A Dyadic Art Psychotherapy Group for Parents and Infants

Armstrong, Victoria Gray; Dalinkeviciute, Egle; Ross, Josephine

Published in:
International Journal of Art Therapy

DOI:
10.1080/17454832.2019.1590432

Publication date:
2019

Document Version
Peer reviewed version

A Dyadic Art Psychotherapy Group for Parents and Infants – Piloting Quantitative Methodologies for Evaluation

International Journal of Art Therapy

Victoria Gray Armstrong, Egle Dalinkeviciute, and Dr Josephine Ross

Corresponding Author:

Victoria Gray Armstrong

Psychology, School of Social Sciences, University of Dundee, DD1 4HN

{ HYPERLINK "mailto:V.G.Armstrong@dundee.ac.uk" }

Abstract

This paper describes a pilot of art psychotherapy groups using a dyadic approach as an intervention for parents and infants in order to improve their relationships. The pilot was developed as a collaboration between an Art Psychotherapist and a Developmental Psychologist. It sought to use standardised measures of parental well-being and object relations as well as developing an observational tool that could be applied to video footage of groups to measure change in the duration of attachment behaviors across the span of the intervention. The paper demonstrates a positive change within the dyads' relationships and the viability of evaluating groups using these measures. It will describe the process of developing the observational tool and argue for the next steps to be taken.

Keywords

Art Psychotherapy, Dyadic, Parent-Infant, Attachments, Groups, Observational Measures, Quantitative, Early Years

Acknowledgments

The research carried out in this paper was funded by a Kerr-Fry award, administered by Edinburgh University and awarded to Victoria Gray Armstrong, and by a British Psychological Society Research Assistant Scholarship awarded to Dr Josephine Ross and Egle Dalinkeviciute at Dundee University. We would like to thank our clinical supervisor for the groups, Rosie Howatson, for all her advice, Mel Hunter who co-facilitated the groups for her help, and all the mums and their children who took part for engaging in the groups and trusting us to use their data.

Declaration of Interest Statement

There were no conflicts of interest undertaking this research

Introduction

This study developed as an attempt to bring the quantitative and observational measures of developmental psychology to the discipline of art psychotherapy therapy in order to evaluate the efficacy of art psychotherapy in improving 'at risk' early relationships. In building up to a larger scale randomised controlled trial, this paper will describe the process of applying standardised measures of change and an observational tool to the data collected from two intervention groups that used a dyadic art psychotherapy approach with groups of parents and their infants. Through engaging the dyads in playful art making together, the groups aimed to offer parents emotional support and encourage them to interact in positive ways by helping them to understand what their infants might be communicating and helping them to respond appropriately.

The context in attachment research

The quality of the bond between infant and caregiver creates the foundation for an infant's social, emotional, and biological development (Bowlby, 1997; Stern, 2000). An attuned parent is able to regulate the infant's emotions and, in so doing, teach the infant to self-regulate. Warm, reciprocal interactions demonstrate to infants their positive influence on the social environment and build their expectations of safe, supportive responses from others. These schemas lead to positive concepts of self, and encourage individuals to engage and build relationships with other people (Svanberg, 1998). The consequences of secure attachment can also be observed in the infant's brain, mediating the development of neural structures in the hippocampus (Glaser, 2000; Schore, 2001). In short, early attachment relationships build the resiliencies central to good psychological health. In keeping with this observation, there is strong evidence linking poor early experiences to poor mental health. Insecure attachments, in particular disorganised patterns, are associated with disruption in

childhood development (Belsky, 2001), and are strongly predictive of a wide variety of mental illnesses in adulthood (Weich, Patterson, Shaw & Stewart-Brown, 2009).

Crucially, the quality of early relationships is open to change (Van Ijzendoorn, Juffer & Duyvesteyn, 1995) so early interventions in this area can have a preventative impact on psychopathology. Further, this form of intervention could break the cyclical nature of mental ill health. The mental illness of a parent has been identified as a risk factor for insecure attachment (Martins & Gaffin, 2000), and there is an average of 75% concordance between mothers' or foster mothers' attachment in infancy and the classification of their infant (Van Ijzendoorn, 1995). Targeting intervention at an early stage therefore has the potential to improve not only the health of the dyad in the here and now, but the health of their future family (Baradon, 2005). This research base is the impetus of the Scottish government's initiative "Getting it right for every child". The cyclical relationship between attachment and wellbeing constitutes one of the clearest, most visceral reminders of the role of social and cultural factors in health.

An art psychotherapy approach to intervention

Art making is inherently socio-cultural, and the idea that making art could inform our understanding of the world, communicate our wellbeing, or improve our mental health is well established (All-Party Parliamentary Group on Arts, Health and Wellbeing, 2017). Art making allows us to connect and communicate on an intersubjective level (Dissanayake, 2000; Gerber, Bryl, Potvin, & Blank, 2018). Moreover, art making is a therapeutic technique for which there is no age boundary. The combination of these factors means that art making provides a rich foundation for childhood psychotherapeutic practices, particularly those designed to improve relationships.

An attachment focused parent–infant art psychotherapy intervention uses art making in a contained therapeutic space to facilitate positive changes in the parent–infant relationship (e.g. Arroyo & Fowler, 2013; Armstrong & Howatson, 2015; Hall, 2008; Hosea, 2006; 2017; Proulx 2003 Ponteri, 2001). The aim is to help parents to become emotionally available and to support them in developing attuned responses to their infants. This may be through using therapeutic techniques such as 'talking through the baby' and helping parents gain insight into their infants needs as would be found in parent-infant psychotherapy (Baradon, 2005). However, the art process also provides additional opportunity to engage parents and create change. Programmes such as Watch, Wait, Wonder {ADDIN CSL_CITATION {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.1002/(SICI)1097-0355(199924)20:4<429::AID-IMHJ5>3.0.CO;2-Q","ISSN":"0163-9641","author":[{"dropping-particle":"","family":"Cohen","given":"Nancy J.","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Muir","given":"Elisabeth","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Lojkasek","given":"Mirek","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Muir","given":"Roy","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Parker","given":"Carol Jane","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Barwick","given":"Melanie","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Brown","given":"Myrna","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"Infant Mental Health Journal","id":"ITEM-1","issue":"4","issued":{"date-parts":[["1999"]]},"page":"429-451","title":"Watch, wait, and wonder: Testing the effectiveness of a new approach to mother-infant psychotherapy","type":"article-

journal","volume":"20"},"uris":["http://www.mendeley.com/documents/?uuid=b976e654-f9a9-391d-9014-34189bdf397b"]}],"mendeley":{"formattedCitation":"(Cohen et al., 1999)","manualFormatting":"(Cohen, Muir, Lojkasek & Muir, 1999)","plainTextFormattedCitation":"(Cohen et al., 1999)"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-language/schema/raw/master/csl-citation.json"}**}** have shown the benefit of an approach which focuses on infant-led interactions, encouraging parents to follow the spontaneous activity of the infant and be physically available and engaged with it. An art psychotherapy approach should be ideal for enabling and encouraging infant-centred interactions because the experience of trying new materials offers opportunities for the therapist to naturally support the parent in letting the infants explore whilst offering regulation, and attuning with the infant's aims and feelings. Perhaps the therapist might encourage the parent to watch how the infant responds to a new feeling material and then follow their lead in gradually joining in. Or perhaps the therapist may reflect upon how the infant is using the art materials and encourage the parent to see them as a direct communication which they can engage with. The need for the parents to physically support infants in using the materials/cleaning up also facilitates positive touch and sensory experiences. These mind-minded and nurturing processes are key to positive attachment (Bigelow et al, 2010; Meins, Bureau & Fernyhough, 2018; Meins & Fernyhough, 2015; Van IJzendoorn et al, 1995).

Research into dyadic approaches in parent-infant art psychotherapy

A 2012 survey of art psychotherapists (Taylor Buck, Dent-Brown & Parry, 2013) found that 60% of respondents sometimes worked with children and their parents/carers together, although this encompasses all age groups so does not specify the number whose work is with infants. There have been several published case studies of parent-infant art psychotherapy groups (e.g. Hall, 2008; Hosea, 2006; 2017; Proulx 2003), including three using quantitative

measures which found an overall positive impact on maternal mental health and attachment (Ponteri, 2001; Arroyo & Fowler, 2013; Armstrong & Howatson, 2015). However, these small scale studies lack the statistical power to provide a strong evidence base for art therapy intervention (n=4, n=4 and n=11 respectively).

Ponteri's intervention is not strictly dyadic as the infants were not consistently included in the art making with their parents, with workers to look after them while the mother's participated. However, the dependent variables they consider are relevant to the relationship. In addition to measuring self-esteem using the Maternal Self-Report Inventory–Short Form (MSI-SF), Ponteri (2001) uses an observational scale to qualify the relationship (although this is not reported in sufficient detail to be replicable), and a drawings scale applied to a mother and child drawing. The use of a drawing based assessment may be reflective of differences between art therapy practice in North America as opposed to the UK (p 118, Gilroy, 2006) where it is uncommon for an image to be used diagnostically out of context from its production, rather than for discussion with a client. The use of an observational interaction scale is particularly relevant, as it is the first research in this area to directly measure change in the mother's behaviour.

Armstrong and Howatson (2015) relied on mothers' reports of the efficacy of the treatment as the main measure of quantitative change following a dyadic parent-infant art therapy group. They found significant improvement across a 12 week intervention, in particular how well the mothers felt able to read their infant's cues and understand their infant's feelings. However, the evaluations, whilst positive, were limited by their subjectivity, relying on each parent's own feelings about the relationship. These may lack in insight (with for example mothers suffering post-natal depression rating the relationship lower initially than mothers referred due to the concerns of social workers) and are limited in that they do not capture behavioural change. Arroyo and Fowler (2013) also reported on a dyadic art

therapy group intervention. They used self-report measures of self-esteem and relationship with the child but included a validated standardised measure with the Edinburgh Post-Natal Depression Scale, thereby minimising subjective bias. They found improvements in both self-esteem and the relationship and a decrease in post-natal depression following the groups. However, such reports still focus on the mother's wellbeing and do not directly reflect changes occurring for the infant although these were richly described in the narrative description of the group process. Reflecting on the evidence base for parent-infant art psychotherapy, Arroyo and Fowler (2013) identified the need for larger scale research, perhaps randomly controlled, which includes observational measures.

The challenge is to evaluate therapy without the process of evaluation impacting on the therapeutic experience. However, in a world of evidence-based practice all creative therapies are having to think about how they articulate their discipline. For example, it has been extremely hard to meet the standards of evidence required for inclusion into meta-data analysis such as Cochrane reports or to be included in NICE guidance which may result in art psychotherapy being under-provided. Art psychotherapists do not want to lose what is special about the discipline in terms of our visual, narrative and person-centred approach to thinking about change and well-being in order to conform to medical standards. However, the concrete contribution of a well-controlled trial evaluating the efficacy and mechanism by which art psychotherapy repairs attachment would be invaluable.

The current study

To lay the foundation for larger scale quantitative evaluation of art therapy, it is first important to develop a shared dialogue between therapeutic and scientific disciplines, by which efficacy could be measured. In order to facilitate this, our project developed as a collaboration between an art psychotherapist and an experimental psychologist

(https://sites.dundee.ac.uk/artatthestart/). Our aim was to integrate quantitative research methods into parent-infant art therapy practice, to provide a strong evidence base but without being reductionist, still giving attention to an individual's processes within therapy and valuing the experience of both the parent and baby. Combining methods of objectively viewing change across the intervention along with the analysis of rich qualitative data would allow us to see the subtle behavioural changes brought about through the use of art making. This would help to explain potential mechanisms for change in the therapeutic intervention, which could subsequently be measured in a controlled trial.

Our aim was to supplement standardised pre and post intervention self-reports of maternal wellbeing (using the Warwick-Edinburgh Mental Well-being Scale, WEMWBS, Tennant et al 2007) and parent-infant attachment (using the Mother Object Relations Scale, MORS-SF, Oates and Gervai, 2005) with direct observations of the relationship at the beginning and end of the therapy process. Given it is clear that infants' development is impacted by suboptimal attachment (Belsky, 2001), it is crucial that this group is treated as an equal 'client' in the dyadic relationship. Since the infant does not have a voice, one way to achieve this is through close observation of the relationship. Standard measures of analysing interactions between parents and infants, such as The Parent–Child Early Relational Assessment (Clark, 1985), were considered for this pilot however parents who were already struggling and under pressure may not engage with additional observation that could feel intrusive or critical. The literature shows that a benefit of art psychotherapy groups is that they act as a hook for parents who may otherwise be difficult to engage by giving them a focus that feels playful and non-judgemental, so observations from video footage of the art therapy session themselves would minimise any negative impact of the observation. The pilot team undertook PIRAT (Parent Infant Relational Assessment Tool, Broughton & Hommel, 2014) training as a potential method, suited as it is to application within community settings.

However PIRAT relied on the coder using their professional judgement to classify the quality of interactions they were seeing where ideally our pilot was looking for a measure based on the volume of specific behaviours being seen to get a high level of concrete detail and as close to an objective measure as possible. Other comparable measures like the CARE-index (Crittenden, 1979–2004) presented similar difficulties for us. In particular, most existing tools were for screening, seeking to make an assessment of parenting capacity, potentially alienating the parents we are seeking to help, whereas we were seeking to measure increases in certain behaviours without attempting to form a judgement of capacity.

Our aim was therefore to develop a simple observational coding method which might capture positive change in the attachment relationship. To achieve this, we develop and describe an observation scale designed to build on key themes identified previous art therapy literature (Arroyo & Fowler, 2013; Armstrong & Howatson, 2015; Hall, 2008; Hosea, 2006; 2017; Proulx 2003 Ponteri, 2001). Specifically, we measure a number of markers of synchronous communication - Touch, Proximity, Goals, Emotional Presentation, Connections, Language, Empathy and Boundaries – in their positive, flat and negative variations. We hypothesised that we would observe more time overall being spent in behaviour that could be considered as positive in building secure attachments between the first session and the last session (T1 and T2). Likewise, we expected the overall time spent in negative behaviours to decrease. This would be indicative of an objectively observable improvement in the parent-infant relationship. Alongside standardised self-report measures of change in attachment and mothers' wellbeing, we hoped to triangulate a strong pilot case for the efficacy of parent-infant art psychotherapy groups.

Methodology

Participants

This research was undertaken with ethics consent from the Dundee University ethics committee and meeting the standards of practice as set out by the British Association of Art Therapists in their code of ethics ({ HYPERLINK "https://www.baat.org/About-BAAT/BAAT-Council/Code-of-ethics" }). 10 mother infant dyads took part, mothers' ages (mean = 31) ranged from 20 to 42, and infants ages (mean = 11 months) ranged from 1 month to 28 months. There were 3 girls and 7 boys.

The groups

The research methodology for this pilot centred on parent-infant art psychotherapy groups, built through professional referrals of parents/carers and infants identified as 'at-risk' for attachment difficulties. Referral criteria were that it was the primary carer of the infant (who could have been a mother, father, or carer) and that there were some concerns about the relationship, whether this was due to post-natal depression, other mental health difficulties, concerns about parenting capacity and responsiveness or external factors impacting on the relationship such as bereavement. Two group interventions ran over a twelve-week period for each group. Spaces were offered to 8 dyads in each group with ten mothers and their infants ultimately taking part in the study. It was made clear that participation in the study was not necessary in order for them to participate in the group. Two additional mothers took part in the groups but chose not to participate in the research and a further two mothers began the groups but then did not complete them due to house moves and so have not been included due to incomplete data. The art therapist visited all the mothers referred before the group began to explain the process, gain informed consent and undertake initial assessment measures.

Groups were run along the principles described in detail by Armstrong and Howatson (2015) where they identified key themes to their therapeutic work with the dyads: Containment,

where the therapists helps to create safe boundaries for the dyads and encourages the parents to take on this capacity, Attunement, where the therapists help parents to be responsive to infants' communications and engage in a shared experience, and Mentalising, where the therapists help parents to cognitively think about how their infants are feeling. Each session lasts an hour and a half and follows a similar structure, beginning with dyads arriving, settling infants in, and getting cups of tea. The group then come together in a circle in the middle, initially to do introductions and in later sessions to catch up on how people were, before the art psychotherapist reflects on the week before and on any plans that had been made and introduces all the materials that were available that day. Basic baby safe materials, such as edible paints, sponges, chalks and paper, are available every week with the art psychotherapist able to add additional materials or activities in response to ideas from the parents or after considering the observations of what may suit an infant's temperament. These could include sensory materials such as gloop or bubbles, or additional art materials like playdough and collage. The art making is left open with mothers encouraged to follow their infant's lead. The space should feel safe and allow them to be playful together with the support of the therapist and co-facilitator.

The group protocol is that they must be run by an HCPC registered art psychotherapist with a therapeutically trained co-facilitator. It is necessary to have two workers, enabling one to remain focused on the group process if the other had to focus on an individual dyad's needs. The therapists model a way of being with the infants that is playful, with safe boundaries and show a belief that the infants have meaningful and shareable communications. The dyads can come to their own end-point with the art materials and gradually move towards bathing the infants and socialising and the art psychotherapist offered some reflection on the session. The work is looked after, during and between groups, by the therapists, modelling that it was valued, by taking it to dry safely out of reach and storing it to be returned the next week.

[Fig 1]

Standardised statistical measures

We collected pre and post intervention data for maternal mental health as measured by the Warwick-Edinburgh Mental Well-being Scale (Tennent et al, 2007) which uses a 14 item questionnaire scaled in 5 response categories. Statements cover the functional and emotional aspects of well-being and are all framed positively, for example, "I've been feeling useful" or "I've had energy to spare". We collected pre and post intervention data for the mothers' perception of the mother-infant relationship as measured through the Mother Object Relations Scale (Oates & Gervai, 2005) which again has 14 statements for parents to scale in 5 categories. For example "My baby likes me" or "my baby dominates me". We chose the short form of MORS to facilitate an easier delivery of the test. The statements in MORS-SF are framed as 7 negative and 7 positives which are then adjusted to get the final score. Scores for both tests can range from 14 – 70 with higher scores being more positive. These measures have been validated for use with adults and parents of infants respectively, and have high test-retest reliability (Oates & Gervai, 2005, Tennent et al, 2007).

Observational measures

Video footage was collected from the first and last of the sessions to analyse post hoc with a ten minute block saved for each parent at each time point. Sessions lasted approximately 1.5 hours in total, and the particular camera we were using automatically saved in ten minute sections. We used a randomly selected ten minute clip from the middle part of the art therapy session (30 minutes), so everyone was settled in, welcomes were finished and the materials were introduced, to allow as much opportunity for the dyads to be interacting freely as possible.

We developed a series of categories which captured key interactive behaviours that would be reflective of attachment quality (Bigelow et al, 2010) and how they would be observed in their negative, neutral and positive variations, in order to measure their frequency in the sampled ten minutes. The target behaviours focused on the mother, but the observations were of the interactions of the dyad. From a large number of considered measurable behaviours we came to 8 measures to apply through an iterative process of trialling them and eliminating those that seemed to overlap. The table below lays out the 8 observations with descriptors of each in its positive, absent/flat and negative variation (Table 1).

Coding system for observable behaviours		
	Touch	
Pleasurable	Neutral/no touch	Unpleasant/Inappropriate
Soothing, cuddling, comfortable, Comforting, enjoyable	no physical touch or passive	rough, not welcomed, inhibiting, leaving without contact when needed
	Proximity	
Seeks	Flat	Rejecting/intrusive
Moving closer to other	no movement/passive	approaches in threatening manner, actively moves further away
	Goals	
Joint/supported	Solitary	Intrusive/Inhibiting
shared goal with other or others goal recognised and supported	pursuing goal in isolation	own goal overrides others or prevents other from pursuing goal
	Emotional presentation	
Positive	Flat	Negative
Happy, excited, interested	flat presentation, little affect	angry, fearful, disgusted
	Connection	
Seeks	Absent	Rejecting/intrusive
Speaks to, listens, look towards each other, playful, joint attention	not focused on other	looks away or actively moves further away, speaks over, forces eye contact

Language		
Positive	Absent	Negative
verbal affection/praise, warm, validating	praise missing where it would have been appropriate	critical /mocking language, hostile, abrupt, verbally abusive
Empathy		
Attuned response	Unattuned	Unresponsive/rejecting
Recognises and attempts to regulate others emotional need if required	doesn't recognise there is a need or misinterprets it	rejects others emotional need, does the opposite or teases
Boundaries		
Appropriate	Not offered	Inappropriate
Recognises social or safety problem and attempts to regulate behaviour	doesn't recognise problem/no boundaries put in place	dangerous, creates/escalates problem, boundary given as punitive or punishing

Table 1. Observational measures for coding in their positive, absent/flat and negative variations

Through the use of Behavioural Observation Research Interactive Software (BORIS; Friard & Gamba, 2016) we developed a tool for analysis that would let a researcher watch each video clip by time frames, coding the duration of time spent in each of the eight behaviours (positive, negative or flat/absent) in order to build up a picture of the interaction across the ten minutes. Aware that this might need further refinement we wanted to use this pilot as a 'test of concept' for our system of time coded measures. To avoid the bias inherent in being aware of the hypotheses we recruited an independent coder (the second author), who was blind to what time point the clips came from, to implement the coding system. Overall scores were created by adding together the duration of time in seconds spent in each behaviour category for the two time periods, T1 and T2.

Results

Overall

Quantitative results were analysed using repeated measures analyses of variance in SPSS software, effect sizes are reported as partial eta squared (ηp^2) and interpreted according to Cohen's (1988) guidelines (small =.01, medium =.06, large =.14).

There was an overall improvement in both mothers' mental health and wellbeing (mean at T1 = 42.2 (standard error 2.9); T2=53.1 (1.8)) and mothers' perceptions of the mother-infant relationship between times 1 (mean = 52.0 (standard error 2.0)) and 2 (mean = 55.4 (1.9)). These results are displayed in Figure 2. A repeated measures ANOVA with pre- and post-scores indicated that the improvement in maternal mental wellbeing measured by the WEMWBS was large and significant ($F(1,9)=40.06$, $p<.001$, $\eta p^2 =.82$), although also large, the improvement in maternal perception of the relationship measured by the MORS-SF fell short of significance ($F(1,9)=4.40$, $p=.065$, $\eta p^2 =.33$).

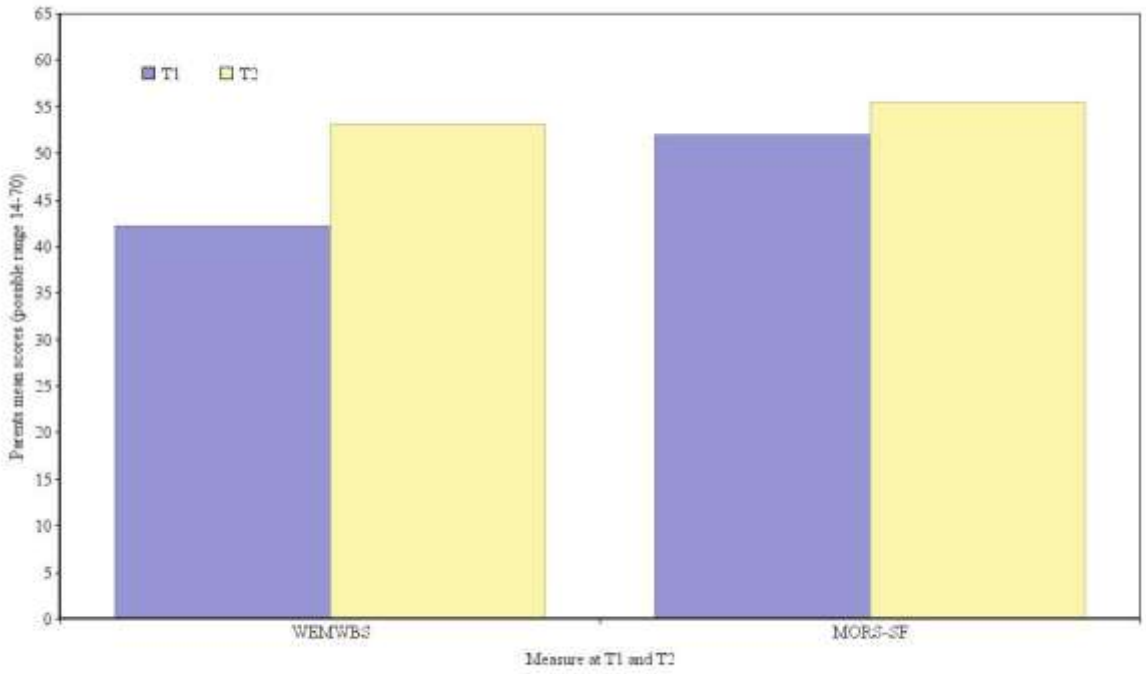

Figure 2: Mean results for WEMWBS and MORS-SF at T1 and T2

The results from the video analysis using our coding system showed that the tool was both teachable and workable. The results are shown in Figure 3. Across times one to two, there was an overall increase in positive attachment behaviours, and a fall in absent/flat and negative attachment. The means for positive attachment behaviours increased from 161.75s

(standard error 82.03) at T1, to 515.73s (71.44) at T2. Repeated measures analysis indicated that the increase in duration of time spent in positive attachment behaviours across T1 to T2 was large and significant (F (1, 9) = 10.00, p =.012, ηp^2 = .53). The decrease in the duration of time spent in negative attachment behaviours did not reach significance (F (1, 9) = .27, p =.62, ηp^2 = .03), and the relatively low variation in this variable (overt negativity was close to floor even at baseline) would have decreased power to observe significant change. By contrast, many of the parents showed extended periods of flat/absent attachment behaviours (as might be expected in this grouping), and the decrease in absent/flat attachment behaviours approached significance (F (1, 9) = 4.92, p =.05, ηp^2 = .33).

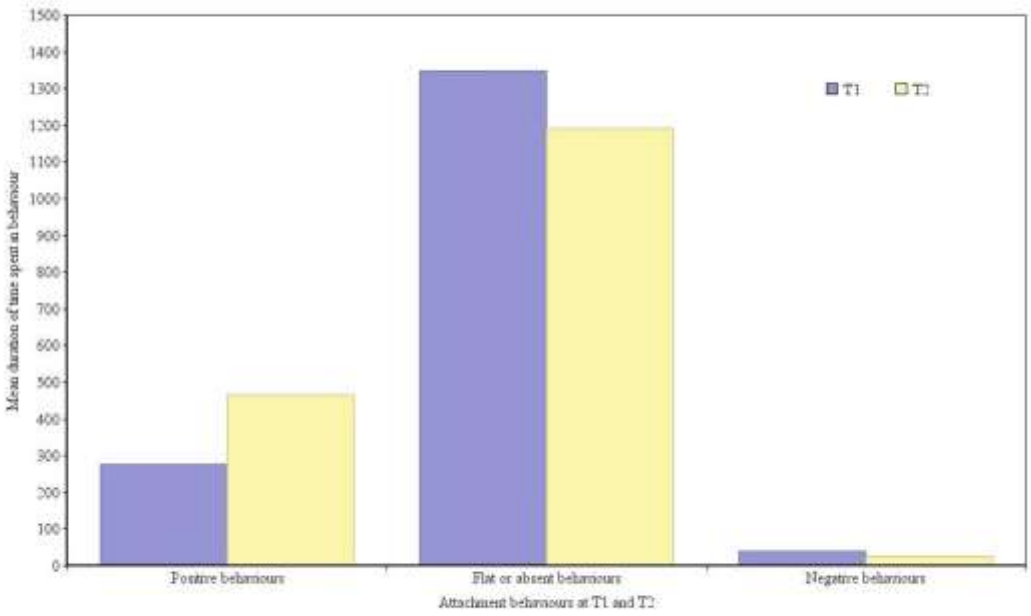

Figure 3: Mean duration of observed behaviours at T1 and T2

Individual

When broken down to show the results for each individual dyad the picture is slightly more complex. We see that 8 of the 10 dyads show an increase in their results for duration of

positive attachment behaviours between T1 and T2 (fig. 4). 9 of the 10 parents showed a decrease in the duration of flat or absent attachment behaviours. 5 of the 10 parents showed a decrease in negative behaviours, while 2 remained at zero. In the scores for MORS-SF (fig. 5) one parent recorded a small decrease and one other parent recorded no change while the remaining 8 parents all recorded small improvements. In the individual breakdown of scores for WEMWBS (fig. 5) all 10 parents recorded an improvement.

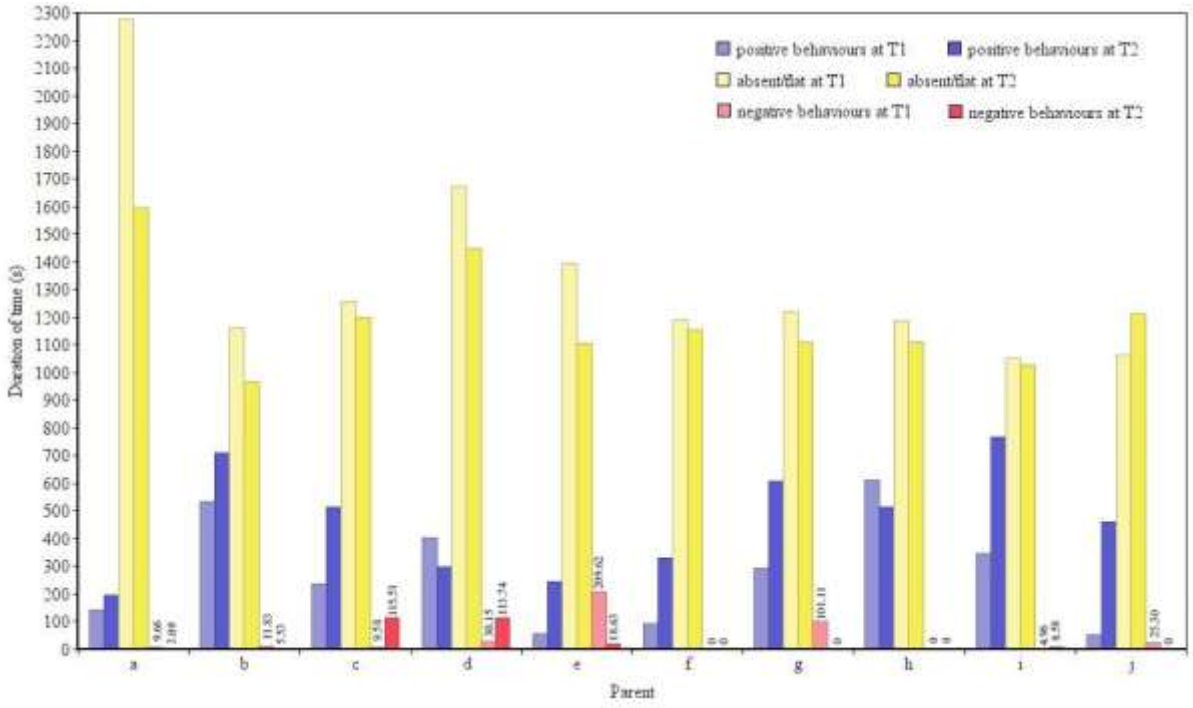

Figure 4: Results of observed attachment behaviours per parent

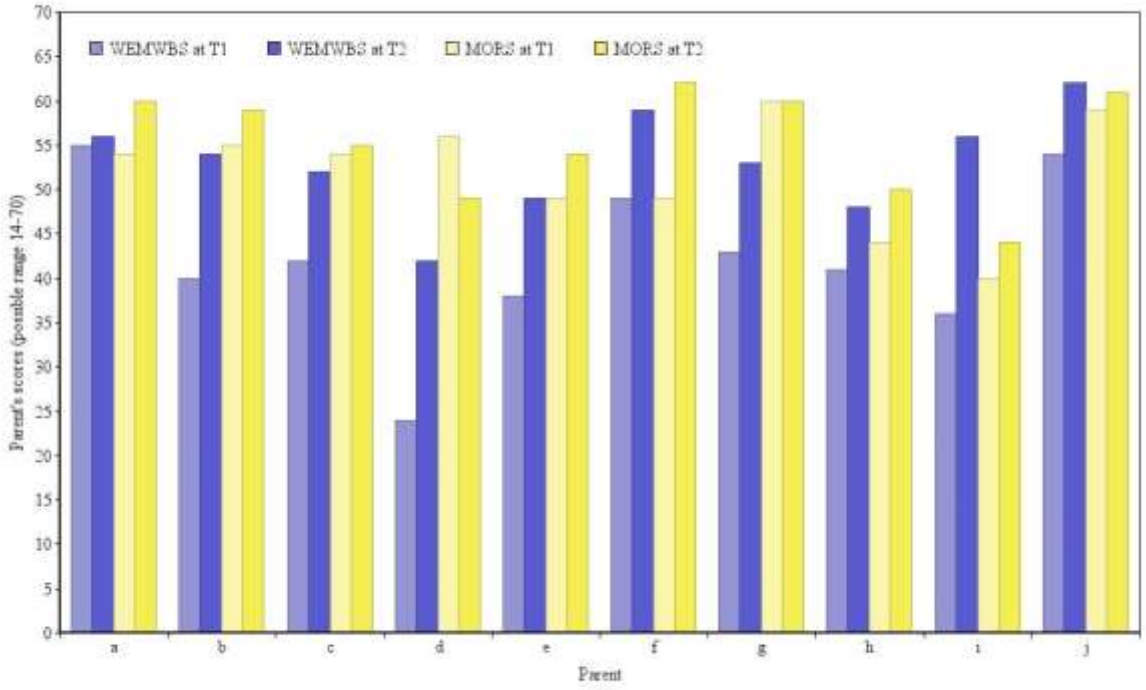

Figure 5: Results of WEMWBS and MORS-SF per parent

Discussion and Recommendations

In common with the results from previous studies (Ponteri, 2001; Arroyo & Fowler, 2013), this pilot found an overall improvement in maternal mental health and well-being, in this case as measured by the WEMWBS questionnaire. This reflects what the art therapist observed during the group process as mothers seemed to increase in their confidence, make friendships with others in the group and seem more comfortable in their parenting role. It also reflects comments from the mothers about how they were finding it more fun to be a mum and how they had more people to talk to than they used to. They described new activities that they were engaging in and creative games they had been playing with their babies at home.

The results from the MORS-SF questionnaire also showed some improvement in how the mothers felt about their relationship to their infant. This result fits with previous observations

of improvement in the perception of attachment (Ponteri, 2001; Arroyo & Fowler, 2013; Armstrong & Howatson, 2015). However change in the MORS-SF was not to a level required for significance. This test was also more problematic for the mothers themselves when they were filling it out. Several verbalised that they did not like the questions in particular those that were very negative (*my baby irritates me*) or that the questions were "stupid", usually when the question implied more agency to the baby than the mother believed they had (*my baby dominates me*).There were several comments of "of course, they are a baby" to questions such as "my baby wants too much attention". It seemed much easier for the mothers to admit to negative feelings as applied to themselves in the WEMWBS questionnaire than it was for them to express negative thoughts about their babies. Although the questionnaires might have been filled in anonymously, and linked by pseudonym, our use of video observations ultimately precluded anonymity, and this may have impacted mothers' responses.

Results of piloting using an observational tool based on duration of time spent in specific attachment behaviours across a timeframe gave a positive result with an overall increase in the time spent engaged in positive attachment behaviours from the beginning to the end of the intervention which reached statistical significance. We also recorded small decreases in attachment behaviours that were flat or absent and a decrease in attachment behaviours that were coded as negative such as harsh physical contact or rejections. This is the first quantitative evidence for a dyadic approach to parent-infant art psychotherapy that has used an observational measurement of change; although Ponteri (2001) report quantitative behavioural change, their therapy was not dyadic. This pilot was limited by its small scale of 10 participants which may be why the results for decreases in flat/absent and negative behaviours did not reach statistical significance. It would have been interesting to break down the measurements of attachment behaviours into the individual behaviours to look for

patterns in that data. However there is not a sufficient power for this to be meaningful given the small number of participants and limited period of observation. In future we would give consideration to dividing the behaviours into different aspects of attachment behaviours, such as those which relate to the parents physical regulation - proximity, touch etc - and those which are about the psychological availability - connection, empathy etc. This was not possible to do within the pilot as the power of the results was too small to be broken down further.

The results are promising when looked at across the individual dyads. For the majority of parents there were clear improvements in positive attachment. Around half of the sample also showed decreases in negative and flat/absent attachment behaviours. For example, parent *e* recorded an increase of nearly 200 seconds in positive behaviours and a decrease of nearly 200 seconds for both negative and flat/absent behaviours. From the experience in the group with that mother, the therapists felt in early sessions that she was very poorly attuned, offering only minimal positive responses with little physical contact and sometimes seemed to reject the infant's proximity seeking behaviours, moving further away. Through discussion within the sessions they learned that she had suffered from difficulties in her pregnancy and lost a twin, as well as still holding worries about the health of her surviving infant. They wondered if her rejecting behaviours were about self-protection with her continued anxiety for his health. As she seemed to gain confidence over the course of the group and see how capable her child was and how much he enjoyed the activities she became more responsive to him and seemed to enjoy being with him more. This is also reflected in improving scores for both WEMWBS and MORS-SF.

For some parents, however, the results are more complex. Although overtly negative behaviours were recorded as small in duration for all parents, there was a surprising increase in negative behaviours for three of the parents. However, for two of these parents the small

increase in negative behaviours was balanced by large increases in the positive behaviours, indicating overall improvement. Only one relationship appeared to be negatively impacted by the group; parent d showed an increase in negative behaviours as well as a decrease in positive behaviours. This parent also recorded a decrease in her score for MORS-SF between T1 and T2. However, paradoxically, her WEMWBS score showed one of the larger increases. When thought about in the context of the therapists' understanding from the group there may be an explanation. This parent was very isolated in the community as she had previously been a heroine user and had no social group around her. She had really appreciated the relationship to the other mothers that the group had offered and had been visibly upset in the last session as she was anxious about ending and whether she would still be included in ongoing socialising. Perhaps this anxiety affected her behaviour in the final session as they had generally observed very positive behaviours between her and her baby. Another factor might be her infant's age as her baby was only three months old as the start and the increasing challenge of an older infant may explain some of the decrease in the MORS scores. These examples show how the specific circumstance of the individual dyads might impact upon the measurements at the particular time of the observation. This is why greater numbers are needed to mitigate for these individual discrepancies and give a strong idea of overall trends in the data.

We would recommend following this pilot that further research needs to be done. The logical next stage is to undertake a controlled trial with a great enough power to evaluate the efficacy of art psychotherapy intervention through standardised measures of mother and infant psychological functioning, and through direct observation of the quality and frequency of positive attachment behaviour before, during, and after art psychotherapy; and in the control condition. Extensive consideration will need to be given to how such an controlled trial can be undertaken where the measurements do not negatively impact upon the therapeutic

process, whether it is possible to randomise the groups in this kind of population, and where the need to provide a control group can be balanced against the ethical dilemma of leaving vulnerable mothers and babies with no service (the standard control of 'treatment as usual' in this area of practice often meaning no services at all).

The trial of whether the coding tool for the observation could be taught to another researcher and applied to video footage of interactions proved successful. It would be possible to refine the tool which we developed for analysing video footage into a useful open-source clinical attachment tool which can be applied to objectively assess concrete improvement in parent-infant connection across a variety of therapeutic settings and which will provide extremely detailed descriptions of the interactions taking place. This could be applied to a variety of clinical and research settings. As this pilot was small in scale there was a limitation of only having taught the tool to one other researcher on top of the authors and so a future direction will also need to include checks for blind interrater reliability.

It may also be useful to see how results from using this tool compare to others such as the PIRAT and CARE index. One criticism from using a newly developed tool could be that the results are not comparable with others and are not replicable. This could be rectified by making the tool available as an open-source tool and by including another measure in addition to our own in a larger trial. Extant tools used by practitioners are limited in their availability to the research community because of the extensive training required to reach 'objectivity' on a subjective scale. Measures like the CARE index and the PIRAT are developed with the goal of allowing practitioners to form a holistic judgment on the relationship. Although drawing from a similar theoretical basis concerning the importance of positive attachment behaviours such as joint attention and maternal sensitivity, the goal of our observational measure was to identify not if the relationship could now be considered globally more 'healthy'. Rather, we sought to identify whether there a quantitative increase in

the volume of positive attachment behaviours. This is ultimately important if the specific mechanism(s) by which art therapy improves attachment is to be identified.

More could be done with the data our tool provides than we had the scope to look at in this pilot. Our analysis of the footage focused on the mother's actions as they contributed to the relationship. This gives us a picture of the behaviours the infant experiences but it does not directly capture the infant's role in the relationship. Given additional time the infants own role in the interaction could be analysed by repeating the analysis from their perspective, e.g. when the infant moves towards the mother, seeks eye contact etc. With this data, the time line of change throughout the interaction could be analysed to show how the dyads move in and out of different kinds of interaction in a great level of detail. This might show patterns in the way that they are interacting and might also allow comparison between the mothers' experience of the interaction and the babies, documenting how behaviours form a reciprocal dialogue in the intersubjective space between mother and infant (Trevarthen, 1980).

It would also be useful to look more deeply into the role for the art making itself in the process. For example, there is discussion within the literature of joint attention in art therapy (Isserow 2008) as a mechanism of change. It may be pertinent that we saw our largest increase for a single behaviour in joint goals. Although our sample size is too small for an individual measure to stand alone it is reflective of what the therapists observed. During early sessions the mothers were often either not engaging with their infant, focused more on their own interaction with the therapist or other mothers, or they were trying to direct the infants activates in an intrusive way which meant they were not interacting with a shared goal. Across the span of the intervention the art therapist and co-facilitator were encouraging the mothers to follow the lead of their children, to respond to their interests and work with the

materials along-side them.

Figure 6

Conclusion

This pilot study identified positive change following from a dyadic, group art psychotherapy intervention giving promising results for a small sample size. This is in line with those changes that had been identified by art therapists working in this field in their own clinical observations **{**ADDIN CSL_CITATION {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.1002/imhj.21504","ISSN":"1097-0355","PMID":"25728765","abstract":"Art psychotherapy involves the use of the image-making process within a therapeutic relationship to help clients explore and communicate feelings and experiences. This article explores whether art psychotherapy groups can be an effective intervention for parent-infant dyads who may be involved with social work and health teams due to concerns about their relationship, possibly due to postnatal depression or attachment difficulties. We describe a model of parent-infant art psychotherapy groups and

examine some of the key themes in this intervention alongside vignettes of case work and quantitative and qualitative evidence from the evaluations of two such groups. We believe that the Create Together group demonstrates how knowledge from research into infant mental health and attachments, together with an understanding of the creative process, can be applied in practice to offer a successful early intervention.","author":[{"dropping-particle":"","family":"Armstrong","given":"Victoria Gray","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Howatson","given":"Rosie","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"Infant mental health journal","id":"ITEM-1","issue":"2","issued":{"date-parts":[["2015","3"]]},"page":"213-22","title":"Parent-infant art psychotherapy: a creative dyadic approach to early intervention.","type":"article-journal","volume":"36"},"uris":["http://www.mendeley.com/documents/?uuid=70bcd365-d1cd-34ae-8e41-023f71150d16"]},{"id":"ITEM-2","itemData":{"DOI":"10.1080/17454830600980317","ISSN":"1745-4832","abstract":"Abstract The paper is essentially a description of a field study bringing an ethnographic and participative approach to the exploration of a small, community art therapy group in which mothers and their young children paint together. Parent–infant psychotherapy; the importance of attunement and attachment between infant and caregiver; the intersubjective world of the infant and how the art-making process can enhance this, form the framework for the research. The ideas of Stern and Trevarthen on vitality and “vitality affects” and Stern's concept of “now moments” are important to the study. Videotapes showing the interaction of six mothers and their infants as they painted together were reviewed with the participants and this in turn was recorded. These were analysed using Macleod. The findings show how painting with each other draws the mother and child together emotionally and positively affects their relationship. They also reveal the importance

of colour; the significance of containing mess and chaos; ...","author":[{"dropping-particle":"","family":"Hosea","given":"Hilary","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"International Journal of Art Therapy","id":"ITEM-2","issue":"2","issued":{"date-parts":[["2006","12"]]},"page":"69-78","publisher":"Taylor & Francis Group","title":"“The Brush's Footmarks”: Parents and infants paint together in a small community art therapy group","type":"article-journal","volume":"11"},"uris":["http://www.mendeley.com/documents/?uuid=92bb8c9b-bdfb-3fbc-beda-3cbf73e6a55b"]},{"id":"ITEM-3","itemData":{"ISBN":"1317587049","author":[{"dropping-particle":"","family":"Hosea","given":"Hilary","non-dropping-particle":"","parse-names":false,"suffix":""}],"chapter-number":"7","container-title":"Art therapy in the early years : therapeutic interventions with infants, toddlers and their families","editor":[{"dropping-particle":"","family":"Meyerowitz-Katz","given":"Julia","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Reddick","given":"Dean","non-dropping-particle":"","parse-names":false,"suffix":""}],"id":"ITEM-3","issued":{"date-parts":[["2017"]]},"page":"104-117","publisher":"Routledge","title":"Amazing Mess: Mothers get in touch with their infants through the vitality of painting together","type":"chapter"},"uris":["http://www.mendeley.com/documents/?uuid=837d7863-85ec-32d4-8408-ba4256f456cf"]},{"id":"ITEM-4","itemData":{"abstract":"\r\n\r\nThis chapter is about art therapy groups for mothers and young children. It is the personal account of a way of working which has evolved over many years. My interest, which originated in student inquiry leading to experimental workshops, has developed as part of the early years work of a mainstream Child and Adolescent Mental Health Service (CAMHS) child and family center. My most recent experience in a specialized group, targeting postnatal

depression is sponsored by SureStart, a government-funded initiative, aimed at improving public services for families with young children. In these groups, mothers and young children spend time using simple art materials, painting and playing together. The focus of this work is the mother-child relationship. I shall describe how, over the years, the groups have evolved with changing contexts. However it has been interesting to realize that the theoretical base for the effectiveness of this way of working has been confirmed through advances in the research into early child development (Stern 1985; Brazelton and Cramer 1990). Latterly this has been backed up by evidence from neurobiology (Schore 1994). (PsycINFO Database Record (c) 2016 APA, all rights reserved)\r\n \r\n \r\n \r\n \r\n \r\n \r\n \r\n \r\n \r\n\r\n \r\n \r\n \r\n \r\n \r\n \r\n \r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n \r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n\r\n \r\n \r\n","author":[{"dropping-particle":"","family":"Hall","given":"Penelope","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"Dalley (Eds.), Art therapy with children: From infancy to adolescence (pp. 20-35). New York, NY, US: Routledge/Taylor & Francis Group","editor":[{"dropping-particle":"","family":"Case C and Dalley T","given":"","non-dropping-particle":"","parse-names":false,"suffix":""}],"id":"ITEM-4","issued":{"date-parts":[["2008"]]},"page":"20-35","title":"Painting together: An art therapy approach to mother-infant relationships","type":"chapter"},"uris":["http://www.mendeley.com/documents/?uuid=cddbec4e-4622-3b9e-9107-2ca03597f587"]},{"id":"ITEM-5","itemData":{"DOI":"10.1080/17454832.2013.844183","ISSN":"1745-4832","author":[{"dropping-particle":"","family":"Arroyo","given":"Carl","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Fowler","given":"Neil","non-dropping-particle":"","parse-names":false,"suffix":""}],"container-title":"International Journal of Art Therapy","id":"ITEM-5","issue":"3","issued":{"date-parts":[["2013","11"]]},"page":"98-

112","title":"Before and after: A mother and infant painting group","type":"article-journal","volume":"18"},"uris":["http://www.mendeley.com/documents/?uuid=92487525-765f-393d-b112-22e3e3a32753"]},{"id":"ITEM-6","itemData":{"abstract":"Theory based and descriptions of practice plus descriptions of interventions like a manual","author":[{"dropping-particle":"","family":"Proulx L","given":"","non-dropping-particle":"","parse-names":false,"suffix":""}],"id":"ITEM-6","issued":{"date-parts":[["2003"]]},"publisher":"Jessica Kingsley","title":"Strengthening emotional ties through parent-child dyad art therapy: interventions with infants and preschoolers","type":"book"},"uris":["http://www.mendeley.com/documents/?uuid=f7a5bd15-929d-4efb-8bc3-993e496bafea"]}],"mendeley":{"formattedCitation":"(Armstrong & Howatson, 2015; Arroyo & Fowler, 2013; Hall, 2008; Hosea, 2006, 2017; Proulx L, 2003)","plainTextFormattedCitation":"(Armstrong & Howatson, 2015; Arroyo & Fowler, 2013; Hall, 2008; Hosea, 2006, 2017; Proulx L, 2003)","previouslyFormattedCitation":"(Armstrong & Howatson, 2015; Arroyo & Fowler, 2013; Hall, 2008; Hosea, 2006, 2017; Proulx L, 2003)"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-language/schema/raw/master/csl-citation.json"}**}** such as more playful interactions, increasing responsiveness from parents, more attuned interactions and parents improved well-being and confidence. In using the observational tool in the future with an RCT trial of art psychotherapy groups we would be able to combine methods of objectively viewing change across the intervention that have the statistical power required to stand up to scientific scrutiny, along with the analysis of extremely rich qualitative data that will allow us to see the subtle behavioural changes brought about through the use of art making. The detailed breakdown of the interaction through these observations can capture those behaviour changes in the dyad which are altering the environment for the infant. This gives us a way to get

insight into changes in infants' experiences through the therapy process and it may help to explain potential mechanisms for change in the therapeutic intervention. In future research, combinations of our behavioural measures from coding could be used as representative of different elements of therapeutic change that we would look for in parent-infant therapy, connecting our results to the themes identified in the literature and helping us to connect our hard data with the experiential evidence that can be provided by the insights of the therapists through case studies. Pinpointing the mechanisms of change inherent to art psychotherapy would allow for rationalisation of the intervention for at-risk parents and infants and contribute to the understanding of the discipline as a whole. This project provides a positive model for interdisciplinary working between art psychotherapy and psychological research that we intend to continue to build upon in the future.

References

All-Party Parliamentary Group on Arts, Health and Wellbeing (2017) Creative Health: The Arts for Health and Wellbeing, Second Edition. http://www.artshealthandwellbeing.org.uk/appg-inquiry/

Armstrong, V. G., & Howatson, R. (2015) Parent-Infant Art Psychotherapy: A creative dyadic approach to early intervention. *Infant Mental Health Journal*. Vol. 36(2), 1–9.

Arroyo, C., & Fowler, M. (2013). Before and after: A mother and infant painting group. *International Journal of Art Therapy*, 18(3), 98–112.

Baradon, T. (Ed.). (2005). *The practice of psychoanalytic parent–infant psychotherapy: Claiming the baby*. Hove, England: Routledge.

Belsky, J. (2001). Developmental risks (still) associated with early child care. *Journal of Child Psychology and Psychiatry*, 42(7), 845–859.

Bigelow, A. E., MacLean, K., Proctor, J., Myatt, T., Gillis, R., & Power, M. 2010. Maternal sensitivity throughout infancy: Continuity and relation to attachment security. *Infant Behaviour and Development*, 33, 50-60.

Bowlby, J. (1997). *Attachment and loss, I*: Attachment. London: Pimlico.

Broughton, C & Hommel, S. (2014). The Parent-Infant Relational Assessment Tool (PIRAT). Papre presented at WAIMH Conference, Edinburgh, June 2014.

Clark, R. (1985). *The parent-child early relational assessment*. Madison, WI: University of Wisconsin Medical School.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

Cohen, N. J., Muir, E., Lojkasek, M., Muir, R. (1999). Watch, wait, and wonder: Testing the effectiveness of a new approach to mother–infant psychotherapy, *Infant Mental Health Journal*, 20(4), 429–451.

Crittenden, P. 1979–2004. *Care index: Coding manual*. Miami, FL: Family Relations Institute.

Dissanayake, E. (2000). *Art and Intimacy: How the Arts Began*. Seattle, London: University of Washington Press.

Friard, O. & Gamba, M. (2016) BORIS: a free, versatile open-source event-logging software for video/audio coding and live observations. *Methods in Ecology and Evolution,* 7(11).

Gerber, N., Bryl, K., Potvin, N., & Blank, C. A. (2018). Arts-Based Research Approaches to Studying Mechanisms of Change in the Creative Arts Therapies. *Frontiers in psychology*, *9*, 2076.

Gilroy, A (2006) *Art therapy, research and evidence based practice*. London: Sage

Glaser, D. (2000). Child abuse and neglect and the brain—A review. *Journal of Child Psychology and Psychiatry*, 41(1), 97–116.

Hall, P. (2008). Painting together: An art therapy approach to mother infant relationships. In C. Case & T. Dalley (Eds.), *Art therapy with children: From infancy to adolescence* (pp. 20–35). London: Taylor & Francis.

Hosea, H. (2006). "The Brush's Footmarks": Parents and infants paint together in a small community art therapy group. *International Journal of Art Therapy*, 11(2), 69–78.

Hosea, H. (2017). Amazing mess: Mothers get in touch with their infants through the vitality of painting together. In *Art Therapy in the Early Years: Therapeutic Interventions With Infants, Toddlers and Their Families* (pp. 104–117). London: Taylor and Francis.

Isserow, J. (2008). Looking together: Joint attention in art therapy. *International Journal of Art Therapy*, 13(1), 34–42.

Martins, C., & Gaffan, E. A. 2000. Effects of early maternal depression on patterns of infant-mother attachment: a meta-analytic investigation. *Journal of Child Psychology and Psychiatry*, 41, 737-746.

Meins, E., Bureau, J. F., & Fernyhough, C. (2018). Mother–Child Attachment From Infancy to the Preschool Years: Predicting Security and Stability. *Child Development*, *89*(3), 1022–1038.

Meins, E., & Fernyhough, C. (2015). *Mind-mindedness coding manual, Version 2.2*. Unpublished manuscript. University of York, York, UK.

Oates JM, Gervai J, Danis I, Tsaroucha A (2005) *Validation studies of the Mothers Object Relational Scales Short Form (MORS-SF).* Poster presented at the XIIth European Conference on Developmental Psychology. La Laguna, Tenerife, Spain: 2005.

Ponteri, A. K. (2001). The effect of group art therapy on depressed mothers and their children. *Art Therapy: Journal of the American Art Therapy Association*, 18, 148-157.

Proulx, L. (2003). *Strengthening emotional ties through parent–child-dyad art therapy*. London: Jessica Kingsley.

Schore, A.N. (2001). Effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22, 7–66.

Stern, D.N. (2000). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. New York: Basic Books.

Svanberg, P.O. (1998). Attachment, resilience and prevention. *Journal of Mental Health*, 7, 543-578.

Taylor Buck, E., Dent-Brown, K., & Parry, G. (2013). Exploring a dyadic approach to art psychotherapy with children and young people: A survey of British art psychotherapists. *International Journal of Art Therapy: Inscape, 18*(1), 20–28.

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J. & Stewart-Brown, S. (2007) The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes*. 5:63

Trevarthan, C. 1980. *The Foundations of Intersubjectivity: The Development of Interpersonal and Cooperative Understanding in Infants*. In Olson, D. R. (Ed) The Social Foundations of Language and Thoughts. New York: Norton.

Tronick, E. (2007). *The neurobehavioral and social-emotional development of infants and children*. New York: Norton. Infant Mental

Van IJzendoorn, M., Juffer, F., & Duyvesteyn, M. G. (1995). Breaking the intergenerational cycle of insecure attachment: a review of the effects of attachment-based interventions on maternal sensitivity and infant security. *Journal of Child Psychology and Psychiatry*, 36, 225-248.

Van IJzendoorn, M. (1995). Adult attachment representations, parental responsiveness, and infant attachment: a meta-analysis on the predictive validity of the Adult Attachment Interview. *Psychological Bulletin*, 117, 387.

Weich, S., Patterson, J., Shaw, R., & Stewart-Brown, S. (2009). Family relationships in childhood and common psychiatric disorders in later life: systematic review of prospective studies. *The British Journal of Psychiatry*, 194, 392-398.

Tables

Figures