

Evaluating the health impacts of participation in Australian community arts groups

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SUMMARY

This study evaluates the impacts of three well-established community arts programmes in Victoria, Australia, on the mental health and well-being outcomes of participants typically from disadvantaged backgrounds during 2006–07. It employs a theoretical framework that reconciles evidence-based practice in health and the phenomenological nature of community arts practice. Self-determination theory (SDT) was used to do this with SDT-derived psychometric instruments [arts climate and Basic Psychological Needs Scales (BPNS)]. Self-administered surveys using these instruments as well as a measure of social support were undertaken on two occasions. Two overlapping but distinct samples were defined and analysed cross-sectionally. These were a (pre-)survey at the commencement of rehearsals for the annual performance (n = 103) and a (post-)survey following the performance (n = 70). The most significant change (MSC) technique

was used to study the arts-making process and how it contributes to outcomes. Using these mixed-methods approach, impacts on the climate of the arts organizations, participant access to supportive relationships and participant's mental health and well-being were studied. There were positive changes in the BPNS (p = 0.00), as well as its autonomy (p = 0.04) and relatedness (p = 0.00) subscales. Social support increased from 65.3% in the pre-survey to 82.4% in the post-survey (p = 0.03). MSC data indicated that the supportive, collaborative environment provided by the arts organizations was highly valued by participants and was perceived to have mental health benefits. Overall, the study demonstrated the potential health promoting effects of community arts programmes in disadvantaged populations. Its multi-method approach should be further studied in evaluating other community arts programmes.

Key words: inequalities; most significant change technique; social cognitive theory; evaluation challenges

INTRODUCTION

The role of arts as therapy among patients is well accepted (Staricoff, 2006). However, there is increasing interest in the role of community arts as a tool to promote civic dialogue, address social inclusion and promote mental health and well-being (Jermyn, 2001; South, 2004; Staricoff, 2006).

Parkinson (Parkinson, 2009) found that participation in the arts significantly reduced symptoms of stress, depression and anxiety, and

increased feelings of well-being. There have also been several studies which show that arts interventions have led to improvements in social health, reduced depression and anxiety, greater self-confidence, increases in optimism/positive moods and enhanced integration with local communities among patients with mental health issues (Eades, 2008; Twardzicki, 2008; Stacey and Stickley, 2010).

A major literature review conducted by South (South, 2004) concluded that there was evidence

that participation in arts projects had a positive impact on the mental health of participants through raising self-esteem, improving emotional literacy and reducing social isolation. The UK Department of Health, in partnership with the Department of Culture, Media and Sport (Secker *et al.*, 2008, 2009), also found that participants in arts programmes had significantly improved scores in social inclusion.

Notwithstanding these findings, concerns have been expressed regarding both the relative absence of evaluation of arts interventions and the quality and atheoretical nature of reviews that have been conducted. Both Matarasso (Matarasso, 1997) and the UK National Health Service (NHS, 2000) found that, although there were examples of good practice in arts interventions, actual evaluation was rare. Similarly, a review of existing research into the social impact of participation in arts and cultural activities conducted for the Cultural Ministers Council in Australia also found a body of anecdotal and other informal evidence of positive impacts, but limited theoretically grounded data (AEGIS, 2004).

McQueen-Thomson and Ziguras (McQueen-Thomson and Ziguras, 2002) identified several shortcomings in existing evaluations of the health impacts of arts programmes including a reliance on anecdote; small sample sizes; a focus on organizers; little attention to mechanisms; limited hypothesis testing; and a lack of attention to longitudinal dimensions of change. The quality of evaluation in community-based arts projects could be improved through a systematic approach to evaluation, better measurement of outcomes and the use of appropriate research methods (Hamilton *et al.*, 2003; South 2004). The need for better approaches to evaluation has been echoed by arts organizations who feel that the methodological paradigms used in health programme evaluation do not adequately reflect the value or benefit associated with the arts (MacNaughton *et al.*, 2005).

AIMS OF THIS STUDY

This article reports on the findings of an outcome evaluation of Community Arts Development Scheme (CADS). The evaluation adopted a multi-lens interpretive framework, integrating arts, community development and health perspectives to assess the impacts at an individual, community and organizational level.

In particular, it investigated several dimensions of the practices of these arts organizations, including the climate in which the art-making process takes place, forms of and access to relationships integral to these types of communities, and how these factors interact to produce mental health and well-being outcomes.

This article specifically focuses on the evaluation question: ‘Did the arts organisations implement their activities in ways that improve the mental health and well-being of the participants?’ It was anticipated that this would be determined through improvements in access to supportive relationships, enhanced levels of self-esteem and self-efficacy and an increase in self-determination and control. The combination of methodologies allowed a balance to be struck between testing theories about the mechanisms through which participation in arts activities might influence health and having sufficient flexibility to allow data about other possible mechanisms to emerge.

Theoretical framework

Our approach to developing an evaluation framework to assess the impact of community arts on mental health and well-being was designed to identify theories that capture at least some of the understanding shared between disciplines.

There are two main types of theory of well-being; Hedonic and Eudaimonic (Ryan and Deci, 2001). Hedonic theories propose that well-being equates with happiness, pleasure attainment and pain avoidance. Eudaimonic theories, in contrast, suggest that well-being should be defined by how well a person is functioning. One of the major theoretical perspectives in this latter group is self-determination theory (SDT).

Self-determination theory

SDT (Ryan and Deci, 2000, 2001) centres on three basic psychological needs—autonomy, competence and relatedness—and asserts that fulfilment of these needs is essential for psychological growth (e.g. intrinsic motivation), integrity (e.g. internalization and assimilation of cultural practices) and well-being (e.g. life satisfaction and psychological health), as well as the experiences of vitality (Ryan and Frederick, 1997) and self-congruence (Sheldon and Elliot, 1999).

SDT is considered valuable for the evaluation of arts programmes because the three basic

psychological needs (autonomy, competence and relatedness) are consistent with the processes that the arts practitioners have identified as leading to improved well-being among participants (Kelaher *et al.*, 2007). SDT also suggests that environments that support autonomy are likely to contribute to an individual's ability to progress towards self-determination (La Guardia, 2009; Steele and Fullagar, 2009). This is also consistent with the arts practitioners' approaches to art making that are critical to promoting positive development among participants.

Developing a theory of the role of arts in health

SDT intersects between current theories in community development, art and well-being (Thrash *et al.*, 2010). The theory is limited in its ability to capture what is unique about the contribution of arts to well-being; the most important theoretical issue from the perspective of arts practitioners. White (White, 2006) has argued, in designing and implementing an evaluation, that researchers need to understand the processes through which community-based arts in health projects evolve, and how they work holistically in their attempt to produce health and social benefits for both individuals and communities.

Critical to defining an acceptable shared theory is to understand how arts organizations work within a health promotion context while maintaining the centrality, autonomy and discipline of the art-making process. In this context, art requires a range of skills from participants and organizations—conceptual, technical and aesthetic—that are not simply about individual therapy or self-expression. Most significant change (MSC) as a technique is particularly well suited to capturing these processes.

MSC is an evaluation technique originally designed to measure end-user experiences of widely geographically distributed development programmes against original programme aims (Davies, 1998; Sigsgaard, 2002; Dart and Davies, 2003). It consists of the generation of stories about the changes associated with a programme from participants. Participants and workers within the organizations themselves select exemplar stories with particular domains of change. This assists in improving the transparency of data analysis and makes the implicit values explicit. Importantly, it also gives the organizations a

greater level of control over and participation in the research process.

The combination of empirical methods based on the SDT and the MSC processes optimized the ability of the project both to test and to generate hypotheses. The inclusive processes of MSC enabled people in the arts groups to participate in and engage with both the qualitative and quantitative data analysis in ways that reduced resistance to the concept of evaluation in the field.

The Community Arts Development Scheme

In 2005, the government funded Victorian Health Promotion Foundation (VicHealth) provided 3-year support for three arts organisations that worked with people from marginalized or otherwise disadvantaged communities to provide opportunities for personal and community development through the arts. The three organizations supported by the CADS were Somebody's Daughter Theatre Company (hereafter Somebody's Daughter), The Torch Project (hereafter Torch) and the Women's Circus.

Somebody's Daughter has been working for over 25 years in prisons, schools, community settings and mainstream theatres. Its principal aim is to create high-quality theatre, music and art, and to provide opportunities for the disempowered to be heard and reconnected to community through participation in creative arts, skill development and presentation. Somebody's daughter consists of a prison programme and HighWater Theatre, a programme for marginalized rural youth who are not connected with the education.

Established in 1999, Torch has developed a whole of community arts-based approach to dealing with issues affecting Australian communities. Community issues are identified and addressed in an on-going and inclusive process using community consultation, workshops, activities in schools, theatrical and artistic expression and ongoing activities driven by core participants and supported by volunteers in local communities.

Women's Circus was established in 1991 to assist women who had experienced sexual assault reconnect with their bodies through circus training and performance. Participants are selected according to criteria that strive for a balance of demographic characteristics, with priority given to survivors of sexual abuse and women aged ≥ 40 years. Women in the training

hub work towards an annual show. Participants collaborate with professional artists in devising the performance content. During the VicHealth funding years, Women's Circus has moved towards an enlarged and more proactive outreach programme.

METHODS

An overall CADS programme logic (Funnell, 1997) was developed to guide the evaluation. This combined the individual arts organisation programme logics as well as a programme theory and evidence-base for community development and health promotion more generally. A detailed description of this approach is presented in Kelaher *et al.* (Kelaher *et al.*, 2007).

In the process of developing the evaluation methods, it became clear that the links between arts practice and health were difficult for practitioners to articulate. This provided the initial impetus for a mixed-methods approach involving both quantitative and qualitative approaches to data collection as well as including both process and outcome dimensions. The former involved three survey instruments—first, the Arts Climate Scale, second, the Basic Psychological Needs Scale (BPNS) and third, the Social support and socio-demographic survey. The latter involved the MSC.

Survey instruments

SDT survey instruments

SDT measures personal growth in terms of three basic psychological needs such as competence, autonomy and relatedness. These are measured by the BPNS and its three subscales (relatedness, autonomy and competence) developed by Ryan and Deci (Ryan and Deci, 2000). The BPNS asks participants to reflect on aspects of their life, specifically, how they felt about the people they interacted with, their sense of personal efficacy, their sense of accomplishment and their ability to communicate effectively. Examples of items in the autonomy scale include 'I am free to decide how to live my life' and 'I feel pressured in my life'. Examples for the competence scale include 'Often I do not feel very confident' and 'People I know tell me that I am good at what I do'. Examples for the relatedness scale include 'I really like the people I interact with' and

'I keep pretty much to myself and don't have a lot of social contacts'.

The BPNS was used unmodified in the study with exception of the removal of one item that was deemed inappropriate for the prison population. The BPNS employed 7-point Likert scales for each question.

SDT suggests that environments that support autonomy are likely to contribute to an individual's ability to progress towards self-determination (La Guardia, 2009; Steele and Fullagar, 2009). A series of questionnaires to measure the learning climate have been developed for application in education and health (Williams *et al.*, 1998, 1999; Kasser and Ryan, 1999; Black and Deci, 2000). Climate questionnaires are typically used in specific learning settings to measure the degree to which healthcare providers, instructors, managers or coaches are perceived to be autonomy supportive (Williams *et al.*, 1998, 1999; Kasser and Ryan, 1999; Black and Deci, 2000). The Arts Climate Scale was adapted from the 6-item Learning Climate Questionnaire (http://www.psych.rochester.edu/SDT/measures/auton_learn.html) to determine the extent to which the arts environment supported autonomy. Examples of questions include 'I feel understood by the team at the [arts organisation]' and 'The team at the [arts organisation] listen to how I would like to do things'. Two questions were added to the short-form version of the Learning Climate Scale. The questions related to the provision of an inclusive and safe environment ('The team at [arts organisation] makes me feel included' & 'During workshop sessions with [arts organisation] I feel safe') and were added after receiving feedback from the arts organisations. Scores for the final scales and subscales were calculated by averaging the individual item scores. These average scores were then expressed as percentages of the highest possible score.

Social support and socio-demographic survey

The final survey delivered to the participants included information on demographics, length of participation in the arts programme, participation in other similar programmes, the two SDT questionnaires and a question on social support. The social support measure was based on response to the question 'How much has your participation in [name of the arts organisation] increased your support network?'

Responses included not at all, a little bit, moderately, quite a bit and a lot. These were recoded into a dichotomous variable (not at all = reference category).

Implementation of surveys

The three survey instruments were delivered on two occasions to participants in performances produced by the three community arts organisations during 2006–07. They were thus conducted within the annual cycle of production, i.e. within a 12-month period. At the commencement of each arts organisation's programme cycle, questionnaires were distributed on site at training, rehearsal and debrief sessions by participants in the core programmes. They were returned either on the spot or within 2 weeks. There were literacy issues with some of the groups; therefore, assistance in completing the questionnaires was provided to the prison and youth populations.

The Arts Climate Scale had high reliability ($\alpha = 0.89$).

For the overall BPNS ($\alpha = 0.84$), and its relatedness ($\alpha = 0.70$) and autonomy ($\alpha = 0.65$) subscales, reliability was high. The competence subscale ($\alpha = 0.45$), however, had low reliability and was excluded from further analysis.

Sample—response rates and characteristics

The total sample for the CADS evaluation consisted of 103 participants who completed the early (pre-)questionnaire (response rate 83.5% of attendees), and 70 people who completed the later (post-)questionnaire (response rate 84.5% of attendees).

There was a good representation of participants from all arts organizations, particularly those with smaller numbers. The sample included a range of ages with the most common age group in the 35–44 years category. The majority of participants were female (~85%), Australian born (~84%), and of English speaking background (~99%). Owing to the inclusion of Torch, there was a relatively high representation of Indigenous participants (11–14%). Participants were predominantly newly involved in the arts organizations (71% <3 months).

Analysis

It was originally anticipated that a longitudinal approach would be adopted for the evaluation.

The study was originally designed to be analysed as a cohort study. However, a significant number of participants were only captured at one point of measurement because of variable sessional attendance. This was often due to factors outside the programme, particularly for young people in care and people in prison. Consequently, data from the pre- and post-sample were analysed as cross-sectional data, as this approach is more conservative and would eliminate bias associated with only analysing data from those who could be captured on multiple occasions. This approach to analysis is often used in the evaluation of interventions particularly those focusing on complex populations (e.g. Hamilton *et al.*, 1999; Caldeira and Goncalves 2007; Richards *et al.*, 2009; Gutierrez *et al.*, 2010).

The dependent variables were arts climate scores, BPNS and its subscales scores and social support. Time was the independent variable in the analysis and was used to assess programme effects in two ways. First, by comparing scores for the dependent variable in the pre- and post-samples and second, in the whole sample where measures were studied in relation to the length of time participants had been members of the arts organization.

The effects of arts climate scores on the other dependent variables were also examined to assess the programme effects more directly. In this context, arts climate was treated as an independent not a dependent variable.

Multiple regression analysis was conducted to assess the difference between the pre- and post-samples on the Arts Climate Scale and the BPNS, including its autonomy and relatedness subscales. Logistic regression analysis was used to analyse the impact of the programme on social support. Furthermore, multiple regression analysis was conducted to assess whether the arts climate provided contributed to any changes in BPNS, autonomy and relatedness.

Responses involving potentially confounding variables (gender, language, country of birth, Aboriginality, prison status), and clustering due to arts group were taken into account. Adjusted odds ratios (AORs) of the effects of an independent variable on the relevant dependent variable were estimated taking into account the independent effects of these potential confounding and clustering variables.

STATA version 10 was used for the analysis of the CADS survey data.

Most significant change

Critical to defining an acceptable shared theory is first to understand how arts organizations navigate these challenges while maintaining the centrality, autonomy and discipline of the art-making process. In this context, art requires a range of skills from participants and organizations—conceptual, technical and aesthetic—that are not simply about individual therapy or self-expression. Developing an appropriate evaluation framework therefore also requires incorporating scope for capturing these processes. MSC is an approach that is particularly well suited to capturing these processes.

Implementation

The MSC sessions with the arts groups were conducted several weeks following the completion of their final event within the annual cycle—thus around the time of the post-survey and well after the pre-survey.

This was designed to allow the effects to be captured after participants had time to reflect and integrate back into their everyday environments.

The adaptation of the MSC technique for the CADS evaluation involved five stages:

- (1) The programme logic for each organization and its programmes was used to develop domains (of change) to provide a framework for story collection;
- (2) Stories were collected from each participant, either in a focus group setting or individually. Each story consisted of a single event reflecting practical change (for good or bad) related to the programme;
- (3) In the first selection phase, the most representative stories were selected by programme participants;
- (4) In the second selection, panels made up of arts organization leaders, a handful of participants and other stakeholders for each group, reviewed the stories from the first selection phase, selecting particular stories based on the extent of the common experiences they reflect and the meanings or values participants find in the stories. This phase also involved mapping the stories into the original domains; and,
- (5) This information was then synthesized and fed back to participants to ensure that the process was transparent. The results were made available to all stakeholders.

Sample

MSC sessions were conducted with 30 Women's Circus participants. At Torch, there were 21 participants as well as a small group of primary school students who participated in a Torch performance. For the Somebody's Daughter MSC sessions, there were 31 participants drawn from HighWater Theatre, women prisoners, the post-release drama programme and young members of the Geelong outreach project. These groups combined at the second selection stage and were joined by five Somebody's Daughter programme leaders/artists.

Analysis

In all, 80 stories were collected across the three arts organizations, 24 of these went forward to domain mapping and discussion. Five domains of change were identified:

- Personal development and change;
- Belonging and identity;
- Social development and change;
- Arts and culture; and,
- Organizational development.

There were 46 stories linked to domains. Table 1 lists the number of stories that were mapped to the five domains.

The majority of participants in the MSC sessions talked about the personal benefits of participating in community arts, particularly focusing on personal development and change, and belonging and identity. Discussion of these themes will be the focus of this article and will add depth to the insights about personal development from the quantitative data.

RESULTS

Results obtained using the application of the three survey instruments and MSC are considered in turn. They are considered in terms of

Table 1: MSC stories mapped onto domains

Domains	No. of links	%
Personal development and change	16	34.7
Belonging and identity	14	30.4
Social development	7	15.2
Arts and culture	7	15.2
Organizational development	2	4.3
Total	46	100.0

the climate provided by the arts organizations, access to supportive relationships and improved mental health and well-being. The relationship between the climate of the arts organizations and, first, mental health and well-being social support and, second, social support is also explored through the MSC data. This enables the quantitative data to be interpreted through the lens of the participant's experience.

Climate provided by the arts organizations

Mean scores on the Arts Climate Scale were high in all samples (see Table 2). There was no significant change between mean scores in the pre- and post-samples—88.4 and 91.6% of highest possible scores, respectively (AOR 3.1, 95% CI 0.4–6.7, $p = 0.08$). This might reflect a ceiling effect, given that scores were consistently high at both periods with about 25 and 40% of participants giving ratings of 100% in the pre- and post-samples, respectively. The overall mean on the Arts Climate scale was 89.6% (95% CI 88.3–90.9%). This suggested that the climate provided by the arts organizations was highly conducive to personal development.

The perceived benefits of the climate of the arts organizations were directly captured in stories mapped to the domain 'Belonging and identity' and stories were very frequently mapped to this domain at both first and second stages (see Table 1). They are also captured more indirectly in stories mapped to the domains 'Personal development and change' and 'Social development and change' to the extent that the arts organization climate was linked to the personal and social development process.

The story below, from a participant in the HighWater program of Somebody's Daughter, illustrates the significance of an arts climate in producing powerful effects. The second-level

selection panel felt that this story illustrated that 'art can be a driver of re-engagement with education' and that HighWater is a safe place:

I was a dero nut and I hardly ever went to school before HighWater. HighWater helps me think. If there's a problem we talk about it and it's more of a calm place than school.

Stories from other arts organizations were similar. One Women's Circus participant commented:

Being around all these people has been an inspiration for me—really good models—I'm happier and bright and not so bitchy. Knowing that people were there to support me on my venture through the project and had faith in me—has changed my life.

Access to supportive relationships

The participants reporting that their social support had improved since participating in the arts organizations increased as a result of participation in community from 65.3% (95% CI 55.7–74.8%) in the pre-sample to 82.4% (95% CI 73.3–91.4%) in the post-sample (AOR 2.6 95% CI 1.1–6.1, $p = 0.03$) (see Table 2).

Greater access to supportive relationships as a result of participation in the arts organizations was also directly captured in MSC stories mapped to the domain 'Belonging and identity' (see Table 1). This is illustrated in the following story:

It was a night of a Torch rehearsal at Rosebud. And I had a really really bad day. . . . And I walked into the hall with my head down, honestly not really in a socializing mood, and as I was walking through the hall people stopped what they were doing and came over to give me a hug and a hello. This was all within a span of 30 seconds within entering the hall, and I felt an overwhelming sense of love and above all acceptance, safety and the ability to trust these people.

Table 2: Impact of participation in arts organization on arts climate and basic psychological needs questionnaire scores over time (mean scores expressed as %)

Self-determination scales	Mean (95% CI)		R^2	B coefficient (95% CI) ^a	p
	Pre-sample	Post-sample			
Arts climate	88.4 (86.4–90.5)	91.6 (88.9–94.3)	3.4%	3.1 (0.4–6.7)	0.07
Basic psychological needs	62.0 (60.4–63.6)	65.42 (63.9–67.0)	19.8%	4.3 (1.9–6.7)	0.001
Autonomy	53.0 (50.7–55.3)	56.01 (54.3–57.8)	18.8%	4.4 (1.2–7.5)	0.007
Relatedness	66.3 (64.2–68.4)	71.0 (69.1–72.9)	20.6%	5.8 (2.9–8.7)	0.000

^aAdjusted for gender, language, country of birth, Aboriginality, prison status and clustering due to arts group.

Mental health and well-being

There were substantial improvements in the overall basic psychological needs and autonomy and relatedness scores of participants between the pre-sample and the post-sample (see Table 2). The models tested accounted for ~20% of the variation in scores for both the overall scales and the two subscales, indicating that participation in the arts activities had a major impact on these measures of psychological well-being.

Participant's stories most commonly fell into the 'Personal development and change' domain. There was a clear theme of personal transformation woven throughout the stories, although the focus varied between organizations. A Women's Circus participant focused on her personal journeys and experiences of healing, or reconnection, with her own body. This participant identified 'breaking through fear' and 'building self-esteem' as vital parts of this experience. This is illustrated in the following story:

I had had my whole life a severe stutter, and while 15 years of speech therapy had helped to a degree, it was never eliminated. Being given a speaking role, which I could barely stutter out, and the trust and reassurance that came with that, resulted in the permanent disappearance of my stutter, by the end of the 3 week performance.

Sometimes there were direct links with mental health in the stories:

Until I started the art classes I didn't have any direction and I craved freedom. The prison system was killing me. Bits of my heart, my soul, my blood and my body were disappearing. If it wasn't for the art classes I would be on psychiatric drugs. I've been making a sculpture and the more it takes shape the more freedom I feel. It has become a material reflection of how I'm creating my own healing.

Participants in HighWater projects emphasized interconnectedness and people coming together, or the achievement of a greater sense of place and belonging. Being seen and heard was important to many participants. In another story selected and mapped at the second level, a young person said:

At school when they found out I was going to be in a play, they called me all sorts of names, like a 'knob'. I got a lot of shit because they knew I was telling my story about what had happened to me. I put myself on the line. Talking about the alcohol and stuff was easy, but talking about my mother and abuse was really hard. But I did it and the whole class came to see the play. It was issues that they needed to hear. They know about it but they can't find the strength to speak out loud. I thought if they hear about it from me they might get the courage to do something about it. After the play some of them even asked for my autograph, and I was going to sign 'the knob', but I didn't.

Relationship between arts climate and improved social support and mental health and well-being

As previously demonstrated, the participant stories highlighted the importance of the supportive and collaborative environment provided by the arts organizations. Scores on the arts climate scale were significantly associated with improved social support due to the arts organization. The overall effect of the arts organizations assessed by the time variable became non-significant when this variable was included. This suggests that improvements in social support due to participation in the arts activities over time were due to the climate provided by the arts organizations (see Table 3).

In addition, the arts climate scale was significantly associated with basic psychological needs and its relatedness (see Table 3) subscales. There were still significant effects due to time

Table 3: Arts Climate Scores and changes over time on basic psychological needs and social support

Measures of well-being	Pre-post		Arts climate	
	B coefficient (95% CI) ^a	<i>p</i>	B coefficient (95% CI) ^a	<i>p</i>
Social support	2.33 (0.87–6.23)	0.09	1.12 (1.07–1.17)	0.00
Basic psychological needs	4.79 (2.55–7.03)	0.00	0.11 (0.02–0.21)	0.02
Autonomy	5.3 (2.38–8.22)	0.00	0.12 (–0.01–0.25)	0.07
Relatedness	6.09 (3.33–8.84)	0.00	0.19 (0.07–0.31)	0.00

^aAdjusted for gender, language, country of birth, Aboriginality, prison status and clustering due to arts group.

when the arts climate variable was included, suggesting that there are also other important and unaccounted for contributors to the mental health benefits of the arts organizations.

This suggests that the environment provided by the arts organizations in their approach to art-making played an important role in the benefits in terms of well-being.

DISCUSSION

The findings arising from the application of both MSC and the survey instruments both indicate that the work of the three arts organizations contributed significantly to improved mental health and well-being outcomes. It was evident from both the qualitative and quantitative data that the mental health benefits reported by the participants were attributable in significant part to the arts climate of the organizations, although other factors such as gaining in physical skills and awareness, increased self-confidence from performing in front of an audience and being able to step aside from one's experience and create a new sense of personal identity are also likely to be important.

A synthesis of the elements of this evaluation such as arts climate measures, autonomy scales, engagement with others and participant stories shows that the context of art making makes a considerable contribution to the mental health outcomes. It should be noted that none of the three arts organizations posits 'mental health' as an explicit programme goal, but all aim to some extent at outcomes that we include as aspects of mental health, such as improved confidence and self-efficacy, connection to community and improved autonomy as a function of enhanced capacity.

Social or community-based art making serve to create these and other outcomes in ways that other contexts may not. There are distinctive strengths in the way the three organizations operate that explain why they achieve the success they do. In pointing to the environment very carefully created and nurtured by these organizations, participants repeatedly validated approaches adopted by the arts organizations, to make environments that are supportive, safe, conducive to a focus on art-making and which facilitate open dialogue and effective communication.

If future programmes like CADS are to work they should not only focus on arts organizations with established reputations, but should ensure

that these organizations develop a model of practice that encapsulates all these elements, which appear to work in combination to achieve the substantial outcomes measured in this project.

In addition, the survey instruments proved worthy of wider application. The arts climate scale is an appropriate tool for measuring some of the characteristics of arts organizations that relate to their potential mental health contribution. The BPNS and its relatedness and autonomy subscales were also appropriate for measuring mental health benefits associated with participation in community arts. All scales included in the analysis had strong measurement characteristics albeit with a ceiling effect when the arts climate scale was applied to the three organizations.

Strengths and limitations

There are a number of limitations to the current study. There was considerable variation between the arts organizations in both programme type and programme objectives. The diversity between sites, structure and format of activities was substantial, impacting on both sample size and response rates. This precluded a detailed examination of the links between particular art-making practices and health impacts. Further research would be required to assess the generalizability of the current findings to other arts organizations.

Secondly, there was no comparator group so it was not clear what effect this might have had on results for the quantitative analysis. The study used cross-sectional datasets rather than a longitudinal approach. Generally speaking, this would be expected to make positive impacts more difficult to detect. However, the positive effects observed could be due to the attrition of people less satisfied with the arts organization. The consistency of the high arts climate scores across measurement periods, however, suggests that this is not the case.

One of the more innovative methods used in the evaluation was the application of the MSC technique, which has proved to be an effective method embraced by the arts organizations and their participants. There were, however, some drawbacks that need to be taken into account when thinking about this data and in applying the technique in future. Conceptually, MSC can be difficult for participants to grasp. Some

participants found the idea of singling out an incident or event a challenge, and others objected to it conceptually, perceiving it to be limiting. Furthermore, there was risk of an unmeasured selection bias in MSC applied in this kind of environment. It was deemed likely that people would select in favour of positive experiences.

CONCLUSIONS

Overall, the study has demonstrated the potential health-promoting effects of community arts programmes in disadvantaged populations. It has also demonstrated the value of multi-method approaches to understanding the mechanisms through which arts programmes contribute to personal development. This is one of the first studies focusing on the links between arts participation and health promotion and as such makes a considerable contribution to understanding the area.

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