Music making for health, well-being and behaviour change in youth justice settings: a systematic review

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SUMMARY
Youth justice is an important public health issue. There is growing recognition of the need to adopt effective, evidence-based strategies for working with young offenders. Music interventions may be particularly well suited to addressing risk factors in young people and reducing juvenile crime. This systematic review of international research seeks to contribute to the evidence base on the impact of music making on the health, well-being and behaviour of young offenders and those considered at risk of offending. It examines outcomes of music making identified in quantitative research and discusses theories from qualitative research that might help to understand the impact of music making in youth justice settings.

Key words: young people; music; health inequalities; systematic review

INTRODUCTION
Youth justice is an important public health issue. Youth offending makes up a disproportionate amount of all crime in many countries (Puzzanchera, 2009; Australian Institute of Criminology, 2010; National Audit Office, 2010) and young offenders are more likely to reoffend than adults (National Audit Office, 2010).

Beyond the self-evident health risks associated with criminal behaviours such as substance abuse, the interrelations between health, well-being and behaviour in offenders are complex (Shepherd et al., 2002). Early contact with the criminal justice system is recognized as a predictor of later premature mortality (Stattin and Romelsjo, 1995). An Australian cohort study found the risk of death in young male offenders to be nine times higher than for the general population; female offenders may be as much as 40 times more likely to die than the reference population (Coffey et al., 2003). A key area of risk is that of injury: a longitudinal study of 411 South London males found that those aged 16–18 who were injured tended to be convicted, suggesting that measures that lead to a reduction in offending should also lead to a reduction in concurrent injuries (Shepherd et al., 2002).

The factors that predict poor health outcomes in this group are difficult to separate from those leading to offending behaviour, with explanations for the associations between health and crime focusing on early life experiences and parental influences that generate poor social control and affect later mental health and behaviour (Shepherd et al., 2002). This suggests that holistic interventions that provide pro-social experiences for young offenders are needed both to reduce offending and to improve health outcomes.
There is growing recognition of the need to adopt effective, evidence-based strategies for working with young offenders and those considered at-risk of offending (Bittman et al., 2009; National Audit Office, 2010). These young people present complex health and social needs arising from experiences of emotional trauma, violence and abuse, drug and alcohol misuse, peer pressure and gang-related activities, poor parenting, family rejection and lack of structured home environments (Lader et al., 2000; Social Exclusion Unit, 2002; Stephens, 2002; Ciardiello, 2003; Chihasbesan et al., 2006; Farrington, 2006; Nurse, 2006; Arnell et al., 2007; Her Majesty’s Inspectorate of Prisons, 2007; Department of Health, 2008; Bittman et al., 2009; Bradley, 2009). Additionally, young people in justice settings show high levels of educational underachievement, learning disability, school truancy and exclusion (Youth Justice Board, 2005; Anderson and Overy, 2010).

Young females appear to be the most vulnerable subgroup of youth justice populations (Howard League for Penal Reform, 1997; Chesney-Lind and Pasco, 2003; Her Majesty’s Inspectorate of Prisons, 2004; Batchelor and McNeill, 2005; Plugge and Douglas, 2006; Tye, 2009). Effective measures to improve health and well-being, reduce offending and encourage re-integration into society in this group may need to address deeper social, emotional and educational needs as well as tackle inequalities and social exclusion.

There is increasing recognition of the potential role of arts in the resettlement of offenders (Miles, 2004; Ruiz, 2004; Wrench and Clarke, 2004; de Viggiani et al., 2010). Music may be particularly well suited to addressing risk factors in young people and reducing juvenile crime (Ruiz, 2004; Baker and Homan, 2007). Music occupies a special place in adolescence, with musical subcultures representing a powerful resource for the development of identity and values (Miranda and Claes, 2004).

Music interventions with young people seek to improve health and behavioural outcomes by providing positive social experiences as well as addressing problematic attitudes and perceptions (Wilson et al., 2008). Hence music interventions are seen as a means of building resilience and supporting well-being at the same time as preventing delinquency (de Carlo and Hockman, 2003). In this way, they seek to promote identity development in young people by providing positive opportunities and resources at the same time as distracting from negative influences and crime.

While a growing number of music interventions seek to deliver health and behavioural outcomes for young people in justice settings, evaluating such interventions, which are often disparate, small scale and short-lived, is challenging (Miles and Clarke, 2006). This evidence review seeks to add to the knowledge base on the effects of music-based work by providing an up-to-date synthesis of published research and evaluation of music projects targeting young people who have come into contact with youth justice systems.

The question guiding the review is:

What is the evidence surrounding the impact of music making on the well-being, health and behaviour of young offenders?

METHODS

The systematic review was undertaken between March and July 2011, and involved several stages including literature searching, relevance screening, critical appraisal, data extraction and narrative reporting of findings.

An electronic search of 11 databases (Table 1) was undertaken using the search strategy outlined in Figure 1. The full search was undertaken between 4th and 8th April 2011 and generated 567 hits, including 8 duplicates.

The abstracts of 559 hits generated in the initial search were screened using defined inclusion and exclusion criteria (Figure 2). It is difficult to categorize a discrete youth justice population, partly because of international differences in offender management. However, the study sought to capture the range of youth music provision by including interventions with young people aged between 11 and 25. The study also included a range of settings and not just custodial settings: this is because in many countries significant efforts are made to keep young people out of custody. The youth justice system was defined to include community-based interventions with identified groups who are known to youth justice professionals and clearly identified as ‘at risk’ of offending. Hence interventions within mainstream populations were excluded, as were studies of disadvantaged and clinical populations who share some
characteristics of young offenders but who were not been targeted by interventions on the basis of having committed an offence.

The process identified 63 potentially relevant papers. A further 14 were identified from the reference lists of relevant papers. Full text screening of 731 relevant papers identified 11 relevant studies, including research in the UK, Australia, the USA, Canada and South Africa (Table 2).

Critical appraisal (Public Health Research Unit, 2006) revealed that these papers were of varying quality. Most studies used validated outcome measures and higher quality studies (Kennedy, 1998; Tyson, 2002; Bittman et al., 2009) employed randomization to investigate the impact of music interventions. However, all the quantitative studies had relatively low sample sizes and a limited focus, often on a single institution. This reflects the fact that they were small scale, often undertaken by practitioners in their place of work. There was a general lack of detail in the reporting of research design, recruitment and data collection.

Common methodological weaknesses also characterize the qualitative reports, including a failure to sufficiently distinguish project activity from research, lack of detail about recruitment, sampling and data collection, and failure to report analysis and verification techniques. While study findings are often well contextualized in relation to the wider literature, it is not always possible to identify how well they are grounded in data analysis. These weaknesses make it difficult to assess the credibility of some results.

Across the studies more generally, ethical issues were not discussed in depth. While authors often note that consent forms were signed, it was not always clear that consent was taken for participation in the research as opposed to the music intervention.

### STUDY FINDINGS REPORTED

The interventions took place in different countries where particular social contexts surround crime, shaping variations in political and judicial arrangements that make it difficult to generalize from the results. Some of these differences are illustrated by the different interventions and research approaches identified. In the USA, interventions and research seem more strongly framed around clinical and therapeutic discourse, and the studies were more likely to take the form of quantitative evaluations of an intervention by a sole practitioner in their place of work. In contrast, the South African studies were strongly influenced by post-apartheid

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1 Four papers were unobtainable. These included three out-of-print UK project evaluations and a PhD thesis from a US University. Further abstract screening and correspondence with the authors or with those who had cited these in reports indicated that these papers were unlikely to be relevant, being focused on arts in general and not including substantive music content.
social relations, both highlighting the need to address young offenders’ experiences using social models and empowerment. In the USA, UK and Australian studies, issues of power and racism also formed the backdrop for arguments about effective music making with young offenders. This was apparent in discussions about the role of rap music and hip-hop culture.

The role of rap and hip-hop music is controversial. Negative perceptions of rap tend to focus on the emergence of ‘gangsta rap’, a subgenre that emerged from the mid-1980s and that departed from earlier message-oriented forms to describe gang life from the perspective of a criminal (Kubrin, 2006). Critics of this genre emphasize the problematic nature of its lyrics including sexist, misogynistic, homophobic, violent and nihilistic content values (Mahiri and Conner, 2003; Kubrin, 2006; Tanner et al., 2009). More broadly, this has been linked with concerns about a growing culture of violence fostered in media targeted at young people (Sylvester, 2003), although few studies have systematically researched the relationship between rap music and criminal identity in young people. Gangsta Rap is only one subgenre, and Tyson (Tyson, 2002) identifies various positive themes in rap music—including self-concept, positive racial identity, group identity and peace and unity—that can be emphasized in interventions with young people. While rap music originated from Black Atlantic and African American experiences, the studies support Tyson’s contention that it is widely embraced by young urban people from disadvantaged backgrounds (Tyson, 2002).

RESULTS FROM THE QUANTITATIVE STUDIES

Sample sizes of the quantitative studies ranged from 11 to 52, and the age ranges differed markedly between studies, ranging from 8 to 21 years. Study populations were weighted towards males, some reporting ethnic diversity in the sample, although low numbers prevented detailed outcomes analysis by gender and ethnicity.

The quantitative studies compared a range of outcomes, including improved confidence, self-esteem, self-concept, education/work performance, dyslexia, interpersonal relationships, social skills, mental well-being, emotion, mood and anger. They also examined different kinds of music intervention, including performance, playing instruments and exploring rap lyrics.
While these differences mean the data cannot be combined, some comparable themes arose from the study findings, particularly for the three US studies in residential settings. These studies sought to identify outcomes such as improved self-esteem and behaviour that might be linked with a reduced risk of future offending and improved health and well-being. Kennedy’s US-based randomized control study assessed the effects of music on self-esteem and self-efficacy (defined as the expectation of successfully meeting challenges, overcoming obstacles and bringing a task to successful completion) (Kennedy, 1998). It involved 45 participants in residential settings (two homes for at-risk youth and a juvenile detention centre). Musical performance, supported by instrumental coaching, was compared with other interventions, including cognitive behaviour strategies and vicarious experience in the form of observation of videotaped performance by others. The self-efficacy scores, for those involved in musical performance alone and for those with whom this was combined with cognitive behaviour interventions, were significantly higher than for those receiving cognitive

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**Inclusion criteria (phase 1 abstract screening)**

- Interventions with children and young people aged 11-25 years.
- Interventions in Young Offender Institutions and youth justice settings.
- Interventions with young people identified as ‘at risk’ of offending or displaying characteristics associated with offending (exclusion from school, not in mainstream education, training or employment).
- Music interventions including singing, rapping, songwriting and music technology.
- Papers reporting outcomes and exploring impacts relating to offending behaviour, health and wellbeing as a result of interventions.
- English language.
- Papers published from 1996 to 2011.

**Inclusion criteria (phase 2 full text screening)**

- Outcome measurement of a music intervention (quantitative research).
- Recognised procedures for data collection reported (qualitative research).

**Exclusion criteria (phase 1 abstract screening)**

- Interventions with children under 11 years or adults over 25 years.
- Interventions with mainstream populations not identified as ‘at risk’.
- Interventions not in youth justice settings.
- Not music interventions.
- No outcomes or impacts reported.
- Papers published before 1996.
- Non English language.

**Exclusion criteria (phase 2 full text screening)**

- No outcome measurement of a music intervention (quantitative research).
- No recognised procedures for data collection reported (qualitative research).

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**Fig. 2:** Relevance screening: inclusion and exclusion criteria.
<table>
<thead>
<tr>
<th>Author (date), journal</th>
<th>Research design and setting</th>
<th>Intervention and control</th>
<th>Data analysis</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson and Overy (Anderson and Overy, 2010), International Journal of Community Music</td>
<td>Mixed methods study (non-randomized comparison with control) of young offenders in custodial settings in Scotland</td>
<td>Music group met weekly for guitar based work for 8 weeks. Culminated in group performance. Art group created a group sculpture. The control group took classes in numeracy and maths or communication and literacy</td>
<td>Pre- and post-assessment of emotion, locus of control, self-esteem and dyslexia, using descriptive statistics comparing pre- and post-measures (including standard deviation) within and between groups. Project data and thematic content analysis</td>
<td>14</td>
</tr>
<tr>
<td>Baker and Homan (Baker and Homan, 2007), Journal of Youth Studies</td>
<td>Ethnographic study of the impact of music in a young offender institution in the USA</td>
<td>Weekly/twice weekly sessions for the length of stay in the facility. Individual and group instrumental music sessions plus rap, sequencing and CD production</td>
<td>Thematic analysis of limited observation data as well as song lyrics, programme evaluation forms and semi-structured interviews with staff, music tutors and youth justice professionals</td>
<td>Unknown</td>
</tr>
<tr>
<td>Bittman et al. (Bittman et al., 2009), Advances in Mind-Body Medicine</td>
<td>Randomized controlled cross-over study in a secure, court referred residential treatment centre in the USA</td>
<td>Music group met weekly for instrumental work for 6 weeks. During non-intervention periods, controls continued normal structured routines of therapeutic and educational activity</td>
<td>Assessment pre-, post and at 12 week follow-up of measures, including function, anger, depression. Dependent and independent t-tests, comparing changes in within- and between-group outcome measures, for experimental, extended and control groups</td>
<td>52</td>
</tr>
<tr>
<td>de Carlo and Hockman (de Carlo and Hockman, 2003), Social work with groups</td>
<td>Community-based outcomes study of social work practice with urban adolescents in the USA</td>
<td>Rap therapy group met twice weekly for 6 weeks. All participants also attended a weekly comparison psycho-educational group therapy session</td>
<td>Post-test assessment of affective response, pro-social skills and preference for mode of intervention. Chi-square tests to assess differences between groups</td>
<td>21</td>
</tr>
<tr>
<td>Gann (Gann, 2010), PhD thesis, Wright Institute, Berkeley, CA</td>
<td>Pre- and post-test study with participant observation, based in two urban US schools targeting at risk youth</td>
<td>Hip-Hop Therapy group met weekly for 10 weeks to discuss and compose rap lyrics and practice freestyle rapping</td>
<td>Paired T-tests to determine significance of changes in attitudes, self-concept and social support between pre-test and post-test scores. Qualitative observations were also used</td>
<td>13</td>
</tr>
<tr>
<td>Kennedy (Kennedy, 1998), University of Kansas PhD thesis</td>
<td>Randomized controlled trial with pre-, post- and one month follow-up test of five conditions. Based in two residential youth homes for at-risk youths and a juvenile detention centre in two US cities</td>
<td>Conditions included musical performance only, performance plus cognitive strategies, cognitive strategies only, vicarious experience and control condition of no intervention</td>
<td>Pre- and post-assessment of self-efficacy and self-esteem using correlational, univariate and multivariate analyses</td>
<td>45</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Institution</td>
<td>Title</td>
<td>Methodology</td>
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<td>Lashua (Lashua, 2005), University of Alberta</td>
<td>2005</td>
<td>PhD thesis; Lashua and Fox (Lashua and Fox, 2007), Leisure Sciences</td>
<td>Arts-based qualitative research exploring remixing and rap in a specialist school-based setting for ‘at risk’ and delinquent youth with mainly Aboriginal heritage in a Canadian city.</td>
<td>Participants attended a 10 week programme of creating beats, writing and recording rhymes, spinning and scratching vinyl records, experimenting with sound editing software, CD production, social interaction and listening to music</td>
</tr>
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<td>Lotter (Lotter, 2003), University of Pretoria</td>
<td>2003</td>
<td>MMus (Music Therapy) dissertation</td>
<td>Qualitative practitioner research on the role and contribution of music therapy to a social rehabilitation project for adolescents at risk in South Africa</td>
<td>Improvisational music therapy using instruments (drums, piano, guitar), recorded music and songwriting using rap genre</td>
</tr>
<tr>
<td>de Roeper and Savelsberg (de Roeper and Savelsberg, 2009), Journal of Youth Studies</td>
<td>2009</td>
<td></td>
<td>Community-based ethnographic study of the impact of a combined arts programme on disadvantaged ‘at risk’ young people in South Australia</td>
<td>Participants met for 2 days a week over 5 months, with digital music and rapping culminating in a performance during a local youth arts festival. Other activities such as dance and acting were included</td>
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<tr>
<td>Tyson (Tyson, 2002), Journal of Poetry Therapy</td>
<td>2002</td>
<td></td>
<td>Pre- and post-test experimental study and interviews with participants following Hip-Hop Therapy (HHT). Based in a residential facility for at risk, homeless youth in the USA</td>
<td>HHT intervention group met three times a week for 4 weeks to discuss lyrics from rap music selections. Controls met with the same frequency for standard group work</td>
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<tr>
<td>Woodward et al. (Woodward et al., 2008), International Journal of Community Music</td>
<td>2008</td>
<td></td>
<td>Mixed methods evaluation of a diversionary music programme for young offenders in South Africa</td>
<td>After-school instruction in African marimba and djembe using oral techniques and improvisation. Included ensemble performance</td>
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</tbody>
</table>
behaviour interventions alone or vicarious experience alone. The self-esteem scores for those involved in musical performance also improved significantly following the intervention, although the results did not differ significantly when compared with the alternative intervention types. Those involved in either the vicarious experience or cognitive intervention alone scored lower than the control group with no intervention, suggesting that these two intervention groups were actually better off without treatment. The author concludes that musical performance either alone or combined with a cognitive behaviour intervention is a superior strategy for increasing musical self-efficacy of young in juvenile/justice settings.

Bittman et al.’s randomized controlled study assessed the effects of a structured music programme (hand drums, percussion and keyboard) on 52 participants aged 12–18 years in a secure, court-referred residential treatment centre in the USA (Bittman et al., 2009). Music programme participants showed significant improvements in school/work role performance, depression and mood, negative self-evaluation and anger. Follow-up measures 6 weeks following programme completion found positive results for performance, mood, anger and interpersonal problems. Tyson used a well executed pre- and post-test design, with appropriate allocation to intervention and control groups, to assess the effects of Hip-Hop Therapy (HHT—a synergy of hip-hop, bibliotherapy and music therapy, involving discussion of rap lyrics and emphasising positive themes) on participants in a residential setting for at-risk youth in the USA (Tyson, 2002). The statistical data were inconclusive, perhaps due to small sample size (14), but participants involved in post-project interviews spoke very highly of the intervention.

The small sample sizes for these studies, and their limited focus on particular residential centres in the USA, means there are limits to the extent to which their findings may be generalized to other youth justice settings. Nevertheless, their findings for outcomes of music, including self-efficacy, self-esteem, educational performance and mental well-being, warrant further research. In order to build on this research, future studies should involve larger samples and extended follow-up in order to support conclusions about longer-term outcomes of music intervention.

Beyond the USA, a Scottish mixed methods study (Anderson and Overy, 2010) examined the effects of music (guitar playing and group performance) and art (creation of a group sculpture) on 14 young offenders in a custodial setting. Pre- and post-measures included an emotion scale and validated measures of locus of control, self-esteem and dyslexia. In addition, behaviour and education attendance records were analysed from 3 months before the project commenced to 3 months afterwards. The authors reported mixed results for the outcome measures. Increases in self-esteem were observed both for the music intervention and control groups, but not for the art group. The locus of control measure indicated that participants in all three groups had less control over their behaviour post-project. Emotion scores showed improvement in the music and art groups but not in the control group. These quantitative findings are difficult to interpret, partly because of weaknesses in the methodology; this would have been stronger had the groups been randomized to one of the three interventions, rather than partly self-selected. The small numbers involved, combined with the issue of self-selection, means it not possible to be confident about the representativeness of the participants to the source population. The data analysis was also limited, as confidence intervals and p-values were not provided to support comparison of outcomes by indicating whether between-group differences were simply a result of chance. However, these weaknesses are to some extent mitigated by good use of triangulation, with participants reporting positive responses to the music and art groups, and interview data suggesting that they found these engaging and meaningful. Other data reveal a decrease in behaviour-related incidents, i.e. breaking prison rules, for the music group alone as well as increased engagement with education during and after the project for the music and art groups, with the largest increase in the music group.

Two US studies in non-residential settings examined Rap therapy, a group work intervention involving analysis of a range of lyrics that can also involve composition and freestyle rapping. The starting point for de Carlo and Hockman’s (de Carlo and Hockman, 2003) study is the recognition that therapeutic interventions with young people often fail if the
activity is not perceived by participants as relevant. While the study did not examine outcomes directly, it explored young people’s perceptions of Rap therapy both in terms of enjoyment and as a tool for promoting prosocial skills including anger management, impulse control, avoiding delinquent behaviour, morality development, female gender abuse and decision-making. The study included 21 adolescents, including violent and status offenders and high school students with no criminal history. Participants compared the Rap therapy with standard group work that they all undertook. Rap therapy was vastly preferred by participants, regardless of background, with significant differences favouring Rap therapy observed in relation to prosocial skills development as well as levels of relaxation, enjoyment and excitement about upcoming meetings. Gann also examined the impact of Rap therapy in a pre- and post-test study of 13 young people in two urban US schools (Gann, 2010). The results were mixed, with anticipated improvements in self-concept and social support not confirmed in statistical analysis. Interpretation of these data, and their generalization to other settings and populations, is limited by methodological weaknesses affecting both studies, including small sample size. In both cases, a randomized trial approach would have been practical and preferable for measuring these outcomes, and would have helped minimize bias as an explanation for the findings.

FINDINGS FROM THE QUALITATIVE STUDIES

Of five qualitative studies identified, four focused on rap and hip-hop culture (the exception, Woodward et al., 2008, involved instruction in traditional African instruments). Three of these projects involved instrument playing while Lashua (Lashua, 2005) and de Roepere and Savelsberg (de Roepere and Savelsberg, 2009) explored digital music and rapping.

Six key themes emerged from the qualitative studies: identity; empowerment; the role of rap music and hip-hop culture; cultural relevance; expression and sustainability and resources.

In relation to identity, several studies emphasize the way in which music making can help participants to shape individual and collective identities, for example, by providing practical opportunities for development and diverting attention away from negative influences. These findings suggest that identity is viewed as a reflexive concept that can be shaped by activity and interaction rather than a fixed entity. Baker and Homan note that music sessions for young men in a US custodial setting provided a brief period of liberation from the highly structured, disciplinarian environment (Baker and Homan, 2007). They observed participants’ improved organizational skills and the sense of purpose, achievement and identity they derived from producing a music CD. The project was seen to reinforce participants’ self-esteem by demystifying the process of songwriting and composition. It also developed participants’ capacity to reflect on their behaviour. Similar impacts are reported in the Australian study by de Roepere and Savelsberg (de Roepere and Savelsberg, 2009) who suggest that taking part in a community-based hip-hop culture project helped at risk young people to develop confidence, skills, ambition and a stronger sense of identity. However, the data are limited and the findings are presented as preliminary. Woodward et al., reporting in the South African context, suggest that the programme provided opportunities to explore creative identities, offering relief from stress and diversion from negative influences, experiences and conflict (Woodward et al., 2008).

Linked to the theme of identity is that of empowerment. As well as being focused on individual change, several authors argue that projects need to acknowledge and mitigate the impact of disadvantaged social environments (Lotter, 2003; Baker and Homan, 2007; Woodward et al., 2008; de Roepere and Savelsberg, 2009). Gann (Gann, 2010) suggests that effective music activity needs to adopt appropriate group work principles of empowerment, for example, addressing participants’ felt needs and wants, rather than responding to diagnoses or labels, plus maintaining a dual focus on individual change and social reform [see also (Lotter, 2003; Malekoff, 2004)].

In the qualitative studies reviewed, the transformative potential of music is often attributed to the capacity of the rap genre to challenge social alienation (Lashua, 2005; Baker and Homan, 2007). Several authors suggest that young people respond positively to rap as a genre that acknowledges their backgrounds and respects ‘their’ music. The exception is
Woodward et al. (Woodward et al., 2008), whose evaluation of a South African music project explores the way in which poverty and disadvantage can undermine cultural awareness. This project sought to provide participants with a framework that fostered individual success and recognition while encouraging community cohesion. This was attempted by providing safety as well as educating participants about their culture and history through use of traditional instruments.

The theme of cultural relevance emerged in several studies. Baker and Homan found that some young men resisted rules imposed by project staff who had proscribed ‘negative’ lyrics as well as codes of language, dress and deportment (Baker and Homan, 2007). Similarly de Roeper and Savelsberg (de Roeper and Savelsberg, 2009) found participants were highly selective in their choice of activity and rejected activities that did not fit with their perceptions of cultural and gender relevance.

The theme of expression emerged in several qualitative studies, with music making viewed as affording young people valuable opportunities for emotional release as well as resources for coping with difficult feelings (Lashua, 2005; Woodward et al., 2008; de Roeper and Savelsberg, 2009). Lashua (Lashua, 2005) reporting on a digital music project with young people from mainly Aboriginal backgrounds, showed how participants with literacy problems were able to create complex, spontaneous rhymes through the medium of rap [see also (Lashua and Fox, 2007)]. They reported that the programme was meaningful and made school more enjoyable, helping them to stay out of trouble. Activities such as rap battles provided an acceptable outlet for aggression and enabled participants to demonstrate their skills, gain respect and learn humility.

Finally, the theme of sustainability was raised, with some authors drawing attention to the short term nature of projects and the frustration and disappointment that some young people may feel at the end of projects (Woodward et al., 2008; de Roeper and Savelsberg, 2009).

As well as identifying themes, the review process identified key theoretical assumptions emerging from the qualitative studies. Table 3 compares these by drawing out the mechanisms of impact assumed to influence effective interventions as well as the prerequisites for project success and constraints on successful impacts.

**DISCUSSION**

This review has examined the impact of music projects on young offenders and young people at risk of offending, encompassing research from the UK, Canada, Australia, South Africa and the USA. While the different social contexts and cultural relations that shape criminal justice systems in these countries make it difficult to generalize from these studies, some common themes have emerged. The review has included quantitative and qualitative research. It is difficult to combine these two study types since they explore different questions, with the quantitative studies pointing to positive outcomes from music making and the qualitative studies shedding light on the processes and interactions that shape project experiences in particular contexts.

While the studies are limited by methodological weaknesses in some instances, the review suggests that music making may be an important tool for the promotion of health and the prevention of offending in young people. It also highlights some challenges associated with music-making activity. The impact of music making may be contingent upon the extent of ‘ownership’ felt by the young people taking part. There is a tendency in some accounts to render such ownership as a function of a particular genre. However, it is unlikely that any music genre ‘speaks for itself’ in this way. Responding to young people’s musical preferences and experiences is clearly a complex challenge. On the one hand, attempts to impose musical forms and genres perceived as ‘inauthentic’ may result in failure to engage young people. On the other hand, young people’s attachment to specific genres may not be fixed. Music-making projects can also widen horizons and address disadvantage by informing young people about cultural resources (Baker and Homan, 2007; Woodward et al., 2008; de Roeper and Savelsberg, 2009). Ownership and engagement are likely to vary across contexts and can be influenced by a range of factors, including the skills, approaches and values of those leading music projects (Tyson, 2002; Lashua, 2005; Baker and Homan, 2007; Gann, 2010).

Despite the differences between these studies, a core argument arises from them suggesting that the impact of music making on young people in justice contexts may be limited by adherence to individualistic notions of
creativity, emphasis on deviant biographies and behaviours, and detraction from wider questions of history, identity and resistance. Successful interventions may allow young people to safely express their hopes, dreams and frustrations, and thereby offer a means of coping and asserting control over life (Lashua, 2005).

**CONCLUSION AND RECOMMENDATIONS FOR FURTHER RESEARCH**

In conclusion, while it is difficult to generalize from these diverse contexts, the studies provide useful insight into the range and potential impact of music making with young offenders and young people at risk of offending or re-offending. Further research is warranted in relation to music outcomes, particularly personal growth, education and mental well-being for young people in specific justice settings. The qualitative papers tell a strong story about the implications of using music with young offenders. They highlight key theoretical perspectives and explore the prerequisites for successful outcomes and the constraints on these. The studies are, however, inconclusive, which raises challenging questions for practice, including how to balance the need to validate young people’s identities, secure engagement and, at the same time, offer disadvantaged young people alternative resources for identity, growth and choice.

There is both a need and an opportunity to strengthen this research evidence base. Studies that seek to measure outcomes should adopt, where possible, a randomized controlled trial approach, using power calculations for determining sample size. Credible qualitative research is also needed, with findings that are not only contextualized in terms of the broader literature, but strongly emergent.
from primary research. The use of qualitative methodologies should also be underpinned with clear epistemological rationale for approaches adopted; weaker studies continue to report ‘outcomes’ that would be better suited to quantitative assessment. Finally, closer attention is needed to the reporting of ethical issues, acknowledging access protocols, participants’ rights, consent, confidentiality and status within projects, risk management and data protection; particularly where children are engaged in research, who may require in loco parentis consent.

LIMITATIONS OF THE REVIEW

This review of the impact of music on the health and behaviour of young people in youth justice contexts has included quantitative and qualitative research from the USA, Canada, Australia, South Africa and the UK. While these diverse contexts make it difficult to generalize, it strengthens the case for recognizing youth offending as a public health issue and highlights issues and needs that should be addressed in health promotion and crime prevention strategies. It also identifies key issues for the development of practice and further research.

The review does not encompass all young people at risk of crime. Young offenders demonstrate similar social and economic profiles to disadvantaged young people in general, and share disproportionately high levels of psychiatric morbidity and learning disability. International variations in youth justice provision mean the review has not considered overlapping or inter-related settings, such as specialist mental health services or general educational settings, where participants are not specifically identified as having committed a criminal offence or been identified as at risk of offending. Other reviews have addressed this gap to some extent; Gold et al. (Gold et al., 2004) assessed the impact of music and music therapy on young people with psychopathology, while Daykin et al. (Daykin et al., 2008) assessed the impact of performing arts on young people in non-clinical settings. A useful topic for future review may be the impact of music making on the health and behaviour of disadvantaged young people in general.

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