

A controlled evaluation of the
health benefits of a participative
**community singing
programme
for older people**
(Silver Song Clubs)

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In association with:

Key findings

- Measures of health were consistently higher among the singing group following the singing programme than among the non-singing group
- Three months after the singing groups stopped the participants continued to be higher on measures of health
- Participants in the singing groups reported social, emotional and physical health benefits from taking part
- Singing groups for older people are likely to be cost-effective as a health promotion strategy

Background

Over the last few years there has been a growing interest in finding out whether singing can help improve people's health (Clift et al., 2010). In the Sidney De Haan Research Centre for Arts and Health we have already carried out some work which supports this suggestion. Since 2005, we have worked closely with Sing For Your Life, a charitable organisation which provides singing groups (Silver Song Clubs) for older people. In 2008 we completed an evaluation of a small number of these clubs, and older people who took part in them told us about a range of benefits they felt (Skingley and Bungay, 2010). We decided to build on this by devising a much larger controlled study, which would tell us more scientifically whether singing groups have benefits for older people in general (Skingley et al., 2011).

Aim

The aim of the project was to assess the effectiveness and cost-effectiveness for older people of taking part in singing groups on measures of physical and mental health. We wanted to know if singing in a group made a difference when compared to an individual's usual activities and also how the costs involved in introducing singing compared with the degree of any health improvement.

Research design

This was a pragmatic randomised controlled trial. We divided our sample up into two groups, where one group took part in the singing and the other didn't. All other things being equal we can then say that any difference between the two groups is probably due to singing. We can also look at any difference in health before and after the singing activity.

For the project we set up 5 new weekly singing groups in East Kent. We asked for volunteers over 60 years to take part in the research. Everyone who volunteered and consented stood an equal chance of being allocated to either the singing group (one of the 5 clubs) or the non-singing group. Through this 'random allocation' we could ensure that those who were singing were similar to those who were not, making any comparisons fairer. If we had let people choose, it may be that those who opted for the singing group already felt that this might improve their health while those who opted not to sing were more dubious. This might be reflected in the findings and would make the study 'biased'.

Participants in the singing groups took part in a weekly programme for 12 weeks. This was led by experienced musicians from Sing For Your Life and was planned in advance so that all five groups had a similar experience. Those who were not singing carried on with life as normal and everyone was asked to complete a questionnaire at 3 stages during the project – right at the start (baseline), after the singing groups had finished the 12 week singing programme, and again after another 3 months when neither group was singing. This was so that we could compare health between the two groups and also before and after the singing (or an equivalent time for the non-singing group), then again after a time lapse to test whether any effects might last. Everyone was invited to attend four extra sessions in each of the venues after data collection was complete.

We measured health through the use of questionnaires which are all used frequently in clinical practice and in research. The main one (called the York SF-12) measures health-related quality of life (QoL) by asking people to rate their own health under a number of headings and has both physical and mental health components. The HADS (Hospital Anxiety and Depression Scale) measures anxiety and depression and the EQ-5D (Euroqol Five Dimensional Scale) asks people to put a value on their health, which can be used when calculating the costs of health and social care to support different health states. The service use questionnaire helps in the costing of health and social services. We also invited people to write comments on the questionnaires about their health or their participation in the project.

Findings

The sample

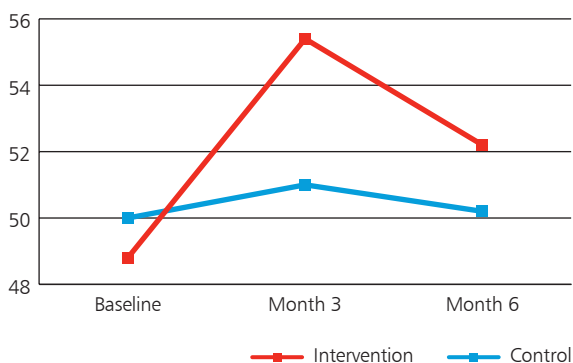
A total of 393 individuals initially expressed an interest in taking part in the project and 265 returned the consent form and baseline questionnaire. This was above the target number we calculated that we needed in order to show any difference between the two groups. The average (mean) age of volunteers was 67.3 years and 84% were female. There was good attendance at the singing sessions and 80% of participants returned all 3 questionnaires (at baseline, 3 months and 6 months). This is very good for a response rate in research.

The measures

The scores on the SF-12 mental health component (MHCS) are shown (Figure 1). On the SF-12 graph the maximum score is 100 and the lowest is 0 with the higher number representing better QoL. The average (norm) for the UK population (all ages) on the MHCS is 52.1, so our sample started off just below this and both groups, but especially the singing (intervention) group, improved after 3 months, with a fall back, but still above baseline level, after 6 months. The research aims to find out whether this improvement might be true for older people generally, not just our sample. We do this by using

statistical tests based on probability. In statistical terms the difference between the groups was significant at both 3 ($p < 0.01$) and 6 ($p = 0.05$) months. This means that the possibility of this result occurring by chance (which could happen if our sample was not typical of older people generally) is less than 1 in 100 at 3 months and is 1 in 20 at 6 months. There was also a difference between the groups on the physical component score (PCS), with the singing group again showing better health, but this was not significant (that is, it was somewhat more likely to have occurred by chance).

Figure 1: SF-12 mental health component score



The HADS questionnaire also has two components, anxiety and depression. Lower scores indicate less anxiety or depression, therefore better health. A score of above 7 on either scale indicates potential problems and the UK norms are 6.14 for anxiety and 3.68 for depression. On the anxiety score (Figure

2) both groups started the project in good health and showed reduced levels of anxiety at 3 months. The singing group showed a much greater reduction (again $p < 0.01$) than the control. At 6 months there was a limited return to a higher level, but less than the baseline score.

Figure 2: HADS anxiety score

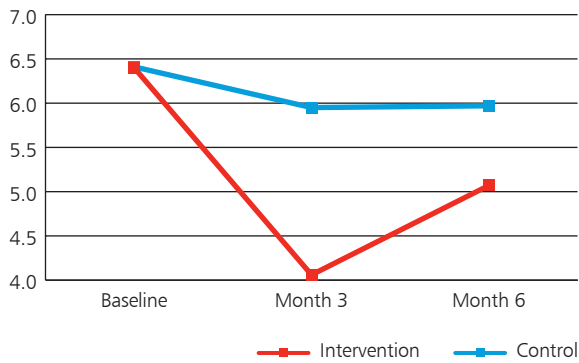
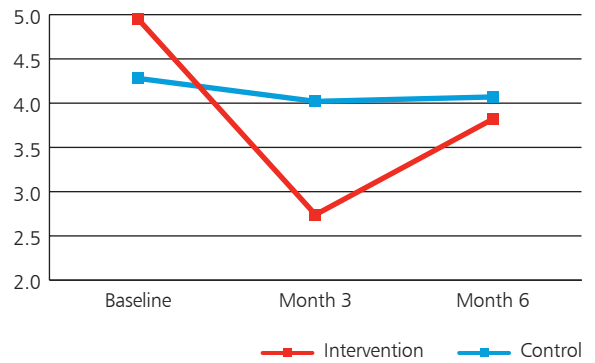


Figure 3: HADS depression score



On the depression score (Figure 3) a similar pattern emerged. While the control group showed little change, the singing group showed an improvement at 3 months. Over the follow-up period the singing group scores increased again but were still below the baseline.

In terms of cost-effectiveness, the mean costs of health and social care were calculated for both groups and, in the case of the singing group, combined with the costs of running the singing sessions themselves. Over 6 months both groups experienced an increase in cost compared to the baseline, but this was greater for the singing groups, as might be expected because the costs of providing the singing groups were included. This needs to be balanced against a greater increase in quality of life (QoL) for the singing group, as shown above, and commissioners have to decide whether the improved QoL is worth the extra cost.

The EQ-5D score, with a UK all age population norm of 0.86, showed a baseline mean only slightly below this, suggesting good health. Both groups improved at 3 months with some reduction at 6 months. There was a small, non-significant difference favouring the intervention group at both of these data collection points.

Participant comments

A total of 293 comments were received from the second and third questionnaires. Those in the singing groups wrote positively about:

- Enjoyment
- Impact on singing
- Impact on mental health and wellbeing
- Social benefits
- Improvements in breathing
- Facilitation and programme of the clubs
- Hopes for continuation of the clubs

Some participants in the control group expressed feelings of disappointment at not being selected to be part of the singing groups, however many of these subsequently joined in the extra four sessions.

Limitations

- The study was conducted in a very circumscribed area, therefore we do not know whether the findings can be generalised to other geographical areas
- The singing groups ran for a relatively short time so we do not know whether or not a longer involvement in a singing group might lead to a more sustained benefit
- The participants involved in the research scored well on the health measures even before the singing. We do not know if the effect would be greater for individuals who are more frail

Conclusions

Findings from this study suggest a significantly greater improvement in mental health quality of life in individuals who participate in group singing for 12 weeks compared to those continuing with normal activities. In our study the effect was greatest immediately following the intervention, but was still apparent at 3 months later. Singing groups are probably cost-effective. Participatory singing may therefore present a viable additional means to promoting the mental health of older individuals.

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Acknowledgements

The project team would like to thank the following for their help with this project:

- The Director and facilitators of Sing For Your Life Ltd. for the planning and delivery of the singing programme.
- NHS Kent and Medway for kindly funding the singing programme.
- Isobel Salisbury for administrative support.
- Members of the steering group for their assistance throughout the project.
- All the research participants who so kindly and enthusiastically took part.

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This leaflet presents independent research commissioned by the National Institute for Health Research (NIHR) under its Research for Patient benefit (RfPB) programme (grant ref. PB-PG-0408-16038). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

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"Many times on the morning of the project I haven't felt like coming, but always came and felt so much better afterwards. Group singing lifts the spirits"

"Introspection is the curse of old age – this project reduces such self-awareness and actually offers the realization that there is more living to be done"

"I started my participation in this project just after I retired from work and feeling a little anxious about future life. This project has been instrumental in showing me there is life after work"

"Even though I would arrive some afternoons feeling tired or a bit low, we all left the session feeling good and planning the next event"

"The singing has, I feel, boosted my confidence as I tend to be rather shy. I am hoping I may be able to join a singing group/church choir in the near future"

"After every session I was very alert and charged up with the 'feel good' factor"

