THE IMPACT OF ARTS INTERVENTIONS
ON HEALTH OUTCOMES

A SURVEY OF YOUNG ADOLESCENTS
ACCOMPANIED BY A REVIEW OF THE LITERATURE

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CREATIVITY CULTURE & EDUCATION
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Contents

THE IMPACT OF ARTS INTERVENTIONS ........................................................................................................ i

ACKNOWLEDGEMENTS .......................................................................................................................... iii

Chapter 1: Exploring connections between student wellbeing, school ethos, classroom climate and general health outcomes ........................................................................................................ 3

Background .............................................................................................................................................. 5

The work of Creative Partnerships and the Cambridge Studies .................................................................. 6

Creative Partnerships, Wellbeing and Health .......................................................................................... 6

Chapter 2: Overview of the Search Approach deployed for the Literature Review ..................................... 9

Stage 1: Informal Search ........................................................................................................................ 11

Stage 2: Formal Search ........................................................................................................................ 12

Selection criteria deployed to identify final list of sources to be consulted ........................................... 13

Chapter 3: Therapeutic Use of the Arts in Clinical Settings ..................................................................... 17

Characteristics of Music-therapy / Music Arts-based Approaches Studies in Clinical Settings ............... 21

Music-therapy studies targeting emotional aspects of health ................................................................ 22

Music-therapy studies targeting children and young people with special educational needs ............... 25

Music-therapy studies targeting physical health conditions .................................................................. 29

Summary ................................................................................................................................................. 29

Characteristics of Visual-arts Studies in Clinical Settings ..................................................................... 29

Summary ................................................................................................................................................. 33

Characteristics of Dance, Expressive Movement and Drama Studies in Clinical Settings ..................... 34

Summary ................................................................................................................................................. 38

Characteristics of Studies involving Creative Expression through Writing, Poetry or Story-telling in Clinical Settings .......................................................................................................................................... 39

Characteristics of Play Therapy Studies in Clinical Settings .................................................................. 41

Overall Conclusion on the Efficacy of Arts-based Interventions in Clinical Settings ............................. 43

Chapter 4: Therapeutic Uses of Arts in School Settings ........................................................................... 45

The context of School-based Interventions ............................................................................................. 48

Musical Interventions in School Settings ............................................................................................... 49

The Use of Drama for Psycho-social Development ............................................................................... 54

Interventions designed to cope with Trauma ......................................................................................... 55

Impact of Arts Interventions on Wellbeing and Health ........................................................................ 56

Arts Interventions and Health Promotion ............................................................................................. 58

Comments, Reflections and Suggestions ............................................................................................... 61

Chapter 5: The work of Creative Partnerships ......................................................................................... 65

The next two diagrams look at the link with feeling energetic and the two forms of wellbeing .............. 70

Chapter 6: Student Perceptions of their Health: Findings from the survey ............................................. 75

Preliminary Analysis: Response to Individual Health Items .................................................................... 77
Chapter 1:

Exploring connections between student wellbeing, school ethos, classroom climate and general health outcomes
Chapter 1: Exploring connections between student wellbeing, school ethos, classroom climate and general health outcomes

Background

There have been a number of initiatives within the literature on wellbeing which have sought to link factors such as ‘life satisfaction’ or school adjustment, often expressed as ‘school connectedness’, to aspects of physical and mental health (McNeely et al, 2004). Large scale surveys such as the Health Behaviour in School Aged Children (HBSC) series of international studies sponsored by the World Health Organisation have produced three separate reports which have been summarised by Currie et al. (2008) while the UNICEF (2007) Report card asked respondents to rank their health in percentage terms on a scale ranging from poor to fair. In the HSBC study secondary pupils recorded the highest levels of stress. The UK rankings on the UNICEF report card were also generally among the lowest except in the case of health which were in the mid range (12th from 20). In general, these studies have used very broad variables to describe both wellbeing and health. Where attempts have been made to link such outcomes with aspects of schooling, the characteristics chosen have not discriminated successfully between students, except for extreme groups such as those with special educational needs.

Studies conducted within a specific medical, and particularly a psychiatric, framework tend to deal with ‘problem cases’ and as such their interest in schooling tends to be peripheral although more detailed in their identification of health issues. These tend to be mainly concerned with the adolescent’s emotional adjustment with parents or peers or with problems of conduct (Collinshaw et al, 2004). Estimates suggest that less than 10% of the school population experience severe problems although when a professional diagnosis is replaced by the assessments of non-experts, such as parents, teachers etc., the percentage rises above the ten percent level with around 59% of these students, aged between 11 and 13 years showing persistent problems over a three year period (Parry-Langdon, 2008). In summary, the more general wellbeing surveys are too broad and do not investigate variations at teacher and classroom level while clinical studies tend to give more attention to the family and peer group rather than school contexts.

An exception to the above has been the study of various arts-therapy treatments. Arts therapy approaches in various disciplines tend to concentrate on individual symptoms and needs, focusing on diagnosing and then treating a specific health or medical problem. In the United States, in particular, therapeutic approaches are now being used within the school environment where often specific groups of vulnerable young people are targeted and the process is managed and led either by trained therapists or more often by generalist school counsellors with the advice of the specialist from the local school board. This might suggest that arts therapy is best used with small numbers of individuals who experience mental health or behaviour problems, and that it may not be appropriate for promoting wellbeing across the whole school. However, there have been a number of whole school interventions designed to support pupils’ emotional and social development (Karkou and Sanderson, 2004). One such collaborative project culminated in the development of a school mental health programme run by
teachers in one local authority’s secondary schools. Teachers reported that ‘students were actively engaged and deeply committed in most cases, and that they appeared more confident and more able to communicate with others.’ (Karlou and Glasman, 2004:64).

**The work of Creative Partnerships and the Cambridge Studies**

The above reference to ‘classroom climate’ provides a direct link to the work of Galton (2010) and the follow up study by McLellan, Galton, Steward and Page (2012). Galton’s (2010) research studied the interventions of 10 creative practitioners (including film makers, photographers, dancers, as well as visual and literary artist) all of whom had established a reputation among schools for re-motivating disengaged students. These creative practitioners were followed over the course of a year in an attempt to establish what made them so effective in bringing about changes in classroom climate which led to student re-engagement in most cases. Although Galton’s (2010) study did not measure student wellbeing specifically, it was clear from student interviews that the interventions of these creative practitioners produced a classroom climate which was supportive and where these previously failing students once again felt successful and confident.

These findings led to a proposal for a further study where the impact of Creative Practitioners in particular and Creative Partnerships in general on pupil wellbeing was investigated directly. Rather than using broad descriptors of the construct, as in previous survey research, a detailed wellbeing questionnaire was constructed which on subsequent analysis yielded four distinct reliable scales representing both *hedonic* and *eudaimonic* aspects of wellbeing, the former being primarily concerned with a person’s feelings and the latter with their functioning or well-doing. The Creative Partnerships’ schools tended to promote both aspects of wellbeing while schools outside the programme tended to promote mainly hedonic aspects (McLellan et al., 2012). One particular interesting finding concerned the decline in life satisfaction and feelings of competency among pupils during transition from primary to secondary school. A successful approach was therefore made to the Nuffield Foundation, which has had a longstanding interest in the mental health and wellbeing of young adolescents, to support a further investigation of this phenomenon. This study, commencing in the summer term of 2013 and due to end in December 2014, has measured student wellbeing on three occasions (pre-transfer in June, 2013, at the end of the first half term in the secondary school in November, 2013 and towards the end of the first year in secondary school in June, 2014) using McLellan et al’s., instrument. Two specialist Arts Colleges have been matched with two other secondary schools and in addition to the wellbeing survey the students have been interviewed and classes have been observed.

**Creative Partnerships, Wellbeing and Health**

Although there have been several evaluations of Creative Partnerships, apart from that of wellbeing by McLellan et al. (2012), none of these have touched on possible associations with the health of students. There are reasonable grounds for hypothesising such links. The practices associated with Creative Partnerships and the environment this creates have been shown to result in the kind of motivational changes which foster *eudaimonic* wellbeing, and since certain health outcomes are also said to be promoted through implementing similar principles (Ryan & Deci, 2000), it seems a reasonable hypothesis
to suggest that schools which adopt the same or similar teaching approaches to those identified in CP programmes, and which lead to enhanced well doing in addition to well being, will also produce beneficial health outcomes. Before embarking on such a relatively expensive extended programme of research, however, it was thought worthwhile to begin with a smaller pilot. The current Nuffield research project provided a ready opportunity to embark on such an enterprise, and after seeking the agreement of the Nuffield Foundation, support was forthcoming from the Guy’s and St Thomas Charitable Trust. Accordingly, the current wellbeing questionnaire was extended to include additional items dealing with aspects of the student’s health. This was piloted in one of the schools in July 2013 and subsequently revised before being administered to pupils in all four schools on two occasions (November 2013 and June 2014). In addition to these measurements it was suggested that it would be valuable to undertake a review of the use of art therapies in school settings over the last two decades and to explore possible links between this body of research and the approach adopted by creative practitioners.

This report combines the results of both endeavours. The next chapter sets out the criteria used to conduct the literature review. This is followed by a brief account of the use of various art therapies in a clinical context by way of background, before a more extended discussion of the use of such approaches in school settings is presented. In the next chapter an analysis of the three items pertaining to health outcomes in McLellan et al’s (2012) Creative Partnerships’ study are examined and their relationship to both the feeling and functioning forms of wellbeing explored. This is followed by a detailed examination of the results of the current health survey before a final chapter in which certain implications arising from this small-scale pilot study are presented.
Chapter 2:

Overview of the Search Approach deployed for the Literature Review
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We embarked upon a two-stage search process to identify and explore relevant literature for this review. In the first stage, an informal search was conducted to scope the territory relatively broadly with a relatively open brief to find literature connecting arts-based approaches and health outcomes. As a result of this process we were able to articulate clear questions we wished to address in our review of the literature, which are listed below:

1. What type of *health outcomes* are being targeted in the context of arts-based interventions in small group / clinical settings?

2. What types of arts interventions are being used in small group / clinical settings to target the identified health outcomes?
   a. Are there trends for certain art forms (such as drama, dance, music, visual art etc.) to be used to promote specific health areas (e.g., mental, physical, emotional, social, personal health)?

3. How are these interventions being transferred to and implemented at the school level?
   a. What are the implications of translation of such interventions?
      i. Are they run by outside or inside agencies (such as a qualified professional or untrained school staff member, respectively)?
      ii. What issues emerge in scaling up small scale interventions?
      iii. How are these programmes being evaluated and what factors may help or hinder their effectiveness (e.g., form of delivery or types of adaptations)?

4. What recommendations can be given to improve existing practices and the development of future interventions?

In the second stage a more formal search was conducted to ensure we identified the most appropriate literature for close reading such that our questions could be addressed. These stages are described in more detail below, including the criteria used to select the final list of sources consulted.

**Stage 1: Informal Search**

This stage consisted of informal searches to obtain a general ‘feel’ of the existing literature. Specifically, we used this phase as an opportunity to see whether others had published on similar topics (and subsequently, determine how to build upon these reviews), as well as develop a more formal search strategy by identifying keywords and phrases through exploring various databases and resources (such as periodical searches and consultations). Tables A1 and A2 in the Appendix provide details of this initial phase, including a list of general search terms, databases, and resources used, along with the number hits (i.e., number of search results) obtained.
Our general approach began by using databases and search engines to find primary research studies and secondary sources (including literature/systematic/meta-analytic reviews and online resources, such as websites and blogs) on arts and/or health/wellbeing interventions in school, community, or clinical settings. The search remained relatively inclusive with the exception of focusing on school-aged children (i.e., aged 5 to 18 years) in developed countries, and excluding interventions that pertained to acute or chronic illness (e.g., cancer, epilepsy, and organ failure) and severe traumas (e.g., as a result of war, rape, or physical/emotional abuse) as these aspects of health were considered to fall outside the scope of the review. Material appearing to have any relevance (e.g., based on titles, key-words, or information in the full text) was retained and underwent an additional evaluation using the selection criteria described in Stage 2. Some searches returned the same resources as other searches; therefore we kept only the new materials. In some cases (particularly for review papers), we also used a “snowball” methodology, where reference lists were used to identify additional resources and/or searches were conducted to find materials that had been found.

Upon nearing the end of the initial scoping stage, we reviewed the material collected and generated five themes that different aspects of our search results could be classified under (see Appendix Table A2). These categories were as follows: (a) population; (b) intervention type and setting; (c) arts-based areas; (d) health/wellbeing areas; and (e) methodology. Words and terms that had been used in this initial stage (and/or identified in the literature or acquired through consultation) to obtain our search results were then categorised under one of the five areas. The purpose of this latter exercise was to assist in building our formal search strategy, as outlined below. This discussion also enabled us to hone our overall aim of the literature review (connecting arts-based interventions and health / wellbeing outcomes) in the specific research questions listed above.

**Stage 2: Formal Search**

To build our formal search strategy, we began by testing various combinations of the five themes and their respective search terms identified in the previous stage on major databases and organisation/institution websites. This was an iterative process that involved modifying words/terms and their combinations, as well as imposing a series of restrictions to reduce the number of hits and increase the relevancy of results. Several resources, including guidance papers (e.g., Allott et al., 2011; Arksey & O’Malley, 2005; Daudt, van Mossel, & Scott, 2013; Poth & Ross, 2009; University of Cambridge Library, 2014), published reviews in related areas (e.g., Archibald, Scott, & Hartling, 2014; Beauregard, 2014; Bungay & Vella-Burrows, 2013; Burkhardt & Brennanb, 2012a, 2012b; Daykin et al., 2008; Kavanagh, Trouton, Oakley, & Powell, 2005; Langford et al., 2014; Sklad, Diekstra, Ritter, & Gravesteijn, 2012) and consultations (Information scientists and Librarians) were also used to helped shape our methods.

Table 1 lists the terms retained for our final freetext searches (i.e., searching for references that used the exact search words/terms) and to guide subject-based searches (i.e., searching for references that were indexed under similar or the exact search words/terms); subject searches were used when freetext searches failed to produce less than 10 hits. The words and combinations were adjusted to accommodate the indexing terms, search filters, and syntax available for different databases and websites. Alterations in word spelling or endings, and pluralisation were accounted for in most searches
by using truncation (to find words with the same stem); for this study, all databases encountered designated an asterisk (*) symbol to signify truncation (e.g., adolescen* would find adolescent and adolescence). Boolean searches where conducted in most databases to find matching words within abstracts (and in some cases, other fields, such as titles and keywords), where “OR” was used to combine words/terms from a certain area (e.g., the population of interests, such as child OR adolescent OR youth etc.) whereas “AND” strung together words/terms from different areas (e.g., [child OR adolescent OR youth] AND [health OR wellbeing]). Details of the specific strategies use for databases and websites are provided in Table A3 in the Appendix.

<table>
<thead>
<tr>
<th>Population</th>
<th>Intervention</th>
<th>Creative/arts</th>
<th>Health/wellbeing</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child/children</td>
<td>Intervention/s</td>
<td>art</td>
<td>health/healthy</td>
<td>School OR clinical OR community</td>
</tr>
<tr>
<td>OR adolescent/adolescence</td>
<td>OR therapy/therapies</td>
<td>OR dance</td>
<td>OR wellbeing</td>
<td></td>
</tr>
<tr>
<td>OR youth</td>
<td>OR music</td>
<td>OR drama</td>
<td>OR wellbeing OR wellbeing</td>
<td></td>
</tr>
<tr>
<td>OR teen/s/teenager/s</td>
<td>OR theatre/theatrical</td>
<td>OR creative/creativity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR boy/s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR girl/s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR school age/d/s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR young person/s</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Selection criteria deployed to identify final list of sources to be consulted

The set of selection criteria applied to materials obtained in Stage 2 (as well as to those collected in Stage 1) were as follows:

1. the main goal of the intervention targeted an area of health or wellbeing;
2. the intervention was for school-aged children (5–18 years old);
3. interventions that targeted acute or chronic illness (e.g., cancer, epilepsy, and organ failure), experiences of severe trauma (e.g., as a result of war, rape, or physical/emotional abuse), severe mental disability were excluded whilst programmes that targeted high functioning individuals with special educational needs, such as autism spectrum disorder, dyslexia, and dyspraxia were included; (the reason for this decision was to maximise applicability to the school context);
4. a major component of the intervention must have been arts-based (e.g., visual arts, drama, music, dance/movement, creative writing), including forms of play (e.g., sandplay or telling stories with props, which are considered mediums for self-expression for young children);
5. the interventions took place either in a school, community, or clinical setting (note, however, that our final search focused only on clinical and school contexts for manageability);
6. the effectiveness of an intervention must have been previously investigated or else included as a component of the study;
7. only publications between January 1990 and June 2014 were considered (this start time was chosen because we felt it would cover the major shifts in policy and school practices
Applying these criteria lead to the identification of 146 pieces of literature for closer reading.

The bibliographic details (including abstracts, paper titles, authors’ names, and links to full texts) of materials that met this selection criteria of Stage 2 were stored on EndNote Web (Thomson Reuters (Scientific) LLC, 2014) in a shared group folder. Materials were also indexed separately in a Microsoft Excel (Microsoft, 2011) file using a modified list of categories (i.e., author/s, year and title of publication; intervention type; targeted health/wellbeing and arts-based areas; population age group; methodology; effectiveness/outcomes), as recommended by Arksey and O’Malley [2005] for scoping reviews.

The specific arts categories under which material were assigned to emerged during the indexing process and were based on major focal points of the interventions. These creative arts-based areas were as follows:

1. Music therapy/music-based approaches;
2. Drama/performing arts;
3. Dance /expressive movement;
4. Creative expression through writing/poetry/story telling (written or verbal);
5. Visual arts/crafts/sculpture/photography/cinematography;
6. Play therapy.

The health and wellbeing categories used for indexing material were also based on emergent themes of intervention target areas as far as could be ascertained from article abstracts / summaries. These health and wellbeing areas were:

1. Behavioural;
2. Emotional;
3. Social;
4. Cognitive (e.g., academic achievement);
5. Preventative/promotion;
6. Mild (physical) symptoms (e.g., asthma/headaches);
7. Special educational needs;
8. Personal (e.g., self-esteem/efficacy, resilience);
9. Fitness/ nutrition/weight = (may overlap with preventative);
10. Sex education.
This indexing procedure not only helped us directly address the first two questions posed (type of health outcomes being targeted by arts-based interventions, and types of arts-based interventions in use), but also helped us identify major patterns across the literature (research question 2a related to determining whether certain types of arts areas are more commonly used to target certain health areas over others) and assisted in our overall analysis of our findings.

Development of codes and the coding of the articles into respective categories was predominantly done by one of the authors. To check the consistency of the coding, another of the authors was randomly assigned 25 articles selected from the larger list of articles that met the selection criteria. Total agreement was calculated within each major code area (i.e., Setting; Intervention Type; Health/Wellbeing area) by dividing the total number of overlapping codes both authors independently assigned to articles (i.e., "agreement") by the sum of overlapping codes and coding discrepancies (i.e., where one author assigned different and/or additional codes). The total agreement between authors for each category was: 89% for Setting; 89% for Intervention Type; 82% for Health/Wellbeing area. The overall agreement across each category was 86%. When discrepancies were discussed several code definitions were clarified the adjusted overall agreement was 99.56%. Thus we were relatively confident in our categorisation process and have used this to assess the prevalence of different arts-based approaches and types of health outcome targeted in answering the first two research questions in the sections that follow.
Chapter 3:

Therapeutic Use of the Arts in Clinical Settings
Chapter 3 Therapeutic Use of the Arts in Clinical Settings

Modern counselling and psychotherapy, defined by the British Association for Counselling and Psychotherapy as ‘umbrella terms that cover a range of talking therapies that are delivered by trained practitioners who work with people over a short or long term to help them bring about effective change or enhance their wellbeing’ (British Association for Counselling and Psychotherapy, 2014), can be traced back to the work of Sigmund Freud and the development of psychoanalysis over the last decade of the nineteenth century (Aguayo, 1986; Gay, 1998). Psychoanalysis involves verbalising thoughts, fantasies and dreams from which the analyst can interpret unconscious conflicts that are responsible for the patient’s symptoms (see for instance, Freud, 1900) but this is not the only form psychotherapy can take. Distinct therapeutic approaches can be seen to have evolved from the different schools of psychological thought over the last hundred years. So for instance behavioural therapy, which involves a functional analysis of stimulus, organism, response and consequences to determine how particular behaviours have been learned (Nelson & Hayes, 1986), and hence through the principles of classic and operant conditioning can be re-learned more appropriately (O’Leary & Wilson, 1987), links directly to the behaviourism school and became popular in the 1950s and 1950s. In contrast, person-centred therapy introduced by Carl Rogers, grew out of existential philosophy, which is concerned with the person as a not only thinking but also acting, feeling and living human individual (Macquarrie, 1972). In person-centred therapy there are three core conditions a therapist must provide; unconditional positive regard, congruence (authenticity) and empathic understanding. Compared to behavioural therapy, this approach is much less structured and more holistic in that the client develops a sense of self such that they understand for themselves why their attitudes, feelings and behaviour have been adversely effected (Cepedia & Davenport, 2006). Within each of these main schools a variety of slightly different approaches exist, such that by 1980 there were more than 250 psychotherapeutic approaches known to be in existence (Herick, 1980) and this can only have proliferated further in the last 30 years.

Turning now to the arts in psychotherapy specifically. The power of the arts for healing has been known since ancient times. Music has been linked to emotion at least since the times of the ancient Greeks, figuring in both the work of Plato and Aristotle (Juslin, 2008), whilst dance has been used therapeutically for thousands of years as a healing ritual accompanying major life events such as fertility rituals, birth, sickness and death (Strassel, Cherkin, Steuten, Sherman, & Vrijhoef, 2011). Play was also central to the development of Hellenic culture and recognised to be particularly important in influencing how children would develop as adults (D’Angour, 2013). Other arts-based approaches such as the visual arts, drama and creative expression through writing may have been deployed for therapeutic purposes much more recently, nevertheless their value in enabling individual expression and hence eudaimonic wellbeing would have been recognised in earlier times. The roots of art therapy, for instance, are thought to lie in the moral treatment of psychiatric patients in the late eighteenth century but the term art therapy wasn’t coined until the 1940’s (Hogan, 2001). Moreno, who met and was strongly influenced by Freud, developed psychodrama in the second and third decades of the twentieth century to allow clients to use spontaneous dramatization, role-play and dramatic self-presentation to gain insight into their lives (Yablonsky, 1981) and this can be seen as the precursor to modern drama therapy. The healing power of
reading was recognised by the ancient Greeks who inscribed a sign over a library stating it to be a healing place for the soul (Sullivan & Strang, 2002) but expressive writing as a form of therapy developed much more recently and can be traced to Pennebaker’s work with clients dealing with trauma where he asked them to write directly about the situation they had experienced, drawing on Breuer’s notion of abreaction (Pennebaker & Beall, 1986). Thus, the use of the arts in therapy has paralleled the developments in psychotherapy more generally.

In this section we will review the clinical work undertaken with young people that has been published in the time period from 1990 to the present day. As described in chapter 2, an extensive scoping exercise was carried out to identify suitable material for inclusion in this review. 74 sources, largely journal articles, where arts interventions were being undertaken in clinical settings with children and young people were found and these were considered further. Arts intervention can be classified according to art form deployed (music, drama, dance, visual arts, creative expression through writing and play) and in most cases it was clear from the source abstract or summary that one specific art form was being used, although in a few cases elements of different types of arts were evident (for instance the occasional use of drawing within a programme of activities that were primarily musical in nature). Where more than one art form was apparent, we classified this by the predominant form but had to discard three articles we couldn’t gain access to and whose abstracts were ambiguous.

In completing this exercise, we found clear evidence that music-therapy and music-based approaches were the most common art form used in clinical settings (39% of studies). Visual arts (including drawing, painting, crafts, and clay modelling) were the next more commonly found arts-form, evident in 21% of studies, with dance and expressive movement being almost as common, in 18% of studies. Creative expression through writing, poetry and story-telling, and play therapy were somewhat less common, found in 10% and 8% of studies respectively. Finally drama therapy was somewhat uncommon being found in only 3% of studies and as this tended to be combined with dance, these two art forms are considered together. This goes someway to answering our review question as to what types of arts-forms are being used in which settings. Clearly music-based approaches are the most common in clinical settings.

In addition to determining what type of art form was being utilised, we also considered in our preliminary analysis what was being targeted in the intervention described. This was more difficult to ascertain from reading the abstract alone but it was clear that different health/wellbeing aspects were being targeted in different studies. For instance some focussed primarily on emotional issues relating to mental health, whilst others were targeting specific health issues such as asthma and obesity. Insufficient detail was provided to be able to categorise the type of issue being addressed in other papers, therefore close reading of all sources was required before the type of work in terms of health or wellbeing goals could be ascertained and hence a preliminary percentage breakdown of the type given for arts approach wasn’t possible.

The following sections detail the type of intervention work undertaken utilising each of these distinct art forms in clinical settings.
Characteristics of Music-therapy / Music Arts-based Approaches Studies in Clinical Settings

Gold, Voracek, and Wigram (2004) usefully distinguish the varying theoretical underpinnings of different music therapy approaches in their meta-analysis of the effectiveness of music-therapy with children with a range of emotional, cognitive and behavioural difficulties. They note that approaches can be categorised as psychodynamic, humanistic and behavioural, and include different techniques such as active vs receptive, and improvisational vs structured. Psychodynamic approaches include Analytical Music Therapy and Guided Imagery & Music – music used to express inner moods that can then be verbally reflected on. Humanistic approaches use music improvisation to highlight experience in the here and now and allow awareness of emotions. Humanistic approaches include Creative Music Therapy and Orff Music Therapy – improvisation used in structured forms. Behaviourist approaches include Behavioural Music Therapy – playing & singing music or listening used as a contingent cue to change behaviour or as reinforcement. Some types mix theoretical approaches e.g. Alvin’s free improvisation therapy.

Their meta-analysis, which included 9 studies, indicated that music therapy had a medium to large effect for both younger children and adolescents. Behavioural approaches were less effective than psychodynamic / humanistic / mixed approaches. Overall music therapy was seen to be more effective for children with behavioural or developmental disorders compared to those with emotional difficulties and had more impact on behavioural and developmental outcomes than social skills or self-concept. However, Gold, Voracek and Wigram note that some of these findings may be an artefact of the design of the individual studies (so those targeting emotional disorders tended to measure self-concept where smaller effect sizes tended to be found – if other outcome measures had been used a different picture might well have emerged). They also find differences between clinical and experimental studies, with the latter being more tightly controlled and therefore more credible in terms of drawing conclusions. Finally, differences in music-therapy approaches in North America are seen when compared with Europe, with the former being more structured. Hence, the review contains more North American studies. This is useful as it provides some evidence to suggest that not only is music-therapy effective in supporting young people but some specific approaches (behavioural) are less effective, and music therapy may well be more effective in tackling some issues than others, specifically that it may not be as useful for children with emotional problems than for children with other types of difficulties.

In this context it is interesting that approximately 3 out of 5 of the studies identified in the current review process were interventions using music-therapy or music-based approaches targeting emotional aspects of health, with roughly half of these also targeting other aspects of functioning, and these being generally social and behavioural in nature. All except one of the remaining studies concern students with special educational needs. The final study focuses on an aspect of physical health. Each of these groups of studies is discussed further below.
Music-therapy studies targeting emotional aspects of health

The studies targeting emotional aspects of health indicate that a range of issues is being addressed including anxiety, depression and following major life events e.g. bereavement and divorce. Further reading indicated that not all of these are actual interventions with young people that have been evaluated in some way, so only relevant studies are included here. A number of papers describe the intervention protocol only. For instance, Register and Hilliard (2008) describe how an Orff-based cognitive-behavioural music therapy intervention will be conducted, whilst Nocker-Ribaupierre and Wolff (2010) describe a two-step music improvisation programme to help counter violence in schools, and Porter et al. (2012) outline the protocol for a study that will target around 200 children with behavioural and emotional difficulties involving a 12 week music improvisation intervention. Others appear to be pilot studies that have actually been undertaken with small groups of clients but have not been evaluated. For instance, Layman, Hussey, and Laing (2002) describe an assessment tool to capture behavioural and social functioning, emotional responsiveness, language, communication and musical skills.

Goldbeck and Ellerkamp (2012) conducted a hospital-based randomised control trial with 36 children aged 8-12 years with diagnosis of anxiety disorder (separation / generalised / phobia). Multi-model music therapy (music therapy mixed with cognitive behavioural therapy CBT), which involved primarily music making but also deployed visual arts (e.g. painting journey) was given during three individual sessions with each child and 9 group sessions of 100 minutes duration each. There was also three sessions with parents. Sessions were run by a trained music therapist. The KIDDIE-SADS measure for affective disorders was employed to assess for presence of anxiety prior to, immediately after and 4 months after the treatment. Secondary measures included the Child Behaviour Checklist, Trait-state Anxiety Inventory, Social Phobia Inventory, Child Depression Inventory, Geissen Complaint List for Children and Adolescents, and Inventory of Life Quality in Children and Adolescents. They found remission of anxiety disorders was greater in the experimental group both immediately after treatment and after 4 months. However there were no differences in terms of the other variables captured. Thus it would appear that music therapy is effective in reducing anxiety for children suffering from anxiety disorders. As a randomised control trial that included random allocation to groups and evaluators who were blind to the condition allocated for each participant was deployed, the design is robust. However there are some limitations. The experimental group had more sessions than the control group so it is unclear if it is just that rather than the actual content of the intervention that is making a difference. The impact of music therapy specifically cannot be ascertained as it is confounded with CBT. The small sample size is also below what is recommended for power calculations and the two groups are not equivalent (there were more girls in experimental group). Thus, overall, although it appears that music-therapy is helpful, this must be tempered by the limitations of the study.

DeLucia-Waack and Gellman (2007) also consider the effect of music therapy on anxiety, however the focus of this study is children displaying adverse reactions to their parents going through divorce and the focus was broader to not only consider anxiety but also depression and irrational beliefs in relation to divorce. This work involved 134 elementary school children (kindergarten to grade 6) from one school that had been identified by school counsellors as requiring support. An 8-week programme was run by
school counsellors with children randomly allocated to either an experimental or control group. The weekly sessions for both groups were the same, except in the experimental condition sessions were introduced with song, children then engaged in singing as an introduction to the theme of the session. Various measures were deployed including the Children’s Beliefs about Parental Divorce Scale (CBPDS), Revised Children’s Manifest Anxiety Scale (RCMAS), State Trait Anxiety Scale, Children’s Depression Inventory (CDI), and these were completed before, after and 3 months after the programme. Overall, anxiety and irrational beliefs dropped for both treatment groups so there was no additional impact for the musical element of the intervention. The non-significant result for the music intervention could be because the counsellors involved ran both types of treatment and may have compensated the no music groups in other ways. Also not much information is given about the counsellors’ training or briefing. The music intervention element also appears to be a relatively small part of the overall intervention and in the way deployed may not be influential in this context and needed to form a more significant part of the intervention.

McFerran, Roberts, and O’Grady (2010) also consider the effect of music therapy on a specific group; in this case bereaved teenagers. Their study involved working with two different groups of bereaved youngsters, containing 16 teenagers altogether. The first group were mainly boys who had lost close relatives and were exhibiting bad behaviour and, whilst the second group were mainly girls who had largely lost grandparents and were withdrawn. Group 1 had 12 90 minute sessions whilst group 2 had 14 90 min sessions over the course of two terms. Music therapy was delivered by a qualified therapist and involved listening to songs, writing songs and free play on percussion instruments, which were chosen by the group. To assess the effectiveness of the work of the first group, Harter’s Self-perception Profile for Adolescents was used to measure change from first to last session. No significant changes were recorded, however the authors noted the group did not take the instrument seriously when they were completing it. The second group completed the Adolescent Coping Scale during the first and last sessions. There was a small positive increase in reference to others but not on non-productive and solving the problem categories. They also conducted focus group interviews at the end of the process with both groups and concluded that the intervention had been successful in some ways as at least some of the teenagers felt they had permission to grieve and could get on, to get things off their chest, that the group was a place to relax, and they felt connected to others, and could share their secrets. However, the exact role of music in helping was unclear but the authors suggest it seems to hinge around role of music in facilitating emotional release, as music is able to encompass a whole range of emotional states and allow for rapid transition between them. Unlike the two studies described above, in this study there was no control group and the findings are not overly persuasive. Indeed the authors themselves note the small sample size and the fact that the outcome measures did not assess emotions, which was the focus of the work. Thus the effectiveness of music therapy in supporting bereaved youngsters is not yet clear.

A further study that apparently targeted purely emotional difficulties was that of Bittman, Dickon, and Coddington (2009), who were looking at youth with emotional difficulties who had been referred by a court to a residential treatment programme. 52 teenagers aged 12-18 (mean 14.5 years) living at a secure home with range of mental health disorders (anxiety, PTSD, depression, ADHD) were admitted to
investigated the effectiveness of music therapy with children and adolescents diagnosed with a range of psychopathologies in a pre- and post-quasi-experimental design. 136 hospital outpatients / students at local schools aged 3.5 – 19 years with emotional / adjustment, behavioural and developmental disorders, with in some cases comorbid medical conditions and abnormal psychosocial conditions, were involved and a quasi-experimental design was achieved by following children’s natural allocation to music therapy or waiting lists. The music therapy condition entailed individual weekly sessions of 45 minutes over up to 25 weeks by one of 15 qualified music therapists who mainly used improvisation but also songs and verbal discourse. Some therapists also included some role play and painting in their work but overall the approach was primarily music-based. Primary outcome variables included the Child Behaviour Checklist (CBCL) Total Problems and Competence subscales (rated by care-giver), Munich Health-related Quality of Life Questionnaire for Children (KINDL), which entailed both parent and child reports. Secondary outcome variables (for the intervention group only) included Hertlingshausen Satisfaction Questionnaire (H2FB) Burden & Satisfaction scales. Therapists also used the Visual Analogue Scale (VAS) to assess change in symptom and secondly resources in therapy and daily life. There was no overall effect for the
music therapy condition but when breaking the participants down into different groups it was apparent that those with comorbid medical conditions did worse whilst those with an adjustment disorder improved in terms of burdens but this occurred in both conditions. Younger children overall appeared to improve more, suggesting the intervention may be effective for younger children. There were, however, a number of issues related to the design that could have influenced the results. Because the design is quasi-experimental and random allocation to group did not occur, it turned out that those with more severe symptoms tended to be in music therapy group. There were no blinding procedures that could have influenced assessment. There was also quite a lot of inconsistency between parents, therapists and children’s ratings on the various scales, raising questions of reliability of some measures, and indeed some measures are quite broad so may not be the most appropriate to deploy. Furthermore the complexity of conditions the participants had made the results more difficult to interpret. In many clinical trials patients with comorbid conditions are removed, whilst this study was inclusive. Thus overall, despite the impressive sample size of this study compared to the others considered thus far, it is difficult to draw any firm conclusions. The authors themselves are aware of many of the limitations discussed but do make the point that the study suggests that more than 25 sessions of music therapy might be needed in real world settings to make much impact on young people experiencing a range of difficulties.

**Music-therapy studies targeting children and young people with special educational needs**

In considering the studies that focus on children with special educational needs, it is fairly quickly apparent that quite a lot of work has been done in this field as several papers are meta-analyses or reviews, which are summarised below and overall the sources cover different forms of special educational needs including autism, learning difficulties and children with attention deficit hyperactivity disorder (ADHD). As before, when considering intervention work focussing on children with emotional difficulties, there are some papers which are simply arguing for a particular approach. For instance, Intveen and Edwards (2012) argue that despite some of the difficulties associated with theoretical basis of anthroposophical music therapy, as it is rooted in the Steiner movement, which references three-fold and four-fold models of the body which are clearly unscientific and draw on astrological notions, this approach is worthwhile and has been successfully used on specific communities of people with special needs. They suggest that there are anthroposophical arts therapists in 28 countries, although there is only accredited training in 3 countries. Despite this apparent popularity, none of the sources they cite refer to evaluated intervention studies, and indeed the broader search did not unearth any such studies. So it would appear that the effectiveness of this particular music therapy approach at the present time is yet to be demonstrated.

Other studies, like before, turn out to be protocols rather than evaluations. For instance, Geretsegger, Holck, and Gold (2012) describe their study protocol to examine the impact of 5 month improvisational music therapy intervention on the functioning of children on the autistic spectrum, where effect size power calculations suggest a sample of 235 participants will be needed. So again the effectiveness of these particular interventions with children with special needs is yet to be shown, however the strength
of these reported protocols is that studies are now being planned where sample sizes should not be an issue, unlike many older studies which are small-scale.

Two review studies are reported focusing on music therapy in relation to autistic children. The first of these by Whipple (2004) was a meta-analysis examining treatment studies from a range of relevant journals up to the time the review was conducted. 29 relevant studies were identified focusing on music therapy and autism but only 9 of these studies met the criteria for inclusion in the quantitative meta-analytic process. These criteria were fairly obvious things such as had to deploy music as a treatment condition contrasted with a no music condition, described so to be replicable, in a peer reviewed publication, include sufficient detail of inferential statistical analysis and quantitative findings etc., which suggests there is a paucity of high quality evaluation work. She found overall there is a significant effect size that applied to all nine studies and as these studies deployed different music therapy approaches this suggests all approaches are potentially effective when working with autistic children. However the effect sizes of all the studies was small and therefore suggests there is a need for further larger scale work.

The second is a systematic review by Reschke-Hernandez (2011). This paper provides an useful historic review noting important staging posts in the development of the field including the 1977 publication of Creative Music Therapy (Nordoff & Robbins, 1977), which gave a theoretical basis for the importance of improvisation, and publication of the first article outlining the approach with a group of autistic children (Bryan, 1989). Most recently there has been a push towards evidence-based medicine and the development of the Rational Scientific Mediating Model and Transformational Design Model (Thaut, 2000), which enable music therapy programmes to be designed more effectively. Furthermore assessment has also been improved, for instance through the introduction of the Social Communication, Emotional Regulation and Transactional Support Curriculum Model (SCERTS) (Walworth, 2007). Nevertheless a comprehensive review of recent studies in the paper suggests they are still lacking in methodological rigour and there is much outmoded practice in the field. Studies are still primarily small-scale, despite the fact that, as Reschke-Hernandez notes, autism is a relatively common disability, and are often case studies rather than comparative studies deploying robust designs.

Savarimuthu and Bunnell (2002) review the literature on the use of music (so broader than just music therapy) with clients with learning disabilities. They draw on the notion of social role valorisation, that music empowers people with learning difficulties and facilitates their integration into society to suggest that the use of music can help clients improve social, cognitive and physical skills and improve communication. Better communication can in turn help alleviate / prevent mental health issues. They argue that expressing needs (emotional, mental and psychological) through the focus on emotions and feelings can promote self-esteem and confidence but also reduce anxiety and can decrease aggression – these clients often are aggressive and self-harm – so music interventions can reduce these issues. The review considers a numbers of features of interventions. Although some work has simply involved listening to music they suggest that making music is more important. Furthermore they discuss the importance of the type of music chosen; it has to be determined by clients’ needs in terms of level of disability and cultural background (and heavy metal can be damaging!). Interestingly, and in contrast to many of the studies discussed so far, they argue that the evidence indicates that you don’t need to be an
expert to facilitate a music intervention. Apart from choice of music, the most important thing is to have clear aims and objectives and for the facilitator to relate well to the client. Their review indicates that changes are often small and it may take a long time for changes to be seen.

Jackson (2003) reports a survey of music therapy usage with certified clinicians registered with the American Music Therapy Association, who are working with early elementary school children diagnosed with ADHD, to ascertain what sort of work / intervention is happening in practice. Whilst this paper is clearly not evaluating an intervention it is useful in that it provides insight into how music therapy is being used and perceptions of this process. It also raises some interesting issues. Of the 500 therapists approached, 98 returns were made. In terms of the actual music therapy methods used, 74% of therapists used music and movement, 67% used musical improvisation, and 63% used musical play. Approximately a third (36%) also used other creative arts, so the approach in these cases is not purely music therapy. Therapy is being used to address behavioural goals (94%), psychosocial goals (89%) and cognitive goals (69%). 41% see children in both group and individual formats whilst 39% only see them in group formats only, whilst the remaining 1 in 5 only see children individually, and this happens in a range of settings including educational, residential, community-based, acute hospital and psychiatric settings. Therapists felt the approach was effective or very effective (but one might expect them to respond positively given this is their work) but it is generally used alongside other treatments such as medication (91%), psychological services (56%) and occupational therapy (55%). Referrals generally came from parents (44%), teachers (32%) or the treatment team (30%)(sometimes in the mandatory treatment plan) and treatment is seen as part of a multidisciplinary approach. Jackson speculates on why different approaches are taken (for instance citing research linking music to increased memory functions and auditory perception for improved learning) and makes the comment that most of literature about effectiveness of music is linked to cognitive outcomes so it is somewhat surprising this is mentioned least frequently in terms of goals. However she notes that to test cognitive function requires relatively sophisticated tests whereas behavioural and psychosocial goals are more easily observable by therapists. It is also the case that therapists don’t usually have training in neurobiological functioning so they might be addressing cognitive goals implicitly, or it could be due to the fact they are often part of a multidisciplinary team and to facilitate communication across team it may be easier to stick to easily observable aspects. Jackson therefore suggests that more attention needs to be paid to cognitive elements. She also suggests there needs to be research focusing on participants’ perceptions to understand better what elements of music therapy are particularly helpful, and to explore others’ perceptions (e.g. teachers, parents) to see what effectiveness music therapy has outside the sessions. Looking at the additional comments made on the survey, these suggest there is an interesting discussion to be had on the role of structure (whether provided by therapist or scaffolded for participant to develop). Overall Jackson concludes that much is still unknown about how music therapy is useful in treatment of ADHD in terms of what elements of music therapy are helpful, how it might generalise to other settings and how it works with other treatments such as medication.

Empirical studies that are evaluated interventions are somewhat thin on the ground and only two relevant studies emerged. The first is the work by Gattino, dos Santos Riesgo, Longo, Leite, and Faccini (2011) who examine the effects of relational music therapy on communication of children with autism in
a randomised control study. This is relatively small-scale study involving 24 boys in Brazil aged 7-12 diagnosed with autism, pervasive developmental disorder not otherwise specified, or Asperger’s. The intervention deploys relational music therapy which is unstructured in that instruments are provided but the child chooses how to interact with them. 16 weekly sessions of 30 minutes were delivered by qualified music therapists over 7 months in a hospital setting. To measure the effectiveness of the intervention the Childhood Autism Rating Scale (Brazilian version) was used to assess verbal, nonverbal and social communication pre- and post-intervention. The results revealed no overall differences but when the 3 types of children were considered separately, for the autistic group alone (5 students) the improvement in non-verbal communication is significant, giving some indication that music therapy is effective in helping autistic children’s communication. The strength of the study is the randomised control trial design and the authors claim this is the first such study to test this particular type of music therapy. However the small sample size is problematic and the authors themselves recognise that the measure deployed may not have been sensitive enough for the population and aims. They make alternative suggestions but note they were hampered by what was available in Portuguese.

The other study is also very small scale. Gold, Wigram, and Berger (2001) describe a pilot study with 5 boys and 2 girls aged 4-11 years with diagnosed mental disorder or non-diagnosed behavioural difficulties with or without primarily organic developmental disabilities (including students with learning disorders). Of these 5 undertook the experimental condition, whilst 2 acted as controls. Qualified music therapists providing individual sessions on average twice a week for 20-45 minutes planned over period of 6 months (but ended up 2-5 months due to parents / child unwillingness etc.). This was a naturalistic experiment so there was no intervention to ensure uniformity of approach. Between 4 and 31 sessions were given to each participant. Approaches varied including psychotherapeutic, eclectic, psychoanalytic, humanistic, educational & systematic approaches using free improvisation, play/games, verbal discussion, songs, vocal improvisation, structured improvisation, role-play/theatre, receptive music therapy, painting/drawing, fairy tales, and movement but music was the most prominent feature. To assess effectiveness, the German Child Behaviour Checklist (9 scales of behaviour symptoms) and also Competences (social and performance at school) was completed by parents. The KINDL measure that assesses health-related quality of life and encompasses mental, physical, social & everyday life aspects of subjective wellbeing & functioning was also deployed. These scales were completed by parents and the child. Therapists also gave an overall retrospective assessment of the above on 3-point scale. A satisfaction scale was completed by parents after therapy, and burdens was assessed before & after the intervention. Overall there was a reduction in symptoms & an increase in competence & quality of life, however the effect size of the latter was small. Looking at individual cases it was clear that there was little change for some of the group. Overall parents were satisfied with the treatment and recorded a burden reduction. The music therapy approach taken was obviously quite mixed so it is unclear exactly what works for the cases where a positive impact was seen. The authors are clear that this is a pilot study and estimate from power and effect size calculations that a sample size of 200 would be needed and suggest that it would be problematic to recruit such a large sample for a randomised control trial. Instead they argue for the feasibility of natural experiments, and indeed the study which probably came out of this work has already been reported above in the authors’ 2007 paper (Gold et al., 2007).
Music-therapy studies targeting physical health conditions

Turning now to the final category of aspect of health / wellbeing targeted, namely physical health issues. Only one study of this type was identified (Koenig et al., 2013). This compared two groups of adolescents aged 12-17 years suffering from headaches in either a music therapy (n=40) or rhythm pedagogic (n=38) condition. In both cases, 6 individual 90-minute sessions over 8 weeks plus 3 family sessions were delivered by the same therapists at a school of therapeutic sciences. The approach taken includes imagery to recall experiences and to improve functioning and encompasses some psychodynamic but also humanistic, and CBT-type work, based on notions of remoralisation (subjective wellbeing), remediation (symptoms) and rehabilitation. The placebo involved sensory, motor and cognitive aspects of making rhythms. To assess the efficacy of the work the authors looked at symptoms (through keeping of a headache diary including a measure of pain perception scale) before, immediately after treatment and 6 months later. Other measures included psychiatric conditions assessed by the KIDDIE SADS LP and KIDSCREEN-27 (health-based quality of life) scales, and the Hertlinghausen Satisfaction Questionnaire (HZFB). Both groups showed some decrease in symptoms but there was no differential effect for the treatment group leading the authors to conclude there was no evidence to support the use of music therapy for patients with severe headaches.

Summary

So, what have we learned through reviewing the studies on music therapy in clinical settings? Overall it is clear that music therapy has been deployed in various forms to address emotional difficulties most frequently, despite the fact that an admittedly small-scale meta-analysis suggested that music therapy may not be best placed to address such issues. There is some evidence that behavioural approaches are less successful. Well-designed empirical studies are in short supply but those that have been included that have tackled emotional difficulties tend to suggest a small positive effect in reducing anxiety in children suffering from anxiety and difficulties relating to bereavement. It might also be helpful for young people with more several emotional problems who end up in trouble with the law because of them. But other studies have indicated no overall impact for music therapy and it is important to recognise that a lot of studies are small-scale and have other design limitations. In terms of working with youngsters with special educational needs, there is some evidence that music therapy is helpful for children with autism and learning difficulties and seen to be helpful in working with children with ADHD. Music therapy has not been commonly used to address physical health studies and in the only study included in this review, which explored music therapy’s efficacy in reducing symptoms for youngsters suffering from extreme headaches, overall the intervention was not found to be useful. The picture is therefore somewhat mixed but does suggest that further work is merited in this area.

Characteristics of Visual-arts Studies in Clinical Settings

Although there were quite a number of sources relating to visual-arts approaches in clinical settings, on closer inspection there were few that were properly evaluated intervention studies. A few papers are clearly advocacy-based, extolling the potential benefits of using visual arts-based activities with children and young people (see for instance, Riley, 2001; Thobaben, 2013) and seem to be targeted at
practitioners without providing much in the way of evidence to support their claims. Others describe new assessment procedures or tracking approaches (Conrad, Hunter, & Krieshok, 2011; Mattson & Yang, 2013). One paper attempts to describe how a visual-arts approach can help young people in clinical settings; in this case outlining a 4-stage process of recovery for victims of severe burns which is reflected in the characteristics of their drawing at each stage (Appleton, 2001), which could be useful in explaining the process through which visual-art therapy is effective, nevertheless it does not provide empirical evidence of this.

The most recent overview of visual-arts therapy would appear to be by Archibald, Scott, and Hartling (2014) who present findings of a scoping exercise to investigate how arts approaches have been used in paediatric populations with health issues (medical or psychiatric). Of 1767 articles initially retrieved only 16 met their inclusion criteria for further analysis showing how few well-designed studies exist in this field. They were interested primarily in how arts-therapies were being used and found that visual art was used most commonly with children with autism or suffering from post-traumatic stress disorder (such as the Appleton study described above). Their analysis points to the use of visual art as a mechanism to facilitate or reduce specific child attributes (e.g. self-efficacy, anxiety) and to facilitate understanding through communication or assessment but suggest that further work is needed. Interestingly our scoping exercise suggested that over 80% of these sources targeted emotional aspects of health with the remaining sources tackling behavioural issues but in most cases other aspects of health were also being targeted, such as social, personal issues, fitness/nutrition, cognitive and special educational needs.

There are a handful of intervention studies which have some element of evaluation. At one-end of the scale are studies such as that by Le Count (2000) which simply present case studies, in this particular example two case studies of using visual art therapy to work with children dealing with the emotional difficulties associated with bereavement. In both cases the visual art therapy primarily entailed drawing but also some use of other mediums such as clay modelling. This therapy has been done within the context of an ongoing programme of work with the youngsters at a pupil referral unit so it is not clear what other clinical interventions / counselling may be happening. In both cases the process described appears to demonstrate the two children are helped through the stages of grief, particularly from denial to acceptance but clearly this paper is well short of a properly controlled study to demonstrate the effect of art-therapy on young people so although the outcomes are positive, it would be difficult to claim that art-therapy casually improves emotional aspects of functioning that are impaired by bereavement.

Other studies report findings for larger numbers of participants, who have been involved for instance in group activities but again may be descriptive rather than evaluative in stance. For instance, Puttick (2011) describes the work of The organisation Arts for Health Cornwall and Isles of Scilly in developing and delivering a project that uses the creative arts to "make time" for the non-disabled brothers and sisters of disabled children. Siblings taking part are divided into two age groups, 7-12 year olds and 13 year olds upwards, and sessions are facilitated by experienced creative arts practitioners. The aim is to create a fun, yet safe and supportive, environment where creative activities such as art and drama can be enjoyed and feelings about living with a disabled child can be explored in a nonintrusive way, as such feelings may be difficult to express at home or elsewhere. The families involved have reported positive effects and have come to value the regular support and space the project offers. Thus again the
intervention seems positive in supporting the emotional difficulties of this particular group of children and their families but it needs a more formal evaluation.

Some studies track change more systematically. For instance Olive (1991) analyses video footage of a group of 14 year-olds with emotional and behavioural difficulties and limited understanding or tolerance for each other’s problems participating in unstructured art-therapy sessions. By comparing early and later sessions in the sequence, she found improvement in interpersonal skills in that there was a greater awareness of the needs and feelings of each other: ideas of cooperation and non-interference were established (e.g., through sharing of paint and water); there were civilized requests for utensils and materials to be passed; and there was minimal displacement activity, although there were still too many verbal attacks on each other and on members of the staff. This suggests that although group art-therapy could be effective for adolescents dealing with emotional difficulties, the evidence is not totally compelling without a controlled experimental design to demonstrate causality.

Another example is the paper by Henley (2007) who targeted 16 children aged 9-15 with early onset bipolar disorder (comorbid with Asperger’s / ADHD / mixed states including mania) using a strategy adopted from Fristed, Gavazzi, and Soldano (1998) involving naming a friend to identify places of comfort followed by a free art session in which the therapist doesn’t interpret what the child is drawing but reframes verbally what the child says. The discussion may take a behavioural / cognitive orientation but is primarily psychodynamic / object relations theory-based. The article describes a number of case studies who represent 4 types of children (classic early onset, mixed, Asperger’s and ADHD) and represent cases who had been receiving therapy for varying lengths of times and frequencies and some were very well known to the author. Although no measures were deployed to assess whether the participants’ symptoms were improving, the therapist took detailed notes which were analysed. Early onset clients could only cope with friendly attributes and found it too difficult to name negative attributes (the enemy). For young people with ADHD there was quite a mixed picture. The approach had some success with children exhibiting a mixed case but overall the approach seemed most helpful in the case of autistic children. As above, the approach therefore seems promising to support young people with autism in particular but needs further evaluation.

There are a couple of examples of studies that have involved a pre- and post-test design but have no control group. One of these is the study by Wallace DoGarbo and Hill (2006) who worked with 19 out of 55 young people aged 13-16 years in the US identified as at risk as they had truanted from school in a particular school district. The group engaged in 10 1-hour sessions over 6 weeks (some weeks twice) that were run by a local artist with a psychology undergraduate intern and overseen by a clinical art therapist in a community centre. Sessions consisted a warm up starter, a main art activity, discussion and recording in journals. The first half of the sessions involved designing a mask as an encounter with self. The second half of the programme focused on the mandala art form and entailed designing a mural for the local skate park wall. The project ended with a community event to unveil the mural. Only 12 of the original 19 youngsters attended regularly and even these didn’t go to all sessions. (11 girls and 1 boy) and a complete set of data was only gathered 6 of the group. The Adolescent Self-assessment Profile (ASAP) was used to assess the impact of the programme and was administered at baseline, at the end of programme and at a 6-month follow up. 6 scales from this were used: family adjustment, psychological
adjustment, peer influence, school adjustment, deviancy and attitude. No statistically significant results were found but the sample size was very small and not helped by the fact that some youngsters were thrown off the programme due to external factors outside the control of the researchers. Trends in the data suggest an improvement particularly for psychological adjustment & attitude and individual case analysis (deciles & change) suggests those at most risk benefit more. The authors cite some supporting qualitative data but this feels a little anecdotal as the process for gathering and analysing this data is not explained. Furthermore there were other interventions targeting this group other than the arts intervention so it is hard to attribute any sort of causality. At best the results are promising but this particular intervention needs to be tested on a much bigger scale.

Another study of this type is by Murphy, Paisley, and Pardoe (2004), who worked in an outpatient clinic linked to CAMHS provision with 6 children (3 boys and 3 girls) aged 8-11 years, described as exhibiting impulsivity, poor self-esteem & poor peer group relations. Three of the children also had an ADHD diagnosis. The intervention was deliberately designed to create space for students to self-regulate before then going into a different physical space for arts therapy, and using this bridging space after the arts therapy session before returning to parents. Although the main session was very much based on visual arts and encouraged children to express themselves through a range of activities such as making pictures, boxes and sculpture, the activities undertaken in the bridging space were based on Williams and Shellenberger’s Alert Programme (1996) and adapted drama therapy activities so was action-based, for instance in playing the game of sleeping lions. These sessions were run weekly for 1.5 hours over 7 months with 3 qualified therapists. To assess the programme a questionnaire developed by Malchiodi (1990) to capture behavioural characteristics, approaches to tasks and social situations was completed by parents before and after the intervention, whilst the children involved completed Lahad’s (1992) six-part story in the form of a storyboard which was incorporated into sessions towards the beginning and end of the process and indicates the type of coping strategies, conflict, problem-solving skills and resourcefulness demonstrated by each participant. The findings are presented very descriptively and summatively. The article indicates that parents note improvements in self-control and maintaining physical space. Parents also said that their children were sharing more and taking fewer risks, being more truthful and coping better at school but also in one case becoming more withdrawn and giving up more easily. Without direct quotes from parents or quantitative data it is difficult to decide how trustworthy these conclusions are. The authors also note that an analysis of the therapists notes suggest there is an improvement in self-esteem for 4 students but again the empirical basis of these claims is not shared. The study is also very small-scale so it would be difficult to generalise findings even if they were persuasive. However what is interesting is that the authors, who were the 3 therapists, noted that not only was the work very labour intensive (which has implications for scaling up) but also wasn’t run for long enough to make a real difference. They suggested that rather than 6 months, at least 9-12 months is needed for an intervention of this type.

Finally there are a couple of studies which deploy a pre- and post- experimental design with a control group. The first of these is a study by Walsh (1993), who worked with 39 (44% boys / 56% girls) suicidal clients aged 13-17 years in a private psychiatric hospital setting. 21 were allocated to the experimental condition, whilst 18 formed the control group (which received an attention placebo, which involved
have pointed to the intensity and challenge of the work with demanding young people and thus, how small burns, having a disabled sibling and being at risk of suicide, or having recognised behavioural and emotional disorders.

Art therapy is clearly being used to support young people experiencing a range of emotional difficulties and exhibiting different conditions, such as the trauma of dealing with bereavement, severe burns, having a disabled sibling and being at risk of suicide, or having recognised behavioural and emotions disorders such as ADHD, ODD and bipolar disorder. However, on the whole the studies are small-scale and strong positive evidence for the efficacy of the intervention is very limited. Some authors have pointed to the intensity and challenge of the work with demanding young people and thus, how easily this could be transferred to a school setting and done at a bigger scale is unclear. Others have also

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**Summary**

Although quite a wide range of sources were identified relating to visual-arts interventions, very few report the outcomes from intervention work, and of those that do the number reporting a well-designed evaluation are limited. Unlike music therapy, where there were a number of different theoretical underpinnings influencing the approach taken, this seems less evident in the visual arts-therapy work, where in most cases free expression related to the humanist approach seem to be the predominant approach. Art therapy is clearly being used to support young people experiencing a range of emotional difficulties and exhibiting different conditions, such as the trauma of dealing with bereavement, severe burns, having a disabled sibling and being at risk of suicide, or having recognised behavioural and emotions disorders such as ADHD, ODD and bipolar disorder. However, on the whole the studies are small-scale and strong positive evidence for the efficacy of the intervention is very limited. Some authors have pointed to the intensity and challenge of the work with demanding young people and thus, how easily this could be transferred to a school setting and done at a bigger scale is unclear. Others have also
suggested that interventions need to be sustained over a relatively long time period to demonstrate effect, with one of the papers above indicating that something like a year is needed. These are messages that should be taken on board if this sort of work is to be embarked upon.

**Characteristics of Dance, Expressive Movement and Drama Studies in Clinical Settings**

Given the emerging pattern in the studies identified relating to music and art therapy, it is not surprising that very few of the papers describing studies utilising dance / expressive movement and drama represented fully evaluated interventions. As before there were advocacy papers, in this case for the use of both drama to tackle aggression (Bundy, 2000) and expressive movement in the form of anthroposophic movement therapy to help children with mental problems (Horn, 2013). There were two useful review papers, which will be summarised first. Then papers illustrating particular approaches with case studies will be outlined. Finally papers providing evaluations of interventions will be discussed.

Ritter and Graff (1996), which is admittedly a relatively dated paper, do provide a useful meta-analysis to quantify the effects of dance / movement therapy. This piece considers the impact of dance / movement therapy on various populations such as adult psychiatric patients and non-disordered people but of interest is the research with children. They note that much of the work up to that point in time had been with ‘developmental disabled’ children (this seemed to be a broad category including children as diverse as those experiencing emotional difficulties following abuse, to the visually impaired) and note that although few studies were properly evaluated in an experimental design, most were reporting improvements in dependent variables related to movement and spatial awareness. However, they noted that the impact of such approaches on psychotic and normally-developing children was underexplored. They only found 4 studies with children that could be entered into the meta-analysis and the overall effect size for dance / movement therapy was small ($r=0.29$), which was smaller than the overall effect size of 0.38 across all populations considered, however they suggest among other things this could be because little improvement might be expected on the outcome variables the included studies reported (motor skills / spatial awareness). Overall this suggests there are substantial gaps in our knowledge of the efficacy of dance / movement therapy.

In a much more recent review, Burkhardt and Brennen (2012) explored the effects of participating in recreational dance on the physical health and psychosocial outcomes of children and adolescents by undertaking a systematic review of controlled studies of recreational dance activity involving 5–21-year-olds. Fourteen studies were included that covered a wide range of dance styles, population groups and settings. Results consistently suggested that recreational dance can improve cardiovascular fitness and bone health of children and young people and can contribute to preventing or reducing obesity. There was also some evidence to suggest that dance participation can improve self-concept and body image and reduce anxiety. This substantially adds to our knowledge of the impact of dance by considering different populations to the first review over a broader range of health and wellbeing indicators. Indeed, as we will see through this section, recent work has moved away from looking at motor skills / spatial
awareness and is primarily focused on targeting emotional difficulties but also like this review covering physical health as well as psychosocial issues.

Three papers described particular approaches and illustrated these with case studies. In the first of these, Christie, Hood, and Griffin (2006) describe how six sessions of dance and movement therapy were taken up by two adolescent girls who after a substantial hospital stay for debilitating chronic pain (i.e. pain with no detected underlying medical condition that was so severe both needed to use wheelchairs) had returned to their family homes. The approach adopted for the sessions was based on the work of Jung and the idea of a self-regulating system, such that the therapist encouraged an awareness of psychic energy through physical sensation and facilitated an explicit description of where energy feels ‘bound and stuck’. Sessions, therefore, were designed to create a space where each girl could explore psychological and physiological processes, and the goal was to acknowledge and integrate sensory awareness into the experience of the whole self rather than viewing the mind, body and emotions as separate and independent entities. Thus the girls were encouraged to listen to and explore physical symptoms primarily through movement leading to dramatization as thoughts and feeling were put into motion. Interestingly one girl responded very positively both to this particular treatment evidenced in her willingness to discuss sessions with the rehabilitation team and explicitly discussing how it helped her overcome the sense of body as something that had let her down to reintegrate mind and body. In subsequent follow-up she continued to improve to the point she was able to leave her wheelchair behind. The other girl was much more passive through the treatment indicating she found the massage elements useful for relaxation but found other aspects (needing to voice and enact feelings) challenging. Eventually her family asked for her support to be transferred to another agency as they were convinced their daughter’s pain was the result of a non-diagnosed medical issue. Ultimately the authors suggest that the therapeutic approach described was appreciated by both girls and may be useful in helping young people find a way to get on with their lives. Although this is an insightful case study, it is difficult to attribute the eventual outcomes to the therapy received as this part of a wider rehabilitation programme. Furthermore, a larger-scale study would need to be conducted to substantiate the claims made.

Lenz, Holman, and Dominguez (2010) introduce a combination of drama and art activities based on a person-centred therapeutic approach in their work with a range of clients with mental health disorders to improve social skills. In particular, activities target basic prosocial behaviours, interpersonal communication and problem-solving skills development. Two case study examples are provided. In the first a very withdrawn 17-year old girl with depression and a history of self and other-harm undertakes three individual sessions with the therapist where floratherapy (flowers representing family members) in conjunction with role-play, art-talk (talking about art) and problem-solving (identifying and role playing solutions to family conflicts) are undertaken. The second refers to a programme with a group of 10 court-referred males aged 12-15 years, most of who had been diagnosed with an externalizing disorder (e.g. ADHD, ODD). Again a series of activities were introduced over a number of sessions including creating a group mural (to encourage collaboration, turn-taking), mirroring activities (to improve communication skills) and a role-play of problems and solutions followed by an art activity to capture these (focusing on problem-solving skills). Overall they conclude that the introduction of these sorts of
activities with an empathic stance enhances their experiences of catharsis and connection but the approach needs to be personalised and grounded in a growth-promoting relationship. The article doesn’t provide compelling evidence to back up these claims as it is descriptive and doesn’t make evaluative statements about the impact of the sessions on the young people involved.

The final of these three papers describes how dramatherapy can offer young people who are affected by family members’ alcohol and drug use, a space for engagement with problems such as torn loyalties, neglect, abandonment, rage, isolation and premature responsibility (Chown, 2013). Based on the attachment literature relating specifically to Winnicott’s developmental theory focusing on baby separating from mother (Winnicott, 1971) in the process of developing independence, the therapeutic approach taken by Chown was to offer props and materials for clients to develop and enact their own stories in a free manner. Two case studies are described. One is a 5-year girl whose mother had a drink problem and who had been in a serious of foster carer placements who repeatedly enacts a scenario with two dog-like puppets where either one is bought from a toy shop and then returned for a better dog, or the dog gets locked out of home, or the two dogs initially play together nicely but one suddenly turns on the other. At the end of the treatment family life appeared to have settled and the girl’s role-play changed to reflect typical family scenarios such as a mother baking a cake. The other case study is of an adolescent boy whose parents had experienced heroin addiction and was referred for violent behaviour in school. The boy chose to tell his own story using a puppet of Kenny from Southpark (a vulnerable character who is withdrawn) and a death skull (representing his violence) to represent the different elements of his personality and the need to protect the vulnerable boy from rage. Although he only physically represented this in one session, he returned to the theme repeatedly and was able to express his fury and eventually separate how he felt and what he would do. Chown ends by claiming that dramatherapy’s ability to help children make use of their imagination is like diluting a drink that has become too concentrated. ‘It can help transform the toxicity that a child has imbued from its parent’s attempt to self-medicate into something more like medicine’ (p. 184). Although there seems reasonable evidence that the approach taken has supported the two young people described indicating dramatherapy can help youngsters facing emotional difficulties, more work is needed to explore this further.

There are four papers that more explicitly evaluate an intervention. The first, by Erfer and Ziv (2006), describes the impact of a single session run by a arts/dance movement therapist on a group of 7 5-8 year-old children diagnosed with a range of different conditions (e.g. depression, ADHD, conduct disorder) in a short-term in-patient psychiatric ward. The session, which is described in detail in the paper, aimed to help children towards their therapeutic goals such as developing body image, self-awareness and awareness of others to improve impulse control, frustration tolerance, gratification delay and ability to get on with others, and encompasses a series of structured game type activities involving movement and dance. The authors note the importance of pre-planning to avoid potential problems, such as activities involving touch when some of the group have been the victims of abuse. The impact on the 7 children, in terms of the behaviours in the session, is outlined and the authors conclude that not only was the session successful but also improvements in awareness generalise beyond sessions suggesting children who come from chaos and disorder found coherence in the group and then felt safe
enough to work towards goals. This seems quite a large claim to make on the basis of the evidence presented and this might be better regarded as a case study. Nevertheless the detail provided about the session is useful and the findings suggest further investigation is warranted.

Two papers by a team lead by Hamre report different much larger scale studies of the impact of anthroposophical therapy on youngsters suffering from chronic disease (Hamre et al., 2007; Hamre et al., 2009). Anthroposophical therapy, as discussed in the section on music therapy, has its roots in Steiner’s philosophy and whilst we could find no evidence of the effectiveness of anthroposophical music therapy, these two studies do provide some insight into the approach when the movement (combined with visual arts in the first case) is the arts medium under consideration. The first study comprised 161 adults and children outpatients (aged 5-71) in Germany who were diagnosed with a range of conditions including mental health problems (depression, fatigue, anxiety) and neurological diseases (asthma, musculoskeletal). In total 52 therapists delivered a median number of 15 sessions to each patient individually over 161 days. The content of sessions varied by therapist (some had a greater emphasis on visual arts activities including painting and clay modelling but all included movement). To assess the impact of the intervention, disease and symptom scores (scored by the physician and patient / patient parent if a child) and quality of life (SF-36 health survey for adults and KINDL for children) were measured at baseline, 3, 6, 12, 18, 24 months. All measures except the KINDL assessment of quality of life improved as a result of the intervention and this was maintained at the later follow up testing-points. Thus children’s symptoms improved but their quality of life did not appear to follow the same trend. This study is useful as it is large scale but clearly there are a number of uncontrolled elements. There is no control group to act as a comparison so it is unclear whether the therapy can account for the changes seen. The different therapists used slightly different approaches so it is unclear what specifically is most effective in treatment terms. Finally, although the sample size appears impressive, in fact only 20 children appeared to have been included.

In contrast the second study (Hamre et al., 2009) is solely focused on young people and involved 435 children aged 1-16 years who were outpatients with a range of chronic health issues encompassing mental (behavioural and emotional difficulties), respiratory (asthma) & neurological (hyperkinetic) conditions. The intervention, like the earlier study, comprised a combination of treatments including eurythmy, art (with components of working with clay, painting, drawing, speech exercises and music) and massage therapy sessions as well as medication but in this study it was possible to consider these as separate groups. In this study each individual received an average of 12 therapy sessions over a median time period of 118 days. Disease and symptom scores at time 0, 3, 6, 12, 18 & 24 months were recorded, with the 0 to 6 month change being considered the primary measure of the effectiveness of the treatment. Assessment of physical and emotional wellbeing, self-esteem, family, friends & everyday functioning (using KINDL for children aged 8-16 years and KITA for younger children) was a secondary measure. Satisfaction with therapy and any adverse reactions to medication were also measured. Improvements in disease and symptoms were seen for all four groups (medical, eurythmy (the largest group), art and message) over the six-month period. Given that this was a naturalistic study, like the previous study, there is no control group and it is unclear what differences there were in the actual therapy received given a wide range of therapists were involved. Overall the authors are careful not to
claim too much in terms of suggesting a differential effectiveness of anthroposophical therapy over other approaches and merely state that the results indicate that an anthroposophical approach can play a beneficial role in the long-term care of children with chronic illness.

Unlike the previous two studies, the final paper reports an experimental study with a pre- and post-test design with a control group for comparison. This study examined whether adolescents with mild depression could be helped through dance movement therapy (Jeong et al., 2005). 40 teenagers with mild symptoms of depression as assessed by Becks Depression Inventory, with an average age of 16 years were randomly assigned to either an experimental or control group. The experimental group received 12 weeks of dance movement therapy which involved 3 sessions a week and was designed around four themes: awareness, expression and symbolic quality, images and feelings, and the differentiation and integration of feelings. To evaluate the impact of this work, psychological distress and interpersonal sensitivity was assessed by the SCL-90.R and liquid chromatography plasma serotonin and dopamine concentration were measured at baseline and at the end of the programme. All subscale scores of psychological distress and global scores decreased significantly after the 12 weeks whilst plasma serotonin concentration increased and dopamine concentration decreased in the experimental group but not the control group, suggesting that drama and movement therapy may stabilise the sympathetic nervous system. The authors conclude that dance and movement therapy may be effective in beneficially modulating concentrations of serotonin and dopamine, and in improving psychological distress in adolescents with mild depression. Although not large-scale, this study is robustly designed and is interesting in terms of the measures deployed to assess impact. Clearly the sorts of indicators used here would be difficult to assess in a school environment. Nevertheless this study is useful as it gives clear evidence of the usefulness of dance and movement therapy for helping depressed youngsters.

**Summary**

Whilst the relatively dated meta-analysis suggested that dance and movement therapy was effective for improving the motor skills and spatial awareness of children with a range of different mental health and developmental difficulties, more recent work has focused on emotional wellbeing and psychosocial issues. Overall the evidence is encouraging as the various studies reviewed have shown that dance has a modest positive impact on self-concept, body image and anxiety of children engaging in fitness programmes (as well as improving physical health), and can improve the quality of life of youngsters with chronic pain, chronic diseases and mild depression. The evidence relating to drama is also overall somewhat positive in improving social skills and the emotional wellbeing of children who have been the victims of family drug and alcohol issues, as well as those diagnosed with specific disorders such as ADHD and depression. This paints an encouraging picture. However it is evident that further work is needed as few well controlled large-scale intervention studies were found and these are needed to develop the evidence base regarding the effectiveness of dance and movement, and drama therapy.
Characteristics of Studies involving Creative Expression through Writing, Poetry or Story-telling in Clinical Settings

There were a limited number of sources describing interventions that entailed creative expression through writing, poetry or story telling and on closer reading there were only four articles of real interest. Three of these targeted emotional issues, whilst the fourth focused on children with special educational needs. None of these papers described an evaluated intervention; nevertheless they do provide some insight into the efficacy of therapies adopting this arts approach.

Vale Lucas and Soares (2013) argue for the importance of introducing bibliotherapy into Portuguese schools. Bibliotherapy is a projective indirect intervention that uses carefully selected thematic books or reading materials of any kind (poems, short stories etc.) to help children cope with changes, emotional or mental problems (p. 139). It entails a 4-step process from identification, examination, juxtaposition (reader develops understanding through work with therapist) and finally self-application and this can promote inter-personal skills and emotional maturity (though group-work) and also enhance self-expression and self-concept. The approach can also promote sense of belonging and decrease conflict, stress, anxiety and loneliness. Problem-solving and coping skills can also be enhanced. The various references cited do not appear to be intervention studies, which must call into question these claims. However what is interesting about this article is that the authors argue that although bibliotherapy in clinical settings is undertaken with professional therapists, developmental bibliotherapy could take place in a school with a suitably trained teacher or school librarian.

Bacigalupe (1996), in quite an old paper, makes the case for the importance of therapists to write with rather than to or about clients. He argues that creating a space for writing in therapy sessions allows clients to distance themselves from problem-saturated descriptions, mobilise multiple meanings and voices and facilitate the re-storying of their dilemmas, which then invites reflexive conversation or provides an intervention in the search for change, or both (p. 372). This is illustrated through several vignettes, one of which related to a high school student who had been referred for rudeness and defiance in the classroom, where the experience of writing a letter to the headteacher outlining his experience at school lead to change. The headteacher agreed with the viewpoint expressed in the letter (where the student tells of his boredom at the lack of challenge and opportunities) and this increased the credibility of the youngster. Changes were made in school to provide more challenge in the classroom. The student’s sense of agency improved as did his attitude to school. Vignettes such as these are not fully evidenced, for instance there is no discussion about how the improvement in attitude to school was assessed, nevertheless the paper does suggest that creative expression through writing has the potential to bring about change and should be explored further.

Hecker, Lettenberger, Nedela, and Soloski (2010) introduce a particular form of therapeutic story telling in their article ‘The body tells us a story: using art to facilitate children’s narratives’. This particular approach, which is targeted at children older than 5 years of age, entails tracing round the child’s body onto a large sheet of paper and then asking the child to decorate the body to tell their story with items that represent them and what is important to them at that point in their lives. A variety of materials, representing potentially positive and negative things is made available (magazines, ribbons, stickers etc.).
Once the piece of artwork is complete the therapist then asks the child to tell their story building up over several sessions to more difficult aspects. The body can be revisited and further developed in later sessions. The article gives an example of using this approach with one client, who was experiencing emotional difficulties following her parents’ divorce and death of a pet. Through the process it became apparent that the problem was actually the fact that she was being bullied at school, which was then acted upon. The authors claim the approach can be used to establish rapport, facilitate the children’s narrative in therapy, assist in externalising problems, and help repair traumatic events in children’s lives by integrating thoughts, feelings and the body regarding the traumatic event (p. 202). The example given certainly appears to illustrate this but would obviously need to be properly evaluated.

Finally, Olson-Mcbride and Page (2006) describe a pilot study using poetry therapy with a group of 5 students with a range of mild (some hearing loss) to severe (unable to feed or toilet self) special educational needs attending an American summer day camp. The children took part in 12 one-hour poetry therapy sessions that ran twice a week over a 6-week camp programme that involved a range of other activities. The sessions were run by an academic (one of the paper’s authors) as part of the Association for Retarded Citizens work. The activities undertaken are described in detail in the paper but all sessions involved games, and the writing and sharing of poems on particular themes such as friendship and right & wrong and emotions, using writing frameworks. The final few sessions reflected on the group and life after camp, ending with each member being given a book containing all the poems that had been written. The group facilitator undertook a qualitative evaluation by noting the reactions of each of the 5 members of the group to each session. One boy was enthusiastic overall and one dropped out as his family moved (an issue that was referred to in his poems). Of the three girls, one was bullied by another girl, despite supposedly being friends, so her engagement with the work was intermittent. The bully engaged well on occasions and was the only member to redraft poems. The final girl refused to come to the final sessions and totally withdrew from all camp activities. The authors suggest that social interaction (less physically aggressive behaviours and more positive interactions) and confidence as writers improved overall, although clearly it did vary by individual concerned, however the reading out of poems was not successful as children stumbled over words and they would reduce this element of the intervention. Their overall conclusion that ‘a psychosocial focused group intervention for adolescents that provides, in addition to opportunities for emotional expression and understanding, experience in strengthening academically-related communication skills would appear to hold great promise for building self-esteem’ (p. 181), does need formal evaluation, and in this context it is interesting that they note that only 7 controlled studies have been published examining the efficacy of poetry therapy with only one of these (Golden, 2000), which relates to university students rather than children, demonstrating a difference between the experimental and control groups.

Overall therefore, there is a paucity of evidence supporting the efficacy of interventions involving creative expression through the use of bibliography, poetry, writing more generally or story-telling based on arts or other activities in clinical settings. However, the descriptive case studies outlined suggest such approaches could be useful in dealing with emotional and psychosocial aspects of wellbeing and warrant further investigation.
Characteristics of Play Therapy Studies in Clinical Settings

There were few sources that related to play therapy approaches and on closer inspection only four papers were of interest. One is a review paper, whilst the others describe particular approaches which are illustrated by case studies but all are concerned primarily with emotional and psychosocial issues.

Moore and Russ (2006) review the evidence relating to pretend play in clinical settings, noting that although pretend play interventions have been employed in medical settings for decades, as demonstrated by the range of sources over a long time period unearthed, there are few empirical studies of such interventions in the literature. Overall they suggest that pretend play interventions are effective in inpatient and outpatient settings for preventing and reducing anxiety and distress. Furthermore the evidence suggests that pretend play also has effects on pain, externalizing behaviour, and adaptation to chronic illness. However these effects have only been demonstrated in the short term and are not stable in the long term, suggesting that refresher sessions may be necessary. They indicate that the conclusions that can be drawn are limited by methodological issues including measurement, treatment fidelity, research design, statistical procedures, and potential confounding variables. However despite this, they believe that the existing evidence suggests that play is a helpful intervention and that future research that addresses these limitations is warranted.

Galligan (2000) draws upon Winnicott’s notions of the intermediate area of experience, good-enough mothering and the transitional objects/phenomena during the separation-individuation stage in normal infant’s development to argue that play therapists providing good-enough mothering can facilitate play in the intermediate area of experience with transitional objects/phenomena in the therapeutic process. The article goes on to describe two case studies. One is a 9 year-old girl who had been referred due to symptomatic behaviours of lying, stealing, opposing authority and destroying others’ property. Initially she finds it hard to play and it emerges that she is being abused at home and is eventually moved to a foster home. During continuing play therapy she starts to tell stories, which the therapist wrote down and produced in a book in preparation for the termination of treatment and during the final stages of treatment the girl develops an attachment to a particular puppet (transitional object), an eagle which the girl names Veronica, which becomes her friend and they play together. The final story in the book is about Veronica. The positive self-talk towards the end of the therapy plus the use of the transitional object is seen as progress as she now can self-sooth and has the capacity for self-healing. The second case is a 7-year old boy who has been referred for inattentive, impulsive and disruptive classroom behaviour. During therapy sessions it emerged that his mother has an alcohol dependency problem and his older sister and mother were abusive to each other. This was enacted during a session when he asked the therapist to join him under the table which he has secured to his satisfaction (his intermediate area) to read a book about a father with an alcohol problem and he had brought his turtle (his chosen transitional object) and a telephone (to call for help if needed). Drawing on Parse’s (1992) Theory of Human Becoming, the author argues that the nurse therapist supports and guides individuals and families as they create their own health. That is, by providing good-enough mothering to enhance the development of a creative play experience, the nurse permits the child to find meaning through self-expression, to synchronise rhythmical patterns by living moment to moment, and to mobilise transcendence by moving beyond the moment to forge a unique personal path toward health (p. 175).
The strong link to theoretical underpinnings is a strength of this work, however like many others, only case studies are presented to illustrate ideas and no formal evaluation is conducted.

Gotay (2013), drawing on existing literature around the use of games in therapy, notes that the use of activity such as a game enables a client to distance themselves from emotion facilitating rational processing of emotional events. Furthermore activities that are not face-to-face with the therapist and therefore avoid direct eye-gaze enable clients to take risks that they may otherwise avoid. However the literature does note there is a lack of empirical evidence to support the use of games in therapy (Swank, 2008). Gotay is aiming to enable at-risk teenagers (aged 12-17 years) at a residential treatment facility to acknowledge and process emotions more productively, as she notes that they struggle to manage their emotions and are reluctant due to their prior experiences to disclose, understand and balance conflicting emotions. Gotay therefore began to experiment with different games and found that an adapted version of Jenga was an effective tool. This was chosen due to its availability, simplicity and cost (cheap). In the adaptation the group identifies emotions that are meaningful to them to create a list, and this includes some positive emotions that are agreed goals, and these emotion words are then written on the Jenga blocks. The game can then be played either in a group or individually with the therapist. Gotay suggests she took the latter approach. In playing the game, each time a block is removed the client has to describe how the emotion written on the block is experienced in their own life. Gotay suggests this could be modified to tackle behavioural or social issues, questions of value or aspirations but she has focused on emotion. She links this to Elliott & Freire’s (2007) emotion-focused therapy but notes the game could also be used in other approaches such as CBT or dialectical behavioural therapy. Although the paper is descriptive, it does suggest that games approaches are worth considering further.

The final paper, by Green, Myrick, and Crenshaw (2013), outlines the role of sandplay and other creative interventions in a therapeutic relationship aiming to facilitate healing of two female adolescents with broken / insecure attachments with their parents. One adolescent displayed an insecure-avoidant attachment style and had been referred to therapy because she exhibited symptoms consistent with generalised anxiety and obsessive-compulsive disorders. The other exhibited an ambivalent resistant attachment style and had been referred due to depressive symptoms and self-harming. Play therapy with both clients extended over a period of 6 months (although the paper isn’t totally explicit), which incorporated sandplay, although this is not outlined in detail. In the process of therapy difficult relationships, not only within the family but also with a partner for one girl, are explored. Ultimately no conclusion is drawn about the progress of the two girls but a number of implications are drawn. The authors make the point that it is important in the early days to nurture a positive relationship with the young person through dependency and empathic attunement so that they are able to explore emotions in a non-judgemental fashion. Trust and mutual respect are central to the therapeutic relationship. What sandplay and other techniques (such as circle of caring which presumably also formed part of the approach) offer are a less threatening way of expressing emotions that the young person may not be capable of verbalising. Specifically they allow youngsters to understand that their feelings have value, they are supported by caring adults who do not judge them, and attention to their inner emotional landscape is a vital key for their ongoing psychological development (p. 99). Despite these laudable
claims, however, the authors note that there are no specific research-based interventions to immediately and/or comprehensively resolve the effects of broken attachments.

Overall, then, the small number of papers reviewed in this section suggest that play therapy, which can take different forms and include games, can be useful to help youngsters dealing with a range of emotional and psychosocial wellbeing issues as strong theoretical links to relevant developmental psychology have been made. However, there is no direct empirical evidence from properly evaluated interventions to substantiate the claims made in the various papers.

**Overall Conclusion on the Efficacy of Arts-based Interventions in Clinical Settings**

It is clear that a very wide range of arts-based interventions are being used in clinical settings, although there are more interventions involving music, visual arts and dance / expressive movement than creative expression through writing, poetry or story-telling, play therapy or drama. There is also some overlap between these categories, as story-telling is categorised as dramatherapy in some studies (for instance by Chown, 2013), whilst it is considered a form of play therapy by others (for instance by Galligan, 2000), which makes it challenging to scope the territory. Quite a large number of studies deploy a range of arts-based approaches such as art with story-telling or art with expressive movement, which makes it difficult to appreciate which element is most useful in helping young people as it may be that both are required for the treatment to be effective. In general precise details of the interventions given such as a session-by-session breakdown of activities are not given, especially in articles reporting evaluation of such interventions. This could be because there is limited wordage available in most journal articles and space needs to be devoted to describing measures and findings.

Most of the interventions reviewed had been put in place to support children and young people with emotional or psychosocial aspects of wellbeing. This is unsurprising given the clinical setting, as clients had been referred due to specific issues, either because circumstances had put them at risk (for instance bereavement, divorce, living with family members with alcohol or drug problems, having experienced a trauma such as burns or even just having a disabled sibling), or they had been diagnosed with a mental health condition (such as ADHD, ODD, depression, early onset bipolar) or they had special educational needs (autism, visual impairment etc.). Although different arts-based interventions have been used with children and adolescents with special educational needs (for instance music-therapy, dance and movement therapy and poetry therapy), more work seems to have focused on young people with emotional difficulties or mental health conditions and with these groups the whole range of different arts-based approaches appear to have been used adapted to the specific issues and limitations posed by the different contexts of the groups or individuals in question. In general the studies were reporting positive effects of the particular arts-based intervention. Behavioural problems have not been directly tackled directly on the whole, as it appears the underlying emotional issues have been the focus of the therapy, for instance in the case of young people who have been referred through the court system presumably because of anti-social and criminal behaviour. Interestingly there were very few studies focusing on physical health conditions and the evidence was more mixed. Whilst dance appears effective in improving aspects of physical health (including tackling obesity), a music-therapy approach was not
effective for young people suffering debilitating pain from headaches. On the other hand movement therapy seemed to help youngsters with chronic pain in some cases.

Properly evaluated intervention studies were very thin on the ground. Most papers described an approach, which was then illustrated with one or two cases or vignettes. Although this qualitative evidence is useful in the sense that taken together these studies suggest arts-based therapeutic approaches can be effective, they are not on their own very persuasive, particularly as approaches that have been taken but found to be ineffective will probably not be evident in the published literature. There are some straight-forward pre- and post-test design interventions reported and these on the whole suggest a modest positive effect of the arts-based approach in question, for instance in relation to anthroposophic therapy, but without a control group it is difficult to attribute causality to the intervention described, and in some cases where advantage has been taken of naturally occurring interventions there is no quality control on the intervention. There are a handful of randomised control trials, where one can be much more certain of causality and these have yielded some evidence of efficacy but in general these are very small scale and need replication with bigger samples. Furthermore, in many cases the intervention evaluated took place over a relatively short length of time (for instance often between 6 and 12 weeks) and several authors have commented that this is not long enough for the intervention to take effect. Some have advocated for at least 9-12 months of regular intervention (for instance a weekly hour long session) for a positive impact to be seen, not only in the short-term but to be sustained for at least six months after the intervention concludes. In these sorts of studies a wide range of clinical instruments are used to assess effectiveness, such as quality of life scales, depression inventories and so forth. Such instruments, on the whole, can only be administered by a professional psychologist or psychiatrist so it would be difficult for school-based professionals such as teachers to be able to use such measures to assess the impact of any interventions they might put in place.

The predominant stance taken appears to be a person-centred approach based on humanist psychology but some work is clearly drawing on psychodynamic approaches and linking this with developmental psychology theories (such as Bowlby, 1969; Winnicott, 1971). There are a few studies that align with behavioural approaches but on the whole these do not seem to be well supported by empirical evidence. Mixed approaches combining person-centred with psychodynamic elements appear to be quite common although in general the theoretical underpinnings of particular interventions are not explicated in any detail, perhaps due to space limitations in journal articles. However the core elements of the person-centred approach (unconditional positive regard, congruence and empathic understanding) seem vital. The vast majority of the studies reviewed, perhaps not surprisingly given the clinical context, involved professional therapists who would be very familiar with the different theoretical underpinnings and although one or two studies suggested that an intervention might be facilitated by a professional without a counsellng or therapeutic background, it remains an open question whether that would be possible for non-specialists to facilitate such work in other settings such as schools.

In summary, although the clinical literature has revealed a rich diversity of work with some promise of effectiveness, much more research is needed for the impact of such arts-based interventions to be demonstrated.
Chapter 4:

Therapeutic Uses of Arts in School Settings
Chapter 4: Therapeutic Uses of Arts in School Settings

Given the evidence of the previous section concerning the use made of various art forms within clinical settings it would seem an obvious next step to promote similar interventions within schools, particularly with students at risk of behavioural problems or with mental and physical disabilities. Certain situations such as the move from primary to the much bigger secondary school or the onset of key public examinations can also produce anxiety among a sizeable proportion of the student population and more severe symptoms leading to depression in a minority of cases. In the 25-year period from 1974 to 1999 the number of young people reporting frequent bouts of anxiety or depression has doubled, particularly significantly for girls where it has risen from 10% to 20%. Parents have reported that behavioural problems have also risen from 7% to 15% during the same period. More recently, increased concerns about young adolescents’ use of drugs, tobacco, alcohol, junk foods and their sexual habits have led to a number of interventions underpinned by various psychological and psychiatric clinical approaches, but few of these have been arts based (Hagell, 2012). The early use of the visual arts, writing and story telling for diagnostic purposes involved the assumption that subjects would ‘project’ their fantasies onto their descriptions or drawings of characters so that the focus was on the exploration of the unconscious through free association. Thus, for example, Goodenough’s (1926) ‘Draw a Person’ test was used to identify symptoms of schizophrenia in young children and Morgan and Murrays (1935) Thematic Apperception Test (TAT) was adapted by Freudian psychoanalysts to identify a variety of personality disorders.

During this stage, therefore, the use of art therapy was restricted to clinical settings since it required expert theoretical knowledge to make a diagnosis. School interventions therefore required the services of a trained arts therapist. However, according to Chibbaro and Camacho (2011) in the latter half of the twentieth century the focus changed whereby the arts were advocated as a means of promoting general wellbeing by allowing students to explore their emotions. Arnold’s (1962) story sequence analysis, for example, was advocated as a motivating tool which could be used by school counsellors without the need for in-depth interpretation of the student’s work. Drawing, in particular, was seen as an important ‘communication tool’ for younger children in such areas as sexual abuse (Trowbridge, 1995). More recently the use of art inventions to cope with post-traumatic stress disorder (PTSD) in children and young adults as a result of natural disasters, political violence or civil war has been advocated (Tol, Komproe, Susanty et al., 2008).

There has also been resistance on the part of some teachers to certain forms of intervention, particularly those using rewards as a way of reducing unwanted behaviours. Advice to ignore incorrect behaviour, for example shouting out, and to praise the pupil whenever he or she puts a hand up and waits his or her turn can result in dissatisfaction from those students who always obey the rule and who see their classmate ‘getting away with it’. A similar recent example is the present practice, now in use in many secondary schools, of awarding ‘vivo miles’. This is a commercial enterprise reminiscent of the old ‘Green Shield’ stamps where teachers use their smart phones to text ‘credits’ to students and the latter are able to spend the points earned for ‘good behaviour’ on top-ups for their mobiles, items of sports equipment...
and on various other vouchers. In recent interviews some SENCOs, teachers and Teaching Assistants have expressed mixed feelings about this form of reward because it tended ‘to pay out more to those behaving badly’ (Galton & MacBeath, 2014). Thus some clinical interventions, particularly those advanced for individual clients, are unlikely to transfer easily and straightforwardly when the treatment takes place within classrooms and the interactions between the teacher and the particular student are subject to interpretation by his or her peers. Arts interventions would seem to be more neutral in this respect, offering benefits for all pupils, yet there is still a tendency for many arts interventions designed to encourage renewed engagement by disaffected pupils to take place outside normal lesson time (Deasy, 2002) and this may reflect past attitudes.

The context of School–based Interventions

In this present review a total of 95 entries covering the period 1990 to 2014 which referred to the use of some form of arts therapy (excluding play) in school settings were identified. Of these 37 concerned music (38.9%), 8 the performing arts (8.4%), 18 expressive movement and dance (19%), 11 creative expression through writing, poetry and story telling (11.6%), with the remaining 22.1% (21) covering the visual arts, crafts, photography and film making. When these were cross-referenced with specific aspects of health around themes of obesity, substance abuse and so forth, the number of relevant citations fell rapidly. Most of the studies concerned what has been termed ‘psychosocial’ problems, which covered behavioural (disengagement resulting in exclusion from normal lessons), emotional (symptoms of anxiety etc.) or social (reluctance to engage with peers/teachers in lessons) issues. Of the 66 studies where it was possible to identify the particular aspect of health being targeted, 91% (60) concerned psychosocial problems.

Previous reviews tell a depressing story. Two in particular, that of Daykin, Orme, Evans et al. (2008) covering the period 1994 to 2004 and Beauregard (2014) whose selected publications between 2000 and 2012 overlapped the time-scale of this present study. Both of these reviews found that what has been referred to as the ‘gold standard’ for inclusion in typical academic reviews; randomised controlled designs, valid and reliable pre and post test measures etc. (Murray, Low, Hollis et al., 2007) could not be applied as it would have eliminated most, if not all, of the publications identified by the various search engines. Even when applying a lesser ‘guide’ criterion (Zara, Wright-de Aguero, Briss, et al., 2000) which only required a description of the sample (youth, adolescent, pupil, student etc.), specific listing of the art form (music, drama, dance etc), nature of the dependent variable (self-esteem, sex, diet, alcohol, drugs etc.), pre and post test measures and recognised procedures for data collection and analysis, the number of publications were drastically reduced. Daykin et al., initially identified 104 relevant publications, but were only able to obtain the full text for 85 of these. A further 30 papers were excluded for lack of any evaluation measures and when the other criteria were applied only 14 publications remained. Similarly, Beauregard (2014) whose criteria included wellbeing or mental health as the dependent variable, school aged children from 5 to 17 years, a major arts intervention component, stated evaluation procedures and only interventions taking place within a classroom setting started with 499 results of which 33 were worth closer examination. When the full criteria were applied only 8 articles remained. Eventually, using only some of the criteria, the reviewers were able to expand their list
to 19 publications. Even when the specific arts component was omitted and various Coordinated School Health Programmes (CSHP) made the subject of the review, Murray et al., (2007) only found 17 publications which met the ‘guide’ criterion. It can be concluded, therefore, that attempts to establish the effectiveness of arts interventions in pursuit of healthy outcomes in school settings, using a quantitative or a mixed method strategy, has up to the present enjoyed limited success. What is perhaps a weakness of these reviews, however, is a failure to consider, albeit under a separate category, those quantitative studies where the pupils are observed over a period of time and changes in their behaviour noted and used as evidence of improved self-esteem, increased motivation, reduced anxiety etc. Providing the analysis is rigorous and not merely anecdotal, such observations can offer valuable clues, not only as to the implementation of the artistic interventions, but also their impact on students’ disposition and wellbeing.

Musical Interventions in School Settings

The greater proportion of articles dealing with arts interventions in school settings involved musical activities which were often combined with movement. As used by arts therapists and school counsellors, four main forms of intervention are deployed to enable students to engage in self-exploration (Kimbel & Protivnak, 2010). The first of these requires students to bring and play music of their choice to a group of their peers. Students then discuss the song’s message and its personal significance for the individual participants. The second intervention consists of lyric revision where students rewrite the words of the song to more accurately reflect their own experiences and feelings. A third intervention involves improvisation which is similar to song revision but does not involve someone else’s creation. Improvisation at its simplest can involve simple hand clapping or singing rhythmically using ‘ta’ and ‘ti’ syllables. In its more complex form, it can involve composition by computer programming. The fourth approach uses background music or music clips during presentations or discussions to highlight particular themes. By their nature, therefore, these kinds of intervention are more often used with small groups (between 10 and 20) within the school ‘guidance unit’ or in after school sessions with ‘problem’ children.

Most reported interventions took place on a weekly basis during one school semester and each session lasted between an hour and 90 minutes. Assessment procedures for judging the effectiveness of the intervention varied enormously and few studies used any standardised instrumentation (Wilson & Smith, 2000). Informal, subjective measures; listening assessed by ratings of concentration, time on task, ability to replicate melody and rhythm were some of the more frequent means of assessing students’ responses. Subjects were mostly children with complex physical or developmental learning difficulties, which explains why the treatment groups were relatively small. Autism, impaired hearing, down syndrome and a range of non-specific emotionally disturbed conditions were most often cited as the treatment variable in the period between 1980 and 1997 (Wilson & Smith, 2000: 101-106).

With larger numbers, musical interventions mainly consist of singing accompanied by some form of movement or simple instrument playing (drums, tambourines, maracas etc.). For example, in England a musical initiative, Sing Up, aimed to establish choirs in every primary school and used a student self-report questionnaire to identify outcomes, such as improved self-confidence and other aspects of
subjective wellbeing (Welch et al., 2010). Some reservations have been expressed about these findings, in the case of ‘Sing Up’ by Hampshire and Matthijsse (2010) where it is argued that the positive effects were mainly attributable to children from ‘privileged’ backgrounds, whereas students from more deprived areas had to cope with a backlash from their peers, who saw participation in ‘arty’ activities as evidence of being a ‘poofter’ (the Billy Elliot effect). These children from disadvantaged areas felt more isolated as a result of the consequent breakdown in social relationships within their own neighbourhood.

More recent research in school settings, like the Sing Up initiative, has tended to concentrate less on specific learning and behavioural issues and used music therapy as part of programmes designed to improve the subjective wellbeing and the social and self-management skills of students. Gooding (2011) for example, has carried out three small-scale interventions in school and after school care settings in which musical performance, movement to music and improvisation was used in conjunction with cognitive behavioural techniques. Pre and post test ratings by participants, researchers, relevant staff members (teachers, managers of care centres etc.), coupled with observations of the students behaviour towards each other were used as indicators of success. The treatment consisted of five weekly sessions each lasting 50 minutes. The desired social and self management skills were defined and demonstrated and feedback given on each performance. Ways of transferring skills learned from one form of music intervention to another were emphasised. In the school setting none of the ratings reached statistical significance (5% level) but on-task behaviour improved. In after school settings the care centre managers’ assessment of anti-social behaviour did decrease significantly as did the observations of behaviour although the assessment of some estimates of social competence (non verbal communication, eye contact, gestures, recognition of others’ personal space) decreased. In her conclusion the author, noting that the trends were generally positive, suggests the need for longer more frequent interventions.

Belgrave (2011) studied cross age attitudes when a ‘convenience’ sample of 21 4th grade students engaged in musical activities with 26 adults from a retirement home. Samples were divided into experimental and control groups and the former group took part in 10, thirty-minute joint sessions. The experimental group of children and adults took part in singing, instrument playing (hand drums, rhythm sticks, tone chimes etc.) and moving to music. Participants had to learn rhythmic accompaniments for newly learned songs and to create a dance routine from movements such as bending, swaying, kicking from side to side and forward and back steps. Students’ attitudes to older adults were assessed in weeks 1, 3, 5 and 7. Sessions were videotaped and seven behaviours (on task participation, touches, smiles, looks, and assists, encourages or initiates conversation with an adult partner) recorded. Results showed no significant increase in on task behaviour by students. Smiling and looking occurred more frequently than encouraging or initiating conversation with adults. Assisting an older adult was never observed. Students’ attitudes were assessed by a content analysis of a bi-weekly response which asked them what they had noticed about the older participants. In the first week 12% of the responses concerned negative physical aspects of the older adults but by week 3 only positive comments were being made. Post test scores showed no significant differences between the experimental and control groups of children’s attitudes towards the elderly. Analysis of the videotapes suggested that moving to music was more effective than instrument playing in producing interactions and that interventions which occurred in

50
small groups (dyads) produced higher levels of cross-age interaction than larger group interventions such as singing and playing instruments. The author suggests that the therapists need to structure the musical interventions more carefully in order to promote the desired behaviours, although no evidence is offered to support this conclusion.

Kennedy’s and Scott’s (2005) musical intervention involved 34 Grade 6 (lower ability) and Grade 7 (higher ability) students who were divided into 4 groups (1 experimental and 1 control for each grade). Students were from families of Hispanic origin living in Georgia, USA. Singing, musical games and rewriting song lyrics, among other interventions, were used to improve the students’ use of communication skills in their second language. The assessment consisted of the students’ ability to retell stories from various texts using a special ‘story retelling inventory’. The therapists played songs with the words displayed on an overhead projector and students were asked questions designed to assess improvement in their comprehension and understanding of sentence structure, and vocabulary. The regular teacher also assessed the student’s speaking skills at monthly intervals over a 12 week period using a specially devised checklist. The music chosen was, where possible, related to seasonal activities so that the song, ‘A Spooky Little Girl Like You’, was chosen at Halloween. Various games were incorporated so that the last person left standing during ‘Musical Chairs’ had to answer a comprehension or grammar question. In both grades the pupils’ scores on the story retelling task were significantly better in the experimental groups. However, on the observation checklist the results were mixed. In the first monthly evaluation, while ‘speaks only to those with same native language’ decreased from ‘always’ to ‘sometimes’ ‘is comfortable speaking publically’ and ‘volunteers to answer in class’ or ‘maintains listener’s interest’ were rated ‘never’ in a high proportion of cases. By the third month all check list items in Grade 6 had reached ‘sometimes’ but in Grade 7 every item was rated as ‘always’ except for the one ‘speaks only to those who share the same native language’ which was rated ‘never’. The authors attribute these differences to age rather than ability arguing that the older pupils are more likely to see the need of learning the second language and be better motivated as a result. They suggest that the order of activities needs careful attention so that those which are meaningful, and involve more active participation should be introduced at the early stage. Kimbel & Protivnak (2010) endorse this approach in their advice to school counsellors. They emphasise that students should be encouraged to choose songs that have significance to them and caution against the introduction of the counsellor’s personal preferences, as this can be intimidating and lead to alienation.

In a study involving mainstream pupils, Whitehurst and Howells (2006) reported on an attempt to integrate children from a special residential school in the West Midlands with those from a mainstream secondary establishment. Both groups of pupils worked over a two-year period on a musical performance based on an adaption of an ancient Sri Lankan fable, the Monkey King. The children from the special school had severe learning difficulties including autistic spectrum disorders. Unfortunately, from the perspective of this review, the focus of the research was on the attitudes of the mainstream students so that the impact on children with special needs was not recorded. These interviews took place 14 months from the start of the project and again after the five performances at a major venue in Birmingham. Whitehurst and Howells detected major changes in attitudes among the mainstream students. Whereas before, the children from the special schools ‘were not seen as people’ and
mainstream students ‘were afraid to touch or talk to them in case they attacked us’, the post performance interviews were very positive. The mainstream students’ advice was ‘to talk to them as you would your friends’, and to ‘get to know more about the person’. Another interviewee commented that once ‘you look past their disability and don’t judge them on that’ then ‘they’re normal’. These authors recommend small groups rather than whole class ‘ice-breaking’ activities as a starting point for dealing with concerns and fears and for providing the practical skills that mainstream students required to enable them to work cooperatively with these special needs pupils.

Another study involving mainstream pupils was that of Kim et al. (2006). They note the high recorded rates of anxiety and depression among early adolescent Korean girls due to examination pressure, excessive parental expectations and fear of peer rejection. Thirty-five Grade 7 girls (all volunteers) took part in five 90-minute daily sessions in the course of one week. A sixth session was held 6 weeks later. Some activities took place all together, while for others the girls were placed randomly into groups of eight or nine.

The musical interventions included singing, song writing and body movement. Material mostly consisted of local ‘pop’ songs that appealed to this age group. Following each musical intervention the girls discussed in their small groups how the song had influenced their thoughts and feelings (the reflection stage). The next stage (transfer) asked participants to establish connections between the music and their own lives and to identify ways in which the understanding gained could be applied to their daily life in school. Groups were then asked to come up with ways for bringing about a change in their present circumstances (the planning stage) before coming together to give feedback on the small group work (review stage). All sessions were videotaped and researchers and therapists worked towards a consensus view of what took place in the groups.

The first three sessions were characterised by negative emotions and a degree of hostility towards the therapists. Initially the girls were off task and largely resisted disclosing their personal feelings. In session two, some participants did open up but were discouraged by the negative, non-empathetic responses of other group members. In session three a sense of belonging to the group developed but this feeling of ‘connectedness’ was employed to direct hostility towards the adult facilitators. By the fifth session, however, it was agreed by the observers that participants had become more comfortable in discussing their feelings and more willing to offer personal information.

In the sixth session participants were given a blank sheet of paper and asked to record all perceived personal changes that had occurred as a result of attending the course. The three most commonly perceived changes were improvements in peer relationships (25.7%) increased self-confidence (22.9%) and calmer emotions (20.0%). The authors raise a number of possibilities to account for the relatively small number of participants reporting significant change in their lives compared to the combined judgments of the researchers and therapists based on their observation of the videotapes. They suggest the use of more objective evaluation measures and increasing the number of sessions to at least 10 to allow a greater degree of group cohesiveness to develop. There is no discussion, however, of whether it would have been better to spread the sessions over a longer period, rather than cramming them into a single week. The longer time span might have provided participants with opportunities to engage in
reflection and to put into practice some of the planning decisions arrived at in the course of the group discussions.

Although community interventions are outside the scope of the review, mention must be made of the work of the Sidney De Haan Research Centre for Arts and Health, based at Canterbury Christ Church University in England. The Centre’s work has tended to concentrate, especially, on various aspects of group singing in ways that promote ‘physical, mental and social wellbeing’, particularly among the increasing proportion of elderly people within the population. In one of its publications Clift et al. (2010) have reviewed the current uses of group singing for the promotion of health and wellbeing. Most studies have taken place in English speaking and Nordic countries. Of the 48 studies identified, half involved 20 or fewer participants, but two (Clift et al., 2009 and Louhivuori et al, 2005) were in the high hundreds. Some of the smaller studies gather retrospective evidence about the benefits of membership of choirs. Singing was said to be energising, stress relieving and generally enjoyable. It also provided social support, built friendships and gave participants an increased sense of ‘belonging’. These personal and social benefits applied in a variety of contexts, such as prisons, shelters for the homeless and elderly peoples’ lunch clubs and residential homes. Another study (Cohen et al., 2007) found that for the elderly, in particular, there were gains in health prevention. Over a period of two years, participants reported making fewer visits to their doctors, less need for medication and a reduction in injuries due to falls. Other studies have looked at the therapeutic effects of singing on health conditions such as asthma, chronic pain, irritable bowel syndrome, various forms of depression and eating disorders, Parkinson’s disease and dementia. Of the ten such studies only two had more than 30 participants. The interventions tended to take place either twice weekly over a short period (minimum 3 weeks) or fortnightly over the course of 6 months to a year. Sessions ranged from 60 to 90 minutes duration. Clift et al., (2010) conclude that results show promise but that, as with other arts and wellbeing initiatives, better experimental designs are required. Nevertheless from the perspective of art interventions in school settings Clift et al.’s (2010) mapping of the field illustrate the possibilities of similar approaches being studied with children and young adolescents.

By way of an example, although younger pre-school were involved, Barnes (2014) evaluation of the Haringey Lullabies Project offers one possible blueprint for further research. Based in three Children’s Centres within the Local Authority, a singer songwriter, who had previously worked for Creative Partnerships, sought to improve language skills, enhance social and personal development and forge closer links with the staff of the Centres and parents. The singer spent a half-day a week in each centre and the project lasted a whole year. Parents from families in disadvantaged circumstances and their sibling were seen individually. Various stimuli were used to get children to talk about ‘things that matter to them’ (pet name, important people in their life, most treasured belongings etc.) and from this information a lullaby was created. The song is recorded on a disc and parents asked to monitor the use their child makes of it.

Questionnaires were given to the 80 parents whose children were given their personal lullaby. Staff of the centres conducted case studies, evaluators observed sessions and also used a wellbeing rating scale to monitor the sharing sessions. Development days for Centre staff and parents were provided by the evaluation team who also interviewed a small number of parents.
The results suggested that children grew in confidence the more parents utilised the song at home. The songs also led to exploration of cultural identities as parents and grandparents began to talk about ‘life back home’ in their countries of origin. This helped social development as children began to compare stories. Parents said they used the song to resolve conflicts and Centre staff reported improved lines of communication with families. The author points to the importance of celebrating performance with the other children and their parents and the Centre staff in creating this more cooperative climate and building young children’s self-confidence, pointing out that this kind of shared experience while a key aspect of most artists’ approach is not usually employed by trained music therapists.

The Use of Drama for Psycho-social Development

Of the 14 studies identified by Daykin and colleagues (2008) half looked at improvements in personal and social skills and employed drama as the source of interventions (Walsh-Boers & Basso, 1999, Douglas et al., 2000, Mattingly, 2001, Lasic & Kenny, 2002, McArdle et al, 2002, Jackson, 2003 and Bradley et al., 2004). Walsh-Bowers and Basso (1999) undertook two interventions, one with 24 students from a Canadian rural elementary school and the other with 28 students in an urban setting. Both groups experienced a 15-week drama intervention. The outcomes consisted of teacher, pupil and parent self-reports on behaviour and social skills. The scores were then compared with those of a class in another neighbouring school who followed the normal curriculum. Results were mixed. Pupils did not report improved peer relationships but parents’ and teachers’ ratings showed improvement in social skills and interactions overall. However, as Dakin et al. (2008) point out, the small size of the samples and the problematic nature of the comparison groups limit the reliance which can be placed upon these findings. In the case of the rural comparison school, for example, the researchers found that the school environment tended to emphasise various aspects of cooperation so that peer-relationships were much stronger, initially, than in the experimental rural school and this affected the changes in scores.

McArdle et al. (2002) employed similar self-report measures of the social benefits of attending a one-hour drama workshop for 12 weeks, but also included a measure of self-concept. 122 at risk children were randomly assigned either to the workshop group or worked on additional mathematics and English topics. There was significant decline in teachers’ and parents’ reports of pupils’ unacceptable behaviour, but the parents’ assessments were not sustained over time. Pupils’ self concept in the experimental group improved relative to the control. A mixed methods approach was used by Lasic and Kenny (2002) involving a small group of 19 secondary school students who performed before 550 of their peers. Teacher reports claimed improvements in social skills and student teacher relationships and the qualitative data consisting of teacher and pupil focus group interviews tended to support these claims. However, the small sample size and the lack of any comparison group is a major limitation.

The remaining four studies were mainly qualitative and relatively small scale. In Scotland Jackson (2003) involved 20 students, aged from 10-16 in a series of drama workshops leading to a public performance in front of health and education professionals which was then followed by a question and answer session. The discussion, it was claimed, demonstrated increased knowledge and an increased disposition to make use of the available health services. The three remaining studies took place in community rather than school settings and therefore lie outside the scope of the review. All involved young people described as
Interventions designed to cope with Trauma

The review by Beauregard (2014), although looking at the effects of classroom-based creative intervention on wellbeing in general, mainly concerned groups who had undergone various forms of trauma due to war, natural disasters or who have sought refugee status as a result of political upheaval in their own countries. One of the main outcome measures concerned the reduction in PTSD. Of the 19 studies listed three involved sand play and were therefore not included in this review. In the remaining 16 cases a mix of art forms were employed. Drama, dance and music each received 4 mentions, visual arts 5 and story telling 2 in various combinations. Six of the listed studies, all by the same team of researchers (Rousseau, et al., 2003, 2004, 2005a, 2006, 2007 and Moneta & Rousseau, 2008) involved newly arrived immigrants to Canada. This series of papers by these authors employed the same approach with similar results, but with different age ranges in each case, covering pre-school, elementary, junior high school, high school and secondary levels. Research on a related theme, violence among immigrant groups, was also the subject of research by Koshland (2010) and Koshland and Whittaker (2004) in the USA. Of the remaining 8 studies, three, Ager et al. (2011) and Tol et al. (2008,2010) dealt with political violence in Uganda and Indonesia respectively, Berger and Gelkopf (2011) explored the aftermath of the Tsunami in Sri Lanka, while Berger et al. (2007) investigated the impact of the threat of terrorist activity in Israel. The remaining three studies involved classroom interventions in Nepal, Palestine and Turkey (Jordans et al., 2010; Khamis et al., 2004 and Macy et al., 2003).

The pattern of these latter classroom based interventions tended to employ similar kinds of activities which would be oriented towards the particular cause of the trauma (war, natural disaster etc.) and adjusted to take account of cultural variations. The programme usually consisted of twice weekly one hour sessions undertaken over a 5 week period. In the first week the concern was to deal with issues of safety in the current circumstances in an effort to provide participants with a degree of reassurance. During the second week attempts were made to stabilise fears and anxieties in preparation for week three when the various narratives giving rise to the trauma were shared. Weeks 4 and 5 then attempted to create a more positive outlook by first drawing out common features from the various individual narratives before going on to look at ways of coping and at possible opportunities for the future. All these programmes were based on the principle that artistic interventions could enable participants to process memories of traumatic experiences which they were unable to verbalise and that only when this processing was complete did it become possible to lessen the psychological impact of such events, memories of which tended initially to be fragmented. Lessons were generally organised around a theme centred class activity, followed by group work and a closing ‘de-briefing’ session.

Drawing was used to tell what these researchers called children’s ‘silent stories’. Drama, music and movement allowed pupils to share experiences by building up bonds of trust and sympathy among classmates and thus boosting the individual’s confidence not only to describe traumatic incidents, but to
explore the feelings associated with such experiences. Those responsible for running these sessions received two weeks training and were generally recruited from among relief workers employed by charitable organisations. Results were mixed with reduction in PTSD symptoms in all cases except that of Nepal, and changes in the associated consequences of PTSD (reductions in anxiety, depression, insomnia; increases in resilience, coping, self-esteem) except in Indonesia.

Rousseau and colleagues adopted a similar approach which is described in some detail in the earliest paper (Rousseau et al., 2003). The programme had two essential components. In the first, referred to as *The Trip*, children were asked to describe by a combination of verbal and non-verbal means their journey to their new place of abode covering their past life back in their homeland, the trip itself and the arrival in the host country. Usually, children opted to draw pictures and then to talk about these. The second component was entitled ‘working with myths’ and ‘memory patchwork’. Children explored myths of non-dominant cultures and also family and community myths from within their own culture. The purpose of the former was to demonstrate both the tensions and richness of minority positions and to link this with the children’s own situation so that they could begin to develop their own sense of identity within the new alien culture in which they found themselves. Verbalising from drawings was again the main vehicle for these explorations. The result of all three activities were then combined and used in 12 weekly workshops, each lasting for two hours. These were run by a specialist art therapist and a psychologist with training in story telling who acted as role models for the teacher. The art therapist advised on the use of materials and also sought to emphasise that the task was concerned with self-expression rather than the production of a well crafted, finished product. Drawings of the homeland were usually associated with everyday life (eating, sleeping etc.) while those depicting their new refugee status in Canada frequently included snow. For some, like one Bangladeshi girl pupil, snow was featured as a background in drawings of her homeland, depicting, it was claimed by the researchers, the difficulty of matching the reality of her present situation with her longing to be back home (Rousseau et al., 2003: 6).

For the younger cohorts qualitative evidence was offered that following the programme these children were better able to cope with the sense of loss and to adapt to the alien culture without losing a sense of ‘who they are’ and ‘where they come from’ so that they didn’t seek to create a ‘false self’. The researchers do acknowledge, however, that the addition of some quantitative measures, such as that of self-esteem, would have strengthened the analysis and in later studies involving older students some quantitative measures, estimates of self-esteem and a self report questionnaire for pupils and teachers on ‘strengths and weaknesses’ were introduced. While there were significant improvements in self-esteem when employing the story telling and drawing techniques in the elementary school, the intensity of feelings on leaving their homeland, based on the questionnaire responses, did not diminish. However, through drama workshops adolescent students were better able to cope with these feelings (Rousseau et al., 2005b).

**Impact of Arts Interventions on Wellbeing and Health**

It would appear from the above section that any attempt to impose strict criteria on the selection process would be likely to lead to a very limited number of publications covering the impact of arts in schools on the health of pupils. Just as the reviews by Daykin et al. (2008) and Beauregard (2014) were
forced to include publications which adopted very soft evaluation criteria so here both quantitative and qualitative judgments about the consequences of the arts intervention were accepted provided the qualitative evidence involved at least some form of recognised, systematic procedure, such as progressive focusing, and was not based solely on isolated, anecdotal incidents. Full discussion of the selection criteria were provided in the second chapter. The minimum criteria for the selection process consisted of studies which gave information on the following: the impact of an arts intervention (visual art, drama, dance, music, writing or a combination of these forms) with children aged 5-18 years, the school settings (either during or outside lesson time) and the nature of the health problem (physical and mental, both preventative and treatments for existing conditions). Publications dealing with special education needs as a whole were excluded but specific disorders such as autism, dyslexia and attention deficit hyperactivity disorder (ADHD) were included. In the event, this decision led to a further modification since those conducting studies of the latter kind usually supported their conclusions with evidence that included improved self-esteem, better social relationships with both teachers and peers, and other behavioural and emotional outcomes which are generally classified under the ‘wellbeing’ label (Owens & Fabiano, 2011). The links between wellbeing and ‘healthy psychological functioning’ can be traced to the development of Relational Cultural Theory (Miller and Stiver, 1997) which postulates that good social relationships promote ‘five good things’ consisting of a sense of connection accompanied by increased energy, feelings of empowerment, greater knowledge of self and others, an enhanced sense of ones own worth and a desire to extend connections within one’s community (Sassen, Spencer & Curtin, 2005). Other research has, however, demonstrated that anxiety and depression and other mood disorders are less easily detected and are less susceptible to changes in behaviour or social relationships (Merikangas et al., 2011) but can be satisfactorily identified through mass screening so that students self reports are often used for this purpose (Mc Loone & Rapee, 2012)

The wellbeing literature, however, exhibits similar problems as those described in the previous section so that a team from Harvard Project Zero came to the conclusion that there was no scientific basis for the claim that involvement in the arts had an impact on students’ academic self-esteem or improved their social skills (Winner & Hetland, 2003). Based mainly on the conclusions of the review of North American studies by Deasy (2002) these authors criticise the lack of adequate controls and the lack of valid evaluation measures in much of the research cited. Nevertheless, a more recent review concluded that sustained involvement with the arts did enhance the functioning (eudaimonic) aspects of wellbeing whereas feeling more confident, feeling healthy and being satisfied with life in general (the hedonic aspects of wellbeing) were less susceptible (McLellan, Galton, Stewart & Page, 2012), although in England evaluations of two major school-based arts initiatives in drama by the National Theatre and the Royal Shakespeare Company respectively have reported improvements in the students’ general confidence and self esteem (Turner et al. 2004; Needlands, Galloway & Lindsay, 2009).

Most of the school-based arts interventions targeted at the promotion of healthy outcomes in the original list of 99 were excluded mainly because the description of the arts intervention was extremely vague or because no evidence, either of a qualitative or quantitative nature, was supplied in support of the conclusions. Thus Massey and Burnard (2006) describe a ‘project hour’ based on the approach developed by the Reggio Emilia School in Italy. Children were free to choose topics and materials and
example of studying cars during which children made a papier mâché model of a vehicle is cited. The approach is said to improve social and emotional behaviour and a simple observation schedule which acted as an indicator of intrinsic motivation (child on task, engages in task conversations, suggests new activity etc.) was used in 10 minute sweeps of the classroom. However, the authors proceed from description to conclusion without any of the data being presented. In contrast an art intervention designed to improve awareness and consequences of HIV in a South African township employed a quasi-experimental design, a range of validated quantitative measures, and analysis of variance to determine statistical significance, but the description of the intervention merely consists of the phase, ‘the project runs art activities’ (Mueller et al., 2011:59).

**Arts Interventions and Health Promotion**

At the other extreme were the studies undertaken by medical centres designed to promote healthier behaviours. Two reviews, part of the Cochrane Collaboration, one in primary schools to reduce the incidence of dental caries (Cooper et al., 2013) and another for promoting health and general wellbeing of mainly secondary students (Longford et al., 2014) listed no arts interventions because ‘only randomised control trials clustered around schools, classes and individual students were included’. Nevertheless some valuable conclusions emerged which might be applied to future artistic interventions. Firstly, the duration of the intervention was important. Studies of 12 months or less were likely to target physical activity or nutritional outcomes while those dealing with substance abuse, sexual and mental health required a longer time span. Secondly, few studies were longitudinal so that there was little attempt to follow up the intervention once it had been completed. Thirdly, differential outcomes across gender and ethnicity were common and the research needed to build these effects into the experimental design and the subsequent analysis. Finally, few studies included qualitative process data that could help to explain differences between pre and post-test scores. Observation of the ways in which the various interventions were implemented in different settings was almost non-existent and this limited the extent to which the researchers could advise teachers on the most effective forms of mediation.

Another recent analysis of interventions, again in non-educational settings, by Archibold, Scott and Hartling (2014) found that the use of visual art (drawing, painting or sculptures) was more common in cases of autism and post-traumatic stress disorder. This finding was not replicated, however, in the use of such arts in North American schools (Randick and Dermer, 2013) where it was mostly used for addressing peer pressure (Sassen et al., 2005), dealing with disputes between students and between students and teachers (Gibbons, 2010), increasing coping skills (Spier, 2010) and exploring relationships and personal development (Sutherland et. al., 2010). Within a community setting art therapy has also been used to improve ‘prosocial skills’ (turn taking, sharing materials etc.) for adolescent boys with mental health disorders (Lenz et al., 2010). Most of these reported studies, which took place in small groups during a 7 or 8 week period, had no outcome measures built into the investigation but mostly relied on casual observation and informal conversations while students were engaged in the artwork. Construction of murals through the use of cooperative group work were said to be particularly valuable for developing a sense of ‘school connectedness’ when the murals become part of the ‘school landscape’. Students first worked on their individual contributions and then collaborated in assembling
these components into a coherent whole. Randick and Dermer (2013: 34) conclude that ‘although results seem promising larger samples and more rigorous designs are needed’. Most of the reviewed research did not ‘systematically study’ the effectiveness of the [visual] art interventions through the use of ‘reliable outcomes’.

Drama activities have been shown to be a valuable tool for health promoting interventions such as healthy eating (Joronen et al. 2008) and sexual health (Harvey et al., 2000) but studies tend to focus on increasing knowledge and improving attitudes rather than monitoring changes in actual behaviour. Other studies seek to reduce the incidence of anti-social behaviour such as bullying (Joronen et al., 2011). When outside actors are employed, a typical sequence will be for the company to perform a drama portraying the undesired behaviours (overeating, bullying etc.) and then get the audience to question the actors about their behaviour and corresponding feelings before moving to discussion groups where alternative scenarios are worked out. The final stage then acts out the revised version of the drama in which more positive outcomes, the results of the discussion, are presented. Roberts et al. (2007) describe such a programme designed to reduce the stigma associated with mental health issues, increasing knowledge and understanding of early psychosis and improving awareness of sources of help. The sample consisted of 2,500 students, aged 14-22 years who completed before and after questionnaires. A sub-sample of 313 students was then asked to write further comments on their post-questionnaire responses. Significant improvements in knowledge and attitudes occurred.

Joronen et al. (2011) made use of drama to reduce the incidence of bullying in Finnish primary schools. A quasi-experimental design with two schools, one with a drama intervention and the other without employed pre and post-test surveys exploring pupil-pupil relationships. Two further questions, ‘How often have you been bullied?’ and ‘How often have you bullied?’ were also asked using a three-point scale (never, one or two times and many times). Four teachers were trained by a drama expert during a two day seminar and a handbook and five further counselling sessions were also provided. The teachers provided eight 90-minute classroom sessions between September and April with follow-up home activities and three parent meetings. The intervention group showed significant improvement in teacher and peer relationships but although the proportion of pupils who said they were often bullied declined from 39.7% to 30.2% in the experimental group, compared with 30.2% to 28.6% in the control, this result did not reach statistical significance. The authors support Vreeman and Carrol’s (2007) conclusion that the drama programme alone is by itself insufficient and that various systemic issues (gender, ethnicity poverty etc) and the social environment of the school need also to be addressed. For this reason Joronen et al. (2011) favour a whole school approach.

A systematic review of the effects of recreational dance on health outcomes follows the pattern already identified for other art forms. From over a thousand records screened, only a dozen within this present review’s time-line were included in the analysis (Burkhardt & Brennan, 2012). Most of these used quasi-experimental designs in which the groups undertaking the dance programme were compared with others following the normal physical education lessons. Outcome measures included cardiovascular fitness (Floes, 1995; Adiputra et al., 2000; Mavradis et al., 2004; Viskic-Stalec et al., 2007 and Silvestri, 2004) and changes in Body Mass Index (BMI) and/or waist circumference (Flores, 1995 and Robinson et al., 2003), while two Australian studies looked at the effects on bone health (Bennell et al., 2000;
Matthews et al., 2006). Of the remaining three studies Burgess et al., (2006) and Daley & Buchanan (1999) looked at adolescents’ body image and physical self-perception while that of Kim and Lim (2007) found improvements in general wellbeing compared to a group of college students who played ice hockey.

All the studies measuring cardiovascular fitness, except Selvestri (2004) which was relatively short-lived, reported significant improvement. Unsurprisingly aerobic routines were most successful but other forms of native dance (Balinese and African) as well as Hip Hop also increased fitness levels. Burkhardt and Brennan (2012) argue that because the control groups in these cases undertook regular PE classes the dance routines were being compared with ‘normal’ activity rather than inactivity so that the dance effect may have been underestimated as a result. They caution against the use of BMI as an outcome measure because it is defined by weight and height and does not distinguish between fat and muscle tissue. It is therefore possible that as a result of physical exercise fat tissue will decline while muscle tissue increases. Consequently the BMI may remain unchanged.

Jago et al., (2011) identified some of the elements which aided recruitment and retention when a dance club was provided as an extra curricular activity. Participants, a group of 11-12 year old girls identified as the main reason for joining the desire to become more proficient. Most said they liked dancing to music in the privacy of their bedroom and the club provided an opportunity to ‘get better at doing it’. Another inducement was the opportunity to mix with people who ‘like doing the stuff that I do’. The social aspects of belonging to the club were repeatedly emphasised. Finally, all were agreed that having a ‘taster session’ before having to make a firm commitment was a big inducement because ‘you got an understanding of what it involved without the pressure of having to sign up’.

Sustaining participation depended on three main factors. The first of these was the type of dance. Most girls wanted modern types favouring high-energy beats and changing dynamics. Hip Hop and Street Dance were especially liked for having these characteristics but also because it was possible to compare one’s own performance with professionals in films, on TV and in promotional videos. Most girls also wanted the music to be modern, something from the pop charts that they could relate to. The third factor had to do with ‘ownership’. Girls relished the opportunity to develop their own routines once they had been taught the basic moves because ‘you can put your own moves in’ and because ‘it feels yours, not somebody else’s’.

However a slightly different picture emerges in Eke and Gent’s (2010) account of a programme of dance with a group of 8 girls from a mainstreamed secondary school in England. These Year 8 (12 year old) pupils were chosen by the Head of Year by virtue of being withdrawn or isolates with low self-esteem. Two of the students displayed severe behaviour symptoms which the school saw as a deep-seated angry response to events in their personal lives. As in Jago et al.’s (2011) study one of the most important aims of those in the group was to gain friends. Approval of peers was very important. However in the case of this group of vulnerable children fears of rejection by their peers gave rise to angry feelings which were often manifest by adopting very rigid postures (arms folded over chest, coiled position with arms over knees = protection; backs towards group = rejection). Incidents were rife, as in one exercise where the rest of the group had to ‘mirror’ the posture of each participant in turn and two girls felt the others were
mocking them. Mostly the group took their anger out on the two facilitators by non-participation, rebellion against safety rules or sabotage (kicking over chairs acting as props). At the completion of the 10 sessions most of the girls expressed sadness that the activity had come to an end, although few said they felt more positive about life in general or about themselves in particular. As one participant said during the final discussion:

There’s no such thing as a happy ending...what’s the point? You get married, have kids, then your partner leaves you and you’re on your own (Eke & Gent, 2010: 54).

Comments, Reflections and Suggestions.

This review offers possibilities rather than firm conclusions. Only by accepting the widest frame of reference was it possible to include more than a handful of studies. Nearly two decades ago Ritter and Low (1996) criticised arts therapy research for its lack of ‘adequate control groups, poor sampling and the use of inadequate measures to assess change’. The same is true of most of the studies sampled in this review. With the quantitative approach, without more methodologically adequate research, including the use of at least quasi-experimental designs, better descriptions and matching of the experimental and control groups and the inclusion of at least some standardised, reliable measures, it will be impossible to arrive at firm judgements as to the value of various arts interventions. Qualitative studies consisted mainly of anecdotal accounts rather than detailed case studies in which some form of triangulation was used. None of the studies provided detailed observation data (either systematic or participant) of how the arts interventions were implemented. Yet such data is vital if the consequences of the arts intervention are to be fully accounted for, whether these prove to be positive or negative.

Nevertheless, some trends did emerge.

1. Different art forms tend to be used for different purposes. Story telling, combined with visual art, particularly painting and drawing, is more often used to deal with children who have some suffered traumatic experience, the effect of war, natural disasters and political violence. Music is employed in cases of mental disability, such as autism or depression, while dance and movement, although obviously employed to improve physical conditioning, also find a place in helping to promote a greater sense of self-worth. The same is true for drama, particularly in performance.

2. Lengths of interventions vary. Those dealing with wellbeing and other psychosocial features such as improving self-esteem etc., usually operate over a school term (60-90 minute sessions) while those dealing with severe traumas or attempts to change attitudes and behaviour (substance abuse, life styles) need at least a year.

3. Results vary across age, gender and ethnicity although the latter is also often associated with a background of disadvantage. Most interventions first attempt to establish a sense of ‘group identity’ and this can become more difficult following the onset of puberty, particularly in mixed gender groups. Many of the studies reviewed have elementary children or 7-8 year olds as the target audience.
4. There is little consensus as to the degree of expertise required. Most North American studies employ specialist art therapists while in the UK and Australia professional companies and semi-professional individual artists are more often used. In the Far East and Africa, volunteers are often employed and given a short period of training. There are no evaluations of the effectiveness of different levels of expertise, nor are there accounts of attempts to train school staff to continue the intervention once the external support has been withdrawn. When specialised arts therapists are used the interventions tend to take place with smallish groups but there is an alternative view that activities should be integrated into the whole curriculum rather than as an after-school event or as a ‘time-out’ from normal classes. This, it is claimed, promotes a greater sense of ‘school connectedness’.

5. The most used form of measuring instruments was self-report questionnaires. Students’ accounts are often validated by parents’ impressions. For the most part these concerned improved knowledge and attitudes but not behavioural change. The exception was in the area of physical health where changes in body mass, heart rate and bone density were monitored. The use of diaries to indicate changes in behaviour (e.g. regularity of visits to the doctor) was not a feature of any of the school studies reviewed, although it offers an alternative way of assessing changes in behaviour.

6. By far the largest number of studies were concerned with the impact of arts interventions on psychosocial behaviour and general wellbeing. Next were those used for prevention of unhealthy behaviour and life-style. Studies of mental disability or physical disorders tend to be included in reviews from medical perspectives rather than those devoted to the arts. Given the more rigorous selection criteria employed for the former reviews no arts interventions in school settings were found among the studies listed.

The conclusion must be, as with all previous reviews that more systematic, methodologically appropriate research is needed. This is particularly true in the case of children in mainstream schools who have complex educational and behavioural needs. With the cutbacks in Central Government expenditure and the capping of the Council Tax, few Local Authorities have been able to provide an adequate central service to support the schools. The growth of Academies and Free Schools exacerbates the situation. It is claimed some are ‘cherry picking’ their intake to avoid serious cases of disability. More recently, with the ending of ‘statements’ and their replacement by Education, Health and Care Plans (EHCP), control of available resources has shifted towards parents, so that schools are uncertain about the permanence of any funding provided. In such circumstances many schools have resorted to greater use of untrained classroom assistants who in many cases are resigned to doing little more than keeping their charges reasonably quiet, so that the rest of the class can get on with their work unimpeded.

Yet the evidence in support of arts’ intervention, particularly in the form of Creative Partnerships in this country, is very positive. Not only do they boost attainment (Sharp et al., 2006) and promote feelings of school connectedness (Bragg & Manchester, 2011), but they also have a distinct impact on wellbeing.
Whereas, for example, more general initiatives such as the Healthy Eating Status Awards improve attitudes, schools with an extended relationship with artists appear able not only to do the same but to promote better functioning so that pupils ‘practice what is preached’ (McLellan et al., 2012). Sustained artistic interventions would therefore appear to promote both hedonic and eudaimonic forms of wellbeing. Given the decline in core expertise in Local Authorities to support the needs of schools and the likelihood that this situation will continue, it would seem reasonable to investigate whether interventions by artists, employing similar strategies to those developed by Creative Partnerships, could make a similar impact in respect of concerns about the health of children and adolescents in our state schools.
Chapter 5:

The work of Creative Partnerships
Chapter 5: The work of Creative Partnerships

So far, the review has not dealt in any detail with the work of Creative Partnerships (CP), the largest arts intervention in English schools in recent years. Created in 2002 as a joint initiative between the Departments of Culture, Media and Sport and Education and Skills, it fell victim to the financial cutbacks required by the Coalition Government and ceased to operate in 2011. During its period of existence it sponsored work in over 5,000 schools, working with nearly 100,000 teachers at both secondary and primary level. These activities involved around 6,500 creative practitioners (the preferred term, indicating participation by film makers, photographers, dancers, actors and other creative individuals as well as literary and visual artists). Typically, creative practitioners worked intensively in a school for one term or else made regular visits over the course of a year. Most of the schools where these activities took place were in areas of social disadvantage and many of the students involved tended to exhibit behaviour problems and to have become ‘disengaged’ from and ‘disinterested’ in conventional forms of school learning.

Creative Partnerships was incorporated in a restricted form under the umbrella of a charitable foundation, Creativity, Culture and Education (CCE). This body has commissioned a number of evaluation studies which have explored the positive influence of Partnerships on school ethos (Bragg, Manchester, 2011) and the ways in which students have been given a greater voice in school affairs (Bragg, Manchester & Faulkner, 2009). Another study by Thomson, Jones and Hall (2009) explored shift away from ‘default’ pedagogies (lessons planned around the specified outcomes; the transmission mode of teaching favoured, and tests mainly used to determine the extent to which the prescribed outcomes were achieved.) towards what they termed ‘exploratory and creative’ pedagogies, where experiential learning was promoted and creative practitioners spent time exploring students’ background knowledge and raising issues through a mix of extended class discussion and outside visits. Emphasis was placed on students’ prior experiences when setting learning goals. Pupils were also often allowed to choose the activities they wished to undertake and time was set-aside for the teacher and the pupil to reflect on outcomes.

More pertinent to the present report was the study referred to earlier, in which the impact of creative activities, particularly those of Creative Partnerships, on student wellbeing was explored (McLellan et al., 2012). This study came closest to meeting the criteria laid out in the AESOP framework for developing and researching arts in health interventions1. The framework is based on the Medical Research Council’s guidelines for ‘evaluating complex interventions’. Each section of the framework has five levels of increasing complexity. For example in the specification of artistic outcomes the lowest level (1) has no specific outcome specified whilst at the highest level (5) it is required to demonstrate the acquisition of specific skills by participants such that they ‘they expand their way of working with the art form’.

In Phase One of McLellan et al.’s (2012) research four versions of a Student Wellbeing survey were developed, piloted and administered to 5231 students in 20 primary and 20 secondary schools, half of which were currently engaged in Creative Partnerships’ programmes. The remainder of the sample was

1 www.artsinhealth-framework.org (last accessed Nov 19, 2014)
matched (in terms of size, attainment and catchment) with these Creative Partnerships schools. Although not directly involved in Creative Partnerships most of these matched schools had introduced some form of activity (anti-bullying programmes, healthy eating campaigns etc.) in support of improved wellbeing. The surveys asked students to respond to items relating to how they felt in school (secondary students were also asked to compare this with how they felt outside school) and how they perceived the work they did in lessons. Phase Two involved an in-depth exploration of 5 primary and 4 secondary schools (a mix of creative partnership and other schools) drawn from those taking part in the survey. Thus in terms of the AESOP framework, there was a comparative quasi-experimental design, clear, measurable, quantifiable, wellbeing outcomes allowing the use of statistical analysis and well defined arts interventions whose development was followed in the course of the case studies.

The analysis of the Wellbeing Survey produced four distinct dimensions. These were described as **Interpersonal** – encompassing the social aspects of wellbeing, **Life Satisfaction** – concerning how students feel about their life (i.e. largely hedonic in nature), **Perceived Competence** – concerning how students perceive their effectiveness (a eudaimonic facet of wellbeing) and **Negative Emotions** – concerning students’ perceptions of levels of anxiety (a hedonic aspect of wellbeing).

There was a clear trend for wellbeing in school to decline with age. The reduction in wellbeing scores was more pronounced during secondary schooling where KS4 students score significantly lower on almost all wellbeing items compared to KS3 students. In primary schools the reduction of wellbeing with age trend was not so marked. Year 3 students reported higher levels of ‘life satisfaction’, but Year 6 students recorded higher scores on the interpersonal and competence scales.

When the type of school was introduced into to the analysis KS1 students in Creative Partnerships schools had higher wellbeing scores on all four dimensions compared to the other schools but the reverse was true at KS2. Boys felt overwhelmingly more positive about themselves than girls. Girls did score higher on items that related to belonging such as feeling cared for and feeling people were friendly. There was a rapid decline in secondary school girls’ wellbeing scores between KS3 and KS4 in both in school and out of school contexts. Students at secondary school reported higher levels of wellbeing outside school compared to inside school but the KS4 students had lower levels of wellbeing outside school compared to their peers at KS3 on all four dimensions of wellbeing. These trends suggest that more attention should be paid to the promotion and development of student wellbeing in schools.

In Phase 2 case study schools with Creative Partnerships programmes all tended to view creativity and creative learning as a way of developing student wellbeing – creativity was the process through which student wellbeing was enhanced. In contrast case study schools with no Creative Partnerships programme tended to see student wellbeing initiatives as tools to support students learning, so students were often removed from the class to go to enrichment activities and then be reintroduced into the lesson. This led to some students and staff to the realisation that this provision could be unfair – ‘it’s great here if you are naughty’. Creative Partnerships schools tended to have a more inclusive approach.

In summary therefore, at least in the primary phase, the Creative partnerships’ approach to fostering wellbeing seemed radically different from that in the other case study schools. In the latter wellbeing was a **means to an end** in that various activities designed to make pupils feel better in themselves or to
make them more confident were intended to overcome the low motivation levels which operated in core subjects such as literacy and mathematics. In Creative Partnerships schools there was no distinction made between creativity and wellbeing. As a result creative learning tended to permeate the whole curriculum.

At secondary level, the case studies did provide insights into how Creative Partnerships work impacts upon student wellbeing. However, since secondary schools generally have well-developed pastoral systems and these are often run by non-teaching staff this made assessment of the impact of Creative Partnerships work more difficult to judge. The context within which secondary schools operate cannot be ignored, in particular the performativity culture which leads to a focus on examination outcomes. This has implications for student wellbeing as (lack of) subject choice and exam pressures can be perceived as controlling and therefore thwart the need for autonomy which according to Deci and Ryan (2008) is an essential determinant in facilitating ‘optimal’ intrinsic motivation and psychological, eudaimonic wellbeing.

More pertinent to the present investigation of health outcomes, were the three elements in the wellbeing questionnaire which could be said to represent various health outcomes. The first of these (I feel healthy) was an all-round assessment while the second (I feel I have lots of energy) could be taken as an indicator of physical condition. The third element consisting of two items (feeling miserable and feeling worried) represents negative mental traits of stress and anxiety. These three items were in turn correlated with the two scales most closely representing the hedonic (interpersonal scale) and the eudaimonic (competence scale) aspects of wellbeing. For ease of representation in the following diagrams the correlations have been converted to a linear scale represented by z-scores using Fisher’s (1915) transformation. The larger the z score the greater the association between health and wellbeing although it is not possible to determine which of the two variable is a consequence of the other (e.g. that strong feelings of wellbeing results in improved health).

In the first comparison the association between the scores on the item, ‘I feel healthy’ and the subjective and psychological representations of wellbeing are examined.

In the first of these comparisons the largest increase and biggest difference occurs in the shift from KS1 to KS2 within the CP schools. In all cases the association between feeling happy, safe, cared for and close to people (interpersonal feeling) and feeling healthy is strongest in the CP schools although the differences at KS1 and at secondary are small. In the second diagram the association between feeling confident, capable of coping with challenges and feeling good about myself (perceived competence) shows little difference at primary level (although the z scores increase from KS1 to KS2) but there is a dramatic effect at secondary level where the association in the non CP schools becomes negative so that either better functioning is indicative of poor health or sound health is indicative of poorer functioning. A possible explanation lies in the link to examinations where pupils who work hard to ensure success are more likely to experience greater stress, giving rise to various physical symptoms such as tiredness, headaches and problems with eating and digestion. This does not appear to be the case in CP schools.

\[z = \frac{1}{2} \ln \left(\frac{1 + r}{1 - r}\right)\] where ‘ln’ is the natural logarithm.\(^2\)}
The next two diagrams look at the link with feeling energetic and the two forms of wellbeing
Here the differences are not so pronounced. The non-CP schools show a small increase in the z scores from KS1 to the secondary level whereas those of the CP schools dip at KS2. In the case of the functioning aspects of wellbeing the trend is much the same in both types of school with the association strengthening as pupils move up primary school and then go on to secondary. One possibility here is that the energy item is not indicative of physical wellbeing but represents students’ capacity to go about school tasks with purpose and enthusiasm. In the situation in which students completed the questionnaire, as part of a timetabled classroom session, this interpretation would seem reasonable, as does the link between feeling competent and putting one’s heart and soul into the task work set by the teacher.

The final comparisons are with the degree of negative emotion associated with wellbeing. Here the relationships are negative and the stronger association is between the hedonic (subjective feeling) aspects of wellbeing and anxiety. Students who are worried about their safety, their schoolwork are unlikely to feel happy or cared for. The strength of the association increases as students get older and there is little difference between the strength of the association in both the CP and non CP schools.

In the case of the functioning aspects of wellbeing the trend is clearer in the CP schools where the greater the stress the less competent the student feels (or, alternatively, the less competent the greater the stress levels). In all cases differences between the two types of school are small.
In summary the strongest association occurred between *eudaimonic* (functioning) aspects of wellbeing and feeling healthy where there is a clear trend in favour of the CP schools, particularly at secondary level where the effect size is large given the reasonable number of pupils on which the original correlations were based. In McLellan et al.’s (2012) study the observations carried out in the schools showed that it was the approach adopted by the creative practitioners that boosted the students’ self esteem and self-efficacy. Students were all of a mind that in forcing them to face challenges and make decisions without too much help, these artists gave them a sense of personal achievement and growth so that they ‘felt good about themselves’. This finding replicates earlier work by Galton (2010) where in the case of one pupil, previously at risk of suspension, the following exchange took place:

Interviewer: Is [naming the artist] the same as a teacher?

Pupils [in chorus]: No.

Interviewer: In what ways is she different then?

Pupil: She lets you make big decisions

Interviewer: How do you feel about that?

Pupil: Scary at first in case things go wrong [nods of agreement]

Interviewer: But if it comes out right in the end?

Pupil: Then it’s magic. You feel proud and warm inside [nods of agreement]

It is not unreasonable, therefore, to suggest that it is this sense of wellbeing that induces positive reactions when students are asked about the state of their health and this would explain why CP schools did much better that their comparison schools in this respect. A limiting factor in the strength of this relationship appears to be extent of the ‘performativity’ culture which now dominates mainstream schools. Most primary schools and all secondary ones in Galton’s (2010) study excluded students from Creative Partnership activities in Y6 and Years 10 and 11. In McLellan et als’ (2012) study pupils were
very clear about the changes that occurred in Year 6. and the pattern was similar in both CP and non CP schools.

Pupil 1: It's not as worrying as when you're doing your SATS. You worry a lot, don't you? [asking other interviewees who all nod in agreement]

Interviewer: So you're getting it all now. Did you not get anything before SATS?

Pupil 2: We did. ... But then it's SATS and they were just like, you've got to revise, you've got to revise.

Pupil 1: So just basically relaxation in the last six weeks ... [but] for SATS it's "get your head down and work".

It would seem, therefore, that the pressure to obtain at least Level 4 at KS2 and five ‘good’ GCSEs in secondary school produces increased stress and an increase in the negative z scores compared to those at KS1. This limits the value of the functioning aspects of wellbeing.

Whether similar trends emerge in the present study at the primary secondary transition stage will now be examined when the results of the more detailed health survey will be presented.
Chapter 6:

Student Perceptions of their Health:
Findings from the survey
Chapter 6: Student Perceptions of their Health: Findings from the survey

The ‘How Healthy are You?’ questionnaire is based on common symptoms of childhood illnesses taken primarily from the NHS Direct website. This was piloted with one of the secondary schools at a Year 6 induction day in July 2013. Following a preliminary analysis of the data and further discussion with the funders about issues arising from our preliminary examination of the research literature discussed in earlier chapters, the questionnaire was subsequently modified to include a number of additional items reflecting a healthy lifestyle.

This was then administered on two occasions; firstly in late October / early November 2013 towards the end of the initial settling in period at secondary school, and secondly in June / July 2014 towards the end of Year 7. A copy of the questionnaire can be found in the appendix.

In this chapter findings from these two administration points are presented. First of all a summary of the response to each item at the two time points is given. Next the underlying scales discernible from the response to individual items will be presented and differences between boys and girls, and students at arts specialist and non-arts specialist schools will be identified. Finally changes in perceived health over the time period under consideration and patterns in change for arts vs non-arts schools will be shown.

Preliminary Analysis: Response to Individual Health Items

A total of 636 Year 7 students completed the survey in the autumn of 2013, whilst 714 students completed the survey in the summer of 2014. Of these students, 554 completed the survey on both occasions and included 269 boys (48.6%), 284 girls (51.3%) and 1 student who did not state their gender. Thus there is a slightly greater percentage of girls than boys overall in the sample but the gender imbalance is relatively small.

Students responded to 23 items about their health on a 5-point scale by writing a number in the response box for each item, where 1 indicates the item is never true, 2 not often true, 3 sometimes true, 4 often true, and 5 indicating this is always true for them. Hence, in the numerical data presented, higher rather than lower scores indicate students felt the item or issue under consideration was more frequently true. The mean and standard deviation for each item on the questionnaire for the two testing points is shown in table 1 (below).

Means ranged from 1.62 to 4.25, whilst standard deviation ranges from 0.66 to 1.27. This suggests there are no issues with floor or ceiling effects as none of the mean scores approach the extremes of the possible response range (1 or 5) and have very small variation (all standard deviations considerably more than half a unit). This suggests the scale is appropriate for capturing a range in experience. Overall the figures are similar for the autumn 2013 and summer 2014 administrations; hence the discussion below focuses on the autumn 2013 data.
Table 1: Descriptive statistics for the health items at the two testing points

<table>
<thead>
<tr>
<th>Item</th>
<th>Autumn 2013</th>
<th>Summer 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>I go to the doctors</td>
<td>2.72</td>
<td>0.88</td>
</tr>
<tr>
<td>I have problems getting to sleep at night</td>
<td>2.19</td>
<td>1.10</td>
</tr>
<tr>
<td>I get headaches</td>
<td>2.34</td>
<td>0.92</td>
</tr>
<tr>
<td>I get colds</td>
<td>2.57</td>
<td>0.86</td>
</tr>
<tr>
<td>I eat fruit and vegetables</td>
<td>4.13</td>
<td>0.89</td>
</tr>
<tr>
<td>I feel dizzy</td>
<td>1.76</td>
<td>0.85</td>
</tr>
<tr>
<td>I have a high temperature</td>
<td>1.80</td>
<td>0.66</td>
</tr>
<tr>
<td>I spend more than 3 hours a day at home on electronic devices (like on a computer, phone, tablet)</td>
<td>2.90</td>
<td>1.27</td>
</tr>
<tr>
<td>I feel like being sick</td>
<td>1.94</td>
<td>0.79</td>
</tr>
<tr>
<td>I get ear ache</td>
<td>1.69</td>
<td>0.84</td>
</tr>
<tr>
<td>I don’t want to talk to anyone</td>
<td>1.87</td>
<td>1.02</td>
</tr>
<tr>
<td>I get pains in my arms and legs</td>
<td>2.11</td>
<td>1.00</td>
</tr>
<tr>
<td>I get angry at things for no reason</td>
<td>2.03</td>
<td>1.13</td>
</tr>
<tr>
<td>I have an upset tummy</td>
<td>1.91</td>
<td>0.82</td>
</tr>
<tr>
<td>I find it hard to concentrate on things</td>
<td>2.29</td>
<td>1.06</td>
</tr>
<tr>
<td>I get short of breath</td>
<td>1.81</td>
<td>1.02</td>
</tr>
<tr>
<td>I eat breakfast</td>
<td>4.25</td>
<td>1.11</td>
</tr>
<tr>
<td>I get stomach aches</td>
<td>2.10</td>
<td>0.86</td>
</tr>
<tr>
<td>I am happy with the way I look</td>
<td>3.79</td>
<td>1.11</td>
</tr>
<tr>
<td>I have problems with my teeth</td>
<td>1.91</td>
<td>1.01</td>
</tr>
<tr>
<td>I do at least an hour a day of physical exercise (like sports, walking, cycling)</td>
<td>3.93</td>
<td>1.08</td>
</tr>
<tr>
<td>I drink fizzy drinks (like coke)</td>
<td>2.85</td>
<td>1.06</td>
</tr>
<tr>
<td>I get a sore throat</td>
<td>2.29</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Four items were positively phrased (eating fruit and vegetables, eating breakfast, being happy with the way they look, and doing at least an hour a day of physical exercise) and the mean response score for these items ranged from 3.79 (happy with the way they look) to 4.25 (eating breakfast), suggesting these were aspects that were perceived as often true for the students participating in the survey and are indicative of positive perceptions of health. The remaining items have a negative slant and the mean scores for these ranged from 1.69 (getting ear ache) to 2.90 (spending more than 3 hours a day at home on electronic devices) so are perceived to happen not very often in the case of the former, to more or
less sometimes in the latter. The fact that many indicators of poor health are perceived to happen not often or even less frequently on average (eight items) is encouraging but there are still eleven items where overall children are suggesting symptoms occur more frequently than not often and almost as frequently as sometimes, the mid-point on the scale. Thus it seems for most students poor health is perceived as being experienced not often or sometimes.

However, it is important to acknowledge there is a reasonable amount of variation in response, as indicated by the standard deviation scores indicating a range of different student perceptions of experience. The whole response range was endorsed for all questions so for some students good health is perceived as almost always experienced, whilst for others poor health in terms of the symptoms included on the questionnaire was perceived as far more common. There was a particularly large amount of variation and hence perceived experience associated with spending more than three hours a day on electronic devices but also considerable diversity in terms of problems in getting to sleep, getting angry at things for no reason, eating breakfast, and being happy with the way they look. Thus whilst the overall picture is of poor health being perceived as experienced sometimes or not often, there is considerable differences in experience perceptions.

**Facets of Health: Identifying underlying Health Scales**

Although the analysis of individual items has revealed some interesting findings, each can only provide a very limited insight on perceptions of health. Thus it is more useful to group items together into one or more scales to provide a more composite picture of perceived health. As the health items had been taken from the NHS Direct list of childhood illness symptoms combined with items relating to a healthy lifestyle derived from the literature on this topic, it was unclear what items should be grouped together. We therefore undertook an exploratory factor analysis, which is a statistical technique that interrogates a dataset to identify groups of items that have been responded to in a similar way (for instance if students consistently give the same response to the items I get headaches, I get colds and I feel dizzy, so one student might respond never to all three items, whilst another responds always to all, then the technique identifies these three items as a potential group or factor).

Exploratory factor analysis is, as the name suggests, an exploratory technique, in that the analyst needs to decide how many factors best represent a dataset, assuming it is suitable for factor analysis in the first place. The latter can be assessed using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and the Bartlett’s Test of Sphericity, both of which essentially look at correlations between items to assess whether it is sensible to try and group items together (which it would not be if the correlations between items was very small). The closer to 1 the former, the better and it must be greater than 0.7, whilst the latter needs to be significant. For our data the KMO values for the two time points were 0.896 and 0.906 for autumn 2013 and summer 2014 respectively, and in both cases the Bartlett test was significant. To help us decide how many factors to extract from the dataset, we considered both the Scree test (Cattell, 1966) and the Kaiser (1960) criterion (only extracting factors with an eigenvalue over one) to decide how many factors best represented the data and these suggested a 2- or 4-factor solution was likely to be optimal. Both were explored using several different extraction and rotation algorithms. Results from different algorithms were similar so only the results of principal components analysis with varimax
rotation are shown here as these presented the clearest picture. The 2-factor solution emerged as most interpretable, as including more factors resulted in some factors being associated with single items which does not achieve the purpose of data reduction, thus the 2-factor model was settled upon and is reported here.

<table>
<thead>
<tr>
<th>Item</th>
<th>Autumn 2013</th>
<th>Summer 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Component 1</td>
<td>Component 2</td>
</tr>
<tr>
<td>I go to the doctors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have problems getting to sleep at night</td>
<td>0.426</td>
<td>0.600</td>
</tr>
<tr>
<td>I get headaches</td>
<td>0.658</td>
<td>0.655</td>
</tr>
<tr>
<td>I get colds</td>
<td>0.455</td>
<td>0.518</td>
</tr>
<tr>
<td>I eat fruit and vegetables</td>
<td></td>
<td>-0.650</td>
</tr>
<tr>
<td>I feel dizzy</td>
<td>0.660</td>
<td>0.619</td>
</tr>
<tr>
<td>I have a high temperature</td>
<td>0.585</td>
<td>0.596</td>
</tr>
<tr>
<td>I spend more than 3 hours a day at home on electronic devices (like a computer, phone, tablet)</td>
<td>0.608</td>
<td>0.575</td>
</tr>
<tr>
<td>I feel like being sick</td>
<td>0.727</td>
<td>0.667</td>
</tr>
<tr>
<td>I get ear ache</td>
<td>0.466</td>
<td>0.420</td>
</tr>
<tr>
<td>I don’t want to talk to anyone</td>
<td>0.407</td>
<td>0.528</td>
</tr>
<tr>
<td>I get pains in my arms and legs</td>
<td>0.465</td>
<td>0.529</td>
</tr>
<tr>
<td>I get angry at things for no reason</td>
<td>0.461</td>
<td>0.484</td>
</tr>
<tr>
<td>I have an upset tummy</td>
<td>0.666</td>
<td>0.671</td>
</tr>
<tr>
<td>I find it hard to concentrate on things</td>
<td>0.454</td>
<td>0.510</td>
</tr>
<tr>
<td>I get short of breath</td>
<td>0.532</td>
<td>0.488</td>
</tr>
<tr>
<td>I eat breakfast</td>
<td></td>
<td>-0.454</td>
</tr>
<tr>
<td>I get stomach aches</td>
<td>0.717</td>
<td>0.661</td>
</tr>
<tr>
<td>I am happy with the way I look</td>
<td></td>
<td>-0.471</td>
</tr>
<tr>
<td>I have problems with my teeth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do at least an hour a day of physical exercise (like sports, walking, cycling)</td>
<td></td>
<td>-0.419</td>
</tr>
<tr>
<td>I drink fizzy drinks (like coke)</td>
<td></td>
<td>0.420</td>
</tr>
<tr>
<td>I get a sore throat</td>
<td>0.633</td>
<td>0.603</td>
</tr>
</tbody>
</table>
Overall the model accounted for 33.4% (autumn 2013 data) and 32.6% (summer 2014 data) of the variance which is deemed relatively low but acceptable for studies of this nature relating to self-perceptions and attitudes (Henerson, Lyons Morris, & Taylor Fitz-Gibbon, 1987). In other words two thirds of the variation in student response cannot be attributed to the two factors extracted from this analysis. The rotated component matrix, which indicates the factor loadings for each item on each of the 2 factors (which can be interpreted as being similar to a correlation coefficient) is shown in table 2. To aid clarity loadings of less than 0.4 have been excluded as these are considered sufficiently low to be disregarded (Hair, Anderson, Tatham, & Black, 1998). In contrast values of 0.6 or higher are seen as significant, as this implies that nearly 40% (0.6² = 0.36) of the variance in the response for that item can be accounted for or attributed to the factor concerned.

Although not all of the factor loadings are strong, generally a clear picture has emerged. Two items are not associated with either factor (going to the doctors and having problems with teeth) and two items are associated relatively weakly with both factors at one or both of the testing points (finding it hard to concentrate and getting angry at things for no reason) and these items are therefore best disregarded in the process of forming scales. The remaining items are associated with fairly clearly with either the first or second component (factor) suggesting that a solution exhibiting simple structure has been achieved and this pattern of association is remarkably consistent in the two datasets associated with the different time points.

The first factor is particularly associated with (in order of strength based on the autumn 2013 data) with feeling sick, getting stomach aches, having an upset tummy, feeling dizzy, getting headaches and getting a sore throat. It is also associated to a lesser extent with having a high temperature, getting short of breath, getting ear ache, getting pain in arms and legs, getting colds, problems getting to sleep at night and not wanting to talk to anyone. These items came from the childhood illness symptoms list so this factor can be described as Physical Symptoms of Poor Health.

The second factor is particularly associated with (again in order of strength based on the autumn 2013 data) eating fruit and vegetables (negative association) and spending more than 3 hours a day at home on electronic devices. It is also associated with being happy with the way they look (negative association), eating breakfast (negative association), drinking fizzy drinks, and doing at least an hour a day of physical exercise (negative association). Overall these items suggest the opposite of a healthy lifestyle.

To test the fit of this resultant 2-factor model, a confirmatory factor analysis was conducted using the AMOS programme. The chi-squared statistic is traditionally calculated as a measure of fit but this is sensitive to sample size and tends to lead to model rejection for otherwise respectable models (Joreskog, 1969), as would be the case here, although the related relative chi-square (CMIN/DF) ratio for this model is 2.977 for the autumn 2013 data and 3.269 for the summer 2014, which being around 3 is seen as reasonable (Carmines & McIver, 1981). Hu and Bentler (1999) suggest other fit indices such as the Root Mean Square Error of Approximation (RMSEA) measure of overall fit, and the Comparative Fit Index (CFI) and Tucker-Lewis (TLI) as indicators of comparative fit should be considered, with reasonable values for these being less than 0.06 for RMSEA and comparative fit indices close to 0.95. Another
The measure is Hoelter’s Critical Sample size that should be 200 or greater (Hoelter, 1983). The corresponding statistics for our model are RMSEA = 0.042 / 0.045, CFI = 0.875 / 0.879, TLI = 0.843 / 0.847 and Hoelter $0.05 = 446 / 407$, where the first figure indicates the fit for the autumn 2013 data and the second relates to the summer 2014 data. Although the comparative fit indices are a little on the low side, overall these figures suggest the model is an adequate fit to the data.

The standardised model estimates for the autumn 2013 data are shown in figure 1 and as the picture is very similar for the summer 2014 data this is not presented here. The amount of variance in each item the model accounts for (above each item shown in the rectangular boxes, also called the squared multiple correlation), the standardised regression weight (the number of on arrow between the item and factor) and the estimated correlation between the two factors is shown. The squared multiple correlations range from 0.074 (item 21: I do at least an hour a day of physical exercise) to 0.497 (item 9: I feel like being sick) suggesting small to moderate amounts of variance are being explained by the model, indicating there are factors not captured in the model that explain differences in people’s responses across the items in the questionnaire. The standardised regression weights are substantive and significant in all cases. The estimated correlation at -0.35 is relatively small indicating the two scales and indeed capturing different aspects of health.

**Figure 1: Confirmatory Factor Analysis estimates for the Perceived Health Model**
Having determined the model was a reasonable fit, two scales were created to represent each factor by summing and averaging students’ scored responses to the items corresponding to each factor. Items were reversed in sense where appropriate for the second factor so that higher scores reflected a healthy life style.

Facets of Perceived Health: Examining the Perceived Health Scales

This section examines the overall response to the two perceived health scales and considers their adequacy and interrelationships. We also look at boys’ and girls’ responses separately, as our previous work in wellbeing suggested there were important gender differences. We shall also consider differences between the two schools in the sample that were loosely categorised as schools with arts specialisms compared to the other two which were not.

First of all the scale names and contributory items that emerged from the factor analysis (see above) are summarised in table 3.

<table>
<thead>
<tr>
<th>Table 3: Perceived health scales and their contributory items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Health Scale</td>
</tr>
<tr>
<td>Physical Symptoms of Poor Health</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Healthy Lifestyle</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Descriptive statistics representing an overall summary of response to the two scales is shown in table 4.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>Std Dev.</th>
<th>N</th>
<th>Cronbach Alpha</th>
<th>Correlation Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 2 Physical Symptoms of Poor Health</td>
<td>2.03</td>
<td>0.53</td>
<td>607</td>
<td>0.84</td>
<td>1</td>
</tr>
<tr>
<td>Phase 2 Healthy Lifestyle (HL2)</td>
<td>3.73</td>
<td>0.60</td>
<td>606</td>
<td>0.53</td>
<td>-0.29 1</td>
</tr>
<tr>
<td>Phase 3 Physical Symptoms of Poor Health</td>
<td>2.05</td>
<td>0.54</td>
<td>676</td>
<td>0.85</td>
<td>0.60 -0.26 1</td>
</tr>
<tr>
<td>Phase 3 Healthy Lifestyle (HL3)</td>
<td>3.66</td>
<td>0.62</td>
<td>682</td>
<td>0.56</td>
<td>-0.22 0.70 -0.37 1</td>
</tr>
</tbody>
</table>

The Cronbach Alpha scores are a measure of the internal consistency of the scales created, which is a form of reliability. A value of 0.7 or higher is regarded as respectable for perception scales (Henerson et al., 1987), which suggests the Physical Symptoms of Poor Health scales are robust, whilst the Healthy Lifestyle scales are somewhat questionable. However healthy lifestyle did emerge very clearly from the exploratory factor analysis and is theoretically interpretable, and further analysis did not suggest that dropping items from the scale would improve reliability, so we decided to retain the scale for further analysis, albeit recognising the need for caution in interpreting further data analysis results.

Turning now to the mean and standard deviation values, it is clear that overall students are perceiving that they experience symptoms of poor health not often (as the mean value is around 2) and there is some variation in response although this is not especially large (around half a unit). This feels credible as a figure and is reassuring. On the other hand students perception of living a healthy lifestyle is not quite as frequent as often (mean below 4), which is perhaps a little less encouraging, although there is slightly more variation in response to this than the physical symptoms scale, as the standard deviation is a little larger.

Finally, considering the correlation coefficients, it is apparent that there is a relatively strong correlation between the same aspect of perceived health over the two testing points, as these values are 0.6 & 0.7 for perceived symptoms of poor health and healthy lifestyle respectively. According to Cohen (1992), small, medium and large effect sizes for correlations correspond to values of 0.1, 0.3 and 0.5 respectively. Thus these particular correlations represent a strong effect size suggesting scores on the relevant phase 2 scale can be used to predict scores on the corresponding phase 3 scale with some accuracy – but it does not indicate that the scores remain the same and this issue will be considered further in the next section.

There is a negative correlation between the physical symptoms of poor health and healthy lifestyle scales as might be expected as one is phrased in a positive manner (healthy lifestyle where higher scores reflect a more healthy lifestyle) and the other is negative (higher scores on the physical symptoms of poor
health scale represents poorer perceived health). These values represent a small or medium effect size so are not insignificant, and they are stronger when the two different scales are being compared at the same phase. Nevertheless it is clear the relationship between healthy lifestyle and experiencing symptoms of poor health, as captured with the items on the questionnaire, is not straightforward and they are assessing different elements of perceived health.

Having examined the overall response to the scales, we now look at the response of different groups of students. A 2 (gender) x 2 (type of school) MANOVA was conducted to consider whether overall there were differences between girls and boys, and between students attending arts specialist vs those not attending arts specialist schools. This suggested there were significant gender \((F(4, 491) = 5.922, p = 0.000, \text{partial } \eta^2 = 0.046)\) and type of school \((F(4, 491) = 4.112, p = 0.003, \text{partial } \eta^2 = 0.032)\) differences but no interaction between these factors \((F(4, 491) = 0.816, p = 0.515, \text{partial } \eta^2 = 0.007)\). In other words, there are some differences between boys and girls, and between students at arts and non-arts schools but it wasn’t the case that arts schools particularly impact on one gender or the other in terms of their perceived health.

To unpack these group differences a series of ANOVAs were run for each scale. The results are summarised in table 5.

| Scale | Effect | Gender | | | | Type of School | | | | Gender and Type of School | | | | | | | | Interaction |
|-------|--------|--------|------|-------|--------|-------|------|-------|----------------|--------|-------|--------|------|
|       |        | F      | Sig  | Partial \(\eta\) | F      | Sig  | \(\eta\) | F      | Sig  | \eta | F      | Sig  | \eta |
| PS2   | 10.757 | 0.001  | 0.018 |          | 0.153 | 0.696 | 0.000 | 1.938 | 0.164 | 0.003 |
| HL2   | 2.065  | 0.151  | 0.003 |          | 1.038 | 0.309 | 0.002 | 0.079 | 0.778 | 0.000 |
| PS3   | 9.647  | 0.002  | 0.014 |          | 1.751 | 0.186 | 0.003 | 0.131 | 0.717 | 0.000 |
| HL3   | 1.628  | 0.202  | 0.002 |          | 13.547| 0.000 | 0.020 | 0.056 | 0.812 | 0.000 |

From this table we can see that there are significant gender differences on both Physical Symptoms of Poor Health scales (albeit with a small effect size, as partial \(\eta\) can be interpreted loosely in effect size terms as 0.01 being small, 0.06 medium and 0.13 large according to Cohen). In both cases girls report a higher frequency of physical symptoms of poor health compared to boys, with the mean values for girls and boys being 2.09 vs. 1.96 at phase 2 and 2.11 vs. 1.98 at phase 3 respectively. Girls and boys do not differ in their reporting of frequency of healthy lifestyle. The wellbeing literature suggests overall that girls and women in general experience lower levels of wellbeing than boys / men (Stevenson & Wolfers, 2009; Tomyn & Cummins, 2011) so these findings in relation to health are not surprising.

The significant type of school difference is attributable to the significant difference on the Healthy Lifestyle scale at phase 3. Again this effect size is small, however closer inspection reveals that students in non-arts schools report experiencing a healthy lifestyle more frequently (mean value 3.73) than
students in arts specialist schools (mean value 3.55). To interpret this finding, the change over time needs to be explored further.

These analysis represent snapshots in time but a more interesting question is whether perceptions of health change over time and whether these are associated with gender or type of school attended, which requires an analysis of the data which can be linked from phase 2 to phase 3 and this is considered in the final section.

**Changes in Perceptions about Health over Year 7**

A repeated measures MANOVA was conducted to look at change in the two scales over time, which incorporated an exploration of whether any changes effected particular groups of students (boys / girls, students in arts specialist schools / students not in arts specialist schools) differentially. This analysis suggested there were changes overall in students’ reports of their health over time (F(2, 493) = 4.633, p = 0.010, partial $\eta^2 = 0.018$) and that these changes differed by gender (F(2, 493) = 4.730, p = 0.009, partial $\eta^2 = 0.019$) and type of school attended (F(2, 493) = 6.454, p = 0.002, partial $\eta^2 = 0.026$) but there was no complex interaction between all three variables (time, gender, type of school) (F(2, 493) = 0.651, p = 0.552, partial $\eta^2 = 0.003$).

As the MANOVA indicated there were some significant differences to explore, the analyses for individual scale changes were considered further and the findings are summarised in table 6.

<table>
<thead>
<tr>
<th>Health Aspect</th>
<th>Effect</th>
<th>Time</th>
<th>Time and Gender Interaction</th>
<th>Time and Type of School Interaction</th>
<th>Time, Gender and Type of School Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>Partial $\eta^2$</td>
<td>F</td>
</tr>
<tr>
<td>Physical Symptoms of Poor Health</td>
<td></td>
<td>0.129</td>
<td>0.719</td>
<td>0.000</td>
<td>0.033</td>
</tr>
<tr>
<td>Healthy Lifestyle</td>
<td></td>
<td>9.143</td>
<td>0.003</td>
<td>0.018</td>
<td>8.643</td>
</tr>
</tbody>
</table>

It is apparent that there are no overall changes in student reports of frequency of physical symptoms relating to poor health, and indeed there are no changes relating to particular groups of students. This is interesting given the differences in the time of year the survey was conducted (autumn vs. summer) as we might have expected a decrease in the frequency of reported symptoms in the summer given illnesses such as coughs and colds are likely to be less prevalent in the summer. It also suggests the
school context has not had a specific impact on young people’s propensity to self-report symptoms of poor health.

However, there are changes in self-reports of frequency of undertaking activities related to a healthy lifestyle. The overall mean figures for autumn 2013 compared to summer 2014 for this scale are 3.73 vs. 3.68, indicating that Year 7 students are reporting a drop in frequency of engaging in healthy lifestyle activities at the end of their first year at secondary school compared to the beginning of the year, albeit that the effect size is small. It is unclear why there would be this drop but as the students are about to enter adolescence and are experiencing more freedoms they may be exercising their agency by not engaging in activities they have been forced into in the past and choosing instead activities they might enjoy (for instance engaging in social media) which may not represent a healthy lifestyle. For instance the decline in physical activity as children enter adolescence is well established (Biddle, Gorely, & Stensel, 2004; Kimm et al., 2002).

However this overall drop masks what is happening in relation to different groups of students, given the interaction with gender and separately with type of school attended are both significant (although again representing a small effect size). Girls in fact, although expressing a higher frequency of healthy lifestyle activities at the start of Year 7 compared to boys (mean for girls being 3.75 vs boys being 3.71), demonstrate a large drop in frequency of such activity (to a mean score of 3.64) over the year whilst boys actually report a higher level of such activity in the summer term (mean score rising to 3.73). It is unclear why this would be the case from looking at the scale values alone but an analysis of individual items on this scale suggests it is attributable to girls reporting falls in satisfaction in the way they look, as well as an increase in spending significant amounts of time on electronic devices (whilst boys values remain approximately constant). The decrease in satisfaction with how they look is known to be related to issues such as self-esteem and declines in adolescence for girls are well established (Clay, Vignoles, & Dittmar, 2005; Wigfield, Eccles, Maclver, Reuman, & Midley, 1991). Increase in the use of electronic devices may well be related to increased demands made by school work for homework completion rather than girls, for instance, increasingly playing for instance computer games. This would need to be explored further as the exact nature of the activity girls and boys are engaging in when spending time on electronic devices cannot be known from the item asked.

The final effect is the differential impact of type of school on changes in perceptions of healthy lifestyle. In arts specialist schools there is a drop in self-reported frequency of healthy lifestyle activities, as the mean score drops from 3.71 to 3.57, which parallels the overall trend. However, in the schools that are not specialist art schools the value on this scale remains fairly constant (mean in the autumn 2013 being 3.74 and in summer 2014 being 3.75). It is unclear why in these particular schools perceived frequency of healthy lifestyle activities does not change but it may be that the two schools concerned have a particular emphasis on healthy lifestyle activities in Year 7. The quantitative data are unable to explain this trend. It should also be noted that we need to be tentative about the findings from the healthy lifestyle scale as a whole given its somewhat unsatisfactory internal consistency.
Chapter 7:

Some Final Reflections on the Present Review and the Health Survey
Chapter 7: Some Final Reflections on the Present Review and the Health Survey

The findings from the health survey are not unexpected. Arts specialist schools did not offer a different pattern of responses over the first year at secondary school when compared to mainstream non-specialist schools except on the ‘healthy lifestyle’ scale where the comparison schools were more consistent in their practice. Even if the explanation of this particular finding is not altogether clear (possibly a greater emphasis on healthy eating, differences in school populations in terms of ethnicity, social disadvantage etc.) the fact that participation in the arts did not correlate as strongly with the health scales when compared to the case of Creative Partnership schools in an earlier chapter is more easily explainable. In the present case, the kinds of classroom practices found in CP schools were not observed in the two specialist arts colleges. Year 7 lessons in all four schools visited were very similar, particularly in the core subjects; English, mathematics and science. Indeed some of the most creative science activities were seen in one of the non-specialist arts schools where pupils were asked to design and test an apparatus to protect a raw egg when it was dropped from a first floor window onto the playground tarmac. Part of the reason for the lack of a substantial difference in the approach to creativity was that specialization in the Arts Colleges did not take place until Year 9 at the earliest. Consequently the time devoted to the arts activities was much the same in all four schools and formed a relatively small part of the curriculum diet.

Equally importantly, none of the four schools attempted to develop the kinds of non-controlling environment advocated by Deci and Ryan (2008) as a pre-requisite to the development of functioning wellbeing skills which in McLellan et al.’s (2012) study was so strongly linked to positive health outcomes. Indeed the opposite was true since from induction day, prior to transfer, school rules and the consequences of breaking these (two strikes and the sanction moved up a level) were repeatedly emphasized, first in tutor groups and then with individual teachers during ‘taster’ lessons. The rules were then repeated on the first day of the autumn term, printed in the pupils’ personal diaries where they recorded their timetable and homework assignments, and prominently displayed on the classroom walls. In all four schools these rules of behaviour were based on the ‘assertive discipline’ approach developed in the 1970s by Canter (2009). In two schools (one an Arts specialist college) Vivo miles were used as a reward for good behaviour.

There were some positive signs, particularly in one of the Arts Colleges that certain practices identified by Galton (2010) in his study of successful creative practitioners also operated. In introducing themselves to the new Y7 students some teachers of arts subjects attempted to provide a ‘personal’ picture of who they were and what they stood for. Thus one teacher of visual art brought in several of his paintings and talked about his reasons for creating them. In introducing a picture of his newly born son, he spent some time explaining the links between the mix of colours used and his emotions at seeing the infant for the first time. Another teacher of design and technology with a withered arm, the result of being born to a mother who had taken thalidomide, explained his situation, talked about how he had coped as a student and how he managed various D&T activities before concluding with the message, “If I can do it, so can you”.

91
Across all subjects in this school blue ink pens were used whenever pupils were required to express their own ideas in contrast to black in pens when they recorded information from the textbook or copied from the board.

However, all this innovative practice was, in part, undermined by the emphasis placed on ‘performing at the required level’. In one of the arts colleges, students’ performance in a drama class on their first day at secondary school was assessed against a number of criteria. Students were placed in groups and required to create a mime of a family disaster. The teacher spent most of the lesson observing silently and putting ticks against names on his hand-held laptop. The class were told that this was ‘a baseline assessment’ so that ‘I can monitor your progress’. In the other arts college pupils were encouraged to begin stories about the first day at their new school with a sentence containing reported speech, as in “It’s going to be a lovely day”, said mother, as she drew the bedroom curtains. “I’ve put out your new school uniform”. Pupils were also advised to use two rather than one adjective and reminded of this in a history lesson when asked to construct the most plausible account of Watt Tyler’s death from four contemporary differing versions. Not surprisingly, when pupils were asked what for them made it a ‘great day’ at school, they replied, “getting a good level”. Thus the sense of ‘ownership’ and ‘risk taking’ associated with creative partnerships’ initiatives were continually being limited by the need to conform to the particular styles of presentation demanded by the assessment process. Asked about the effect of this emphasis on performativity, it is not surprising that students responded by saying, “It doesn’t feel like it’s your piece of work”.

Even if it is accepted that in the hands of identifiable, successful creative practitioners, and over an extended time span of at least a year, healthy outcomes could be successfully promoted and achieved, the largely limited achievements of the art therapists needs to be accounted for. Several studies in the review pointed to potential difficulties, particularly in creating feelings of alienation initially, among participants. One obvious and important difference is that therapists come with a clear agenda of using the various arts media as a tool to explore the students’ feelings, to transfer these feelings into real life situations and explore possible ways of enhancing positive tendencies and eliminating negative ones. In some cases this is a manipulative process as in the situation described by Kimbel and Protivnak (2010:31). In their advice to would-be school counsellors on the avoidance of self-disclosure, the caution against the introduction of the counsellor’s personal collection of music for fear that it ‘makes students uncomfortable or intimidated’. These authors concede, however, that students will often ask the adult, “What music do you like?” and that not to respond would seem standoffish and ‘less authentic’. So they suggest that having noted the personal tastes of the students the counsellor should chose a piece of music of a similar genre from the kind of bands to which ‘a student most adheres’.

Creative Practitioners come with no such pre-conceived agendas. Instead, they appear to strive at giving students a sense of ‘being masters of their own destinies’ by supplying what Deci and Ryan (2008) refer to as ‘autonomy support’ which they argue involves the adult, authority relating to ‘target individuals by taking their perspective, encouraging initiation, supporting a sense of choice, and being responsive to their thoughts, questions and initiatives’. As one conceptual artist in Galton’s (2010) study put it:
And another important thing is with the children. What we are trying to do here is to be a person who responds to ideas that the children are coming up with and then to bring our own practice to share.

While in McLellan et al.’s (2012) investigation of the impact of CP on student wellbeing another creative practitioner, this time a sculptor, offered a similar rationale:

The key for me is getting creativity into the school. I just see myself as a friend. I don’t teach... I actually have nothing to teach them, perhaps just to show them how to work things out. That’s different from teaching ... I think it replicates my studio practice. That’s all I’ve done, brought in my studio practice and offered it to children.

The approach is illustrated by one of the 10 creative practitioners in Galton’s (2010) study whose task was to promote healthy eating within a secondary school using a group of disruptive, disengaged students some of whom had previously undergone periods of suspension. This filmmaker began by exploring the kinds of film that might encourage these students’ peers to adopt a better life style, particularly a reduction in their intake of junk food and fizzy drinks. The students decided to make a documentary film which would set out the advantages of having a Juice Bar available in school which would sell ‘smoothies’ and bottled fruit juices as a healthy alternative. In one of the early encounters the filmmaker was endeavouring to put over the point that ‘the message was in the picture’ and that the camera angle, the nature of the shot (full portrait, head and shoulders, face only) was a crucial element. Two girls were engaged in a private conversation about the merits of certain foundation creams and perfumes. One was doing her nails while the other took out a comb and adjusted her hair.

Instead of confronting the pair, the filmmaker switched the topic and asked them about their favourite pop artists and the videos shown on the MTV channel. “What’s the difference between a Justin Timberlake video and one by ‘Take That’?” he asked. At once interested, the girls joined the discussion of why Justin Timberlake was usually filmed close up, often only with head and shoulders while photo-shots of groups were more often long range. By the end of the lesson the girls were anxious to take away the camera and shoot a film around the fringes of the drinks’ machine during the lunchtime break.

When the ‘Juice Bar’ film was finally edited and about to be shown to the whole school at morning assembly the film maker asked each contributor to add their signature at the end of the film with a brief descriptor of their personality. One of the girls chose a fashion model, another boy a football. But another boy, David, drew a picture which was not too dissimilar from Raphael’s transfiguration; the right half of the figure hidden by the cloud. To the teacher’s comment, “you need to add an eye; it’s only got one,” David made no reply. When the filmmaker arrived and stood silently by the student David opened up and explained that the drawing represented the two halves of his personality. The visible half was a sarcastic individual, whose remarks and comments on fellow students’ (and sometimes teachers’) utterances had earned his peer’s dislike and sometimes exclusion from class. The hidden half was a quieter, reflective, self-critical person uncertain whether he had the qualities to be the first in his family to go to University and meet the expectations of his lone male parent. As he explained all this, David added the various words in speech bubbles on each side of the drawing. The filmmaker’s only comment; “That’s very brave!”
It is incidents such as this which help to explain why artists are able to get the kinds of responses from students which even trained therapists sometimes find difficult and problematic. This research and the accompanying review suggest that there are two important stages linking the arts and health. First, the creation of a school ethos which fosters functional forms of wellbeing and second, the promotion of healthy lifestyles which arise out of the student’s desire to function in ways that support a happy and productive existence rather than because it may ensure greater longevity. It is clearly the case that artists and creative practitioners are capable of facilitating and sustaining facets of eudaimonic wellbeing. It is not unreasonable to surmise that given a reasonable period of time in which to engage with students they could build on these qualities to impact on behaviours which are proven to be detrimental to children’s and young adolescent’s health.
References


Daudt, Helena ML, van Mossel, Catherine, & Scott, Samantha J. (2013). Enhancing the scoping study methodology: A large, inter-professional team’s experience with Arksey and O’Malley’s framework. BMC Medical Research Methodology, 13, 48-57. doi: info:pmid/23522333


Fisher, R. (1915) Frequency distribution of the values of the correlation coefficient in samples of an indefinitely large population, Biometrika, 10 (4) 507-521.


Thomson Reuters (Scientific) LLC. (2014). EndNote Web: Thomson Reuters (Scientific) LLC.


APPENDICES
## Appendix 1

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**bPlatform used to search databases**  
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**= Truncation symbol used to find material with the same word stems; ? = Wildcard symbol used to allow for alterations of a single character within a word** |
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<td>British Education Index (ProQuest)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
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<td>ab((art OR dance OR music OR drama OR theatr* OR creativ*) AND (intervention* OR therap*) AND (health OR wellbeing OR wellbeing) AND (child* OR adolescent* OR youth* OR teen* OR boy* OR girl* OR school age* OR young person* OR young people*) AND (school*)) Filter(s): Publication date: 1990-2014</td>
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<td>SU.EXACT.EXPLODE(&quot;Art Therapy&quot;) Filter(s): Publication date: 1990-2014</td>
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<td>CINAHL (Cumulative Index to Nursing &amp; Allied Health Literature) (EBSCOHost)&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
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<td>&quot;[([art OR dance OR music OR drama] AND (therapy OR intervention)) AND (school) AND (health OR wellbeing OR wellbeing)].ti,ab [Limit to: Publication Year 1990-2014 and (Age Groups Child~ Preschool 2-5 years or Child~ 6-12 years or Adolescent~ 13-18 years)]&quot;</td>
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<td>Database</td>
<td>Query</td>
<td>Documents</td>
<td>Citations</td>
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<td>-------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Dissertations &amp; Theses</td>
<td>ab(((art OR dance OR music OR drama OR theatr* OR creativ*)) AND (intervention* OR therap*) AND (health OR wellbeing OR wellbeing) AND (child* OR adolescen* OR youth* OR teen* OR boy* OR girl* OR school age* OR young person* OR young people*) AND (school*))</td>
<td>59</td>
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<td>(ProQuest)</td>
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<td>ERIC (EBSCOHost)</td>
<td>ab((art OR music* OR drama OR danc* OR theatr* OR creativ*)) AND ab((mental health OR health OR wellbeing)) AND ab(intervention* OR therap*) AND ab(child* OR adolescen* OR teen* OR student* OR pupil*)</td>
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<td>Filter(s): Publication date: 1990-2014; Education level exclusion: Higher Education, Postsecondary Education, Kindergarten, Adult Education, Preschool Education</td>
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<tr>
<td>MEDLINE(R) (OvidSP)</td>
<td>1. (art or dance or music or drama or theatr* or creativ*) and (intervention* or therap*) and (health or wellbeing or wellbeing) and (child* or adolescen* or youth* or teen* or boy* or girl* or school age* or young person* or young people*) and school*).ab.</td>
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<td>2. limit 1 to yr=&quot;1990 -Current&quot;</td>
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<td>Physical Education Index</td>
<td>(art OR dance OR music OR drama OR theatr* OR creativ*) AND (intervention* OR therap*) AND (health OR wellbeing OR wellbeing) AND (child* OR adolescen* OR youth* OR teen* OR boy* OR girl* OR school age* OR young person* OR young people*) AND (school*)) AND pd(19900101-20141231)</td>
<td>171</td>
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<td>(ProQuest)</td>
<td>[Search field: “anywhere”]</td>
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<tr>
<td>PsycARTICLES (EBSCOHost)</td>
<td>(art OR dance OR music OR drama OR theatr* OR creativ*) AND (intervention* OR therap*) AND (health OR wellbeing OR wellbeing) AND (child* OR adolescen* OR youth* OR teen* OR boy* OR girl* OR school age* OR young person* OR young people*) AND (school*))</td>
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<td>Published data: Published Date: 19900101-20141231</td>
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<tr>
<td>PsychInfo (OvidSP)</td>
<td>1. (art or dance or music or drama or theatr* or creativ*) and (intervention* or therap*) and (health or wellbeing or wellbeing) and (child* or adolescen* or youth* or teen* or boy* or girl* or school age* or young person* or young people*) and school*).ab.</td>
<td>188</td>
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<td></td>
<td>2. limit 1 to yr=&quot;1990 -Current&quot;</td>
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<td>ScienceDirect</td>
<td>pub-date &gt; 1989 and TITLE-ABSTR-KEY((art OR dance OR music OR drama OR theatr* OR creativ*) AND (intervention* OR therap*) AND (health OR wellbeing OR wellbeing) AND (child* OR adolescen* OR youth* OR teen* OR boy* OR girl* OR school age* OR young person* OR young people*) AND (school*))</td>
<td>382</td>
<td>4</td>
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<td>Scopus</td>
<td>TITLE-ABS-KEY((art OR dance OR music OR drama OR theatr* OR creativ*) AND (intervention* OR therap*) AND (health OR wellbeing OR wellbeing) AND (child* OR adolescen* OR youth* OR teen* OR boy* OR girl* OR school age* OR young person* OR young people*) AND (school*)) AND PUBYEAR &gt; 1989</td>
<td>57</td>
<td>2</td>
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<tr>
<td>SIGLE (System for Information on Grey Literature in Europe) (OpenGrey)</td>
<td>“discipline:(05*)” school intervention*”  (“discipline:(05*)” = Humanities, psychology and social sciences)</td>
<td>87</td>
<td>0</td>
<td></td>
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</tbody>
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### JOURNALS

<table>
<thead>
<tr>
<th>Journal</th>
<th>Topic</th>
<th>Documents</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encyclopedia of Applied Psychology</td>
<td>“school intervention*”</td>
<td>98</td>
<td>2</td>
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<tr>
<td>Intervention In School And Clinic</td>
<td>“art therapy”</td>
<td>8</td>
<td>0</td>
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<tr>
<td></td>
<td>“music therapy”</td>
<td>18</td>
<td>1</td>
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<td></td>
<td>(wellbeing OR health) [searched all words in “Full Text” of publication]</td>
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<tr>
<td>The Arts in Psychotherapy</td>
<td>“school intervention*”</td>
<td>207</td>
<td>5</td>
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<tr>
<td></td>
<td>Filter(s): Topic: music therapy music therapy, art therapy, creative art, movement therapy, drama therapy, poetry therapy, art psychotherapy, dance therapy, mental health, dance movement</td>
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<td></td>
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</tbody>
</table>

### WEBSITES

<table>
<thead>
<tr>
<th>Website</th>
<th>Topic</th>
<th>Documents</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Psychological Society (<a href="http://www.bps.org.uk/">http://www.bps.org.uk/</a>)</td>
<td>“creative therapies school interventions” [Search phrase applied to entire site]</td>
<td>69</td>
<td>1</td>
</tr>
<tr>
<td>Mental Health Foundation (<a href="http://www.mentalhealth.org.uk/">http://www.mentalhealth.org.uk/</a>)</td>
<td>“schools” [Search term applied to entire site]</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>(Manual search)</td>
<td>Following path browsed: Home &gt; Help &amp; Information &gt; Mental Health A-Z &gt; Arts Therapies</td>
<td>N/A</td>
<td>--</td>
</tr>
<tr>
<td>Source</td>
<td>Following path browsed</td>
<td>N/A&lt;sup&gt;a&lt;/sup&gt;</td>
<td>--</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>----</td>
</tr>
<tr>
<td>MIND (<a href="http://www.mind.org.uk/">http://www.mind.org.uk/</a>)</td>
<td>Following path browsed: Home &gt; Information &amp; support &gt; Guides to support and services &gt; Children and young people</td>
<td>N/A&lt;sup&gt;a&lt;/sup&gt;</td>
<td>--</td>
</tr>
</tbody>
</table>
| WHO (World Health Organisation) (http://www.who.int/en/) | "creativ* art therap* school* intervention*"
[Search phrase applied to entire site] Filter(s): Region: Americas, Europe | 10               | 1  |
| YoungMinds (http://www.youngminds.org.uk/)  | Following path browsed: Home > For Professionals > About YoungMinds in Schools          | N/A<sup>a</sup> | -- |

**TOTALS**                                                                                                               | 2583             | 146 |

Note: There was overlap with searches within Stage 2 as well as between Stage 1 and Stage 2 (i.e., some hits contained the same resources produced by other searches in Stage 1 and Stage 2). As such, the number of items retained for further inspection narrowed as this second scoping phase progressed.

<sup>a</sup>Platform used to search databases

<sup>b</sup>There were no lists of articles found from these paths, rather they lead to information displayed on webpages

Search abbreviations: ab = abstract; ti = title; pub-date > 1989 = publication date after the year 1989; TITLE-ABSTR-KEY; search for words/terms within any of the following fields: title, abstract, and keywords; TOPIC= topic area; SU.EXACT.EXPLODE: explode subject term to include more specific related concepts; PUBYEAR = publication year

* = Truncation symbol used to find material with the same word stems
How Healthy are You?

We are interested in knowing how healthy you feel you are.

Think about the statements below. Using the scale below please indicate how often each of these is true for you:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>never</td>
<td>not often</td>
<td>sometimes</td>
<td>often</td>
<td>always</td>
</tr>
</tbody>
</table>

1. I go to the doctors
2. I have problems getting to sleep at night
3. I get headaches
4. I get colds
5. I eat fruit and vegetables
6. I feel dizzy
7. I have a high temperature
8. I spend more than 3 hours a day at home on electronic devices (like on a computer, phone, tablet)
9. I feel like being sick
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>I get ear ache</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I don’t want to talk to anyone</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I get pains in my arms and legs</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I get angry at things for no reason</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I have an upset tummy</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I find it hard to concentrate on things</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I get short of breath</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I eat breakfast</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I get stomach aches</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I am happy with the way I look</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I have problems with my teeth</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I do at least an hour a day of physical exercise (like sports, walking, cycling)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>I drink fizzy drinks (like coke)</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>I get a sore throat</td>
<td></td>
</tr>
</tbody>
</table>
The Impact of Arts Interventions on Health Outcomes