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# Effectiveness of Participative Community Singing Intervention Program on Promoting Resilience and Mental Health of Aboriginal and Torres Strait Islander People in Australia

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## 1. Introduction

Aboriginal and Torres Strait Islander people are more likely to have a higher prevalence of mental illness than non-Indigenous people, which may be caused by multiple factors (Australian Bureau of Statistics, 2008; Australian Institute of Health and Welfare, 2008; Pink & Allbon, 2008). These factors have been shown to be closely related to resilience. The concept was introduced by Masten and Coatsworth (1998) and includes key factors that affect recovery from illness and maintenance of health. The key factors of resilience entail (1) an ability of bouncing back, through which a person can recover from stressful event quickly; (2) a sense of family support, through which a person can manage a stressful event process; and (3) a sense of social connectedness, through which a person feels supported and connected to the community and social environment in a stressful event (Masten & Coatsworth, 1998; Weinberger, Schwartz & Davidson, 1979; Werner & Smith, 2001). Previous studies have shown an association with the sense of resilience score and depression. A high resilience score is related to a lower degree of depression (Weinberger et al., 1979), a lower level of anxiety (Weinberger et al., 1979), and a lower mental or physical stress response (Werner & Smith, 2001). These studies suggest the importance of resilience for coping with stress and adverse events and to prevent mental illness. A community participative singing approach (CPSA) is an effective intervention in promoting resilience and mental health in a range of population groups (Cohen et al., 2006, 2007). The CPSA programme is modelled on the work of Clift and colleagues at the Canterbury Christ Church University in England (Clift & Hancox, July 2008; Clift et al., 2007).

The programme is based on the principle of multi-psychosocial functions development, 'divided into environmental and social processes (interpersonal mechanisms) and cognitive and emotional processes (intrapersonal mechanisms). These processes are bi-directional, as the interpersonal mechanisms can trigger intrapersonal responses, and vice versa' (Lob et

al., 2011, p. 46). The goal of the CPSA programme is to guide participants through breathing exercises, group singing, and social interaction and collaboration. It aims to maximise their collective experience in a non-judgemental and accepting way, one where individuals feel a sense of belonging and safety, and to build relationships in which individuals socialise with others and are able to work on their social skills in a safe setting. A second aim is to develop individuals' inner psychological state such as competence, purposefulness, managing emotions and wellbeing, and creating a meaningful life. It is effective for mood disturbance and stress symptoms (Lob et al., 2011), for quality of life (Cohen et al., 2006, 2007) and the immune profile (Clift et al., 2008). However, few studies have examined interventions for mental health promotion in the Aboriginal and Torres Strait Islander population. Thus, the present study was performed to investigate the efficacy of community participative singing on the sense of resilience and psychological wellbeing of Aboriginal and Torres Strait Islander people. The study was performed for Aboriginal and Torres Strait Islanders who reside in five Aboriginal and Torres Strait Islander communities in South East Queensland, Australia. These Aboriginal and Torres Strait Islander people may be under particular stress and have a mental illness status since many of them have gone through the colonisation process and had traumatic experiences related to it. The aim of the study was to assess the effectiveness for Aboriginal and Torres Strait Islander people of active engagement in community music activities on measures of resilience, mental health, and quality of life.

It is hypothesised that Aboriginal and Torres Strait Islander people will have increased resilience, mental health and quality of life after they participate in a community singing intervention programme for six months.

## 2. Methods

The study used the participatory community singing approach and the prospective intervention method for the intervention trial. A multi-method design was used to monitor and evaluate the programme. Participants were invited to participate in the project in June 2010 and completed questionnaires towards the end July 2010, and they were asked to fill in the questionnaire again in January and February 2011. They were also asked over the course of the project to provide qualitative comments on their experiences. The present paper only focuses on changes over a six-month period from July 2010 to the January 2012 based on the quantitative results. The study was granted ethical approval by Research Ethics Committee at Griffith University with GU Ref No: PBH/13/10/HREC

### 2.1 Participants and data collection procedure

Participants were adults aged 18 and above. They were all able to speak English, provide informed consent and complete questionnaires. Individuals who were unable to provide informed consent or complete questionnaires were excluded from the study.

Researchers, in conjunction with five Community Controlled Health Services (CCHSs) providing the intervention, sought suitable venues across five South East Queensland communities to conduct intervention activities. Advertisements seeking participants were placed in each CCHS and in local newspapers, and leaflets were delivered to homes within

the vicinity of the venues. Two 'taster sessions' were held in each venue, which included the provision of information, an invitation for questions and an opportunity for individuals to sample the nature of the proposed intervention programme. A dedicated phone line and email address was set up to deal with responses and queries and a checklist was devised to collate details of those volunteering to participate.

## 2.2 Participatory community singing intervention approach

The chief investigator met with Queensland Aboriginal and Islander Health Council (QAIHC) representatives to discuss the initial concept. QAIHC representatives met with and discussed the concept with each Chief Executive Officer (CEO) from each Aboriginal and Islander CCHS. A reference committee was established made up of CEOs, health workers, counsellors and music therapists, the majority of which identified as Aboriginal and/or Torres Strait Islander. QAIHC took on an active role in meeting with community elders via each local council.

Each singing group was led by a skilled and experienced singing group leader. Leaders were provided with five days of training and met regularly throughout the project to ensure a broadly consistent approach. The singing programme took place in the five groups over two three-month blocks. Groups came together at the end of each block for a choral performance event. Each session lasted 120 minutes, with a break for socialising. Sessions commenced with 30 minutes of relaxation, posture, breathing and vocal exercises followed by singing. Two performances for five communities were organised after three months and again after six months of intervention. Monthly performances for each community were held after six months.

## 2.3 Measures

A number of reliable and valid questionnaires was used to assess the effectiveness of the participative community singing programme on improving resilience and quality of life, and reducing depression symptoms of the participants.

**Resilience:** The Brief Resilience Scale is a five-item scale used to assess resilience and individual strength, defined as the ability to bounce back and recover from stress (Smith et al., 2008).

**Depression:** The Indigenous Risk Impact Screen (IRIS) scale is a six-item scale used to assess depressive symptoms and it is designed for use with the Aboriginal and Torres Strait population (Schlesinger et al., 2007). Scores range from six to 18, with higher scores reflecting greater levels of depressive symptoms, and a score of 11 is the cut-off point (Schlesinger et al., 2007). Sensitivity and specificity of the measure was checked by using a depression total score against clinical diagnosed depression results.

**Singing questionnaire:** The singing questionnaire, consisting of eight questions, was modified based on Clift and colleagues (2010) to measure the improvement of quality of life through community participative singing activities. These questions were designed to measure participants' feelings about their emotional, physical health, spiritual, and social aspects of health. An example question is 'Singing has spiritual significance for me personally'. For each question, participants were asked to choose one of the answers from

the three options ‘never’, ‘sometimes’ or ‘all the time’. The more participants that choose the answer ‘all the time’, the more likely it is that the participative singing programme has impacted on the quality of life of participants.

3. Results

Table 1 shows that there are statistically significant differences between the pre- and post-intervention phases through a decreased depression rate, improved quality of life, and a reduction of depression symptoms, reduced medication use in participants after six months of intervention activities. This indicates that the participative community singing is effective in improving Aboriginal and Torres Strait Islander participants’ resilience, quality of life and mental health.

| Variables  | Pre<br>(%)<br>N=217 | Post<br>(%)<br>N=50 | difference           | $\chi^2$ | p     |
|--|---------------------|---------------------|----------------------|----------|-------|
| Resilience1: It takes me a long time to get through stressful events (all the time)            | 52(24.2%)           | 5(9.6%)             | 14.6%                | 6.47     | 0.04  |
| Resilience2: I tend to take a long time to get over difficult things in my life (all the time) | 55 (25.7%)          | 5(9.6%)             | 14.1%                | 7.60     | 0.02  |
| Depression (yes)   | 80(37.2%)           | 14 (28.2%)          | 9% decrease          | 6.61     | 0.03  |
| Singing is something I like to do  | 58(26.5%)           | 42(80.8%)           | Significant increase |          |       |
| Singing has spiritual significance to me personally  | 50(22.9%)           | 42(80.8%)           | Significant increase | 75.92    | 0.001 |
| Singing really helps to improve my general wellbeing   | 61(27.9%)           | 41(78.8%)           | Significant increase | 63.38    | 0.001 |
| I find singing helps me to relax and deal with the stresses of the week                        | 55(25.1%)           | 41(78.8%)           | Significant increase | 69.11    | 0.001 |
| Singing helps to give me a positive attitude to life   | 61(27.9%)           | 44(84.6%)           | Significant increase | 69.30    | 0.001 |
| Being in a singing group and singing is a very important part of my life                       | 51(23.3%)           | 43(82.7%)           | Significant increase | 73.13    | 0.001 |
| Singing helps to make me a happier person  | 61(27.9%)           | 44(84.6%)           | Significant increase | 67.93    | 0.001 |
| Singing is an activity that has made me physically healthier                                   | 45(20.5%)           | 35(67.3%)           | Significant increase | 73.19    | 0.001 |

Table 1. Improved mental health, resilience and quality of life post-intervention time.

| Medication use for Chronic disease  | Pre   | Post  | Differences             | $\chi^2$ | p     |
|-------------------------------------|-------|-------|-------------------------|----------|-------|
| Medication use (yes)                | 44.2% | 31.9% | 12.3% decrease          | 6.35     | <0.01 |
| Medication reduced the last 6 month | 18.3% | 27.3% | 9% medication reduction | 7.91     | <0.01 |

Table 2. Difference in medication use between the pre- and post-intervention phases

## **4. Discussion**

### **4.1 Changes in resilience**

Our findings show a statistically significant improvement in the percentage of participants who are able to recover from stress and difficult events in post-intervention phase. It should be remembered that the sample in the study is people with Aboriginal and Torres Strait Islander background. It includes not only people with current mental health and chronic diseases issues, but also individuals with a history of colonisation, 49% of whom gave depression scores below the clinical cut-off point. The significant change in the resilience scores indicate that the community singing programme helps to build participants' resilience. This result confirmed the findings of a previous study that choir singing enhanced confidence and self-esteem, gave a sense of purpose and of achievement (Tonneijck et al., 2008). In the present study, the community singing programme has resulted in improved sense of ability to recover and bounce back from the stressful and difficult events in life.

### **4.2 Change in singing-related quality of life**

Statistically significant changes are also found for aspects within the singing-related quality of life questionnaire regarding physical health, social and emotional health, stress reduction, spiritual significance, suggesting that group singing helps to create improvements in all these areas equally. The findings of our study are consistent with those of other studies that singing carries benefits to physical, mental and social health. Clift et al. (2010) and Clift et al. (2008) examined the effects of choral singing on wellbeing in participants with relatively low psychological wellbeing, as assessed by the World Health Organization Quality of Life (WHOQOL)-BREF, and high scores on the singing scale, indicating a strong perceived impact of singing on a sense of personal wellbeing. In Clift et al.'s (2010) study, it was found that singing provided support in coping with challenges in four aspects: enduring mental health problems, family and relationship problems, physical health challenges and recent bereavement.

### **4.3 Change in depression**

Our results show a statistically significant reduction in the percentage of participants who had depression in the post-intervention phase. It should be noted that the sample includes not only people with current mental health issues, 37.8% of whom gave depression scores below the clinical cut-off point. There was 9% reduction in the percentage of people who had depression, suggesting that the singing programme helps some people with mental illness to recover from the depression status. This is consistent with a recent study by Clift and Morrison (2011), who also found that singing programmes significantly reduce the depression rate among participants with depression.

The findings of our study indicate that a participative community singing programme is effective in preventing the deterioration of depression, and in improving resilience and quality of life. A CPSA can foster a sense of happiness, positive attitude towards life, and feelings of the significance of life. Singing is considered by participants a means to release



stress, and deal with worries and negative emotions. Singing is also regarded as a way to make them physically healthy as indicated in the reduced level of medication use.

A community-based participatory research approach can foster a sense of self-determination, create greater commitment and can ultimately improve self-esteem and increase a sense of belonging.

## 5. Limitations

There are a number of limitations for the study. The first limitation is lack of control group as a comparison to intervention group in the post intervention phase. The difference between pre intervention and post intervention in resilience, quality of life and depression would not be attributable to the singing activities. The second limitation is that the standard measure of depression, for example, Beck's Depression Scale, and WHO Quality of Life Questionnaire were not used, and this may have limited the generalisation of the study results to other populations. Further study is needed to ensure the control group data are collected to strengthen the methodology and evidence of the present study. In addition, standard measures are needed in the next step of the study so that the results can be compared with previous published literature, and be generalised to wide population groups.

## 6. Conclusion

The results of the study found that the community singing programme is effective in promoting social and emotional wellbeing, and preventing the deterioration of depression and chronic conditions. The results of the study may inform future studies of preventative and treatment interventions for high-risk populations that integrate community singing into prevention and intervention strategies in the Aboriginal and Torres Strait Islander population in Australia.

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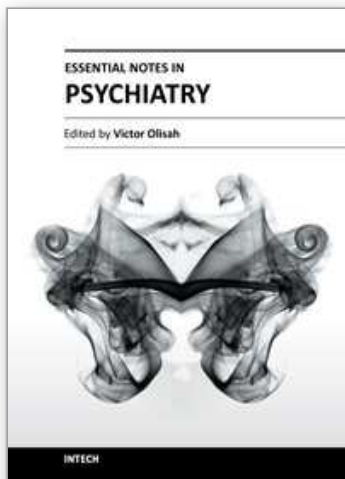
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