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**Community Singing, Wellbeing and Older People: Implementing and evaluating an English singing for health intervention in Rome.**

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**Abstract**

**Aim** The aim of this research was to explore the transferability and effectiveness of the English Silver Song Clubs model for older people in a different social and cultural context, i.e. in the capital city of Italy, Rome.

**Methods** A single condition, pre-test, post-test design was implemented. Participants completed two questionnaires: EQ-5D and York SF-12.

**Results** After the singing experience, participants showed a decrease in their levels of anxiety and depression. An improvement was also found from baseline to follow up in reported performance of usual activities. The English study showed a difference between the singing and non-singing groups at three and six months on mental health, and after three months on specific anxiety and depression measures. The current (Rome)

study shows similar findings with an improvement on specific anxiety and depression items.

**Conclusions** Policy makers in different national contexts should consider social singing activities to promote the health and wellbeing of older adults as they are inexpensive to run and have been shown to be enjoyable and effective.

**Keywords** Singing, older people, wellbeing, Italy and England

### **Introduction**

One of the most important demographic changes globally is the increased number of older people in national populations throughout the world. According to the United Nations [1] between 2015 and 2030 the number of older people (60+) is projected to grow by 56 per cent. In 2015 47 million individuals were living with dementia, with serious impacts on national health systems, and this number is projected to increase by 2030 (75 million) and 132 million by 2050 [2].

Quality of life and wellbeing are a substantial part of health. In the literature, there are two main concepts of wellbeing - hedonic wellbeing identified as the pursuit of pleasure and avoidance of pain or 'as the presence of positive affect and the absence of negative affect' [3], and eudaimonic wellbeing, which focuses on self-realization and can be defined 'in terms of the degree to which a person is fully functioning'[4].

Several recent systematic reviews have been conducted on the health and wellbeing benefits of singing, especially for older people. These highlight some methodological weaknesses in research on this issue, but nevertheless show that singing has potential for promoting wellbeing. Gick [5] employed a sophisticated framework drawing on a health psychology perspective in a review of 37 studies. She concluded that the corpus of research is diverse and many studies have methodological limitations. In the quantitative studies, these include lack of control groups, small sample sizes and selection bias, while in the qualitative studies there are problems of lack of clarity in sample recruitment and data analysis. Nevertheless Gick [5] concludes:

‘Notwithstanding the methodological shortcomings, taken together, there is inconclusive but promising evidence for some potential benefits of singing to health and well-being.’ (p. 197).

Clark & Harding [6] have reported a systematic review of the literature on active singing interventions for therapeutic benefit in which a rigorous quality screening process was employed to consider only studies which were judged methodologically sound. Fourteen studies were considered suitable for the review, 11 of which were quantitative in design and three qualitative. The authors concluded that of the 11 quantitative studies, three demonstrated significantly improved psychosocial measures following the active singing intervention, and three additional studies showed improvements for both the singing intervention and active control. The three qualitative

studies however, suggested that ‘singing may have some less tangible benefits that were not captured in the quantitative data.’[6]

A systematic review focused on the link between lung function and singing is reported by Lewis et al. [7]. The review was conducted by analysing research using singing as therapy for chronic respiratory problems, including Chronic Obstructive Pulmonary Disease (COPD), bronchiectasis, interstitial lung disease, asthma or sleep apnoea. This systematic review aimed to evaluate the efficacy of singing in comparison to standard care or a control treatment. Among the six studies selected after the application of the inclusion and exclusion criteria there were four RCTs and two cohort studies. The studies analysed show that singing is able to improve the conditions of participants more in terms of quality of life than on a physical level, nevertheless in the study reported on patients with asthma [8] there was an improvement in peak expiratory rate and breathlessness and improvements in mood and quality of life. Results described by the review, despite the limitations already stated by the authors, appear to support the value of singing as an activity which can improve the health status of individuals.

More recently, a systematic review focused on the use of singing for mental health and wellbeing was conducted by Williams et al. [9]. Thirteen studies were analysed, which included seven longitudinal studies and six qualitative studies. The quantitative studies showed a range of improvements in the mental conditions of the participants, in terms of lowering depression [10;11], or improvement of the levels of

clinical distress [12]. Qualitative studies reported themes concerning a general improvement in emotional and social well-being including the development of the sense of group identity and belonging. Along with these positive results some negative issues concerning performance stress also arose from the studies analysed. As in the case of lung function studies, singing proved to be a valuable tool for improving the mental and physical health of individuals of all ages.

An important issue addressed by Price & Whitfield [13] was to compare and contrast the impacts of a 'singing for health' group open to older people with a variety of health challenges associated with aging, compared with the outcomes of singing groups set up to support individuals with specific conditions (e.g. COPD - [14]; mental health challenges – [15]; and Parkinson's disease – [16]). This study and review found that the physical and mental benefits achieved by the different groups were very similar, which adds robustness to the evidence on singing and its impact on wellbeing. However, participants of the generic group clarified their preference for participating in a more diverse group rather than a health-related one, as this gave them the opportunity to meet a variety of people, with different backgrounds and with different health issues.

Currently, only two studies have been conducted in Italy on the value of singing for older people, with a focus on people with mental health issues [17] and Parkinson's [18]. The study carried out by Tavormina [17] examined the role of singing in order to improve the recovery of patients with mental illness; and showed that singing (in some

cases in association with psychotherapy and drugs) improved participants' lives, and aided re-integration into society. Di Benedetto's [18] study was focused on improvement in speech and communication. Twenty individuals suffering from Parkinson's disease reported improvements in the quality of speech and breathing following engagement in group singing. The study presented here, in contrast, is a timely exploration of the value of singing for older Italian people living in the community, without a focus on specific health conditions.

The present study adopted a model of group singing developed and evaluated by researchers in the Sidney De Haan Research Centre for Arts and Health in England [19; 20]. Qualitative data drawn from participants in 'Silver Song Clubs' showed clearly a range of social, psychological and physical benefits associated with singing, and these provided the basis for conducting a randomised controlled trial of singing groups for older people living independently in the community [21].

In the Coulton et al. study [21], over 250 participants were assessed at baseline and then randomised into community singing or a non-treatment control. The singing intervention consisted of weekly singing over three months, after which participants in both arms were assessed again. A further assessment was carried out after a further three months, during which no singing took place. Results from this study showed statistically significant differences six months after randomization as measured by the York SF12 questionnaire [22] with improved mental health related quality of life in the

singing group compared with the control. In addition, at three months, immediately on completion of the intervention, differences were observed on the York SF12 [22] mental health subscale, and on the Hospital Anxiety and Depression Scale - HADS [23] scale measuring both anxiety and depression.

## **Methods**

The aim of this research was to explore the transferability and effectiveness of the Silver Song Clubs model on older people in a different social and cultural context, i.e. in the capital city of Italy, Rome.

Three singing groups were set up in three different areas of Rome and weekly sessions of about two hours of singing were held for 12 weeks. Participants completed a questionnaire before the start of the experience, then at the end of 12 sessions and again after three months as follow-up. Two standardized questionnaires were used, which had previously been used by Coulton et al. [21] in an English randomised controlled trial: the EQ-5D [23] which measures health utility, and the York SF-12 which measures health-related quality of life and wellbeing [22]. The EQ-5D is made up of five items and a rating scale (1 to 3) for assessing five aspects of health and the York SF-12 is made up of 12 items to assess mental and physical wellbeing (see Table 1 for the content of the items).

The Italian version of the EQ-5D was used, supplied directly by the owner of the questionnaire. The algorithm used to create the scores of EQ-5D is based on English-speaking populations but has been validated for the Italian population by Savoia et al. [24] and subsequently also by Balestroni & Bertolotti [25]. The text of the official Italian translation and validation of the original SF-12 [26] was employed but laid out according to the format of the York SF-12 [22]. The York version is a modification of the SF-12 with minor changes made to individual items because older people were found to have difficulties in correctly completing the original version. The transformation of the instrument did not affect the validity of the original SF-12 questionnaire but simply made it easier to use. In the light of this and the need to use the same tools as those of the English RCT, an Italian version of the York SF-12 was created. This is supported by the fact that the SF-12 has been validated in Italy [27;26] and the York SF-12 is equally reliable in detecting quality of life and is recommended for use with older populations.

In establishing singing groups, the main aim was to replicate the Silver Song Club model as closely as possible, so that the feasibility of the approach could be established. The final choice of the three areas where the singing sessions were set up was determined by considering three main aspects:

- The demographic features of the area
- The interest of older people in participating in the research



- The willingness of senior centres to be involved as a venue for singing groups

Each of the groups ran for 12 weekly sessions of approximately two hours, with a mid-session break for refreshments. Sessions for two groups were held during the late afternoon (after 4 p.m.), and for one group in the morning.

During each session up to eight songs were sung. Songs were chosen before the session started by the facilitators and the researcher, and generally, in each session one or two songs were chosen by the participants.

Two facilitators with experience in leading singing groups across different ages were recruited, in order to direct the singing groups. The choice of the songs was guided by the advice from the two musicians/facilitators on traditional and well-known songs that would be familiar to older people, linked, for instance, to the time of their youth.

This health promotion model was ‘translated’ to fit better into Italian culture in order to be transferred to Italy from England, informed by the knowledge of Italian culture of the first author, who suggested the elements that could be copied and those which could not be included in the Italian cultural context. The elements replicated in full were: the number of sessions (12), the length of the sessions (approximately two hours), the pattern of sessions (singing/break/singing). The aspects changed were mainly the times of the sessions, the break (shorter) and repertoire.

The research received ethical approval from Canterbury Christ Church University Ethics Committee. No formal system was in place for ethical approval for

the research to take place in the social centres where the singing groups took place, but permission was granted by the managers of each centre. This was helped by a letter of support from the Department of Public Health and Infectious Diseases, Sapienza University, Rome. Written informed consent was obtained from all participants, data were held securely according to University policies and data protection laws.

## **Results**

A total of 45 participants were involved in the singing experience, 41 of whom took part in the entire research, filling in all three questionnaires. The project lasted for 12 sessions and participants attended regularly giving verbal feedback. Like the English group [21], the Italian sample was rather heterogeneous with respect to demographic features. The sample was predominantly female, split into two numerically similar age groups, one between 60 to 74 years old (n=23) and the other 75 onward (n=22), and both had a similar situation with respect to living arrangements (living alone (n=24) vs. living with partner, children or relatives (n=21)).

The picture which emerged from the questionnaires is that the sample had good mental health status with poorer physical status, and the summary measures of health status remained very similar over the course of the study.

Table 1 reports the means and standard deviations for the York SF-12 and EQ-5D items and total scores. For the York SF-12 two component scores provide an

indication of physical and mental well-being. These scores were derived using the same algorithms as employed in the English Silver Song Club trial (and validated for the Italian population) to ensure comparability. For the whole English sample, the physical component mean was 39.4 and the mental component mean 49.4. The Italian sample was slightly lower in terms of physical wellbeing (39.1), and reported slightly higher mental wellbeing (50). For the EQ-5D, the items are weighted to give a health utility score with 1 indicating 'perfect health' and 0 representing 'death'. For the total English sample the EQ-5D score was 0.74 and the value for the Italian sample is very similar. The total scores did not show a statistically significance change over the course of three months of singing, but there are suggestive changes in two individual items, which indicate some improvements in mental wellbeing in the combined sample across the three singing groups. Both of these items relate to feelings of depression/anxiety, which appear to be lessened after the singing compared with the baseline assessment.

Table 2 shows that no changes were apparent for the period between baseline and the 2nd follow up (24 weeks/6 months). However, for Item 3 of EQ-5D (usual activities), showed marginally significant improvement: mean value at baseline was 1.27 and 1.15 after follow-up, with a paired sample t-value of 1.95 and probability (2-tailed) of 0.058.

## **Discussion**

In this study the sample was involved in three rounds of questionnaires, baseline (before the start of the singing experience – t0), after 12 weeks of singing activity (end of the singing experience – t1) and at further follow up (after 12 weeks from the end of the singing activity – t2). The improvement in some items of the questionnaires is encouraging and supported the informal feedback from participants who repeatedly stressed, the 'need' for a greater number of sessions or alternatively, an additional and longer experience.

The results obtained should be considered with caution as the sample is small, and it is difficult to generalize. The goal of this study, however, was primarily to explore the effectiveness and transferability of this model in Italy. The intention was to take the model trying to change it as little as possible, except to fit into Italian cultural expectations (e.g. time of day of the sessions and repertoire). The real strength of the model lies in its intrinsic transferability as singing is a universal human activity, and singing groups are simple to set up and can operate at low cost.

In general, transplanting good practice from one national context to another comes with challenges, and may not be straightforward nor easy, as different socio-cultural dimensions must be given careful attention. The European Union is endeavouring to provide guidance to all member states in strengthening public health and health promotion. According to the Ottawa Charter for Health Promotion, health promotion can only make sense as a 'global' phenomenon [28].

While the guiding principles for health promotion can be universal, detailed planning of practical activities must always take account of the particular national and cultural context. According to Azarmina et al. [29] in order to transplant a model of health promotion or social policy from one context to another ‘an account for diverse social, economic, policy and practical factors’ (p. 373) should be made. Furthermore, if an intervention has a good impact in one setting this does not mean that it will have the same or a similar impact in a different context [30]. Potential interventions must be adapted linguistically and culturally to meet local norms and practices and then their effects tested through evaluation.

The English model was developed, as mentioned, in the south-east of England in a series of small towns and villages close to Canterbury, a small city (population approximately 145,000). The Italian model was developed in Rome (population approximately 2,750,000). The socio-cultural differences between a big city and small one should be considered as, beyond the differences between nations, there are even greater contrasts between large and small cities.

In the present study, the indications of a reduction in anxiety and depression observed are very encouraging because depression has negative effects on health and preventing depression is one of the major objectives of the World Health Organization [31] and national public health authorities [32]. There are currently 151 million people suffering from depression globally and, in the WHO projections, it is considered as a

major cause of disability in the future. Furthermore, the fact that the changes were found in both questionnaires employed helps to reinforce the validity of the finding. While there was an improvement in the self-perceived level of anxiety and depression immediately following the intervention, this was not found after a further three months i.e. in the follow up. This suggests that the benefits experienced during singing declined after the intervention ended, which suggests that a longer intervention would have a more lasting effect. The significant improvement during the period baseline to six-months follow-up in the performance of 'usual activities' is interesting. The improvement in dealing with 'usual activities' [33], effectively means greater independence [34] which is of particular significance in the older population.

The York SF-12 and EQ-5D scores discussed were calculated using the same algorithms as employed in the English Silver Song Club trial to ensure comparability. For the whole English sample, the mean physical component was 39.4 and the mean mental component 49.4. The Italian sample was slightly lower in terms of physical wellbeing, and reported slightly higher mental wellbeing. For the total English sample, the EQ-5D score was 0.74, which is close to the value for the Italian sample was 0.71. The most interesting finding in comparing the two studies is that the English study showed a significant difference between the singing and non-singing groups at three and six months on mental health, and after three months also on specific anxiety and

depression measures. The findings from the current study are similar, therefore, in showing some reductions in anxiety and depression items.

The participants involved in the research carried out a number of activities. They went to the place where the sessions were held (physical activity), had contact with peers and did something enjoyable (social life) before, during and at the end of the session and, lastly, their cognitive ability was stimulated in reading, singing and following the director's indications. It is known that all these activities impact on health and, in particular, the health and wellbeing of older people [35, 36, 37]. Specifically, social engagement can help to reduce depression (Glass et al. [38]), an effect which is supported by the results obtained in the Italian study as well as by those in the English one.

Singing groups can promote hedonic wellbeing, stimulating pleasure and positive mood [4] as well as eudaimonic wellbeing, that focuses on the development and growth of human potential [39] in terms of personal growth and positive relations with others [4]. In the literature on wellbeing, there is general agreement that both hedonic and eudaimonic wellbeing have positive connections with physical health [40].

## **Conclusion**

This study has made a contribution in showing that a model of health promotion for older people through singing, developed in small towns and villages in England, can

be successfully transferred to urban contexts in Italy. First it was demonstrated that a model of health promotion based on singing can be implemented in a different European context, with similar results; and second the model is potentially cost effective, since the investment required for each group is not substantial while the effects are potentially significant in terms of health gained by older people who are the biggest users of the health system.

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