Primary-school-based art therapy: A mixed methods comparison study on children's classroom learning

*Alex McDonald[a] & Sue Holttum[b]

*Corresponding author: Alex McDonald

Email: alexmcdonald.arttherapy@gmail.com

ORCID: https://orcid.org/0000-0003-2137-0804

Twitter handle: @_AlexMcDonald (https://twitter.com/_AlexMcDonald)

[a]Alex McDonald, SRA'sT (Art), MRes (Clinical Research), has

worked as an art therapist with children, young people and

families since 2005. She is currently an Officer and Tutor at the British Association of Art Therapists,

coordinates the Art Therapy Practice Research Network, and is Co-Editor in Chief of the International

Journal of Art Therapy: Inscape.

[b]Sue Holttum, PhD, AFBPsS, C.Psychol. is a senior lecturer at the Salomons Institute for Applied

Psychology, Canterbury Christ Church University, UK, and part-time Research Officer for the British

Association of Art Therapists. Alongside her own research in art therapy, Dr Holttum supervises doctoral level research in applied psychology.

ABSTRACT

Background: In the UK an estimated one in ten primary school pupils have diagnosable mental health problems which may impact their education. **Aims/context:** This study examined a primary-school-based art therapy service for children experiencing social, emotional and mental health difficulties to assess the intervention's acceptability and possible changes in classroom learning. **Methods**: A mixed methods before-and-after study was conducted with 25 children in art therapy and a comparison group of 25 children per subject for reading, writing and maths attainment. A focus group with 10 teachers and interviews with 37 children were used to examine perceptions of art therapy and classroom learning. **Results:** Academic attainment was similar between the art therapy and comparison children. Both groups' learning rate resembled that of national minimum expectations. Children and teachers perceived art therapy to be helpful for engagement with classroom learning, relationships with teachers and peers, and learning time. **Conclusions:** Further research is needed to develop this primary-school-based art therapy programme, assess transferability, and examine wider educational outcomes. **Implications for practice:** Primary-school-based art therapy may be particularly helpful when it is perceived as: a safe place, sessions being social and fun, facilitates coping strategies, expressing, thinking and talking, as well as making artwork.

Keywords: art therapy; primary school; school-based; children; mixed method research, social, emotional, and mental health (SEMH), learning, education

PLAIN LANGUAGE SUMMARY

In the UK an estimated one in ten primary school pupils suffer from mental health problems, and this can affect their educational attainment. Thus, it is important that therapies help children to gain positive outcomes both in mental health and educationally.

We looked at one art therapy service, which specifically focuses on helping children to understand their own and others' minds (metallization), within one primary school in London. Thirty-seven children referred to art therapy with social, emotional and mental health difficulties were included. Ten class teachers participated. The aims were to see if the children, and their teachers, found the approach acceptable and if there were any indications of changes in classroom learning.

There were no differences in reading, writing and maths scores between children attending art therapy and comparison children receiving usual education support. However, all the children learned at the same rate as the national minimum expectation. Art therapy may have prevented the increasing educational attainment gap that social, emotional and mental health difficulties can bring.

We held a focus group with the class teachers and interviewed the children and both reported experiencing art therapy as helpful for engagement with classroom learning, relationships with teachers and peers, and learning time. Specific aspects of art therapy which they considered helpful were: art therapy being a safe place; learning coping strategies; expressing, thinking and talking in art therapy; making artwork; and sessions being social and fun. The teachers also appreciated: advocating and sharing information; psychoeducation and collaborative work; reflecting on actions; encouraging independence; framing school as a positive place with trusted adults; working with transitions and endings.

We recommend further research, including more art therapists, schools, teachers, parents and children, to further develop and assess this approach to art therapy in primary schools.

INTRODUCTION

Social, emotional and mental health, and educational outcomes in primary school children

It is estimated that one in ten (9.5%) primary school pupils (5 to 10 year olds) have a clinically diagnosable mental health problem (emotional, behavioural, hyperactivity or other less common disorders) and 3.4% meet criteria for two or more diagnoses (UK Government Statistical Service [GSS], 2018). Children's trauma-related mental health problems may also impact their educational attainment (Aber et al., 2011). Findings of a recent longitudinal study strengthened support for the potential impact of social, emotional and mental health (SEMH) difficulties on children's academic attainment (Deighton et al, 2018). As school staff often lack time and capacity to support pupils' mental health (DfE, 2017), it is not surprising that many children are struggling to cope at school, with thousands excluded each year (DfE, 2016). One systematic review found that there is likely to be an association between being excluded from school and having SEMH difficulties (Whear et al., 2014). Exclusion occurs disproportionately in certain groups, including children receiving free school meals, looked after, or with special educational needs (SEN) (DfE, 2017). However, the most common reason for exclusion is persistent disruptive behaviour (DfE, 2017; Parker, Marlow,et al., 2016).

Research on the effects of mental health interventions on children's academic attainment is limited, although some improvements were noted in a meta-analysis of universal school-based social and emotional learning interventions (Durlak, Dymnicki, Taylor, Weissberg, & Schellinger, 2011). However, educational outcomes were only reported in a small percentage of the reviewed studies at post intervention and longer-term outcomes were unclear (Durlak et al.,2011).

A recent randomized controlled trial found that significant reductions of anxiety in children following an anxiety prevention programme were not reflected in improved academic attainment. The study called for further research to assess the impact of mental health interventions on a wider range of educational outcomes (Skryabina et al, 2016).

School-based art therapy

School-based art therapy has been developing over time (Karkou, 1999) with studies of practice in this area increasing in recent years (Adoni- Kroyanker, Regev, Snir, Orkibi, & Shakarov, 2019; Danieli, Snir, Regev, & Adoni-Kroyanker, 2019; Elkayam, Snir, & Regev, 2020; Gonzalez-Dolginko, 2018; Randick & Dermer, 2013; Snir et al., 2018) and its evaluation growing (Cobbett, 2016; Deboys et al., 2017; McDonald & Drey, 2018). However, there have been no controlled studies on its effects on classroom learning or academic achievement (McDonald & Drey, 2018). A grounded theory study, which examined children's experiences of art therapy, did report increased engagement in learning, with both teachers and children describing improved concentration, academic progress and reduced behavioural difficulties (Deboys et al., 2017). A previous single case study also indicated that art therapy may have helped a pupil improve academic performance after her grades had dropped following parental divorce (Pleasant-Metcalf & Rosal, 1997).

The context of the present study was an art therapy service within an inner-city community primary school in a London borough with high child poverty (36.8%), and high SEMH prevalence (London Borough of Hackney, 2014). The theoretical framework underpinning art therapy in this study was as follows; The primary school is viewed as an established responsive context which facilitates communication between teachers, parents and art therapists to provide grounding for therapeutic engagement (Deboys et al., 2017; Snir et al., 2018). Within art therapy sessions, the physical action

involved in using art materials is thought to help children to process emotional and sensory data (Czamanski-Cohen & Weihs, 2016; Malchiodi & Crenshaw, 2015) and art making is seen as a relatively safe way to explore emotions (Springham, Findlay, Woods, & Harris, 2012). This can then encourage mentalization, with the aim of increasing the child's social cognition and ability to identify and reflect upon their emotions and those of others (Czamanski-Cohen & Weihs, 2016; Fonagy & Bateman, 2006). Here, art is considered to be part of the ostensive communication system within the relationship between child and art therapist, thus involving the attachment system (Springham & Huet, 2018). The child's use of art making to reflect upon their emotions is also thought to increase their sense of agency (Czamanski-Cohen & Weihs, 2016). Child and school-focused psychoeducation also helps increase the child's agency in managing difficulties (Lukens & McFarlane, 2004) and encourages a conducive school environment. Formulation (Johnstone, 2018) and re-formulation are incorporated within sessions to help increase the child's agency and facilitate co-production.

STUDY RATIONALE AND AIM

This study was part of a larger exploratory study which examined the acceptability of a particular approach to art therapy within primary schools (see *Intervention description* below) and indications of changes in children's SEMH (McDonald et al., 2019). The aim of this part of the study was to examine any indications of change in classroom learning and shed further light on how any changes may have come about. Thereafter we aimed to use the findings to inform future studies.

The main research question for this study was: *Are there any indications of changes in children's classroom learning following primary-school-based art therapy?* Four subsidiary questions were used in order to investigate this:

1. *How do the reading, writing and maths scores of children in art therapy compare to those in a comparison group pre and post art therapy?*

1. *Did class teachers notice any changes in children's classroom learning after they attended art therapy?*

2. *Did children perceive any changes in their classroom learning after attending art therapy? If so, what was it about art therapy that they think brought about these changes?*

METHODS

Study design and methodology

This was a mixed methods study using a pre-post group comparison design. The study examined the routine practice within one primary school. Routine quantitative data on reading, writing and maths national Statutory Assessment Tests (SAT) scores were collected at referral and end of therapy (see 'Data collection and analysis'). The intervention group received art therapy and the comparison group comprised children who were from the same classes. Qualitative data on the class teachers' general observations of the children were also collected, through a focus group, and on the children's experiences of art therapy, through routine evaluation interviews. At this early stage of research on this approach to art therapy the aim was to examine if the intervention was acceptable and if there were any indications of positive change, before developing a larger study. Examining change is often best done via quantitative measures, while qualitative enquiry helps us understand contextual factors involved in how and why any changes may have occurred (Pawson, 2013). The study methodology, data collection methods and analyses are summarised in Table 1.

Part	Design	Main research questions	Sample size	Data/ Measures	Analysis
Academic attainment	Comparison before-and-after study (CBA)	How do attainment scores of children in art therapy compare to comparison children pre and post intervention?	25 and 25 per subject	Reading, writing, maths scores (pre & post)	Mixed ANOVA
Teachers' views	Focus group	Did class teachers perceive any changes in children's classroom learning after they attended art therapy?	10 class teachers	Focus group transcript	Thematic analysis
Children's experiences	Routine evaluation interviews (semi-structured)	Did children perceive any changes in their classroom learning after attending art therapy? If so, what was it about art therapy that they think helped bring them about?	37 children[1]	Child generated statements	Thematic analysis

Note 1: Numbers of children differ because academic scores on referral and end of therapy were not available for children referred during nursery or leaving school before data were collected.

Table 1. Study design and methods

Intervention description

In this paper *art therapy* refers to the specific approach to primary-school-based individual art therapy used within this study as described in McDonald et al. (2019). Art therapy was embedded within the school's systems and the main principle of the approach is that a move towards representation and mentalizing is a mechanism which is psychologically protective for the child

(Czamanski-Cohen & Weihs, 2016; Fonagy & Bateman, 2006). Thus, the art therapist capitalizes on opportunities for mirroring by using photography of artmaking and an art therapy journal, as part of ostensive communication within the therapeutic relationship, to facilitate increased representations and mentalizing and decreased acting-out of feelings (McDonald et al., 2019).

One art therapist (first author) led the full-time service, funded by Pupil Premium Funds (DfE, 2017a), and worked individually with most of the children (31 of 37). One newly-qualified art therapist and two final-year trainee art therapists worked individually with the remaining six children, supervised by the lead therapist. Art therapy sessions were offered at times when the children would not miss reading, writing or math lessons.

The service accepted referrals from class teachers, the SEN coordinator, headteachers, and children themselves. All children had access to additional learning support when struggling with classroom learning and art therapy was only offered when a child was experiencing SEMH difficulties which were impeding them from fulfilling their potential within or outside the classroom, these needs could not be met elsewhere, and the parents consented to the referral. Sessions were offered for one hour weekly or fortnightly with length of intervention as needed. Cases underwent ongoing assessment by the multi-disciplinary team at weekly pupil support meetings. Each child and the art therapist would also co-produce a termly report to share with parents, teachers and any other relevant adults. The service was delivered in line with current safeguarding legislation and the relevant professional standards of proficiency (UK Health and Care Professions Council [HCPC], 2013).

Participants

Participants for quantitative comparison on attainment

Out of the 45 children who participated in the larger study (McDonald et al., 2019), 25 met the inclusion criteria for the part of this study examining academic attainment. Children were only included if academic attainment scores were available for the time of referral and at the end of therapy or end of the study. A comparison group of 25 children per subject for reading, writing and maths attainment, not attending art therapy, were also included. Comparison children were matched to each child in the intervention group for each subject; each had continued to be in the same class as the matched child from time of referral until end of therapy/study; had the same or closest scores on referral; were chosen by a random number generator (random.org) when there was more than one child who had the same or closest scores.

The intervention children were aged between 4 and 10 years on referral, with 14 male and 11 female. Eighteen were from minority ethnic backgrounds and two others spoke English as an additional language. Of the 25, 14 were on a school plan for extra needs, and 2 had an official SEN statement. This information was not available for the comparison group. The data on length of art therapy were positively skewed, with a mean length of 16.6 months, median 14 months (sd 11.31, range 3 to 39). In terms of treatment stage, 13 children had completed art therapy and 12 had not.

The criteria outlined by the school for referring children to art therapy were broad; any child whose SEMH needs were not being met elsewhere, and the parents consented. Although the 25 children presented with multiple underlying issues, the primary reasons for referral given by the school are presented in Table 2, with over half referred for 'disruptive behaviour'. The underlying reasons for any behaviour were explored during assessment and shared with the school. A specific trauma assessment would also take place if indicated.

Primary reason for referral	Number of

	children
Disruptive behaviour	15
Witnessing domestic violence or murder	4
Unhappy/withdrawn/suicidal thoughts/low self esteem	3
Anxiety	2
Self or close family member with life threatening illness	1

Table 2. Teachers' stated reasons for referral

Participants for qualitative reports from teachers and children

All of the data from the 37 children and 10 class teachers who participated in the qualitative part of the larger study (McDonald et al., 2019) were included in this study to examine their reports on classroom learning and triangulate these with the quantitative findings.

Data collection and analysis

Comparison study

The data used for the comparison were the scores for national SAT routine curriculum tests in reading, writing and maths.

Procedure

The researchers were given access to the school database of SAT scores in reading, writing and maths. The children's results were ordinal scores; 1c, 1b, 1a, 2c, 2b, 2a. The researchers entered them into SPSS using the coding system presented in Table 3. The data were collected at the same time for the children receiving art therapy and comparison children. Length of time and therefor art therapy service was based on need.

Academic score	Code	Academic Score	Code	Academic score	Code
w	**0**	**2a**	**6**	**4a**	**12**
1c	**1**	**3c**	**7**	**5c**	**13**
1b	**2**	**3b**	**8**	**5b**	**14**
1a	**3**	**3a**	**9**	**5a**	**15**
2c	**4**	**4c**	**10**	**6c**	**16**
2b	**5**	**4b**	**11**		

Table 3. Academic levels coding

Statistical analysis

The reading, writing and maths scores were analysed using mixed analysis of variance (ANOVA). Although data were ordinal, the ANOVA is commonly used for this type of data and the data met other criteria for its use in that between-subject samples were equal, and Mauchley's sphericity test was satisfactory (Field, 2018).

Teacher focus group

Ten of the school's 15 teachers had been teaching a child in art therapy since referral or since the beginning of the academic year. All 10 were invited to the focus group, and all attended.

The focus group procedures and analysis are described in more detail within McDonald et al., (2019). The focus group was facilitated by an external senior art therapist. Here the pertinent question asked by the facilitator was: Have you (class teachers) noticed any changes in the children's classroom learning since they started art therapy?; And if so; what specifically has changed; if not, what specifically has persisted? The first author then transcribed the audio recording, then both authors carried out thematic analysis independently to derive codes and themes from the data relevant to the topic (Rohleder & Lyons, 2014).

The children's experiences

Data from routine evaluation interviews were held with 37 children whose parents had given informed consent to publish the results of the evaluation interviews. It was embedded within the approach that children were invited to share their expert knowledge about art therapy with the school community each term. During semi-structured evaluation interviews, children were asked five questions and invited to illustrate their answers using an adapted 'visual research method' (Boden & Eatough, 2014):

1. In your experience, do you think art therapy has been helpful, or not so much?

2. (If so,) what exactly do you think art therapy has helped with?

3. What changed in relation to that - how are things now?

4. What was it specifically, about your art therapy sessions that was helpful for this?

5. Is there anything you would like to change about the sessions to make them more helpful?

The children's interview procedures and analysis are described in more detail within McDonald et al., (2019). As each child could participate every term, the illustrated quotes were collated for each child. The researchers removed repetitions and used thematic analysis to draw out codes and themes (Rohleder & Lyons, 2014).

Ethical considerations

City University of London, School of Health Sciences Research Ethics Committee granted ethical approval for this study. The primary school and parents then gave informed consent for children's information to be used.

RESULTS

Academic attainment

The findings from the ANOVA tests are shown in Table 4 and Figures 1-3. In all three attainments there were main effects of time, with no effect of condition and no interaction between condition and time.

	F	*p*	Effect size (partial η^2)
Reading			
Time	8.543	.006	.152*
Condition	0.104	.758	.002
Time by condition	0	.984	0
Writing			
Time	35.123	<.001	.423**
Condition	0	.960	0
Time by condition	0.129	.721	.003
Maths			
Time	20.863	<.001	.303**
Condition	.003	.956	0
Time by condition	0	1.00	0

* Significant at p < .01; ** Significant at p <.001

Table 4: Results of ANOVA tests for reading, writing and maths SAT scores

The effects of time were large in terms of Cohen's (1988) criteria, all exceeding 0.14. The children in art therapy increased in attainment to the same degree as those not in art therapy.

If the analysis of the quantitative data finds a normative rate of learning or good learning outcomes, then we would expect the teachers to report that children better engaged in learning within the classroom.
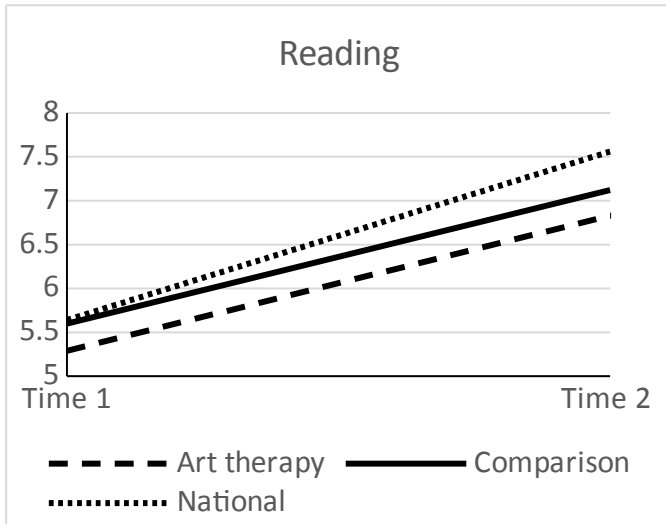
Figure 1: Change in reading attainment scores in art therapy and comparison children with national minimum expectation (NME) shown
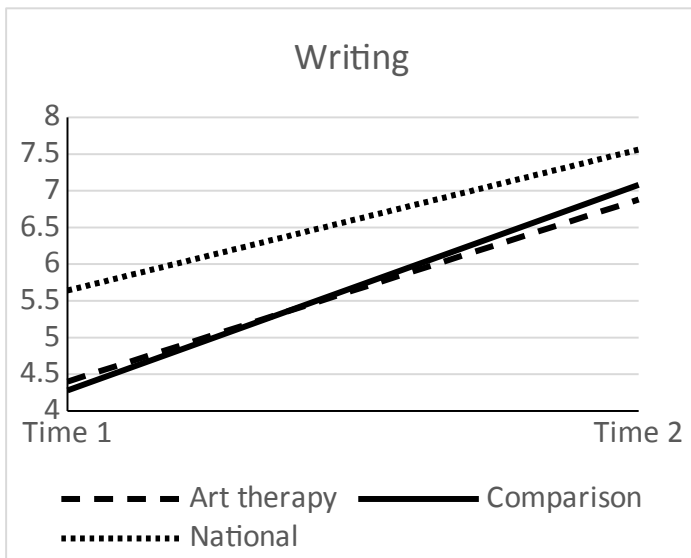

Figure 2: Change in writing attainment scores in art therapy and comparison children with NME shown
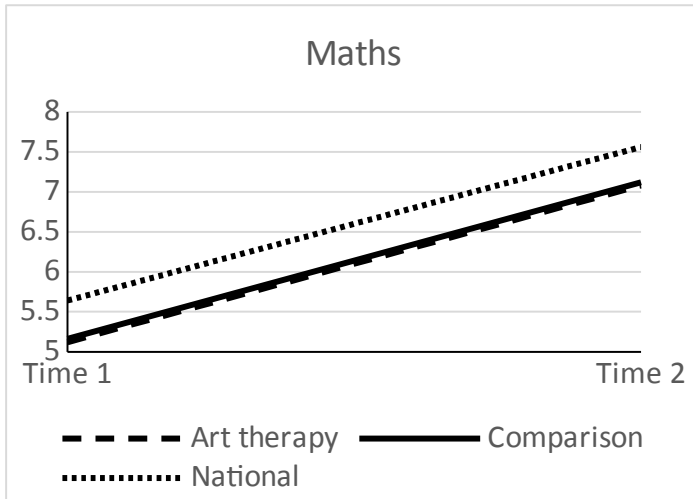
Figure 3: Change in maths attainment scores in art therapy and comparison children with NME shown

Focus group (n=10)

We identified four themes in relation to changes and 12 in relation to helpful aspects of art therapy.

Perceived changes

Better relationships helping learning

Better adult relationships

Teachers considered the children as having better relationships with adults when they were no longer 'hitting teachers.. and lashing out' (T1), began to show that they 'realise that we (the teachers) are here for them and to help them' (T6), and after some time 'showed that (they) trusted (the teacher and art therapist)' (T9). The teachers also noticed that some children changed 'their perception of adults in the school (to seeing them) as people who have time for them' (T5) and that they are 'more trustworthy' (T6). This was shown by a child becoming 'more confident to talk to

other adults about stuff that was going on' (T1) or that they eventually 'held (the teacher's) hand as he cried… (instead of) smash(ing) something or get(ing) quite destructive' (T9).

Working better with partners

Teachers considered the children's peer relationships as important in class because 'at this school, having a partner is a big part of it, if you can't do that you are really missing out on learning' (T5). The teachers perceived the children as working better with partners when they no longer had to 'sit on their own (because they couldn't) work with somebody else' (T5), became 'more confident around (their) peers' (T8), developed their ability to 'compromise' (T5), and were now able to work with various partners rather than 'always.. one person all the time' (T1). Furthermore, it appeared that when some children 'interact(ed) with other children (they were) far more.. aware of.. other's feelings' (T6) and had started to 'actually like interacting with other children.. and (would now) go and help the other children' (T1).

Increase in learning time

Reduction in lost learning time due to emotions, behaviour or exclusion

Teachers perceived that there was a reduction in lost learning time for some children; 'At the beginning of the year, they wouldn't get any work in their book if they were sad about something at the start of the lesson whereas, now, I can kind of let them deal with it.. initially... and then they can learn' (T4); 'In nursery she was excluded… and when she started doing art therapy she totally calmed down' (T1).

Teachers considered that there had been a reduction in lost learning time when children 'don't need to be taken out of class' (T4), despite getting 'frustrated... can actually learn' (T4), started 'listening more' (T6), and when they do get upset 'you're not losing an hour. You might be losing 5 or 10

minutes at that' (T4). The teachers reported that some children became 'more aware of how (their) behaviour affected… learning' (T6) and that 'there have been lots of (children) that have had art therapy… and have now settled back into the class (T5).

Reduction in class disruption

Teachers reported a reduction in disruption to learning for the whole class; 'The learning of the 30 other children in the class is better every single day because the child is calmer so the class are able to focus on their lesson and able to hear what the teacher is saying' (T5); 'She can still be a bit defiant or refuse to do things but […] she doesn't kind of disrupt other children's learning' (T8).

The teachers perceived a reduction in disruption to whole class learning when children had less 'tantrums... screaming… refusing to leave the class room' (T8), were no longer 'hitting teachers' (T1), were less 'destructive and destroy(ing) school property' (T10), were no longer 'hurting... another child' (T4), working with peers became less likely to 'end in an argument' (T5), and they demonstrated a positive change in 'attitude towards the rest of the class' (T4).

Improved engagement with learning in class

More confidence and active participation in class

Teachers reported some children as more confident in their learning; 'I've got a couple of children who have developed their confidence in the class room' (T9); ' Since going to art therapy.. his confidence in his learning behaviour has definitely grown' (T8).

Teachers perceived children as becoming more confident and active in their participation in class when they started 'asking for help in lessons' (T8), began to 'put up (their) thumb to answer' (T7),

developed 'their ability to answer questions, even if they are wrong.. or take more risks in the classroom' (T9) and were now able to 'admit to getting things wrong and... in front of other children, to admit that they (need) the easier (work)sheet' (T5). Teachers noticed that some children developed the confidence to 'ask to participate' (T8) and 'to join in with circle time and... work with groups' (T1).

More mature/independent learning

Teachers reported that some children became more mature or able to learn independently; 'he's (now) got the confidence to be like 'I'm doing this now, I'm an independent learner!' (T9); 'she's actually gone to (the art therapist) and said that 'I think we are ready now to finish'. And she loves the sessions, but she is mature enough now to actually say that, which is a massive, massive step, a huge step' (T6).

Teachers perceived children as more mature or independent in their learning when they 'no longer cried when they are 'not picked... when (their) hand's up'' (T6), no longer 'just sit and wait to be told what to write or have it described' (T9) by the teaching assistant. They also perceived positive change when children started to do 'as much work as (they) can independently before asking (their) partner... and (class teacher) for help' (T9).

Increased pride and enjoyment in work

Teachers reported some children becoming more proud of their work; 'I've picked up in pretty much every year group over the last 3 years where I've had children who do art therapy; Just taking... (more) pride in their work because they want it to be seen. They are here at school to learn and to be proud of it rather than 'I'm here because I have to be here'.' (T5); 'And he's really proud of the work that he's producing (now)... I've (also) got a couple of girls who are taking pride in their work'

(T9); 'I've noticed a real progression and a real sort of enjoyment of actually doing it (schoolwork)' (T6);

Teachers perceived children as becoming more proud of schoolwork when they no longer 'scribble on their books on purpose' (T5), were 'sloppy writers' (T9) or tried to 'get out of writing' (T6). They considered that children were enjoying schoolwork more when they began 'laughing' (T6) when engaged in schoolwork, 'wanting to be joining in and coming up in front of the class' (T8), and getting 'really excited... keen to actually improve' (T6). Teachers noted other indicators that the children were taking more pride in their schoolwork such as 'taking the time to make sure that they write the date neatly... underline with the correct colour pen... (T5) and taking 'pride in their presentation, the quality of their sentence structures and care what is... going into their books' (T9). Children started saying things like 'can I show my mum?' (and) 'look how much I've written'' (T6) and started being 'keen for (the class teacher) to read their work' (T9). The teachers also reported that the 'quality (of the writing) improved a lot' (T6).

Residual problems with classroom learning

Teachers reported that for some children, who were still attending art therapy, there were residual problems that inhibited classroom learning and that progress was slower; 'for many children... it is a kind of gradual process' (T9); 'her behaviour has kind of gone up and down and it's peaked at times... when she's having to deal with certain things that are happening at home' (T4).

The teachers acknowledged that some children's SEMH needs may require a longer therapeutic process 'over time... a gradual process' (T9) and that for some of the more complex 'cases we are dealing with... a slow improvement is still a really, really good thing' (T5).

Helpful aspects of art therapy: Teachers' suggestions

Teachers were not often present during art therapy sessions so their reports on what they perceived as helpful to children are informed only by working closely with the art therapist or watching the children after attending sessions. The teachers were not specifically asked for their views about aspects of art therapy, so this was an emerging topic from the focus group. Teachers suggested 12 aspects of art therapy as helpful: reliable safe place; one-to-one time with an adult; reflecting on actions; learning coping strategies; talking about artwork; making public artwork; encouraging independence and trying things out; advocating and sharing information; psychoeducation and collaborative work; framing school as a positive place to learn with trusted adults; working with transitions and endings; and practising social skills (Table 5).

Aspect of art therapy	Examples of teachers' statements (T1 etc = teacher identifier)
A reliable safe place	*'I think that having art therapy gives her a safe environment and a time that is dedicated for (the art therapist) to work with her...' (T4)*
One-to-one time with an adult	*'There is not a huge amount of time in the day that we can spend with one individual child and the fact that they do get that time with (the art therapist)... changes their perception of adults in the school as people who have time for them.' (T5)*
Reflecting on actions	*'I had some boys that were bullying, and they were in art therapy for just for 6 sessions... and after that the behaviour stopped... I think in that instance art therapy was a really good way of making the children reflect on their actions towards other children.' (T9)*
Learning coping strategies	*'…strategies are now in place to stop things going from bad to worse in 30 seconds. And a lot of the time, when we have a discussion with those kids afterwards, they will actually refer to 'well you know this happened in art therapy, but the strategy was…'' (T5)*
Talking about artwork	*'I've got a couple of children who have developed their confidence in the classroom... being able to talk through their ideas with people and develop them... has become more apparent... I think that these are skills they have picked up through talking about their (art)work with (the art therapist).' (T9)*
Making public artwork	*'They are so proud of (art therapy), showing all of the kids at the end of the (term) when they bring (their decorated box) with them, you know 'look at my box!'.' (T1)*
Encouraging independence and trying things out	*'I know that (the art therapist) has done a lot of work on independence with him and it's filtering through to his learning and his social skills and personal life' (T9)* *'And he says things like 'I don't mind, I'm just going to have a go!'... now he's actually able to have a go.' (T5)*
Advocating and sharing information	*'..(the art therapist) will say to her, do you mind if I tell (class teacher) and then (the art therapist) will tell me and it helps me better to support her because I've got a better understanding' (T1)*
Psychoeducation and collaborative work	*'..(the art therapist) speaks to her and will say 'is your heart beating really hard?' and then she'll give her a way of understanding what's directly going on in response to this fight or flight and it means that I can then use those same strategies or ideas in class to kind of bring it back to what she*

	thinks/feels.' (T1)
Framing school as a positive place to learn with trusted adults	*'…it was the Y6 leavers assembly, and the child didn't feel very well with upset emotions and they actually cried and walked towards me and (the art therapist)… and he just held my hand as he cried… he obviously showed that he trusted both of us which was quite significant, I think, for him' (T9)*
Working with transitions and endings	*'… after their SATs, (the art therapist) works really hard with them about secondary transition and often the transition away from art therapy… and she really takes them through that process and lots of them can talk about the fact that that is something that is happening in, like (the art therapist) would say, in a positive way.' (T10)*
Practicing social skills	*'That is similar to my child where he has picked up skills transferable back into the classroom. He's become a lot more confident in the last couple of months in class participating out loud..' (T7)*

**Table 5. Helpful aspects of art therapy: Teacher suggestions**

Children's experiences

The children's primary reasons for attending art therapy were related to SEMH, and therapy goals were set accordingly (McDonald et al., 2019). However, despite this, 21 children reported changes that may facilitate classroom learning, of which six directly reported positive changes in learning. Examples of the children's illustrated quotes can be seen in Figures 4 to 9.

'Art therapy can help make children more confident. It can help make you stronger in many things, for example, maths and literacy. It can also help make you calmer'

Figure 4. Illustrated quote by child 34, age 11.
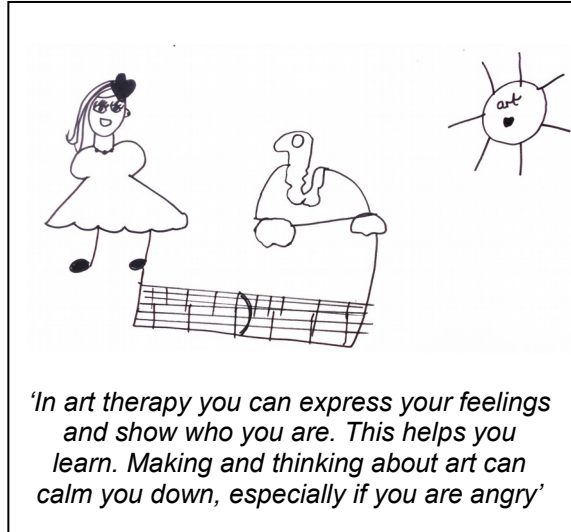
'In art therapy you can express your feelings and show who you are. This helps you learn. Making and thinking about art can calm you down, especially if you are angry'

Figure 5. Illustrated quote by child 21, age 11

*'If you are angry art therapy can help you calm down… Seriously, art therapy can help you to think!'*

'Art therapy is a fun place… and it grows your confidence. You especially get to express your feelings like anger and confidence'

Figure 7. Illustrated quote by child 4, age 11.

Figure 8. Illustrated quote by child 31, age 9.

'In art therapy children make and think about art. It can help with schoolwork. Doing art can make you comfortable, then when you go back to class you're still comfortable'
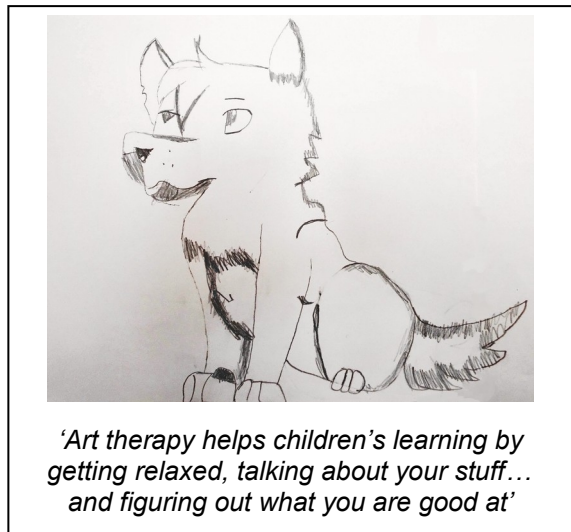
'Art therapy helps children's learning by getting relaxed, talking about your stuff… and figuring out what you are good at'

Figure 9. Illustrated quote by child 29, age 10.

Improved learning

Six children directly reported positive changes in learning (Figures 4 and 5). Three reported that art therapy helped them learn; 'Art therapy can help children learn more' (C27); 'Making art in art therapy can help children to feel happy. It can make you feel that you can learn how to do stuff' (C29). Three children reported that art therapy helped them with schoolwork; 'It can help with schoolwork' (C31), of which two specifically naming 'literacy' (C24 & C18).

Changes that may facilitate classroom learning

21 children reported positive changes which may enable classroom learning (Figures 6 and 7). There were five themes in relation to classroom learning; *helps children to calm down; increased confidence; improved concentration, listening and articulation; increased thinking capacity and problem solving; improved relationship*.

Helped children to calm down

Fifteen children reported that art therapy helped children to calm down; 'can help you change your behaviour and calm down' (C7); 'helps with calming down' (C35).

Increased confidence

Five children reported that art therapy helped increase confidence; 'given me confidence' (C3); 'helps you to be confident' (C31).

Improved concentration, listening and articulation

Four children reported improved concentration, listening or articulation following art therapy; 'Art therapy can help children change their behaviour and concentrate more' (C28); 'Art therapy has helped me to talk better' (C3).

Increased thinking capacity and problem solving

Four children reported increased thinking capacity and problem solving; 'help(s) you to think' (C13); 'you can think of new ways of doing things and find new ideas' (C28).

Improved relationships

Three children reported that art therapy improved their relationships; 'helps you to get on with others' (C15); 'help you know how to get on with friends' (C35).

Things children wanted to change about their art therapy

Only five children stated that they would like to change anything which related to classroom learning e.g. change session time so as not to miss a particular lesson or have longer or more frequent sessions. Other suggestions are reported in McDonald et al., (2019).

Helpful aspects of art therapy: Children's perceptions

The 21 children who reported learning-related changes also reported what they felt had helped bring them about (Figures 8 and 9). There were five themes; expressing/thinking/talking about feelings; making and thinking about artwork; learning coping mechanisms and how to listen (n=4); sessions being fun/relaxed; art therapy being trustworthy/supportive (Table 6).

Aspects of art therapy	Examples of children's statements (C1 etc = child identifier)
Expressing/thinking/ talking about feelings (n=10)	*'...helped me to talk better and given me confidence by talking about my feelings' (C3)* *'...you can express your feelings and show who you are. This helps you learn' (C21)*
Making and thinking about artwork (n=9)	*'You get to make loads of things in Art Therapy. It helps you with everything! Like being calmer' (C32)*
Learning coping mechanisms and how to listen (n=4)	*'Art therapy… children can learn how to listen' (C7)* *'You can think of new ways of doing things and find new ideas' (C28)*
Sessions being fun/relaxed (n=3)	*'Art therapy is fun! You can make stuff, play with it and become more confident' (C28)*
Art therapy being trustworthy/supportive (n=2)	*'…makes me happy that I can trust it' (C3)* *'Art therapy helps with… feeling supported.*

Table 6. Helpful aspects of art therapy: Children's perceptions

DISCUSSION

Academic attainment

This was not a randomised trial. However, given that educational progress for children referred to art therapy mirrored that in attainment-matched classmates, a tentative inference is that children's attainment was protected because they attended art therapy. This is in line with a largescale randomised trial of an anxiety prevention programme (Skryabina et al., 2016), in which educational attainment was also no different from control conditions. As the primary reason for referral for 15 of our study's 25 participants (60%) was 'disruptive behaviour', without any mental health intervention we may have expected them to move towards lower academic attainment over time as found in a recent large-scale study examining primary school children who communicated SEMH difficulties through externalized behaviours (Deighton et al., 2018). Both our participant groups would have been offered any additional learning support needed, but art therapy may have helped children to make better use of it than otherwise, thus avoiding a decrease in attainment over time.

As there is an association between school exclusion and SEMH difficulties (Whear et al., 2014), we would also hypothesise that, for some children, art therapy protected against exclusion, with no exclusions during the duration of the study. This hypothesis is supported by national statistics showing that the most common reason for exclusion, persistent disruptive behaviour, occurs disproportionately in groups similar to the children attending art therapy, including free school meal recipients and those with SEN (DfE, 2017).

Perceived changes and how they appeared to happen

Hypothetically, if the quantitative data reflects normative rates of learning or good learning outcomes, we might expect teachers to report seeing children better engaged in learning within the classroom.

Increase in learning time

The teachers reported a reduction in lost learning time due to emotions, behaviour or exclusion, and reduced class disruption. This concurred with children's reports that art therapy helped them to be calm and is consistent with the main principle of the approach; to move away from acting-out feelings and towards representation and mentalizing (Czamanski-Cohen & Weihs, 2016; Fonagy & Bateman, 2006).

Improved engagement with classroom learning

Teachers reported children becoming more confident and participating more in class, more mature and independent learning, and greater pride and enjoyment in work - especially writing. This triangulated with children's reports. Also in relation to learning, the children reported that art therapy helped to improve their confidence, concentration, listening, articulation, thinking capacity and problem solving. Both teachers and children reported that learning coping strategies in art therapy helped the children when in class. These reports support the underlying theory of the approach that the child's use of art making to reflect upon their emotions will increase their sense of agency (Czamanski-Cohen & Weihs, 2016), and the use of continuing interactive formulation (Johntone, 2018). They also support the call for further research to assess the impact of mental health interventions on a wider range of educational outcomes (Skryabina et al, 2016).

Improved relationships

Teachers and children both reported improved relationships following art therapy, with both school staff and classroom peers, improving co-operative learning. One aim of the art therapy approach was to use art as part of the ostensive communication system within the therapeutic relationship,

thus involving the attachment system and increasing capacity to have trusted relationships (Springham & Huet, 2018). This fits the qualitative data suggesting that both teachers and children saw art therapy as a reliable safe place.

The teachers were not usually present during the art therapy sessions, but they noticed the public artwork which the children made and suggested that this had been helpful, concurring with children's reports about how helpful art making had been. The children's references to thinking about the artwork may be due to the specific approach that art making is a relatively safe way to explore emotions and encourage mentalizing (Springham et al., 2012).

Practising social skills

The teachers also considered that practicing social skills in art therapy had been helpful for the children. The children reported that sessions being fun and relaxed had been particularly helpful. These findings are in accordance with a previous study which emphasised the importance of fun, playful, enjoyable sessions in change processes finding that this enabled expression and contributed improvements in the children's mood, confidence, communication and understanding, leading to improved resilience and learning (Deboys et al., 2017). The researchers thus hypothesised that a therapeutic relationship being of the kind that enables fun may facilitate more helpful management of the difficult elements of therapy. Practicing social skills in art therapy would also relate to the underlying theory that encouraging mentalization can increase children's social cognition and ability to identify and reflect upon their emotions and those of others (Czamanski-Cohen & Weihs, 2016; Fonagy & Bateman, 2006).

Advocating and sharing information

The teachers reported that having the art therapist to advocate for and share pertinent information about each child had been helpful. This aligns with the theoretical framework of regarding the school as a context which can facilitate communication between teachers, parents and art therapists, providing necessary grounding for therapeutic engagement (Deboys et al., 2017; Snir et al., 2018). The children did not report on the way in which the art therapist communicated with other adults, although they were aware of this as it was routinely discussed in sessions.

Psychoeducation and collaborative work

The teachers reported that working together and understanding the psychological processes was helpful. This is consistent with the hypothesis that child and school-focused psychoeducation helps increase children's agency in managing difficulties (Lukens & McFarlane, 2004) and encourages a conducive school environment. Some children did state that learning about thoughts and feelings was helpful. Children did not report on psychoeducation or joint working with their teachers despite these processes being transparent and discussed with them.

Teachers also suggested that the following may have been helpful in bringing about the changes in the way the children presented in class: *one-to-one time with an adult*; *reflecting on actions; encouraging independence and trying things out*; *framing school as a positive place to learn with trusted adults; working with transitions and endings.*

Residual problems

Teachers reported that some children, who were still attending art therapy, continued to have residual problems that inhibited classroom learning and that progress was slower. Further research is needed to investigate why change appeared slower than for some children.

STRENGTHS AND LIMITATIONS

This study was an early phase exploratory study and aimed to examine acceptability of the approach and any indications of change in order to inform future research. To examine indications of educational progress we relied upon national SATs administered to classes of children. Although these data were convenient to collect, also using specific individual assessments may have provided more sensitive data. Collecting data on more immediate educational outcomes, such as improved attitudes towards schoolwork, better school attendance or fewer school exclusions may have helped to further examine if there had been changes and enabled better triangulation with the qualitative data. Although our cohort included children from diverse ethnic groups and with English as a second language, the group was limited to one school. Further data on the comparison group would have also helped to control for more variables such as other services, level of SEN, and the relative age of the children. Children born towards the end of the academic year (summer) tend to perform worse than those born in the autumn (Crawford, Dearden, & Greaves, 2013).

As the study was not experimental, it was limited by practical issues such as children's evaluation interviews being established before the study began and not sufficiently countering bias. In particular, the (possibly healthy) culture of pride in the school and publication of the illustrated quotes may have resulted in unrecognised pressure on the children. Although this didn't prevent negative comments, children may have assumed that statements should express pride and positivity. Future research would need to be clearly independent of the schools' public showcasing.

Similarly, the ongoing relationship between the children and the lead art therapist (first author) may have meant that some may not have wished to displease her, especially if still in therapy. However, this established relationship did enable collection of rich data. Great care was taken to accurately record children's perceptions by encouraging them to change their statements until they were happy with them.

IMPLICATIONS FOR POLICY AND PRACTICE

It will be helpful for commissioners of Child and Adolescent Mental Health Services (CAMHS) to note the perceived positive changes following this embedded approach to primary-school-based art therapy. Similarly, it will be helpful for schools considering Pupil Premium funding (DfE, 2017a) to note that children attending art therapy kept up with the NME and comparison group rate of learning despite experiencing SEMH difficulties.

It will be helpful for art therapy practitioners and educators to note the specific aspects of the approach which both teachers and children perceived as helpful; art therapy being a safe place; learning coping strategies; expressing, thinking and talking in art therapy; making artwork; and sessions being social and fun. Also, that teachers perceived some other aspects helpful; advocating and sharing information; psychoeducation and collaborative work; reflecting on actions; encouraging independence and trying things out; framing school as a positive place to learn with trusted adults; working with transitions and endings.

FUTURE RESEARCH

The findings from this early phase can now be used to inform future studies; an intervention development study including more schools, children, parents, teachers and art therapists; feasibility study to examination evaluation methods; a full evaluation study on clinical effectiveness.

Further research should include a wider range of educational outcomes such as attainment, absences, children's attitudes, bullying, class exclusion and school exclusion. This may enable a more thorough examination of educational outcomes.

CONCLUSION

Using national SATs in reading, writing and maths, we found no indications of differences in educational outcomes between children who attended art therapy and comparison children. However, both groups maintained the same rate of learning as the National Minimum Expectation. The findings from the qualitative reports suggest that art therapy was perceived as helpful by children and teachers in relation to engagement with classroom learning, relationships with teachers and peers, and learning time.

The study also highlights perceived helpful aspects of art therapy; art therapy being a safe place; learning coping strategies; expressing, thinking and talking in art therapy; making artwork; and sessions being social and fun.

Further research is needed to develop this approach, assess transferability, and examine the impact on a wider range of educational outcomes. However, the findings suggest that this approach to primary-school-based art therapy is acceptable to take on to the next phase of research.

REFERENCES

Aber, Lawrence; Brown, Joshua L; Jones, Stephanie M; Berg, Juliette; Torrente, C. (2011). School-based strategies to prevent violence, trauma, and psychopathology: The challenges of going to scale. *Development and Psychopathology*, *23*(2), 411–421.

Adoni- Kroyanker, M., Regev, D., Snir, S., Orkibi, H., & Shakarov, I. (2019). Practices and challenges in implementing art therapy in the school system. *International Journal of Art Therapy*, *24*(1), 40–49. https://doi.org/10.1080/17454832.2018.1536726

Boden, Z., & Eatough, V. (2014). Understanding More Fully: A Multimodal Hermeneutic-Phenomenological Approach. *Qualitative Research in Psychology*, *11*(2), 160–177. https://doi.org/10.1080/14780887.2013.853854

Cobbett, S. (2016). Reaching the hard to reach: quantitative and qualitative evaluation of school-based arts therapies with young people with social, emotional and behavioural difficulties. *Emotional and Behavioural Difficulties*, 1–13. https://doi.org/10.1080/13632752.2016.1215119

Crawford, C., Dearden, L., & Greaves, E. (2013). *When you are born matters: evidence for England IFS Report R80*.

Czamanski-Cohen, J., & Weihs, K. L. (2016). The bodymind model: A platform for studying the mechanisms of change induced by art therapy. *The Arts in Psychotherapy*, *51*, 63–71. https://doi.org/10.1016/J.AIP.2016.08.006

Danieli, Y., Snir, S., Regev, D., & Adoni-Kroyanker, M. (2019). Suitability of the art therapy room and changes in outcome measures in the education system. *International Journal of Art Therapy*, 1–8. https://doi.org/10.1080/17454832.2018.1564778

Deboys, R., Holttum, S., & Wright, K. (2017). Processes of change in school-based art therapy with children: A systematic qualitative study. *International Journal of Art Therapy*, *22*(3), 118–131. https://doi.org/10.1080/17454832.2016.1262882

Deighton, J., Humphrey, N., Belsky, J., Boehnke, J., Vostanis, P., & Patalay, P. (2018). Longitudinal pathways between mental health difficulties and academic performance during middle childhood and early adolescence. *British Journal of Developmental Psychology*, *36*(1), 110–126. https://doi.org/10.1111/bjdp.12218

Department of Eduction (2016). *Permanent and Fixed Period Exclusions in England : 2014 to 2015 Independent exclusion reviews (Table 13) .... 6 Exclusions by local authority (Table 16) ....*

Department of Eduction (2017). *Supporting Mental Health in Schools and Colleges Summary report*.

Elkayam, C., Snir, S., & Regev, D. (2020). Relationships between work conditions, job satisfaction and burnout in Israeli Ministry of Education art therapists. *International Journal of Art Therapy*, *25*(1), 30–38. https://doi.org/10.1080/17454832.2020.1739721

Gonzalez-Dolginko, B. (2018). Status report on art therapists in public schools: Employment and legislative realities. *Art Therapy*, *35*(1), 19–24. https://doi.org/10.1080/07421656.2018.1459116

Health and Care Professions Council (2013). *Arts Therapists: Standards of proficiency*.

Johnstone, L. (2018). Psychological Formulation as an Alternative to Psychiatric Diagnosis. *Journal of Humanistic Psychology*, *58*(1), 30–46. https://doi.org/10.1177/0022167817722230

Karkou, V. (1999). Art therapy in education findings from a nationwide survey in arts therapies. *Inscape*, *4*(2), 62–70. https://doi.org/10.1080/17454839908413078

London Borough of Hackney. (2014). A Profile of Hackney, its People and Place, (September), 1–31.

Lukens, E. P., & McFarlane, W. R. (2004). Psychoeducation as Evidence-Based Practice: Considerations for Practice, Research, and Policy. *Brief Treatment and Crisis Intervention*, *4*(3), 205–225. https://doi.org/10.1093/brief-treatment/mhh019

Malchiodi, C. A., & Crenshaw, D. A. (2015). *Creative arts and play therapy for attachment problems*.

McDonald, A., & Drey, N. S. J. (2018). Primary-school-based art therapy: a review of controlled studies. *International Journal of Art Therapy: Inscape*, *23*(1). https://doi.org/10.1080/17454832.2017.1338741

McDonald, A., Holttum, S., & Drey, N. S. J. (2019). Primary-school-based art therapy: exploratory study of changes in children's social, emotional and mental health. *International Journal of Art Therapy*, 1–14. https://doi.org/10.1080/17454832.2019.1634115

Randick, N. M., & Dermer, S. B. (2013). The relationship of school art therapy and the American school counselor national model. *Art Therapy*, *30*(1), 30–35. https://doi.org/10.1080/07421656.2013.757507

Rohleder, P., & Lyons, A. (2014). *Qualitative Research in Clinical and Health Psychology*. Palgrave Macmillan.

Snir, S., Regev, D., Keinan, V., Abd El Kader-Shahada, H., Salamey, A., Mekel, D., … Alkara, M. (2018). Art therapy in the Israeli education system – a qualitative meta-analysis. *International Journal of Art Therapy*, *23*(4), 169–179. https://doi.org/10.1080/17454832.2017.1409775

Springham, N., Findlay, D., Woods, A., & Harris, J. (2012). How can art therapy contribute to mentalization in borderline personality disorder? *International Journal of Art Therapy*, *17*(3), 115–129. https://doi.org/10.1080/17454832.2012.734835

Springham, N., & Huet, V. (2018). Art as Relational Encounter: An Ostensive Communication Theory of Art Therapy. *Art Therapy*, *35*(1), 4–10. https://doi.org/10.1080/07421656.2018.1460103

Taylor Buck, E., & Hendry, A. (2016). Developing principles of best practice for art therapists working with children and families. *International Journal of Art Therapy*, *21*(2), 56–65. https://doi.org/10.1080/17454832.2016.1170056

UK Government Statistical Service [GSS]. (2018). *Mental Health of Children and Young People in England, 2017 Trends and characteristics*.

Whear, R., Marlow, R., Boddy, K., Ukoumunne, O. C., Parker, C., Ford, T., … Stein, K. (2014). Psychiatric disorder or impairing psychology in children who have been excluded from school: A systematic review. *School Psychology International*, *35*(5), 530–543. https://doi.org/10.1177/0143034313517451