well-being. This highlights the potential for choirs to improve well-being in a myriad of settings, including but not limited to nursing homes, workplaces and educational institutions.
- ▶ Participants also cited a variety of choral experience, ranging from singing in a choir for all their adult life to singing with a choir for only one year. Irrespective of length of experience, responses remained overwhelmingly positive.
- ▶ Gender differences were observed in responses. Reports of physical benefits, social benefits and emotional benefits were significantly higher for female participants than for male participants.
- ▶ The ratio of female to male respondents was approximately 5:1, highlighting on a large-scale international study the gender imbalance that is often cited in choral settings, as well as many other performing arts activities.
- ▶ Professional singers scored more highly across all domains than their amateur counterparts, with the difference being statistically significant within the physical, social and spiritual categories. This finding was not anticipated, as it was expected that amateur singers may report more social benefits than professionals as they pursue singing as a leisure activity or a social gathering as opposed to work.
- ▶ The key benefits of singing in a choir were increased social connection; improved respiratory health; cognitive stimulation; improved mental health and transcendence from everyday worries and pain.

Research regarding the potential health benefits of singing is well developed, with a large body of work to support singing as a health and well-being intervention. Studies investigating the benefits of singing include evidence of the positive impact of singing on dementia¹⁻⁴, chronic obstructive pulmonary and respiratory disease⁵⁻⁹ and cancer¹⁰⁻¹⁴. Singing is also indicated as a protective factor for cognitive decline¹⁵. A review of literature on singing and respiratory health reported trends of positive physical and/or quality of life outcomes after a series of singing lessons⁵⁻⁷. Significant positive benefits are also associated with singing lullabies to pre-natal and newly born babies, particularly parent-infant bonding and post-natal depression^{16,17}. Larger and longer-term trials are recommended by most studies.

A significant literature exists on the benefits of singing on mood and mental health, especially community based singing groups as psychosocial and mood improvement tools for people with mood disorders¹⁸⁻²⁰. Nonetheless, two Cochrane reviews conclude that further research is warranted to empirically determine the health effects of singing. Current studies have relatively small sample sizes and are highly variable in terms of the participant involved and the outcome being investigated^{8,9,21}.

WHY IS THIS STUDY SPECIAL?

- ▶ The largest international study that asks singers in choirs whether they believe singing is good for their health and well-being
- ▶ The first significant study of the health and well-being benefits of singing in Republic of Ireland
- ▶ Provides evidence of the importance of singing for adults across Ireland
- ▶ Provide evidence to support the role of singing to improve health and well-being

An online questionnaire including demographic information, 28 quantitative statements and two qualitative questions relating to the perceived health benefits of singing in a choir was distributed via email and social media over a period of four months to a sample of 1779 choristers.

Singers were asked to choose whether they agreed, disagreed, strongly agreed or strongly disagreed with 28 statements such as *I find singing in a choir mentally stimulating* and *I feel a sense of achievement after singing in a choir*. These questions fell into four domains: physical and physiological health; social health; psychological health and spiritual health. Two questions included the opportunity to write comments to elaborate on how singing benefited their health and well-being.

Basic descriptive statistics and comparisons between subgroups of the sample were studied. The written comments were analysed using thematic analysis²².

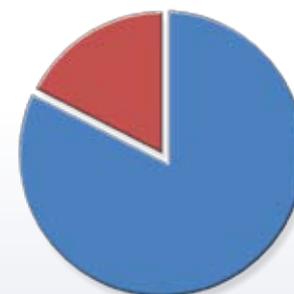
FINDINGS

Demographics of the Sample

The participants represented a wide sample of choristers internationally, with various demographics of the sample presented graphically below. A more specific breakdown of responses from the Irish sample is also provided.

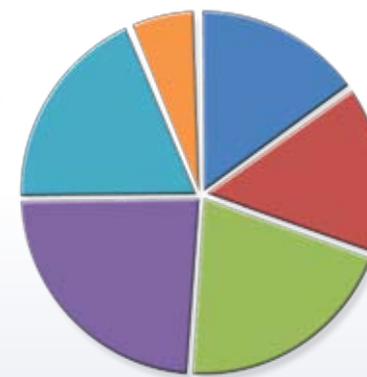
GENDER BREAKDOWN

- FEMALE
- MALE



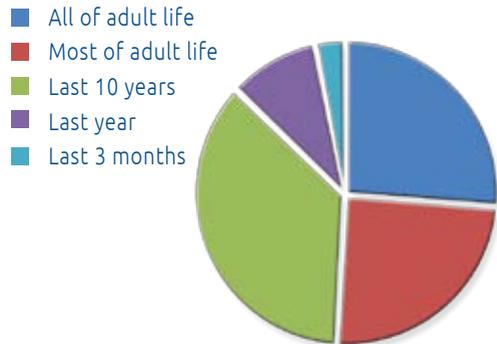
AGE RANGE

- 18-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80+

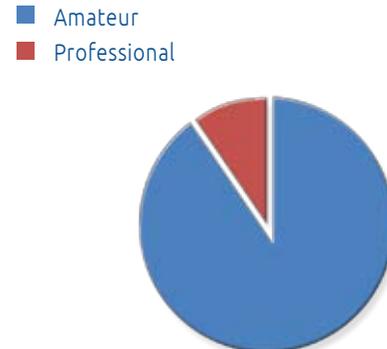


FINDINGS FOR THE IRISH POPULATION (OVER 967 SINGERS) ARE PROVIDED HERE:

SINGING EXPERIENCE



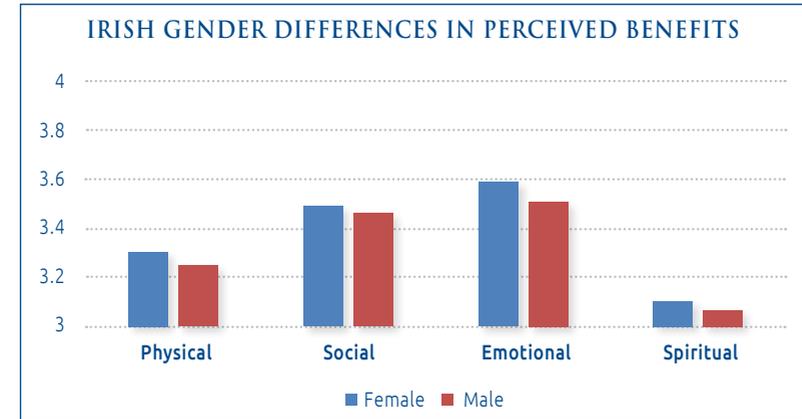
AMATEUR OR PROFESSIONAL SINGER



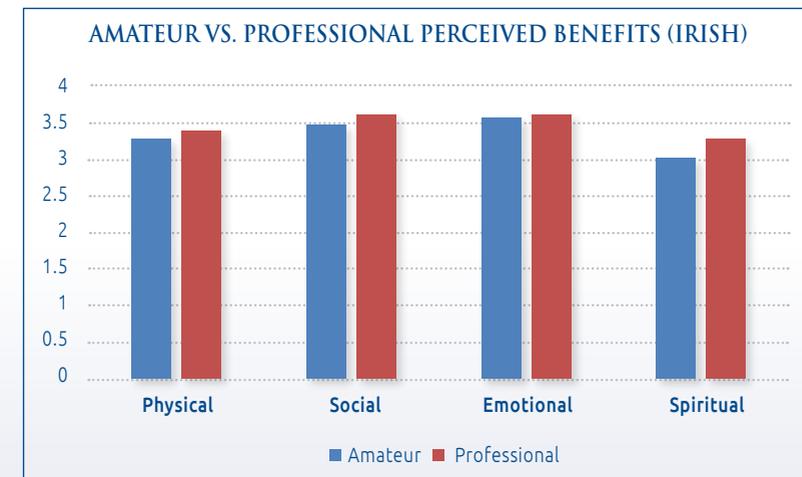
BREAKDOWN OF COUNTRY PARTICIPATION:

Country	%	Country	%
Ireland	54.4	France	0.2
Australia	8.9	Qatar	0.1
UK	27.5	Denmark	0.1
USA	3.1	Germany	0.3
Spain	0.2	Netherlands	0.3
Bos&Herz	0.7	Serbia	0.6
Canada	0.3	Singapore	0.2
New Zealand	2.2	South Africa	0.1
Croatia	0.2	Finland	0.1
Sweden	0.1		

DIFFERENCES IN PERCEIVED BENEFITS BETWEEN IRISH MALES AND FEMALES



Statistical analyses determined a statistically significant difference between male and female perception of the emotional benefits of singing in a choir. Differences between genders in the other variables were not statistically significant. It is interesting to note that in the international sample (please see Moss et al in press), female participants reported significantly higher scores for physical, emotional and social benefits than their male counterparts.



Professional Irish choristers reported significantly higher scores for physical benefits, social benefits and spiritual benefits than their amateur counterparts, with no statistically significant difference in response between these subgroups for emotional benefits. This result was replicated in the international sample.

RESEARCH THEMES

Six themes were identified from the analysis of the 2359 qualitative comments. These provide a deeper understanding of the perceived benefits for choir singers. These are: social connection; respiratory health, cognitive stimulation; mental health; enjoyment and transcendence.

1. Choir singing increases social connectedness

Choir singing offers an opportunity meet new people and develop social skills. Regular rehearsal is an important social activity with opportunity for social interaction, social connection, bonding and social inclusion.

Choir is a social "equaliser". Singing together connects people.... you can achieve a high when accomplishing things as a team My choir has been my extended family for almost 30 years now. It's really uplifting when we sing together and really enhances my life generally.

2. Singing improves my respiratory health

Reported physical and physiological benefits were many, including improvements in blood pressure, posture, reductions in physical pain and muscle tension. Improvements in respiratory health were highly reported, such as awareness and control of the breath, lung capacity, alleviated symptoms of breathing disorders such as asthma, and general strengthening of the lungs.

I have issues with blood pressure and consistently the BP monitor shows a reduction in my reading after performing/practice!

3. Singing is cognitively stimulating

Subthemes: Achievement, learning and self esteem

Singing in a choir keeps the brain active, is mentally and technically challenging and requires great concentration and memory. The achievement of learning a new skill was significant in

the data. Singers report pride in themselves and in their community, increased confidence and a feeling of self-satisfaction.

A good choir can also help towards improving community morale/pride.... (There is) great pride when we see a happy audience... I am immensely proud of my choir family and all that we achieve together.

4. Singing is fun!

Having fun is an important part of singing in a choir! Singing can make you smile and lift mood. Enjoying beautiful music, dressing up with friends to perform, having fun after a show and achieving a good performance are important, and satisfying, elements of being in a choir.

Good fun and a complete switch off from life!

5. Singing is good for my mental health

Specific psychological improvements are noted in this study. Singing may alleviate low mood or anxiety. Participants noted attending a choir helps with fending off depression and isolation and is an aid for achieving emotional balance.

Singing has improved my mental health, giving me more confidence and less anxiety

6. Singing and transcendence

Singing was widely reported to be spiritually uplifting and life-affirming. Choral singing was reported by many to be a meditative or mindful activity, taking their mind away from things that might worry them, bringing them into the present moment, focusing on breathing and leaving worries at the door. Creating something beautiful and being creative with other people were noted as important features of choir singing. A large number of people said that stress reduction was the key benefit of singing in a choir.

Choir makes you feel part of something bigger than yourself and connects people at a heart or energetic level. It's a fully mindful experience; you focus totally in the now.

Great way to unwind and forget your stresses ... you can't stress about everyday worries when you are singing

When I'm singing I'm present in the moment ... it's almost like meditating

Findings indicate that singers experience a range of health benefits from singing, across spiritual, physical, psychological and social domains. This is consistent across age ranges and points to potential benefits for adults in a range of settings, with chronic health issues and in later life. Perceived benefits were consistent regardless of length of experience and remained overwhelmingly positive.

Results in this study are consistent with other international studies in this area. The potential health and well-being benefits of singing in a choir are significant and are worthy of further investigation.

Some limitations must be noted: results are based on self-perceptions of choristers and the findings are therefore limited. Terms such as 'professional' and 'amateur' were not explained, nor was any definition given of the word 'spiritual'. Some statistical limitations, and the exploratory nature of this research, mean that definitive conclusions should be drawn with caution. Nevertheless, this paper provides the largest sample to date exploring singers' perceptions of the health and well-being benefits of singing and this study concurs with previous studies recommending future research to include both larger controlled and in-depth qualitative studies²³.

RECOMMENDATIONS

The authors of this study recommend:

- ▶ A further, quantitative study of singing, health and well-being within the Irish population.
- ▶ Establishment of choirs across the country within work places and for chronically ill people
- ▶ Establishment of choir singing as a HSE Health Promotion initiative with choirs available for staff and service users within the health service.
- ▶ A choir for every care home <https://achoirineverycarehome.wordpress.com/>
- ▶ If you have the chance.... sing!

Past Times Community Choir - A Kildare Music and Health Programme

The award winning Past Times Community Choir is an intergenerational choir that supports people living with dementia, their families, carers and communities. Established in January 2015, the choir is a strategic partnership between Kildare County Council Arts Service and its Arts and Health Specialist, the HSE and musical director Sharon Murphy to develop music and health within the county. It is open to all ages and provides supports for everyone to participate in the choir regardless of mobility, ability and communicative impairments. To date the choir have performed at several international conferences including DCU – Elevator Innovation Awards 2015 and Dublin Castle – The Office of the Nursing and Midwifery Services Directorate (ONMSD) Leadership & innovations in practice in Older Persons' Services 2016. Musical director Sharon Murphy (BMus) is a vocalist, musical director and arts & health practitioner. Contact carolanncourtney@gmail.com or follow the choir on Facebook: Past Times Community Choir

Singing & Sustainable Social Integration

According to the United Nations Refugee Agency, there are more than 65 million people currently displaced across the world. This is the largest number in recorded history. There is a growing body of research demonstrating the role of singing in meeting the psychological and social needs of refugees. In 2000, the Irish World Academy of Music and Dance at the University of Limerick created a partnership with Doras Luimní (the support group for new migrants in Limerick), creating the Sanctuary initiative to support musical activities with new migrant communities. In 2016, the *Singing and Sustainable Social Integration* research project (<http://www.ul.ie/engage/node/1791>) was created to track the impact of these projects, especially those focused on singing.

Hands in Harmony Deaf Community Choir, Limerick

Hands in Harmony are a Deaf community choir where participants use their first and preferred language, Irish Sign Language (ISL), to express themselves through music. The choir is an initiative of the Deaf Community Centre, Limerick (DCC), which aims to promote participation of the Deaf community in education, community, social and cultural activities with ISL as the main language of communication. <https://www.facebook.com/Handsinharmonydeafcommunitychoir/>

Something to Sing About Choir (STSA) A Global Choir of Cancer Survivors

Something To Sing About was founded in September 2012 by consultant medical oncologist Dr Paul Donnellan at Galway University Hospital, Ireland. In a short time the word has spread and there are now more than 250 members, ranging from the age of 8 to 84 years in Ireland, Australia and the US! STSA members use music as a therapy where they meet, sing and enjoy being part of a choir. <http://www.stsa.ie/>

A choir in every care home

Launched in May 2015, *A Choir in Every Care Home* is an initiative to explore how music and singing can feature regularly in care homes across the UK. Funded and initiated by the **Baring Foundation**, it is a unique collaboration between 33 leading national organisations from the worlds of adult social care, music and healthcare research. Together, they hope to improve the quality of life for people in care homes, and help create happy environments for carers, family and care home staff. This is urgently needed as 70% of the growing numbers of people in care homes have dementia or severe memory problems (according to the Alzheimer's Society). <https://achoirineverycarehome.wordpress.com/>

PARTNERS

Association of Irish Choirs - Enhancing life through choral music

http://www.aoic.ie/utility_links/home/

The Association of Irish Choirs (AOIC) supports and promotes all forms of choral music in Ireland, through a range of programmes and activities designed to respond to the needs of members, the wider choral community and the public. AOIC activities include developing and promoting choral music in Ireland; offering mentoring and masterclass opportunities to conductors; running the Annual International Choral Conducting Summer School; giving training and supports to primary and secondary school teachers; organising singing days and workshops for schools and choirs nationally; producing and promoting the Irish Youth Choir courses and concerts; managing a library lending scheme of 14,000 pieces of Irish and other music and providing information and advice to choirs. Established in 1980, AOIC is now based in the Irish World Academy of Music and Dance at the University of Limerick. AOIC still operates its key programmes: Annual Choral Conducting Summer School, the Irish Youth Choir and offering

training to teachers and musicians. In addition, AOIC has become involved in the development of a number of initiatives as part of its mission of enhancing life through choral music. These include the National Choral Singing Week to promote the positive mental health benefits of choral music and Dawn Chorus to encourage greater participation in choral singing among older people.

Workplace Choir of the Year

<http://workplacechoir.com/>

Workplace Choir of the Year was established to build and strengthen positive relationships within the working environment and to foster a sense of identity and pride within organisations. We work with employers and employees to establish amateur choirs in workplaces throughout Ireland. It is hoped that while working towards a common goal, employees across all levels of the organisation benefit from the social interaction and synergy of choral singing. The practical outcome is a competition-standard choir that can perform as part of promotional activities, open days or local community events.

Arts and Health Research Cluster at the University of Limerick

<http://www.irishworldacademy.ie/arts-and-health-research-cluster/>

The Arts and Health research cluster was formed as a result of individual research interests concerned with the interplay between arts, health and well-being. The cluster creates a hub for networking and collaboration between academics and practitioners in this field and aims to facilitate collaborative research between arts and health disciplines. We welcome a diverse array of theoretical perspectives and research methodologies and have a particular interest in promoting and developing interdisciplinary research between humanities and STEM experts. The cluster is led by Dr Hilary Moss and is hosted by the Irish World Academy of Music and Dance.

1. Beard R. Art therapies and dementia care: A systematic review. *Dementia* [Internet]. 2011 10 October 2012. Available from: <http://dem.sagepub.com/content/early/2011/09/14/1471301211421090>.
2. Golden A, Gammonley D, Hanna Powell G, Wan TT. The Challenges of Developing a Participatory Arts Intervention for Caregivers of Persons with Dementia. *Cureus*. 2017;9(4):e1154.
3. Hammar L, Gotell E, Engstrom G. Singing while caring for persons with dementia. *Arts and Health*. 2011;3(1):39 - 50.
4. van der Steen JT, van Soest-Poortvliet MC, van der Wouden JC, Bruinsma MS, Scholten RJ, Vink AC. Music-based therapeutic interventions for people with dementia. *The Cochrane Database of Systematic Reviews*. 2017;5:Cd003477.
5. Lewis A, Cave P, Stern M, Welch L, Taylor K, Russell J, et al. Singing for Lung Health-a systematic review of the literature and consensus statement. *NPJ Primary Care Respiratory Medicine*. 2016;26:16080.
6. McNaughton A, Weatherall M, Williams M, McNaughton H, Aldington S, Williams G, et al. Sing Your Lungs Out-a community singing group for chronic obstructive pulmonary disease: a 1-year pilot study. *BMJ open*. 2017;7(1):e014151.
7. Goldenberg RB. Singing Lessons for Respiratory Health: A Literature Review. *Journal of Voice : Official Journal of the Voice Foundation*. 2017.
8. Irons JY, Kenny DT, Chang AB. Singing for children and adults with bronchiectasis. *Cochrane Database of Systematic Reviews* [Internet]. 2010; (2). Available from:<http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/CD007729/frame.html>.
9. Irons JY, Kenny DT, Chang AB. Singing for children and adults with cystic fibrosis. *Cochrane Database of Systematic Reviews* [Internet]. 2010; (5). Available from:<http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/CD008036/frame.html>.
10. Bradt J, Dileo C, Grocke D, Magill L. Music interventions for improving psychological and physical outcomes in cancer patients (review). *Cochrane Database of Systematic Reviews* [Internet]. 2011; (9).
11. Daykin N, Bunt L, McClean S. Music and healing in cancer care: A survey of supportive care providers. *The Arts in Psychotherapy*. 2006;33:402 - 13.
12. Fancourt D, Williamon A, Carvalho L, Steptoe A, Dow R, Lewis I. Singing modulates mood, stress, cortisol, cytokine and neuropeptide activity in cancer patients and carers. *ecancer*. 2016;10(631).
13. Reagon C, Gale N, Dow R, Lewis I, van Deursen R. Choir singing and health status in people affected by cancer. *European Journal of Cancer Care*. 2016.
14. Rykov MH. Music at a Time Like This: Music therapy cancer support groups. *Dissertation Abstracts International Section A: Humanities and Social Sciences*. 2007;68(1-A):49.
15. Mansens D, Deeg DJH, Comijs HC. The association between singing and/or playing a musical instrument and cognitive functions in older adults. *Aging & Mental Health*. 2017:1-8.
16. Fancourt D, Perkins R. Associations between singing to babies and symptoms of postnatal depression, wellbeing, self-esteem and mother-infant bond. *Public Health*. 2017;145:149-52.
17. Persico G, Antolini L, Vergani P, Costantini W, Nardi MT, Bellotti L. Maternal singing of lullabies during pregnancy and after birth: Effects on mother-infant bonding and on newborns' behaviour. *Concurrent Cohort Study. Women and birth : Journal of the Australian College of Midwives*. 2017.
18. Tavormina MG, Tavormina R, Nemoianni E. The singing-group: a new therapeutic rehabilitation for mood disorders. *Psychiatria Danubina*. 2014;26 Suppl 1:173-7.
19. Coulton S, Clift S, Skingley A, Rodriguez J. Effectiveness and cost-effectiveness of community singing on mental health-related quality of life of older people: randomised controlled trial. *The British Journal of Psychiatry : The Journal of Mental Science*. 2015;207(3):250-5.
20. Sun J, Buys N. Effects of Community Singing Program on Mental Health Outcomes of Australian Aboriginal and Torres Strait Islander People: A Meditative Approach. *American Journal of Health Promotion : AJHP*. 2016;30(4):259-63.
21. Clift S, Nicol J, Raisbeck M, Whitmore C, Morrison I. Group singing, wellbeing and health: A systematic mapping of research evidence. 2 [Internet]. 2010; 1:[1 - 25 pp.].
22. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006;3(2):77 - 101.
23. Reagon C, Gale N, Enright S, Mann M, van Deursen R. A mixed-method systematic review to investigate the effect of group singing on health related quality of life. *Complementary Therapies in Medicine*. 2016;27:1-11.



IRISH WORLD ACADEMY
OF MUSIC AND DANCE
DÁIMH CHULTOIR ÉIREANN
SINCE 1974



UNIVERSITY of LIMERICK
WILSONS LECTURE



WORKPLACE
CHOIR
OF THE YEAR
2016