

The role of arts activities in developing resilience and mental well-being in children and young people a rapid review of the literature.

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Abstract

Aims: This rapid review explores the role of arts activities in promoting the mental wellbeing and resilience of children and young people aged between 11 and 18 years.

Methods: A systematic search of the literature was undertaken across eighteen databases, no date limit was set on publication. Search terms included a range of creative activities: music, dance, singing, drama and visual arts, these were combined with terms linked to aspects of mental health, emotional wellbeing, and resilience. Only studies related to activities that took place within community settings and those related to extracurricular activities based within schools were included.

Results: Following application of inclusion and exclusion criteria, 8 papers were included in the review. The interventions used in the studies were diverse and

the research was heterogeneous, therefore a narrative synthesis of the results was undertaken. The findings from the studies are considered in terms of the contribution the activities make to building resilience of children and young people. It was found that participating in arts activities can have a positive effect on, self-confidence, self-esteem, relationship building and a sense of belonging, qualities which have been associated with resilience and mental wellbeing.

Conclusions: Although the research evidence is limited there is some support for providing structured group arts activities to help build resilience and contribute to positive mental wellbeing of children and young people.

Introduction

A review exploring the effects of participating in creative activities on health and wellbeing of children and young people found that increased self-esteem, sense of achievement, empowerment, social skills, promotion of social engagement are some of the commonly reported benefits of taking part in such activities [1]. These characteristics have been linked to resilience [2], and resilience is recognised as a component of mental wellbeing, enabling people to cope with adversity, achieve their full potential and contribute to society. Resilience is a complex construct, and within the literature a number of definitions of resilience exist. For the purposes of this paper we have adopted that of DiClemente,

Santelli and Crosby [3] who describe it as the ability to rebound from adverse life events by positively adapting to them. Whilst the terminology varies between different authors, the core components are essentially the same. These components have been separated into intrinsic and extrinsic factors. *Intrinsic factors* are held within the individual or 'self' and include: the need to feel a sense of belonging and to feel secure; a sense of self efficacy, and self-esteem. *Extrinsic factors* on the other hand rely on others and include: having a secure attachment and relationship(s); access to wider support from family and friends; positive experiences at school and/or in the community [4].

Adolescence and early adulthood is recognised as the peak age of onset for mental ill-health which is likely to carry on into adulthood if left untreated. Research into the extent of mental ill-health amongst children and young people in the United Kingdom (UK) revealed that one in ten children and young people between the ages of five and sixteen have a diagnosable mental health condition [5]. This data is now over 10 years old, but the findings of the newly commissioned survey on children's and young people's mental health will not be published until 2018. Some predict that current prevalence of mental ill-health amongst children and young people is likely to be higher than data previously published [6].

Political ideology has influenced the delivery of mental health services. Prior to 2010, socio-economic factors, such as poverty and disadvantage, were accepted as being linked to mental health, and a preventative approach focussing on early intervention, with the aim of de-stigmatising mental health and inclusion was promoted. For children and young people this was translated into Child Adolescent Mental Health Services (CAMHS) designed to be accessible for all, to promote and enhance children and young people's wellbeing and mental health.

Post 2010, policy shifted and children and young people's wellbeing and mental health were no longer considered separately, instead localisation, service choice, with integration of children's and adult services was emphasised [7]. Within current policy there are a number of common threads, including the promotion of resilience and self-esteem, empowerment, and the importance of building healthy relationships [8,9,10,11] The discourse now embedded in policy publications indicates increased medicalisation and individualisation of children's mental health [7]. The role of CAMHS appears to have altered and thresholds and access restrictions have been imposed, only children and young

people who have a severe diagnosable condition are treated, with large numbers being turned away without being offered services [12]. For children and young people with mild to moderate conditions this means they may not be receiving the support they need to maintain their mental wellbeing. Indeed one in five children referred to specialist mental health services in the NHS are rejected for treatment. Furthermore, the Children's Commissioner's review of access to child and adolescent mental health services also revealed that young people who meet thresholds for treatment can endure long waiting lists depending on their geographical location [12].

The beginning of 2017 saw a new emphasis on mental health services with the acknowledgement once again of the costs to individuals, families, and society due to mental ill health. There was particular attention paid to the care of children and young people and the need to transform attitudes to mental health. However whilst the Prime Minister Theresa May announced a number of new initiatives there is no new funding being made available to services. There is therefore a need to explore alternatives which can be implemented to help prevent mental ill health developing, and to promote and enhance the mental wellbeing of our children and young people.

Already, government policy supports the introduction of social prescribing schemes [13, 14], and arts activities are provided under social prescribing schemes around the country with evidence emerging that such schemes can produce positive outcomes for health and wellbeing [15]. Participating in creative arts has been linked to positive outcomes for children and young people such as the development of social skills and positive changes in behaviour [1]. Within the UK there are a number of organisations providing programmes of arts activities for children and young people (for example *Arts and Minds* (www.artsandminds.org.uk), and *Start Youth Arts* (www.startinsalford.org.uk)). These programmes differ from art therapy interventions in the sense that they are mostly delivered by artists instead of therapists. Moreover, their aim is to promote pleasurable experiences, inclusion and social engagement rather than focussing on medicalised therapeutic outcomes.

In light of the increasing incidence of mental ill health in children and young people, and the acknowledged pressures on the statutory services, it is timely to update the review published in 2013 [1]. However, whilst the previous review

explored the potential of creative activities to enhance the health and wellbeing of children and young people looking at broad aspects of both physical and mental health, the focus of this review is the role that participating in community-based arts plays in enhancing mental wellbeing of children and young people. To examine whether community arts interventions could provide cost-effective services that promote protective factors linked to resilience and mental wellbeing such as developing a sense of belonging and purpose, social inclusion, relationship building and improve social skills and self-esteem.

Methods

A rapid review of the literature was undertaken between June and August 2016. A rapid review can be defined as a review of the literature which has been conducted using a systematic approach within a limited time framework [16]. The database search was conducted by adopting a strategy similar to that of Daykin et al [17] however, further creative activities, such as visual arts were added to the search terminology. Following an initial scoping review where few articles using the arts to build resilience and mental wellbeing were identified, the search was widened to include other characteristics linked to mental

wellbeing. The Boolean search keyword groupings are shown in Table 1, and searches were conducted in eighteen databases (see Table 2).

[Insert table 1 here]

[Insert table 2 here]

The search was limited to papers published in English, however no limits on the date of publication were applied. This was due to no previous reviews of similar characteristics being found during the preliminary scoping process. Publications about children and young people between the ages of 11 and 18 who participated in creative arts were included, as were publications in which the age range was extended above and/or below the search age limits. Only studies related to activities that took place within community settings and those related to extracurricular activities based within schools were included. Those within formal residential settings such as young offender institutes, residential care, special schools and hospitals were excluded. Publications based on severe mental health conditions were excluded as were studies specifically reporting on the therapies (art, music and drama). Quantitative, qualitative, and mixed-method papers were included. The inclusion and exclusion criteria are reported in Table 3.

[Insert table 3 here]

The selected papers were independently assessed by the first and second authors [initials to be inserted here]. The articles were subject to quality assessment, however, no articles were excluded on the basis of quality. Quantitative papers were assessed using the EPPI appraisal tool [18], and qualitative studies, using the Critical Appraisal Skills Program for qualitative appraisal [19] Following Fraser and Sayah [20] a scoring system was devised to provide a rating for each study using the CASP tool. A mixed-method evaluation tool was used to appraise the mixed methods study [21]. The authors conducted independent appraisal of the selected studies and final ratings agreed following discussion.

Results

The search produced 16,882 initial hits with 132 remaining after title screening. Included in these figures are eight articles found by conducting hand searches. Abstract screening reduced this number to 72 papers and following text screening, 24 potential papers were identified. Nine duplicates were removed leaving 15 papers to be reviewed in depth by the second author. Of the 15 papers, three were rejected due to lack of recognisable methodology, three due to lack of sufficient data regarding mental health and one due to ambiguity in

participant age range. As a result, eight papers were deemed to be of sufficient relevance to be included in the review. Of these, three used quantitative methods, four were qualitative, and one used a mixed-method approach. Four out of the seven studies were based in Australia, two were located in Canada, and two in the UK. Across the studies a range of arts activities were used drama/theatre (5), music (2), visual arts (1) and dance (3), with only one study using just one form of art activity. One of the aims of the review was to identify cost-effective interventions, but none of the included studies made any reference to costs or cost-effectiveness. It was therefore decided to conduct a further search, including the term 'cost-effectiveness' but rather than repeat the search across all the databases, a search of the databases that yielded the greatest number of 'hits' in the first search was conducted (CINAHL, Cochrane Library, PsycINFO, MEDLINE and Web of Science) but no relevant papers were found.

The literature obtained from the search was characterised in terms of study design, participant description (including sample size and age range), and country of origin, type of intervention, results and limitations of the study (see Table 4). Due to the range of research methods and outcome measurement utilised and the different arts activities included in the studies, a narrative synthesis of the findings was undertaken.

[Insert table 4 about here]

It has been reported that most studies relating to arts, resilience and young people were mostly qualitative and based on single case studies [2]. Despite an extensive search of a broad range of databases this current review also failed to identify many studies meeting the inclusion and exclusion criteria. Only one study was found that specifically investigated changes in resilience [26].

Although none of the other studies linked the findings of their research directly to building resilience, participating in arts programmes was linked to positive youth development [27] social and emotional development [28] reduction in emotional problems [29] and the promotion of social development and wellbeing [24]. It was found that participating in arts activities does have an impact on some elements of the intrinsic and extrinsic components of resilience. The review findings are reported thematically using the conceptual framework of resilience introduced in the introduction.

Intrinsic factors

Sense of belonging & Identity formation

Arts may play a role in identity development as the activities give people an opportunity to explore and learn about themselves. The participants in the

Youth Arts Programme [22] linked identity with a sense of belonging, through the exposure to different people and experiences and the opportunity to meet like-minded people. Grunstein and Nutbeam developed a questionnaire to examine characteristics of resilience to investigate the extent to which resilience could be strengthened by participating in a dance/drama competition. Of the five domains of resiliency in the tool, two scales were linked to a sense of belonging and another to identity. However, the differences between pre and post-intervention were not reported in the article, and a number of methodological challenges were described. In particular the difficulty in obtaining the pre-intervention point to commence the study, and in maintaining contact with a large cohort of students over different sites. Despite this there was an indication from the data that positive scores in a sense of belonging and for a sense of identity was negatively associated with substance misuse [26]. Another quantitative study asked participants the extent to which they felt part of a drumming group by the end of a 10 week programme. 89% strongly agreed/agreed that they felt part of the group with 92% strongly agreeing/agreeing that they enjoyed being part of the group. This was supported by feedback from teachers who observed that a sense of belonging and group cohesion were among the benefits of participation [28].

Confidence and self-esteem

Together increased self- confidence and self- esteem were the most commonly reported benefits of taking part in the different arts activities [22-25,28,29].

Throughout the studies both participants and observers (parents, teachers, youth workers) reported increased self- confidence and self- esteem. Increased confidence came from feeling valued, being treated like an adult, overcoming challenges, and having a purpose [22]. In addition the longitudinal study by Martin et al found that engagement in arts engagement most significantly predicted a sense of meaning/purpose in life [27]. Increased confidence was associated with both ability to perform and also in themselves, and was demonstrated in being able to communicate with others and relate to other people [24]. Wood et al using the Rosenberg self-esteem scale found a 10% increase in scores following the programme of drumming workshops. Furthermore, in this study teachers also completed a social development evaluation form, and increased self-esteem was the most positively changed social development identified [28].

Extrinsic Factors

Secure relationships

Team working was a common theme throughout the literature. A teacher in one study [28] noted that there was a group realisation that the whole performance relied on each individual's ability to co-operate and work as part of a team, that they all had a part in the group's success. It is interesting in this study that at the mid- point of the programme only 47% of the participants felt that the group was working well together. Unfortunately, the questions at the end-point were worded differently to the mid- point questions but at the end nearly 90% felt that the group worked well together. It was also found that 77% felt that they knew more people and how to get on with each other, and 72% were more aware about things that make relationships work. The drama-based project [24] participants felt that the activity helped to establish bonds of trust and reciprocity between the group, thus helping to form more positive relationships. For some this also extended to forming closer relationships with family members. Improved peer relationships and interpersonal skills were also reported by parents in the drama and visual arts evaluation, there was also in this study a statistically significant improvement ($p < 0.01$) in participants behaviour on the social skills development scale over the course of the programme [29]. For participants in the UK based Rock Challenge, performing and being involved in organising the performance had developed team working and created new friendships [25]. However, not only did relationships within the groups develop,

but also the wide community was felt to be supportive too, with teachers helping through special homework arrangements and peers through audience participation.

It is also important to acknowledge that participants' experiences of taking part in such programmes is not always positive. Ennis and Tonkin reported that some participants had felt excluded by the wider group, and there were body image issues for others having to wear particular costumes for performances [22]. Moreover, some of the participants in Salmon et al's study reported disapproval and teasing from some of their peers [25].

Discussion

It is interesting to note that the majority of the projects used a variety of different arts activities (the performing arts-dance and drama, music- drumming, beat boxing, and visual arts- mask-making, and painting). Where there were a number of activities included in a programme there was no indication that participants could opt for one activity or another. The use of different activities and the opportunity to participate in a choice of activities could be a potentially important aspect to consider when developing projects. Preference for different

activities may influence engagement and therefore impact on the individual, particularly as attendance in itself does not indicate involvement in the activity. Engagement was also discussed by Martin et al [27] who investigated whether arts engagement has a role in academic (motivation and engagement) and non-academic (self-esteem, and life satisfaction) outcomes. Higher levels of arts engagement being found to be a predictor of having a sense of meaning and purpose, although it was noted that the quality and not the quantity of engagement was important. This was the only longitudinal survey of this type in the review, and an issue with this study was that it was reliant on self-reported activity levels. The authors acknowledged the need for further research to ascertain whether it was the arts engagement or interaction between parent and child participating in a mutual interest which could be attributed to the results. A prospective controlled study would be necessary to establish whether there is a true relationship between arts engagement and academic and non-academic outcomes. In future research the level of engagement with the activity should be also be considered, as it is not sufficient to simply count number of attendances as a proxy measure for engagement, levels of interaction and involvement with the activity is also important.

As stated above, a range of methodologies were used in the reviewed studies. The majority of the studies reported on specific projects that had been established with the aim of investigating arts interventions in community settings on psychosocial outcomes, including: self-esteem, mental wellbeing and relationship building [23,24,26,28,29]. Three of these specifically developed pre/post intervention questionnaires to test effectiveness of the intervention [26,27,29]. These scales were tested for internal consistency using Cronbach's alpha, and two [26,27] also conducted test-retest reliability measures. Despite such testing for validity and reliability suggesting a rigorous approach, it does mean that the findings cannot be used in a meta-analysis for a systematic review unless other research teams adopt similar measures in the future. Similarly, Wood et al used three different scales, including an existing validated scale [28]. However, the authors stated that the wording on some of the questions on this scale were altered to make them more 'understandable', but there was no mention of piloting or re-testing the validity of the scale. Two other questionnaires were developed for this evaluation but again there was no mention of piloting of the questionnaires or of how the questions were developed or tested, and one measure changed from the mid to end-points, with the wording of the questions being altered.

There were also methodological issues with the qualitative studies. For example, one used a retrospective narrative approach to explore the perspectives of people who had participated in an arts programme since its inception in the 1980s [22]. Using such a method is problematic as it relies on individual recall, regardless of this the authors reported that the participants were very clear that taking part in the arts programme had contributed to self-confidence, identity formation, and a sense of belonging. In another study focus groups and interviews were conducted but there was little detail provided as to how and when these were undertaken, or the ethical issues of conducting such research [23]. Indeed, ethical approval of the studies by a review panel was only referred to directly by three studies [25,27,28], although another did state that active parental consent was gained prior to the young people participating in the research [26]. It is of concern that such reviews did not take place as these are a potentially vulnerable group and ethical review can to some extent monitor of the quality of proposed studies.

Whilst some *context* was provided for each of the interventions, little or no information was provided as to what happened in the arts sessions (*mechanisms*), or about the overall *process* of the programme of activities [30]. This not only makes comparison between interventions challenging but it also

would make it difficult for others to duplicate the programmes and the research. To try and address this issue in the UK, Public Health England have recently published Arts for health and wellbeing: An evaluation framework [31]. This provides guidance on ways to document arts programmes, and its purpose is to enable meaningful comparisons to be made between interventions.

Conclusion

This review was not a full systematic review and the conclusions that can be drawn from the findings are therefore to some extent limited. However, what is clear is that there remains a significant gap in the research evidence directly linking arts participation and the promotion of mental wellbeing and resilience. There are a number of studies which have been conducted, but echoing the conclusions of other reviews in this field, many of these lack sufficient methodological rigour. Such methodological limitations reduce the potential impact of the findings, and more comprehensive systematically conducted research is required to address this. In addition, insufficient attention has been paid to the context in which the activities took place, and the mechanisms and supporting theoretical frameworks underpinning the use of the arts as

interventions. Furthermore, few longitudinal studies have been conducted in this area making it difficult to establish the long term outcomes of these interventions. One of difficulties that the proponents of the arts for health and wellbeing face are the methodological tensions which exist due the range of academic disciplines who contribute to the research evidence, with differing perceptions as to what constitutes evidence. Healthcare commissioners mostly require evidence of effectiveness and cost benefits before they will fund interventions, and as yet there appears to be no published research that records costs of interventions or considers their cost-effectiveness. Whilst the existing evidence does provide an indication of the potential value of participating in arts activities to enhance wellbeing and resilience, further research which meets the requirements of healthcare commissioners will be necessary if the use of arts interventions are to become adjunct to traditional health service provision. Therefore there is a need to for both high quality qualitative research, and rigorously conducted controlled studies which investigate cost-effectiveness and cost benefits to be funded. In these times of fiscal restraint and with the growing concerns for the mental wellbeing of children and young people alternative interventions to reduce the incidence of mental ill health need to be considered and quickly.

Ethical Issues

This article involved a review of existing published literature so no ethical approval was required.

Conflict of Interest

There are no potential conflicts of interest with respect to the authorship of this review and/or publication of this article.

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References

1. Bungay H, & Vella Burrows T. The effects of participating in creative activities on the health and wellbeing of children and young people: a rapid review of the literature *Perspectives in Public Health* 2013; 131:45-52

2. Macpherson H, Hart A and Heaver B. Building resilience through group visual arts activities: Findings from a scoping study with young people who experience mental health complexities and/or learning difficulties, 2015; *Journal of Social Work*, 0:1-20
3. DiClemente R, Santelli J, Crosby R. *Adolescent health: Understanding and preventing risk behaviours*. Hoboken, US: Jossey-Bass. 2009, p 54
4. Daniel B, & Wassell S. *Assessing and promoting resilience in vulnerable people*, London: Jessica Kingsley, 2002
5. Green H, McGinnity A, Meltzer H. et al. *Mental health of children and young people in Great Britain 2004*. London: Palgrave, 2005
6. Faculty of Public Health and Mental Health Foundation, *Better Health for All. A Public Health Approach to mental health improvement*. London: Faculty of Mental Health and Mental Health Foundation, 2016.
7. Callaghan J, Fellin L, Warner-Gale F. A critical analysis of child and adolescent mental health services policy in England. *Clinical Child Psychology*, Epub ahead of print 6 April 2016;
DOI:10.1177/1359104516640318

8. Department of Health. *Getting it right for children and young people: Overcoming cultural barriers in the NHS so as to meet their needs*. London: Department of Health, 2010
9. Marmot M. *Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England post-2010*. London: The Marmot Review, 2010.
10. Lewis I. *Report on the Children and Young People Health Outcomes Forum*. Children and Young people's Health Outcomes Strategy 2012.
11. Department of Health. *Future in mind: Promoting, protecting and improving our children and young people's mental health and wellbeing*. London: Department of Health, 2015.
12. Office of the Children's Commissioner for England. *Lightning review: Access to child and adolescent mental health services*. [online] Available at <<https://www.childrenscommissioner.gov.uk/sites/default/files/publications/Children%27s%20Commissioner%27s%20Mental%20Health%20Lightning%20Review.pdf>> 2016 [2016, Accessed 23 July 2016].
13. Department of Health. *Our health our care our say*, London: Department of Health, 2006.

14. Department of Health. *NHS five year forward view*, London:
Department of Health, 2014
15. Thomson LJ, Camic PM, Chatterjee HJ. *Social Prescribing: A review of community referral schemes*, London: University College London
2015
16. Pettigrew M and Roberts H. *Systematic reviews in the social sciences: A practical guide*. Oxford: Blackwell Publishing, 2006
17. Daykin N, Orme J, Evans D, Salmon D, McEachran M and Brain S.
The impact of participation in performing arts on adolescent health and behaviour: a systematic review of the literature. *Journal of Health Psychology*, 2008; 13:251-264
18. Effective Public Health Practice Project. *Quality Assessment Tool for Quantitative Studies*. Hamilton, Effective Public Health Practice Project, [online] Available at <<http://www.ehphp.ca/index.html>> [1998 Accessed 27 June 2016].
19. Critical Appraisal Skills Program (CASP). *Appraisal tool for qualitative research*. Oxford: Public health Resource Unit. [online] Available at <http://www.phru.nhs.uk/casp/critical_appraisal_tools.htm> [2006 Accessed 16 July 2016].

20. Fraser KD & Sayah F., Arts-based methods in health research: A systematic review of the literature, *Arts and Health- an international journal for research policy and practice* 2011; 3:110-145
21. Long AF, Godfrey M, Randall T, Brettle AJ and Grant MJ, *Developing Evidence Based Social Care Policy and Practice. Part 3: Feasibility of Undertaking Systematic Reviews in Social Care*. Leeds: Nuffield Institute for Health. [online] Available at<http://usir.salford.ac.uk/13070/1/Evaluative_Tool_for_Mixed_Method_Studies.pdf>>[2002.Accessed 27 June 2016].
22. Ennis G and Tonkins J. *Youth arts and mental health: exploring connections in the TOP End*. The Research Centre for Health and Wellbeing, Charles Darwin University 2015.
23. Hauseman DC. Youth-led community arts hubs; Self-determined learning in and out of school time (OST) program. *Cogent Education*, 2016; 3: 1210492
24. Kemp M. Promoting the health and wellbeing of young black men using community-based drama. *Health and Education*, 2006; 106:186-200
25. Salmon D, Orme J, Kimberlee R, Jones M, Murphy S. Implementing the Rock Challenge: Young people's perspectives on a drug-

- prevention and performing-arts programme *Journal of Research in Nursing*, 2005; 10:339-353
26. Grunstein R and Nutbeam D. The impact of participation in the Rock Eisteddfod challenge on adolescent resiliency and health behaviours. *Health Education*, 2007;107:261-275
27. Martin A, Mansour M, Anderson M, Gibson R and Liem G. The role of arts participation in students' academic and non-academic outcomes: a longitudinal study of school, home, and community factors. *Journal of Educational Psychology*, 2013;105: 709-727
28. Wood L, Ivery P, Donovan R, Lambin E. "To the beat of a different drum": Improving the social and mental wellbeing of at-risk young people through drumming. *Journal of Public Health*, 2013;12:70-79
29. Wright R, Lindsay J, Alaggia R, Sheel J. Community-based arts program for youth in low income communities: A multi-method evaluation. *Child and Adolescent Social Work Journal*, 2006; 23:635-654.
30. Pawson R and Tilley N. *Realistic Evaluation*. London: Sage, 1997
31. Public Health England. *Arts for health and wellbeing: an evaluation framework*. London: Public Health England, 2016

Table 1. Keywords employed in the literature search

Group 1	Group 2	Group 3	Group 4
"Children and young people"	"Mental wellbeing"	"Creative arts"	"Effectiveness"
Child* Adolescen* Teen* Youth Young* Juvenile* Pupil* Student* School* Curricul* Extracurricular	"Mental illness*" "Emotional wellbeing" "Mental ill-health" Anxiety Depression Self-harm Self-esteem Confidence Resilience "Mental health"	"Art* intervention*" "Social prescribing" "Participatory art*" "Art* participat*" "Art* activit*" Music* Sing* Drama Theat* Danc* "Creative activit*" Song* Art "Visual art*" "Arts on prescription" + Not Operating theat*	Evaluat* Research Intervention* Result* Outcome* Impact

NOTES:

*Truncation.

"Phrase searching"

Words within groups combined with OR

Groups combined with AND.

Table 2. Databases searched

Database	Initial retrieval	Results after Applying limits	Results after title screening	Results after abstract screening	Results after text screening
AMED	162	162	7	0	0
British Nursing Index	459	459	21	15	4
CINAHL plus	5738	282	6	1	0
Cochrane Library	8071		0	0	0
Proquest Family Health	721	460		0	0
Proquest Health and Medical Collection	803	594	2	1	0
Proquest Public Health	2010	24	0	0	0
Proquest Arts and Humanities full text	1210	589	0	0	0
PsycINFO	19688	258	5	0	0
MEDLINE	28024	628	4	1	0
British Education Index	283	266	15	8	2
SCOPUS	441	383	0	0	0
Pubmed	9,580	1058	7	0	0
Web of Science	13,095	6838	22	18	4
Psyc Articles	651	171	4	2	1
Psychology and behavioural science collection	3855	3133	9	3	1
Applied Social Sciences Index and abstracts (ASSIA)	1736	1068	17	11	4
Child Development and Adolescent Studies	765	502	8	7	2
Hand Searches	8	8	6	6	6
Total	97,299	16,882	132	72	24
Duplicates					9
Total selected					15
Rejected after further screening due to lack of recognisable methodology,					8

specified age range and or insufficient data regarding mental health					
Total papers selected for appraisal					8

Table 3. Inclusion and exclusion criteria for selecting studies to review

Inclusion Criteria	Exclusion Criteria
<p>Interventions with children and young people aged between 11 and 18 years old.</p> <p>Community setting and school (extracurricular activities)</p> <p>Creative arts (Sing, dance, drama, theatre, visual arts)</p> <p>English language</p> <p>Mild to moderate mental health conditions</p> <p>Abstract and full text available</p> <p>Qualitative, quantitative, mixed/multi-method studies.</p>	<p>Children and young people under 11 or over 18 years of age.</p> <p>Hospital setting</p> <p>School setting (part of the curriculum)</p> <p>Residential setting</p> <p>Young offenders</p> <p>Children and young people in care</p> <p>Refugees</p> <p>Children with learning difficulties</p> <p>Non-English language</p> <p>Severe mental health conditions</p> <p>No abstract or full text available</p> <p>No recognisable methodology available</p> <p>No results or outcomes or impacts presented</p> <p>Systematic review</p>

Table 4. Characteristics of studies included in the literature review

Qualitative						
Author and date	Study design	Sample size, age range and country	Arts Activity	Key Findings	Limitations/ Comment	CASP score
Ennis and Tonkin (2015) [22]	Retrospective qualitative study Narrative analysis drawn from interviews	17 adult participants Age range during art participation (10-26) Darwin, Australia	Performing arts (Drama and circus skills)	Participants reported a link between arts participation and increased confidence, identity formation and sense of belonging	Retrospective study – number of years since participation in art activity not specified	7 (Moderate)
Hauseman (2016) [23]	Qualitative case studies evaluation Interviews Focus groups Observations	Number of participants in programme not specified Age range (10-18) Canada	Youth-led community arts hubs (Hip-hop based arts disciplines: graffiti, breakdancing, spoken word and beatboxing)	High levels of engagement with the programme Evidence of increased confidence and strengthened skills in chosen art form. Participants displayed coping mechanism to deal with stress.	Limited detail of data collection and analysis Not clear whether focus of evaluation is on the participation in the art activity of the programme overall.	6 (Moderate)
Kemp (2006) [24]	Qualitative Observations Informal conversations	Young black men (Number of participants not specified) Age range	B2B Drama- based health promotion project (Story-telling, theatre and performance)	Evidence of increased self-esteem, confidence self-expression and self-understanding,	There is little detail regarding the interviews. It is not clear how the data from the creative writing course	5 (Weak)

	Semi-structures interviews Focused groups discussions	(14-25) South East London, UK		and sense of achievement Impact on social relationships. Reported increase in artistic skills Increased awareness of stereotypes and underlying attitudes Higher level of social awareness	was collected and analysed	
Salmon, Orme, Kimberlee, Jones, & Murphy (2005) [25]	Qualitative Focus Groups and qualitative data taken from a survey	Focus Groups (n=50 participants) Survey (n=249). Age range (11-18) UK	Performing arts competition (dance and drama) Rock Eisteddfod Challenge	Participants reported: increased confidence, peer interaction, sense of achievement (personal and collective), sense of belonging, having fun, and increased skill	Focus group could lead to reluctance to express own views. Little detail provided as to how or where focus groups were conducted.	7 (Moderate)
Quantitative						
Author and date	Study design	Sample size, age range and country	Arts Activity	Results	Limitations/ Comment	EPPI score

Grunstein and Nutbeam (2007) [26]	Quantitative study using pre and post intervention survey	1458 Students Age range 13-17 Sidney, Australia	Performing arts competition (dance and drama) Rock Eisteddfod Challenge	Evidence that participating in the program could be associated with an enhancement of resiliency; e.g flexibility, empathy sense of belonging and sense of purpose, and communication skills .	Methodological problems were present such as difficulty in identifying a true pre-intervention point to commence study. Difficulty in identifying and maintaining contact with a large cohort of participants.	(Moderate)
Martin <i>et al.</i> (2013) [27]	Quantitative Longitudinal Study	643 students Age range (10-18) Australia	Students were asked to report on levels of Art participation (School-based extracurricular, home-based and community-based) (Art, drama, film/ media and music)	Identified school, home and community-based arts participation factors linked to the prediction of academic and non-academic outcomes (self-esteem, meaning and purpose, life satisfaction).	Only self-reported data available Questionable as to whether the positive results can be attributed to arts participation or to any other activity participation	(Weak)

Wood, Ivery, Donovan and Lambin (2013) [28]	Quantitative pre, interim and post intervention questionnaires	180 students Age range Not specified but included primary and secondary school children At-risk youth Australia	'Drum Circle' Group hand drumming Ten week program School-based	10% increase in self-esteem scores on the adapted Rosenberg self-esteem scale 29% decrease in reported behavioural incidents Reported observed benefits such as group cohesion, more positive interaction with others, improved willingness to learn and follow instructions	Budget and logistic constrains and school timetabling did not allow for the use of a control group. This weakened the rigor of the evaluation. Scale items on one of the questionnaires changed between interim and post intervention	(Weak)
Mixed methods						
Author and date	Study design	Sample size, age range and country	Arts Activity	Results	Limitations/ Comment	Score
Wright, Lindsay, Alaggia and Sheel (2006) [29]	Multi method evaluation Qualitative interviews Quantitative methods: Observations, attendance forms, standardised behaviour checklists and	183 young people Low income Age range 9-15 Canada	9 month program (total of 74 sessions) 90 minute art sessions- twice weekly Theatre and visual arts (mask-making, design and painting)	Reported increased self-esteem, and confidence. Improved interpersonal skills, peer interaction, conflict resolution, and problem solving skills.	Risk of potential bias in the research assistants' observations. The group's acceptance to participate could be associated with their motivation to change which	(Weak)

	pre, interim and post intervention questionnaires.		Based in low income Communities	Enhanced art skills Significant decrease in emotional problems (unhappiness, anxiety and depression)	could lead to potential bias.	
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