

Sing while you work: the well-being benefits of workplace choirs

Report on a pilot study of Health Service Executive (HSE) workplace choirs

Authors:

Dr Hilary Moss & Ms Jessica O'Donoghue

Irish World Academy of Music and Dance

University of Limerick

21st October 2018

This study was supported by the HSE Health Promotion Department.



INTRODUCTION

This report presents the findings of an evaluation of the presence of wellbeing and health benefits of attending a workplace choir for Health Service Staff. Particularly, work engagement, stress and resilience levels, and work absences are documented. It is the first study of workplace choirs in Ireland and one of very few studies internationally to explore the health and wellbeing benefits of choir for Health Service Staff.

EXECUTIVE SUMMARY

- This pilot study is the first Irish study of the health and wellbeing benefits of HSE workplace choirs. It is one of few studies to investigate the health and wellbeing benefits of choir for Health Service Staff internationally.
- The pilot study is a year-long mixed-method study using both quantitative and qualitative measures to assess the benefit(s), if any, of workplace choirs for HSE staff.
- There are noted difficulties in measuring the health benefits of arts interventions and evidence is limited quantitatively. However, this study boasts some interesting findings that warrant further investigation. For example, there is some evidence that choir attendance may increase positive perception of participants' mental health and positively affect depression levels.
- Qualitative data confirms previous study findings; namely that a workplace choir can promote social connectedness, enjoyment at work, and staff engagement; reduce stress; and improve perception of health and wellbeing. Benefits of attending are noticed across workplace communications.
- Choir directors are critical to the success of these workplace choirs and funding high quality professional musicians is central to the success of such projects.
- The choirs may be serving only a section of current HSE work force; namely, white Irish staff. Given the multi-cultural nature of the HSE work force, the choirs are possibly not meeting the health and wellbeing needs of non-white Irish staff, as well as staff of different nationalities and cultures. In addition, the clear majority of the sample of this pilot study are educated to degree level or higher, with 48% post. grad., or PhD educated. Further research recommended as to the benefit of such workplace choirs for staff who may not normally be able to access such opportunities, and for staff with lower educational achievement.

- 80% of participants rate their health as good or very good, despite 30% having a long-standing illness. Positive perception of health, high work engagement, and low perceived stress are reported by choir members.
- This study collects, for the first time, a wealth of useful and interesting data on the health and wellbeing benefits of Irish workplace choirs. It confirms previous findings and makes useful recommendations for future research directions. It contributes evidence as to the benefit of workplace choirs in the HSE, and recommendations to improve provision of such choirs to further positively impact upon stress and wellbeing levels of staff in the HSE.
- Given the low cost and low risk of this activity, and the qualitative benefits reported, it is recommended to continue HSE workplace choirs and to develop these further.

LITERATURE REVIEW: THE EVIDENCE BASE FOR CHORAL SINGING AND HEALTH

Music has been found to have a beneficial impact on health across many cultures and times (Gouk, 2000; Horden, 2000). Group singing has specific benefits for health over other forms of music-making and music listening, as it involves using the body to produce sound in a synchronised way with others. There is an increasing research interest in the field of choral singing, and a myriad of benefits are consistently reported in the literature. These include physiological, cognitive and social benefits (Moss, Lynch, & O' Donoghue, 2017), as well as the addition of meaning and structure to daily life (Clift et al., 2010; Livesey, Morrison, Clift, & Camic, 2012).

Choral singing is the most common form of active music-making in the USA. Furthermore, community choirs and choral societies exist in most towns and cities across the UK. The latter has seen a recent growth of interest in choral singing, prompted by several television programmes including *The Choir: Sing While You Work* and *Unsung Town* (www.bbc.co.uk). There are an increasing number of "singing for health" projects in the UK, with focuses on mental health (Clift et al., 2011), Parkinson's disease (Evans et al., 2012), and chronic respiratory illness (Lewis et al., 2016). In the workplace, choral singing may be used as an intervention by an organisation for several reasons achieve a change, or a learning process. Evidence suggests that participation in such activities may promote positive health outcomes and promote wellbeing (Theorell, Hartzell & Naslund, 2009). Giaver, Vaag and Wennes (2017) explored the employee experience of the introduction of choral singing in a Norwegian municipality. Participants in this study reported an increased sense of cohesion to the organisation due to participating in the choir. Furthermore, positive experiences, such as pride and joy, when singing with other co-workers were reported.

There is a growing trend of workplace singing in Ireland. There are 46 workplace choirs across the country including Tallaght Hospital Choir, Marine Institute Singers, and the Sacred Heart of Jesus National School (Staunton, 2018). There is even a competition for these choirs; *Workplace Choir of the Year*, where the participating workplaces are assigned a professional choirmaster who forms and trains the choir from within the organisation.

Literature examining the effects of choral and group singing on health and wellbeing have focused largely on clinical or marginalised groups, including prisoners (Cohen, 2009), the homeless (Bailey & Davidson, 2005), individuals with dementia (Camic, Williams & Meeten, 2013), persons with mental health difficulties including post natal depression (Livesey, Morrison, Clift & Camic, 2012), cancer and the elderly (Cohen et al., 2007). Little research has explored how choir singing might improve the health and wellbeing of health service staff. The current study, therefore, aims to investigate wellbeing and health benefits of attending a workplace choir for Health Service Staff.

METHODOLOGY

Participants

Participants were HSE staff members from 6 workplace choirs located in rural and urban regions of Ireland: Cork University Hospital Choir; Tallaght Hospital Choir, Dublin; Mullingar HSE staff choir; Tullamore HSE staff choir; Merlin Park Campus Choir and Naas HSE staff choir. Two are hospital staff choirs (Tallaght and Cork) and four are health service choirs (community and national offices). Participants included both new choir members and members with considerable experience of choral singing. This was due to the sample available for this pilot project. Future, larger studies plan to isolate new members and those with prior choral experience.

Project Design and Measures

This mixed-methods study employed a sequential explanatory design. Participants took part in weekly choir rehearsals for 12 weeks. They were invited to complete an online survey at week 1 and week 12 containing the following measures:

1. Demographic information and general health questions (taken from Healthy Ireland survey) (Barry et al., 2009)
2. Energy and Vitality index and MHI-5 questions, taken from Health Ireland survey (Barry et al., 2009)
3. Work & Well-being Survey (UWES) (Schaufeli & Baker, 2003)
4. Perceived stress scale (PSS-4) (Cohen et al., 1983)
5. Personal Health Questionnaire Depression Scale (PHQ-8) (Kroenke et al., 2009)

This quantitative data was subsequently analysed using the statistical software SPSS.

At the 12-week survey, participants were additionally requested to report their sick leave record for the research period (Jan. 1–April 15, 2018), as well as for the same period the previous year (Jan. 1–April 15, 2017).

Following the 12 weeks of choir rehearsals, choir members were invited to take-part in a semi-structured interview with the research assistant about their experience. Purposive sampling was utilised in this qualitative stage. Participants were selected to give a variety of age, gender, seniority in the health service and diversity of work roles. Interviews were analysed using thematic analysis (Braun and Clarke, 2006).

Each choir operated independently, with a professional choir director and their own choice of repertoire. All choirs met weekly for rehearsals throughout the study.

A concert/event with all six choirs was planned to launch the findings at the end of the project. This was included to engage choirs in the project, to promote completion of surveys, and to celebrate the choirs' achievements during the study period.

Ethical approval for the study was obtained from the University of Limerick Research Ethics Committee. Written, informed consent was obtained from every participant in the study.

Details of Measures Used

Energy and Vitality Index and MHI-5 questions

Positive mental health was measured using questions from the Energy and Vitality Index (EVI). These form part of the Health Ireland survey (Q45 (a) (d) (e) and (h)). For this survey, the 9 statements of Q45 of the Health Ireland Survey were used. These score various aspects of wellbeing during the past four weeks. These include positive statements where a low score indicates optimal levels of mental health: *Did you feel full of life? Have you felt calm and peaceful? Did you have a lot of energy? Have you been a happy person?* And negative statements, where a high score indicates optimal levels of mental health: *Have you been a very nervous person? Have you felt so down in the dumps that nothing could cheer you up? Have you felt downhearted and blue? Did you feel worn out? Did you feel tired?* (Barry et al., 2009).

Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES) is commonly used to study engagement among workers and volunteers alike. This scale was developed to measure three related factors of work engagement: vigour, dedication, and absorption.

Vigour is assessed by three items that refer to high levels of energy and resilience; the willingness to invest effort; not being easily fatigued; and persistence in the face of difficulties: *1. At my work, I feel bursting with energy; 2. At my job, I feel strong and vigorous; 3. When I get up in the morning, I feel like going to work.* Those who score high on vigour usually have much energy, zest and stamina when working, whereas those who score low on vigour have less energy, zest and stamina as far as their work is concerned.

Dedication is assessed by three items that refer to deriving a sense of significance from one's work; feeling enthusiastic and proud about one's job; and feeling inspired and challenged by it: *1. I find the work I do full of meaning and purpose; 2. I am enthusiastic about my job; 3. My job inspires me.* Those who score high on dedication strongly identify with their work because it is experienced as meaningful, inspiring, and challenging. They usually feel enthusiastic and proud about their work. Those who score low do not identify with their work because they do not experience it to be meaningful, inspiring, or challenging. They feel neither enthusiastic about, nor proud, of their work.

Absorption is measured by three items that refer to being totally and happily immersed in one's work, and having difficulties detaching oneself from it so that time passes quickly, and one forgets everything else that is around. *1. Time flies when I'm working; 2. When I am working, I forget everything else around me; 3. I feel happy when I am working intensely.* Those who score high on absorption feel that

they usually are happily engrossed in their work. They feel immersed by their work and have difficulties detaching from it. Consequently, everything else around is forgotten and time seems to pass quickly. Those who score low on absorption do not feel engrossed or immersed in their work. They neither have difficulties detaching from it, nor do they forget everything around them, including the time. (Schaufeli & Baker, 2003)

Perceived stress scale (PSS-4)

The Perceived Stress Scale (PSS-4) is the most widely used psychological instrument for measuring the perception of stress. It is a self-reported questionnaire that was designed to measure the degree to which individuals appraise situations in their lives as stressful during the last four weeks. The maximum score in this scale is 16 and the minimum is 0 (Cohen et al., 1983).

Personal Health Questionnaire Depression Scale (PHQ-8)

The eight-item PHQ-8 is established as a valid diagnostic and severity measure for depression. It consists of the nine criteria for depression from the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV). A score of 10+ in this scale indicates major depression and a score of 20+ is indicative of severe major depression (Kroenke et al., 2009).

Time line

The study took place from November 2017–September 2018. Recruitment of choirs, planning study measures and consultation with stakeholders took place Nov–Dec 2017. Week 1–12 took place January–April 2018. Analysis, interviews and report compilation took place May – August 2018.

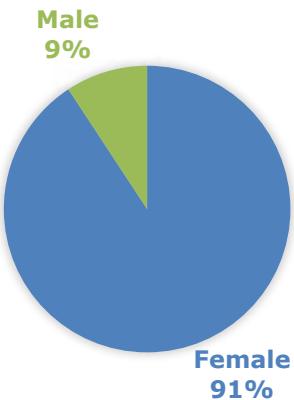


FINDINGS

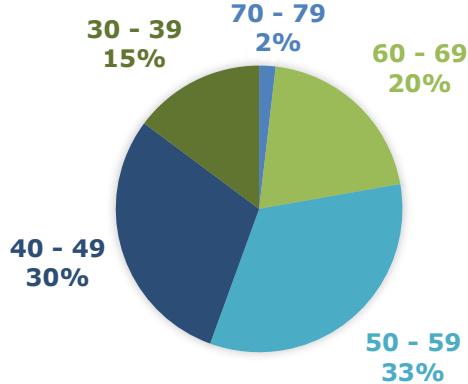
Demographics of the sample

Fifty-four (54) participants took part in the study. The participants in this study represented a wide sample of staff. The following demographics of the sample presented graphically below: gender, age, highest level of education reached, marital status, ethnic background, and general health.

GENDER

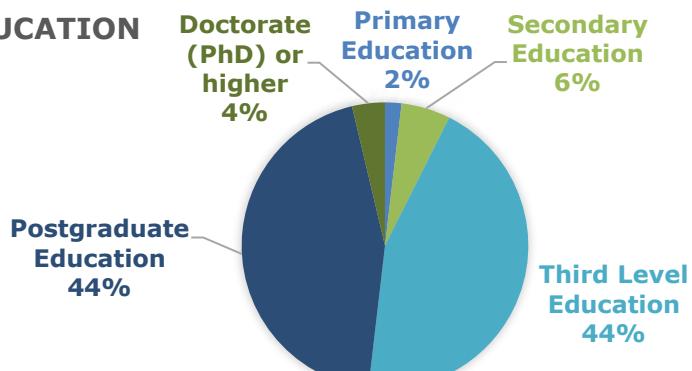


AGE

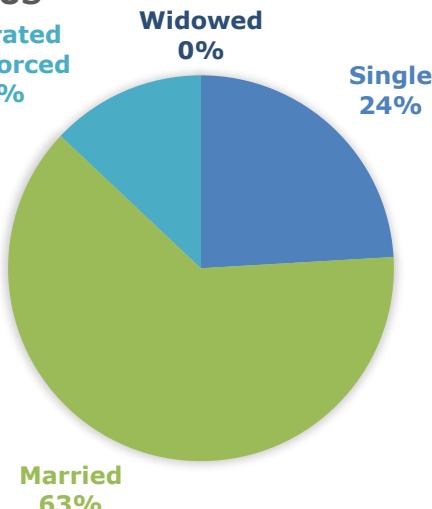




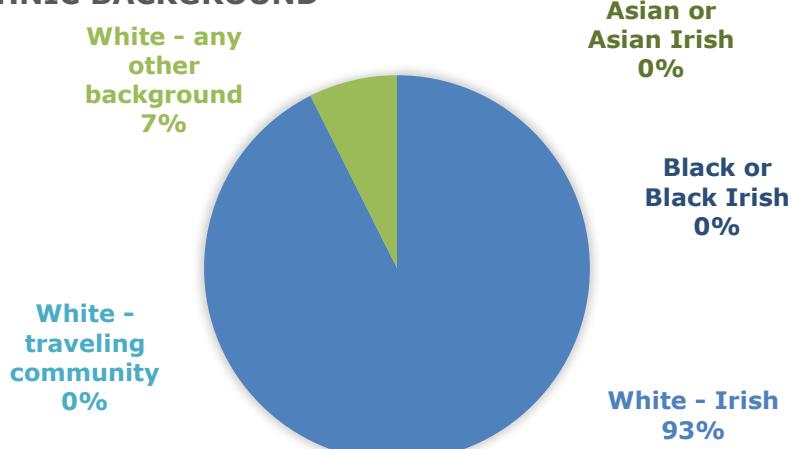
EDUCATION

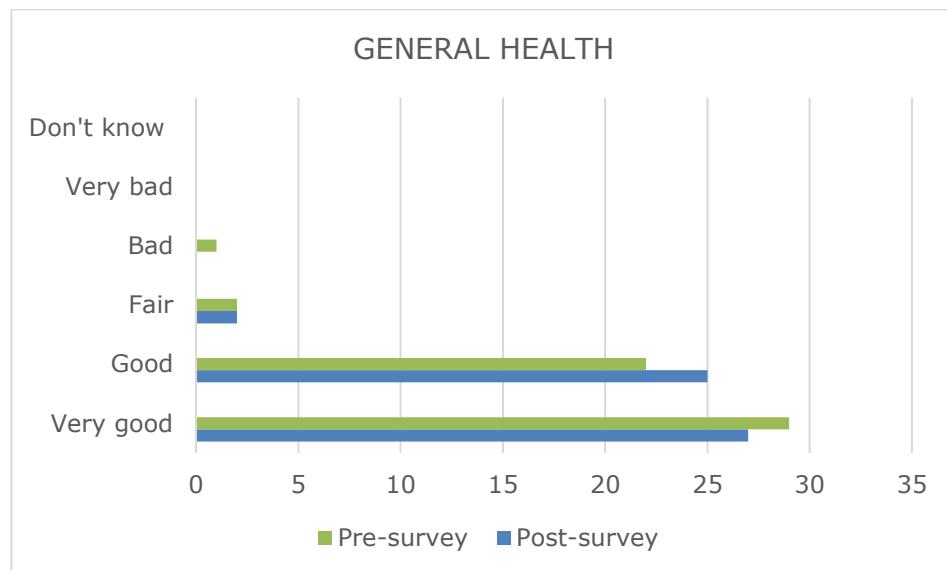


MARITAL STATUS



ETHNIC BACKGROUND





When asked whether participants have a long-standing illness or health problem (6 months or more), 16 participants (30%) indicated that they did, whereas 38 participants (70%) indicated that they did not. Type 2 Diabetes, chronic pain, high blood pressure, fibromyalgia, asthma and anxiety were some of the long-standing illnesses listed by participants.

Breakdown of Workplace Choir Participation

Location	Number of participants
Cork	10
Merlin Park Galway	5
Mullingar	4
Naas	14
Tallaght	8
Tullamore	13

Statistical analysis of scales

Energy and Vitality Index and MHI-5 questions

Positive mental health was measured using questions from the Energy and Vitality Index (EVI). These form part of the Health Ireland survey (Q45 (a) (d) (e) and (h)).

Survey Questions	Week 1 Average	Week 12 Average
Positive survey questions. A low score	12.06	11.98

indicates optimal levels of mental health.		
Negative survey questions. A high score indicates optimal levels of mental health.	15	13.1

There is a slight decrease in 'positive mental health' statements, showing some evidence here of improvement in perceptions of mental health. However, there is also a decrease in 'negative mental health' statements among participants in this study, possibly showing increased negative perceptions. No conclusions can be drawn from this finding.

Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES) is commonly used to study engagement among workers and volunteers alike. This scale was developed to measure three related factors of work engagement: vigour, dedication, and absorption.

In each of the three categories, the minimum score possible is 6 and the maximum possible is 18.

Vigour Score

Week	Mean	Median
Pre-choir average score (week 1)	11	10
Post-choir average score (week 12)	11	11

Dedication Score

Week	Mean	Median
Pre-choir average score (week 1)	12	12.5
Post-choir average score (week 12)	12	12

Absorption Score

Week	Mean	Median
Pre-choir average score (week 1)	12	12
Post-choir average score (week 12)	13	13

UWES v total skew pre-test median 10, IQR (9,12); post skew median 11 IQR (11,13). This is not significantly different $p=0.246$ (Wilcoxon signed rank test).

Dedication total skew pre-test median 12.5, IQR (9.3,14), post skew median 12 IQR (10,14). This is not significantly different $p=0.762$ (Wilcoxon signed rank test).

Absorption total skew pre-test median 12, IQR (10,14), post skew median 13 IQR (11,14.8). This is not significantly different $p=0.307$ (Wilcoxon signed rank test).

Perceived stress scale (PSS-4)

The maximum score in this scale is 16 and the minimum is 0.

Week	Mean	Standard deviation
Week 1	8	1.2
Week 12	8.11	.91

Total perceived stress scores were assessed using means and standard deviations. Mean 8 SD 1.2 pre and mean 8 SD 0.91 post. These were not significantly different over the time with $p=0.78$ paired t-test. Mean changed from 7.98 to 8.04.

It is conceivable that choir participants are not the most stressed staff in the HSE. Stressed staff members may be less likely to commit to a choir (or any social activity). They may be harder to reach and more difficult to engage in health-promoting work-based activities due to personal and/or work time and energy pressures.

Personal Health Questionnaire Depression Scale (PHQ-8)

Descriptive statistics

53 surveys were considered valid for interrogation.

Week 1 (pre): 5/53 major depression scores and 1/53 severe major depression score (11%)

Week 12 (post): 4/53 major depression score (7%)

Average score week 1 = 4.92 and week 12 = 4.15

The sample in this study had low levels of depression overall. However, it is notable that depression scores did fall over the course of the intervention, with two people demonstrating lower levels at week 12 in comparison to week 1.

Inferential statistics

Pre-scores show positively skew median 4, IQR (2, 6.8).

Post scores positively skew median 4, IQR (2,6)

There is no significant difference $p=0.342$ (Wilcoxon signed rank test).

Please see Appendix One for Statistical analysis

Interviews

In the online survey, participants were asked to indicate their interest in participating in this study further by completing an interview after the 12-week period. 39 staff members expressed an interest in participating. Staff members from different roles within the healthcare settings (i.e. medical, clerical and administrative, and management) were interviewed by the research assistant. The interviews were semi-structured in nature and they included some of the following research questions: "*What motivated you to participate in this workplace choir?*", "*What do you get out of attending and being in the choir?*", and "*How important is the choir to you?*" Each of the interviews has been analysed for emergent themes using Braun and Clarke's (2006) thematic analysis.

Through thematic analysis the following themes emerged:

1. Participation in a workplace choir increases social connectedness

Involvement in a workplace choir offers HSE staff members an opportunity to meet people in a non-work environment. Regular rehearsal is a prioritised social activity with an opportunity for social inclusion and interaction. Participants reported strong benefits of attending the choir in terms of improving social connectedness within the workplace. These included meeting new people at work and breaking down barriers between professionals within the organisation. Participants described how the choir acted as a leveller, enabling conversations between cleaners and doctors, and healthcare assistants and directors, etc. In short, joining the choir made the workplace a friendlier, more enjoyable place to be.

'I have a broader circle of friends [at work]. Choir has offered a place to meet new people. I never would have met certain people, or had the opportunity to, outside of choir. Getting to know staff in non-work contexts, this is something that is lacking, there's little socialisation outside of work.'

'Choir lifts my mood and energy and is a social "equaliser". Singing together connects people at a heart or energetic level.'

'Good to be engaged with other people in a joint creative activity... a participating, collaborative activity.'

'Singing with other people is uplifting and so helps feelings of wellbeing which in turn help to keep me healthy.'

'I believe that participating in a creative, collaborative activity has a positive impact on people's wellbeing.'

'Socially it's fantastic, I have made good friends with like-minded people throughout the organisation, who I would never have met at work in any other

way, people at senior levels at the organisation who would never normally talk to me at work.'

2. A workplace choir improves staff engagement and improves staff perception of their wellbeing and stress levels at work.

The National Staff Engagement Forum (2016) define staff engagement as the following:

'Staff are engaged when they feel valued, are emotionally connected, fully involved, enthusiastic and committed to providing a good service...when each person knows what they do and say matters and makes a difference.'

Participants noted that being involved in a workplace choir improves staff engagement. This occurs, for example, because of the positive energy of engaging with colleagues in a shared project, such as working towards a concert or competition. The energy and drive needed to achieve such a goal, with colleagues, is a hugely positive, enjoyable experience and is shared among colleagues. An increased sense of belonging to the organisation was reported. Staff choirs have great potential as team building exercises. Performing on stage is, for many participants, a risk-taking activity; trying something new and pushing oneself outside their comfort zone. Again, choir participation may be a useful tool for developing personnel and teams.

'Enjoyable from a broader staff engagement perspective and a great success in terms of staff engagement. [Workplace choir] promotes staff engagement.'

'Fantastic stress relief.'

'Improves mood. Always feel better after a good sing.'

'It has significantly improved my mental health, giving me more confidence and less anxiety.'

'Good for mental wellbeing, makes you feel better, good for breathing.'

'It can have a calming, therapeutic effect and help de-stress. You can achieve a high when accomplishing things as a team. It also feels good to use your brain differently when reading music. Socially it's fantastic which is beneficial to mental health and general happiness.'

'It can have a calming, therapeutic effect and help de-stress.'

'Lung capacity and breathing – my asthma control has improved... [Singing is] excellent breathing control and lung development.'

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

3. Singing in a workplace choir is an enjoyable activity where staff learn new skills, feel good about themselves and work collaboratively to achieve a positive outcome.

Singing in a choir can lift your mood. Enjoying music, performing for others, and having fun outside of work are important elements of being in a choir. It is important for staff to enjoy coming to work and to feel engaged with their colleagues and the organisation. In a high-stress work environment, it is important that staff feel valued. Supporting a choir initiative is a low cost, high impact, way for management to do this. Time of day, choice of repertoire, and cost are important considerations for staff. Consultation with choir members is crucial to create a successful, enjoyable experience and the establishment of a choir committee is recommended by the authors to ensure that the choir is meeting the needs of its members. A non-audition policy is also recommended to ensure people feel welcome and are not intimidated by a selection process.

'I love the audience reaction. Buzz back from performing. Brings enjoyment and benefits to others who listen and attend a performance. It's not meant to be work, so the fun, enjoyable dynamic works well.'

'Relaxing, exercising, brain training, camaraderie.'

'Learning and improving skills makes me feel good about myself. Singing with other people is uplifting and so helps feelings of wellbeing which in turn help to keep me healthy. Fantastic stress relief. Improves mood. Always feel better after a good sing.'

'Singing requires complete concentration – it's a form of mindfulness.'

'When I'm singing I'm present in the moment ... it's almost like meditating [Choir singing] encourages your soul [to] feel part of something bigger than yourself... being part of a group making a beautiful sound is very creative and instantly rewarding.'

'Good fun and a complete switch off from work!'

'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 and all that we achieve together.'

'It feels good to use your brain differently when reading music. It keeps my mind alert with all the learning we must do in the music and the foreign languages we learn to use.'

4. The choir conductor plays an important role in a workplace choir

Conducting a choir is a complex musical practice involving a specific set of abilities surrounding group facilitation and musical knowledge. Participants in this study believe that the conductor is instrumental to a choir being successful and effective. Further research is recommended regarding what makes the choir director successful and the qualities required. An experienced choir director with a community music focus is recommended, by the authors of this report, for these choirs. In addition, a music therapist with relevant choral conducting experience may be well equipped to attune to the psychological and emotional needs of members and can reflect this in musical activities and choice of repertoire. For example, they could introduce relaxation exercises through music or energy increasing musical activities, and they can advise staff on music for stress relief and other work place issues.

'Without him [choir conductor] we wouldn't be able to sing anything. The choir conductor is a huge thing for success of the choir.'

When asked about what makes a good choir conductor, participants reported some of the following:

'She's very inclusive and sets the choir at ease. She always passes on information and knowledge outside of choir practice. Great skill in choosing the right songs that will match the voices and the level. Highly qualified and is experienced from working with several choirs.'

'If you don't gel with the choir director or if they don't gel with you, it can be a make or break situation.'

'Choir directors need to be inclusive, knowledgeable, experienced, good facilitators, good with people highly qualified, musically talented.'

5. Choir is prioritised over other activities

The workplace choir was an activity to be prioritised; a time for the staff member that was not work and not family related; a space for themselves.

'I hate when I must miss it.'

'I pull out all the stops to be there.'

'Attendance and participation in the choir is hugely important – activity is incorporated into family life.'

'Time blocked off for rehearsal each week.'

'Rarely miss practice – sometimes must miss with other events but overall participants prioritise choir over other activities.'

6. The benefits of choir membership are noticed in other areas of working life

Benefits of attending the choir are seen in workplace engagement, particularly in terms of improved communication between staff in each organisation.

'Communication – helps to interact and communicate with other members of staff.'

'Promotes staff engagement within work setting.'

'Positive outlet for staff, improves relationships with other staff members.'

'Easier to approach people in the work setting if you have met them and have gotten to know them in a different capacity.'

'Provides opportunity to engage with those at senior level'

Summary of qualitative results

These results were cross referenced with over 2000 qualitative comments garnered from choir members in a previous study (Moss, Lynch & O' Donoghue, 2017) and also reviewed in light of previous studies in the field. The themes in this research are validated in other key studies (Clift, et al., 2010; Clift, et al., 2011; Lewis, et al., 2016; Livesey, et al., 2012, and Moss, et al., 2017).

Sick leave record

Seventeen participants voluntarily offered sick leave records from January–April 2017 and from the same period in 2018 when the study of the choir took place. 12 of these participants had 0 sick-days in both periods. 2 staff reported a drop in sick leave and 3 staff reported an increase. This was between 1–7 days in all cases. Overall one might theorise that choir members are quite motivated members of staff with reasonable health. However, the number of participants were too low to generalise findings from these results.

DISCUSSION AND RECOMMENDATIONS

There were some indications of lower depression scores from week 1–12. Similarly, there were suggestions of a positive perception of mental health and a greater absorption in work, concentration, and ability to become involved during this period. However, the quantitative findings were not statistically significant. Further research is recommended, including measuring the benefit of one single session of choir singing (to capture short term benefits to health and well-being) and in-depth investigation as to what makes a successful choir director for work-place choirs.

It is important to note that those attending the choirs were primarily staff with a third-level education who reported average stress levels and good levels of overall health. Their work engagement scores were relatively high (11 or 12 out of a maximum score of 18). It would be useful to test the benefit of workplace choirs for staff who are experiencing disadvantage; staff who are undergoing significant difficulties in life and/or work; staff who are disenchanted by work and have poor work attendance; and staff who would not normally have access to choir experiences. It can be hypothesised that those staff attending the choirs were already quite well engaged and motivated. It is also recommended that researchers engage with the arts and cultural interests of staff from minority cultures and offer suitable activities. There is a need to address the health and wellbeing needs of staff at other levels of the organisation and the different cultural needs of staff and/or recruit actively to engage these groups in workplace choirs. Exploring relevant interventions for male staff is also warranted and/or extra effort to recruit. A 2016 HSE report cites 90.1% of staff as holding Irish Nationality (NCHDs 54%; Staff Nurse 84.3%) while 79% of staff are female. This pilot study indicates that these percentages are not represented in workplace choirs.

Limitations of the study include each choir having a different choir director and difficulties in randomising the arts intervention (i.e. each choir would need to have the same director, occur on the same day and the same time, and be doing the same interventions in order to measure the health and wellbeing benefits of the choir properly). It would be useful to take a group who have never sung in a choir before and test the intervention with a control. Issues with measuring the benefit of subjective arts interventions are well documented and are reflected in this study.

The qualitative findings in this study confirm previous findings and add evidence to our knowledge of the benefits of workplace choirs (Moss et al, 2017). The qualitative comments provide subjective evidence of the benefits of staff engagement with choirs. Again, further research is recommended with a larger sample of singers, as well as interviews with those who do not choose to attend workplace choir.

Further research is recommended regarding what makes a 'good' choir director; what is the optimum time of the day for choir to take place and an appropriate venue for the rehearsal, and what facilities are necessary. Further research is also needed to explore whether choirs in the workplace have the potential to deliver health and wellbeing messages. Finally, we recommend a more

comprehensive review of the sick-leave records of staff who engage in arts interventions as work place health promotion initiatives, in order to assess if such interventions have a positive impact on work attendance.

CONCLUSION

A review of what makes a successful workplace choir is important. From our study we conclude that making the choir a community-based activity, open to all, without an audition process, is important to ensure accessibility. Fun and social support were crucial aspects for staff working in a high-stress environment. Performances that promote a sense of achievement and social activity are also recommended as an integral part of the choir. Ensuring financial viability of the choir so that staff do not have to worry about cost is also important and the employment of a professional musician (choir director, community musician, and/or music therapist) is critical to the success of the project.

We recommend conducting studies with specific groups in HSE staff such as those experiencing high work place stress, absenteeism, and/or other work issues, to see if choir attendance may increase work engagement and reduce stress.

Alongside staff workplace choir initiatives, it is important to remember client services and provide therapeutic choirs for service users also. Shared choirs including staff and service users are recommended.

CONTACT DETAILS

For further information on this study please contact:

Dr Hilary Moss, Senior Researcher and Principal Investigator, Music Therapy, Irish World Academy of Music and Dance, University of Limerick, Hilary.moss@ul.ie, Tel: 061213122

ACKNOWLEDGEMENTS

The authors of this report wish to thank all members of the six choirs who took part, the musical directors and the managers of each choir, without whom this research would not have been possible. They also wish to thank their colleagues in HSE Health Promotion and the Irish World Academy of Music and Dance for their support of this project.

REFERENCES

- Bailey, B. A., & Davidson, J. W. (2002). Adaptive characteristics of group singing: Perceptions from members of a choir for homeless men. *Musicae Scientiae*, 6, 221–256.
- Barry, M. M., Van Lente, E., Molcho, M., Morgan, K., McGee, H., Conroy, R.M., Watson, D., Shelley, E. & Perry, I. (2009). *SLÁN 2007: Survey of Lifestyle, Attitudes and Nutrition in Ireland. Mental Health and Social Well-being Report*, Department of Health and Children. Dublin: The Stationery Office.
- Camic, P. M., Williams, C. M., & Meeten, F. (2013). Does a 'singing together group' improve the quality of life of people with a dementia and their carers? A pilot evaluation study. *Dementia*, 12, 157–176.
- Clift, S., Hancox, G., Morrison, I., Hess, B., Kreutz, G. & Stewart, D. (2010). Choral singing and psychological wellbeing: Quantitative and qualitative findings from English choirs in a cross-national survey. *Journal of Applied Arts and Health*, 1(1), 19–34.
- Clift, S., Morrison, I., Vella-Burrows, T., Hancox, G., Caldon, E., Perry, U., Holden, P., Parsons-West, C., Hesketh Moore, K., Rowland-Jones, C., & Hayes, S. (2011). Singing for mental health and wellbeing: Community initiatives in England. In A. Brader, (Ed.), *Songs of Resilience* (pp.121–144). Cambridge: Cambridge Scholars Press.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983) A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396.
- Cohen, G. D., Perlstein, S., Chapline, J., Kelly, J., Firth, K. M., & Simmens, S. (2007). The impact of professional conducted cultural programs on the physical health, mental health and social functioning of older adults—2-year results. *Journal of Aging, Humanities and the Arts*, 1, 5–22
- Cohen, M. (2009). Choral Singing and Prison Inmates: Influences of Performing in a Prison Choir. *Journal of Correctional Education* (1974-), 60(1), 52–65.
- Evans, C., Canavan, M., Foy, C., Langford, R., & Proctor, R. (2011). Can group singing provide effective speech therapy for people with Parkinson's disease? *Arts & Health*, 4(1), 83–95.
- Giaver, F., Vaag, J. R. & Wennes, G. (2017). Choral singing as an arts-based organisational intervention: A qualitative study of employees' experiences. *Arts & Health*, 9(1), 26–41. Doi: 10.1080/17533015.2016.1182564.
- Gouk, P. (Eds.). (2000). *Musical Healing in Cultural Contexts*. Aldershot: Ashgate.

Horden, P. (Eds.). (2000). *Music as Medicine. The History of Music Therapy since Antiquity*. England: Ashgate.

Kroenke, K., Strine, T. W., Spritzer, R. L., Williams, J. B., Berry, J. T., & Mokdad, A. H. (2009). The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders*, 114(1-3), 163-173.

Lewis, A., Cave, P., Stern, M., Welch, L., Taylor, K., Russell, J., et al. (2016). Singing for lung health: A systematic review of the literature and consensus statement. *NPJ Primary Care Respiratory Medicine*, 26(1), 16080. Doi: 10.1038/npjpcrm.2016.80.

Livesey, L., Morrison, I., Clift, S., & Camic, P. (2012). Benefits of choral singing for social and mental wellbeing: Qualitative findings from a cross-national survey of choir members. *Journal of Public Mental Health*, 11(1), 10-26.

Moss, H., Lynch, J., & O' Donoghue, J. (2017). Exploring the perceived health benefits of singing in a choir: An international cross-sectional mixed-methods study. *Perspectives in Public Health*, 138(3), 160-168.

Schaufeli, W. B., & Bakker, A. B. (2003). *UWES—Utrecht Work Engagement Scale: Test Manual*. Department of Psychology, Utrecht University.

Staunton, P. (2018, May 16). *Sing us a song: Workplace Choir of the Year 2018*. Retrieved from <https://businessandfinance.com/news/sing-us-a-song-workplace-choir-of-the-year-2018/>

Theorell, T., Hartzell, M., & Näslund, S. (2009). A note on designing evaluations of health effects of cultural activities at work. *Arts & Health*, 1, 89-92. Doi:0.1080/17533010802527993.