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An interpretative phenomenological analysis to explore how four pre-school children experience an educational activity based on eco-therapy principles.

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ABSTRACT

Eco-therapy is a form of psychotherapy which incorporates natural materials and environments into clinical practice to improve mental wellbeing and symptoms of psychological distress in individuals. Previous research into the experiences of eco-therapy has primarily focused on adults. This study builds on existing eco-therapy literature by exploring the individual experiences of four pre-school children, who took part in an activity based on eco-therapy principle. Semi-structured interviews were utilised in conjunction with multiple data collection tools, such as a non-verbal stimulus and visual narratives, in order to obtain rich, detailed accounts of the children's experiences. Through Interpretative Phenomenological Analysis (IPA), three themes emerged: Place Attachment, Using Metaphor and Sensory Contact. The children exhibited a range of positive emotions which were associated to being in the garden during the activity. Interaction with nature facilitated the use of metaphors which encouraged the children to attach meaning to their experience. Various forms of pleasant sensory experiences were described by all participants. An unexpected finding was reported: there was an aspect of the direct physical contact with nature which two participants did not enjoy. This research provides a basis for further exploration into aspects of eco-therapy which some clients may not find therapeutic.

KEY WORDS:	ECO-THERAPY	INTERPERATIVE PHENOMENOLOGICAL ANALYSIS	PLACE ATTACHMENT	METAPHOR	SENSORY CONTACT
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Introduction

Traditional talking therapies have been found to be unsuccessful for children (Capuzzi, 2016) because children were unable to verbally communicate their anxieties and found little interest in discussing their experiences (Landreth, 2012). This led to the development of play therapy, by a woman named Anna Freud in 1946, to facilitate positive emotions and attachments in children (Landreth, 2012). Since 1946, major developments in play therapy include: development of child-centred play therapy; using play therapy in schools; establishment of the Association of Play therapy and an increase in play therapy training at universities (Landreth, 2012). Play therapy is an emerging form of psychotherapy which is used for children, between three and sixteen years of age, who suffer with a range of emotional, behavioural and social difficulties, resulting from trauma, abuse, conflicted relationships or insecure attachments (Rye, 2008). Play therapy provides children with a safe environment where they can act out their experiences and feelings through play, which is the natural self-healing process and universal language of communication for children (Landreth, 2012).

The effectiveness of play therapy has been researched greatly by psychologists, with findings strongly suggesting play therapy is an extremely useful intervention for children with behavioural, social or emotional difficulties (Mosavi and Koolae, 2016; Rafeti et al., 2016; Kockaya and Siyez, 2017). Jarareh et al. (2016) identified that children can use play therapy to externalise their emotions, explore their feelings and recreate past events to help gain understanding of experiences (Jarareh et al., 2016), strongly supporting Landreth's theory (2012). Children under eight show greater benefits of play therapy compared with children eight years and above (Lin and Bratton, 2015), which could be because younger children rely mostly on play to express their feelings (Landreth, 2012). Contrastingly, Scott et al. (2003) investigated the effects of play therapy on sexually abused children's mood, self-concept and social competence and found that in 30% of the participants, there was no significant change. However, as the authors pointed out, the participants only took part in a twelve week play therapy intervention, which is arguably not long enough for change in symptoms to appear, due to the severity of the trauma. If longer interventions were utilised, change may have been detected in all participants.

Larson and Meyer (2007) explain that gardens are a safe environment where young children can interact with nature and understand their connection to living things. The safe environment is needed for therapists to help children explore their emotions and experiences (Trice-Black et al., 2013). Some play therapists may use eco-therapy interventions to promote the emotional and mental wellbeing of children and aid psychological healing (Robinson and Zajicek, 2005). Eco-therapy tends to occur outside the therapy room, in a green environment (Feltham et al., 2017) and utilises natural materials to establish a human-nature relationship and improve a variety of psychological symptoms (Buzell and Chalquist, 2009). Examples of type of eco-therapy interventions include: horticulture therapy (gardening); green exercise therapy, which involves walking, running and cycling in green spaces; formal eco-therapy, where therapists use a talking treatment, such as Cognitive Behavioural Therapy, whilst in a natural environment (Mind, 2015).

In recent years, eco-therapies have received support from high profile charities. In 2007, Mind received a 7.5 million fund to support their new green agenda and funded 130 eco-therapy projects across the UK, which helped 12,071 people improve their mental health difficulties (Bragg et al, 2013). A thorough meta-analysis concluded there are significant positive, psychological benefits for individuals engaging in eco-therapy (Soga et al., 2017). For example, horticultural therapies have been effective in reducing symptoms of depression, stress and anxiety (Kam and Siu, 2010). Clatworthy (2013) claims that sensory contact with natural environments enables individuals experiencing psychological distress to develop connection and communicate on a safer level. Corazon et al. (2018) reported that an eco-therapy intervention had positive long-term effects on individuals with stress-related illnesses, compared with a randomized control trial, enhancing the reliability of these findings. Furthermore, a phenomenological study conducted by Kamitsis and Simmonds (2017) explored adult's experiences of eco-therapy and found that participants felt their psychological health was enhanced by the sensory contact they had with the natural world: in particular the visual aspect of observing beautiful plants. One participant explained that connecting with nature encouraged her to develop deeper meaning to her life. This research explains the positive phenomenon adults have during eco-therapy, implying that increased use of eco-therapy in society would be beneficial for adults.

Other experiences of eco-therapy in adults reported are: feelings of achievement (Gonzalez, 2009) and increase in positive emotions, such as cheerfulness and calmness (Abraham et al, 2010). In a detailed, phenomenological study by Poulsen et al. (2016), 8 veterans took part in a ten-week eco-therapy course to help relieve symptoms of post-traumatic stress disorder. The researchers found that participants emphasized the enjoyment of sensory experiences they engaged in whilst in a natural environment: scent of plants and soil; impact of weather conditions; looking at wildlife and sounds of nature. Furthermore, the veteran's explained that the eco-therapy activities were calming, meaningful and positively impacted mood (Poulson et al., 2016). This piece of research provides great, insight into the perceptions of the veterans about eco-therapy, due to its phenomenological approach, giving deeper understanding to the importance of the human-nature relationship. Although these studies offer insight to adult's experiences of eco-therapy, children's experiences of using eco-therapy techniques in play therapy are not explored.

Greenleaf et al. (2013) found that conducting therapy sessions in a park, with a child who has been sexually abused, encouraged the client to talk more freely of her emotions and interact with the environment. This enhanced her enjoyment of therapy and improved the client's clinical outcomes (Greenleaf et al., 2013). It is reasonable to consider that if Scott et al (2003), mentioned earlier, integrated eco-therapy techniques with play therapy interventions, more positive change may have been detected in the participants. For instance, Swank et al (2015) combined play therapy and eco-therapy interventions, which effectively improved on-task behaviour in the classroom. Although this study provides useful information for the educational sector, this research fails to give insight into the children's individual experiences of the eco-therapeutic interventions. To explore this, a phenomenological approach would be needed. The literature discussed concludes that play therapy and eco-therapy have positive effects for children. However, the majority of previous research explores adult's experiences of eco-therapy, with minimal phenomenological literature

focusing on children. This research aims to adopt a phenomenological approach and uncover what experiences children attach to an activity based on eco-therapy principles. For the purpose of this research, the activity has been referred to as an 'eco-therapy activity', although it is understood the activity was not an eco-therapy session.

Research Questions

The purpose of this research was to explore pre-school children's experience of an eco-therapy activity using IPA. After reviewing the literature, the main research question was constructed: How do pre-school children experience an educational activity based on eco-therapy principles? Additionally, the following sub-questions were addressed, which were constructed based on findings from previous research discussed in the background and in purpose of meeting the narrow aims of the study:

- What are their specific sensory experiences in relation to the above activity?
- What meanings do they attach to their experience?
- How does the activity impact mood?

Aims and Objectives

The main aim of this research was to explore pre-school children's experiences of an activity based on eco-therapy principles. Further aims of this research were to understand the children's specific sensory experiences of the eco-therapy activity; understand meanings which the children attach to their experience and to discover how the eco-therapy activity impacted mood. This study adopted a child-centred approach which focused on the involvement of children in research.

To achieve these aims, a literature review regarding the use and experiences eco-therapy was conducted. Details of past literature was used to plan and justify methodology for this research. This study utilized aspects of eco-therapy representative of techniques used in society which formed an educational activity for pre-school children. Data was gathered via semi-structured interviews, and discussions whilst the children drew a picture of their experience. The verbal data was recorded, transcribed and analysed using IPA.

Methodology

Design

In order to understand the children's experiences of the eco-therapy activity, this research adopted a phenomenological design. The sample consisted of four children of pre-school age and took place at the nursery which the children attend, and researcher is employed at. The children took part in an eco-therapy activity, follow by a semi-structured interview. In order to elicit additional verbal data from the children, they engaged in discussion with the researcher whilst drawing a picture of their experience, which provided a visual narrative (Macdonald, 2009). Data was analysed using IPA.

Recruitment

Participants were recruited using opportunity sampling because the children at the nursery were readily available at the time the study took place and fit the criteria of the study (Smith et al., 2012). A gate-keeper letter was given to the manager of the nursery asking if she was interested in the research taking part within the organisation (appendix 1), along with an information letter (appendix 2) and consent form (appendix 3). The researcher approached parents of six participants aged between three and four, four of which took part in the study. It was essential the children were pre-school age because this age is representative of the age of children who would use eco-therapy activities in play therapy (Rye, 2008). This was the appropriate number of participants needed for analysis, as IPA is used in research with small, homogenous samples (Smith et al, 2009). This allowed for detailed analysis to take place, so the narrow aims of the study could be addressed (Malterud et al., 2016). The children were suitably selected for this study, following a discussion with the pre-school teacher, based on: level of maturity, verbal ability, age and relationship with researcher.

Procedure

Prior to data collection, the children participated in an educational, eco-therapy activity in the garden at the nursery they attend (appendix 4). The activity for the children was based on the standards for learning for their age (Early Learning HQ, 2017) and on techniques used in eco-therapy (MIND, 2015). The children experimented with natural materials such as soil, plant seeds, flowers and leaves, and were given other materials, such as a small rakes and spades, to facilitate the interaction with nature (Swank et al, 2015). During the activity, photographs were taken of the children on the nursery tablet, solely to be used for pictorial prompts in the interview. The following materials were required for the completion of this study: tray, flowers, leaves, soil, child-friendly planting seeds, plant pots, spades, forks, the nursery tablet, paper, colouring pens, stickers and a Dictaphone.

Data collection

Semi-structured interviews were the appropriate data collection method for this study, as they are the exemplary method of data collection for researchers using IPA (Smith and Osborne, 2003). This is because they enabled the researcher to enter the participant's lifeworld and explore their thoughts and feelings about an experience, with the use of open-ended questions (Smith and Osborn, 2003). Additionally, semi-structured interviews allowed the conversation to stray from the guide when the participant was talking about their experiences (Willig, 2013). This enabled rich information to be gathered in purpose of answering the research questions. The questions used in the interviews were straightforward and clearly addressed the research questions (appendix 5) and the interview lasted approximately twenty minutes, considering the children were aged between three and a half and four and a half (Macdonald, 2009). During the semi-structured interview, the children were shown photographs of them taking part in the activity. This was a non-verbal stimulus that held the limited attention of the children, reminding them of their experience (Christensen and James, 2008). This crucial method gave the children opportunity to recollect and reflect on their experience and highlighted any part of the eco-therapy activity which he/she enjoyed or disliked

(Einarsdottir, 2007). For some of the children, there was a period of time between the activity and the interview, due to the interviews being conducted separately, so the photographs aided the children's memory recollection of the activity.

Next, the children drew pictures of themselves taking part in the eco-therapy activity, (appendix 6) which they described and discussed with the researcher. The researcher had a copy of topics which aimed to be explored during the conversation which enabled the research questions to be answered (appendix 5). This technique was used to enhance the amount of verbal data obtained via the semi-structured interviews and is referred to in literature as a visual narrative (Macdonald, 2009). Previous researchers have found this technique successful in obtaining a rich amount of descriptive information from children (Wesson and Salmon, 2001). Drawing pictures was a familiar activity for the children, which enabled them to communicate their lived experience in a symbolic way (Einarsdottir, 2007) and communicate their perspective effectively (Shaw et al., 2011). This method ensured a child-centred approach was adopted within the research. The topics explored in the interview and discussion were based on findings from Poulsen et al. (2016): thoughts of the eco-therapy activity; sensory experiences involved in the natural materials; feelings associated with using nature in play and meanings associated with nature. The verbal data gathered from the semi-structured interviews and discussions were recorded on a Dictaphone, ready for analysis.

Data Analysis

IPA is a complex form of qualitative analysis which makes sense of participant's phenomenon, and is used when analysing detailed, first-person accounts of the participant's experiences (Smith et al, 2009). This analysis method was the most fitting choice for allowing the researcher to explore the participant's unique experiences of the eco-therapy activity. This is justified by previous literature, as IPA proved an effective analysis method for determining adult experiences of eco-therapy (Kamitsis and Simmonds, 2017; Poulsen et al., 2016). Analysing the participant's data via IPA means that the researcher could construct meaning to the participants verbal accounts of the eco-therapy activity and identify patterns in their experiences (Smith et al, 2009). Additionally, the ideographic nature of IPA enabled the researcher to truly understand how the children perceived their experience (Howitt, 2010), meaning that a child-centred approach was adopted within the research, and the research questions could be answered with certainty.

The step-by-step analytical process of IPA, outlined by Smith et al. (2009), was followed. First, the verbal data was carefully listened to and transcribed according to The Jefferson System (Jefferson, 2004). The researcher became immersed in the data by reading and re-reading, whilst doing so imagining the voice of the participant. This is a vital part of IPA which ensures the participant is the focus of the analysis. The transcript was examined for meaning and notes were made, so that important themes across the transcripts could be picked out. See appendix 6 for one page of annotated transcript. Themes were expressed as either words or phrases and generally reflected the participant's words and analyst's interpretations. This process was repeated for all the transcripts, where the ideas emerging from the first analysis was bracketed, until the process had been completed for every transcript. Next, the researcher searched for connections and patterns by clustering themes. Some

themes were discarded, but between three and five main themes for each participant were stated. Each transcript was revisited in order to understand how the participant's experience influenced their lifeworld. The transcripts were analysed in depth and the most evident themes across all participants were finalised and inserted into a table (appendix 7), with evidence from the transcripts included. Evidence of the IPA process the researcher conducted is seen in appendix 8.

Quality Criteria

IPA is an intense and lengthy process which enabled rigorous exploration of participants subjective experiences to be explored (Smith et al., 2009). This complex process allowed themes to be finalised which completely reflected the participants words, providing an analysis which established trustworthiness and congruence (Smith and Osborn, 2008). IPA focuses on the individual lifeworld of each participant, which allowed for a considerably more personal and detailed approach to be taken to the research, compared with quantitative research designs (Long and Godfrey, 2004), and contributes to the transferability of findings to other situations and contexts (Andrew and Halcomb, 2009). Confirmability was achieved through the use of a member check 'like' system, where themes were discussed with the researcher's supervisor. This ensured the researcher's interpretations of the participants transcripts were a true representation of the children's experience and was not subject to research bias (Birt et al., 2016).

Ethical Considerations

The researcher had strong bonds with the children, who she engaged with on a weekly basis, and the children were not taken away from nursery to take part in the research. Therefore, a positive verbal environment was created, which encourages children to express themselves freely and comfortably (Kostelnik et al., 2011). The researcher followed BPS ethical guidelines for research with children (BPS, 2009:31). One of the principles which The British Psychological Society (BPS) states that researchers must follow is to gain informed consent from the participants (BPS, 2009). Participant invitation letters, information letters and consent forms were sent to the children's parents (appendixes 9, 10, 11). The information letter provided information about who to contact in the event of distress as a result of taking part in the study. The preschool teacher was also given an information letter (appendix 2) and consent form to sign for children to be taken out of the room for the procedure (appendix 12). On the morning of the study, the children were read a short statement asking if they would like to take part in the study, and if they did, gave consent by placing a sticker on their consent form (appendix 13). It is important that the children were given the opportunity to understand the nature of the study and give consent in a way that their capabilities allowed (BPS, 2009). Parents had previously consented to photographs being taken on the nursery tablet through the nursery. Consent forms are kept confidentially in a locked filing cabinet at Manchester Metropolitan University (MMU) and will be held for ten years.

The researcher respected the participant's confidentiality and rights to withdraw (BPS, 2009). Pseudonyms were used to ensure anonymity and all recordings were kept on the researcher's laptop which was password protected and encrypted following the MMU encryption services (MMU, 2017). Direct quotes used in the

analysis and discussion section have had identifiable information removed. The recordings of the verbal data will be destroyed by the researcher after the project is submitted but all consent forms and transcriptions will be stored safely at MMU for ten years. The parents were given a debrief letter after the procedure, stating that their children's data could have been withdrawn at any point before analysis took place in January 2018 (appendix 14). The children could have refused to take part at any point throughout the study and parents understood that this would not impact their educational provision in anyway. Children were given a sticker as a thank you for taking part. The researcher had an enhanced DBS (appendix 15), as required (BPS, 2009). A risk assessment was conducted to ensure the participants were not put at risk or harm by participating in the study (appendix 16) and materials used in the activity were compliant with health and safety policies of the nursery (appendix 17). This research complied with the MMU ethical framework (MMU, 2011).

Analysis and Discussion

Following the data analysis, it was apparent that patterns of experiences were consistent across the participants. Three themes emerged: Place Attachment, Using Metaphor and Sensory Contact.

1.Place Attachment

All four participants distinctly demonstrated they had strong positive attachments to the garden. It was apparent that the children associated a number of emotions to being outside, such as: enjoyment, excitement, cheerfulness and happiness. For instance, when Alice, Jenny and Tom were talking about the eco-therapy activity, it is explicitly shown that they are attaching cheerful emotions to their experience, through their choice of words and laughter as they spoke:

“It was fun (h)” (Alice – line 45)

“Happy (h)” (Jenny – line 30)

“I like it very, very much” (Tom – line 50)

In particular, some of the participants excitement at recalling their experience was evident through shouting and putting emphasis on their words.

“GARDENING!” (Alice – line 2)

“NICE!” (Alice – line 43)

“we planted FLOWERS”. (Ben - line 2)

These findings build on Abraham et al. (2010), as it exemplifies that children demonstrate feelings of excitement and enjoyment, as well as cheerfulness. Having said that, feelings of calmness associated to being in a natural environment, which were found in Abraham et al. (2010), were not established among any of the participants in this study. This could be because of the nature of the children's age.

When the participants engaged in the discussion about the eco-therapy activity, whilst drawing a picture which represented their experience, all of the children drew themselves in the garden with a smile on their face. When asked why, all four participants explained that they enjoyed taking part in the activity and were happy in the garden:

“‘cause that’s is me and I am happy ‘cause (0.2) I am holding the soil outside”
(Tom – line 75-76)

“‘cause I liked it and it was fun. (Alice – line 69)

“I am happy in the garden...” (Jenny – line 60)

“I like playing in the garden (h)” (Ben – line 75)

Place Attachment is a concept which explains how people develop emotional attachment or bonds to specific places, such as natural environments, homes or within a community (Altman and Low, 1992). These extractions evidently show that the children have formed positive place attachment to being in the garden and have developed emotional connections to their environment. Two of the participants elaborated on their enjoyment of being outside by telling the researcher about other things they like to do in the garden:

“RACING” (Ben – line 27)

Ben shouts in excitement here at the thought of racing in the garden. Jenny laughed as she told the researcher that she likes to play:

“on the swings (h)” (Jenny – line 58).

These findings support research conducted by Hawkins et al. (2016), who concluded that natural environments are considered to be meaningful places that individuals develop special bonds with. Researches imply that the presence of a strong sense of place attachment supports good mental wellbeing (Dallago et al. 2012), thus, suggesting that the children’s attachment to the garden is beneficial for their psychological health. This could be why eco-therapy has been found to be extremely successful in increasing adults and children’s mental wellbeing (Swank et al., 2015; Poulson et al., 2016). The positive feelings which the children associate with being outside suggests that conducting play therapy sessions in a natural environment, such as a garden, would be beneficial to provide children with the safe place which they need to explore their emotions through play. Play therapy in the outdoors exposes children to environmental cycles, such as weather changes and the effect these have on the natural environments, offering children understanding about the concept of change, which they can relate to their own lived experiences and relationships (Chown, 2014).

On the other hand, researches have critiqued the use of therapy outside the therapy room as having a lack of confidentiality, particularly if they are taking place in a public space, such as the wilderness or a park (Becker, 2009; Hasbach, 2013).

These concerns lead Reese (2016) to develop a guide for helping professionals apply eco-therapy techniques into their counselling and psychotherapy practices. For example, Reese (2016) explains that clinicians can protect confidentiality by selecting outdoor locations which are based on the client's treatment plan and acquiring access to nature in ways that promote the mental wellbeing of the client (Reese, 2016). Although practitioners who wish to adopt eco-therapeutic techniques into their practice would find these guidelines useful, Jordan (2014) states that current counselling and psychotherapy practice should not be so concerned about privatisation of clients and having therapy which takes place in a room environment. The associated privatisation of emotional distress is an anti-social tendency present in Western culture (House, 2006). Psychotherapists should be open to locating their clinical practises and theoretical ideologies within a wider context, which considers human evolution and cultural change (House, 2006). Taking therapy outdoors into natural environments is a way that counsellors and psychotherapists can facilitate the therapeutic process (Jordan, 2014) and support cultural change towards clinical practice which considers the vital role of nature in human existence (Jordan and Marshall, 2010).

2.Using Metaphor

Another emerging theme, which was apparent cross the majority of the participants, was that interaction with nature facilitated the use of metaphors. The participants used metaphors to describe and relate to their experience. For example, when asked what it was like to engage in sensory contact with nature, Tom exclaimed:

“It smelt like a wizard’s sock” (Tom – line 12)

As Tom came to this conclusion, his face lit up, showing excitement and enjoyment at the connection he had made. Tom also stated:

“It felt like my mummy’s radiator” (Tom – line 15)

This metaphor suggests that Tom thought of home and warmth when he was feeling the soil. It could also be interpreted from this quotation that Tom associated his experience of the eco-therapy activity with feeling safe and secure at home with his caregiver. Similarly, Jenny smiled when she described what the soil smelt like to her, implying that this was a pleasant experience:

“smelt like a princess” (Jenny – line 15)

It is evident that the children considered their experience of the eco-therapy activity and related it to something that was more personal to them. The children in Pramling et al. (2010), also of pre-school age, used metaphors to describe how soil looked or smelt like. When children use metaphors, they are showing a level of understanding about their experience and this is a feature of their language which needs to be taken seriously (Pramling et al., 2010). Tom went on to explain that he liked the activity:

“right up to space” (Tom line – 50)

Here, the participant is using his knowledge of how big space is to emphasise his enjoyment of the eco-therapy activity. Similarly, when Jenny was talking about the seeds which she planted, she stated that:

“...I think it will grow bigger than nursery” (Jenny – line 63)

It can be interpreted from this quote that Jenny is using her awareness of the nursery as a big building, to explain to the researcher that she believed her seeds will grow extremely high. In these extracts, both participants are using metaphor to communicate their thoughts and feelings about their experience to the researcher. Snow et al. (2005) explain that children use metaphorical constructions to represent their life experiences. The natural materials which the children played with in the garden encouraged one of the participants, Alice, to talk about a personal experience:

“...I’m always happy (0.2) but I’m not happy when I’m poorly...I used to have chicken pox, but I don’t have it now” (Alice – line 82)

This trail of thought then developed into Alice considering what would happen if the plants were poorly as she continued to say:

“and if the plants get poorly they need ↑water” (Alice – line 87)

Here, Alice’s voice rises in intonation as she concludes that water will be given to the plants if they’re poorly, showing satisfaction that she will be able to look after them. The activity acted as a facilitator for Alice to talk about a personal life event. Using metaphors is a powerful tool used by many clinicians (Kopp, 1995) and, in play therapy, is used to encourage children to discuss significant life events (Landreth, 2012). Play therapists provide children with a range of play materials, such as creative art tools and sand trays, which act as instruments for children to explore their inner world and make connections in their experiences (Snow et al., 2005). This extraction from Alice suggests that the natural materials used in the eco-therapy activity worked in the same way.

The following statement by Jenny implies that she had an experience of feeling sad when something has been broken, and thought of this when seeing a broken plant:

“...the leaves look sad when they’re broken” (Jenny – line 24)

It is strongly implied from these extracts that the natural materials the children played with have enabled them to make connections and attach meaning to their experience. This theme strongly supports findings from Liden and Grut (2002), who reported that the natural world acted as a parallel to the participants lives, and enabled clients to talk about difficult life events by using nature metaphors. Therefore, it must be considered that eco-therapy techniques could be used in play therapy to encourage children to use metaphors, make connections in their experiences and talk about significant life events. For instance, Corazon et al. (2012) state that gardening processes, such as planting seeds, are a good starting point for metaphors which lead to personal reflection. Hartford (2011) conducted a comprehensive literature review which concluded that the use of metaphor in therapy

lead to good therapeutic outcomes for clients. Using metaphor is an important aspect of therapy because it allows the client to communicate their experience and perspective to the therapist (Skårderud, 2007) and gives therapists insight into how a client processes information and emotions (Wagener (2017).

Whilst some psychotherapists point out that clinicians must be cautious to not impose their own views on metaphors, which would negatively impact the therapeutic relationship (Chesley et al., 2011), language-based therapists would argue that metaphor is a meaningful form of language which allows the client and therapist to have a common world of shared meanings (Finlay, 2015). Ferdinand Saussure, a French linguistic, believed humans are mean-making species, who use linguistic signs as a structure to communicate meanings with each other (Saussure, 1893). Linguistic signs are an important part of the linguistic system that play a crucial role in shaping an individual's reality (Khan, 2014). Using metaphor is an example of a linguistic sign which opens up a new systemic domain for mean-making (Yang, 2018) and is an essential tool which enables therapists to understand the client's lifeworld (Finlay, 2015).

3.Sensory contact

In line with previous findings (Poulsen et al., 2016; Kamitsis and Simmonds, 2017), a definite theme noted across all participants, was the range of sensory encounters which the participants experienced when having physical contact with nature, the majority of which were enjoyable. Positive emotions associated with smelling, looking at and listening to natural environments were evident from the participants descriptions of their sensory experiences, which were accompanied by smiles and laughter:

“They smelt nice” (Ben – line 8)

““Everything (h) and er (.) the smelling and looking at the FLOWERS” (Alice – line 13)

“the birds er the birds singing in the trees...it's nice” (Ben – line 53-56)

““made my hair go everywhere (h)” (Jenny – line 39)

“I liked erm (.) smelling the soil” (Tom – line 75)

“It's pretty” (Jenny – line 27)

These quotes support Franco (2017), who claims that many natural odours provoke feelings of pleasure in human beings, and Schafer (1994), who alleges that sounds specific to an environment are a component of developing place attachment. The sensory experience of hearing pleasant sounds could have contributed to the children's development of positive place attachment and feelings to the garden (Halfpenny, 2010). Furthermore, these findings build on Kamitsis and Simmons (2017), by implying that children, as well as adults, have the ability to appreciate the beauty of nature. The extractions highlight that children experience similar positive emotions during physical contact with nature as adults, strongly suggesting that eco-

therapy techniques, which enhance psychological wellbeing in adults, would be beneficial for children in the same way.

An unexpected finding in this research, which had not been recorded in past literature, is that two of the participants did not enjoy the direct physical contact with some of the natural materials. When asked by the researcher what it was like feeling the soil, Tom says:

“Yucky” (Tom – line 12).

In the same way, when Ben was asked if he liked feeling the soil in his hands he said:

“no...it was ↑yucky” (Ben – line 12).

Bens voices rises in intonation when he describes the soil as yucky, emphasising his dislike of how it felt. Both participants use the same negative word to describe their experience, which strongly indicates this was not enjoyable. These experiences expressed by Tom and Ben imply that there may be some aspect of eco-therapy which children do not enjoy. This would have to be carefully considered by therapists incorporating eco-therapeutic techniques into their practice.

Physically engaging with nature is an important aspect of eco-therapy (Buzell and Chalquist, 2009), therefore, the positive effects that eco-therapy has on individuals could be questioned if they are not physically engaging with nature. For instance, O'Brian and Murray (2007) claim children who attend forest schools experience an increase in positive emotions due to the direct physical contact with natural materials. However, Harris (2017), suggests that individual's do not necessarily need to have direct physical contact with nature, yet standing back and admiring natural environments plays a significant part in clients experiencing positive engagement. This statement alleges that individuals may have psychological benefits from solely observing nature and implies that individuals do not have to engage physically with natural materials, such as soil, to benefit from these sensory interactions. Findings from the present study indicate the importance of therapists who are integrating eco-therapy into their practice in providing a variety of eco-therapy techniques, so clients who do not wish to engage in direct physical contact with nature do not have to in order to benefit therapeutically. Clinicians must be flexible when delivering therapy and tailor their techniques to the characteristics of the client (Gibbons et al., 2003). This leads to clients having increased experiences of empathy from their therapist (Gibbons et al., 2003). Competent therapists must be highly responsive to the client's needs in order for therapy to be effective (McLeod, 2012), so therapists utilising eco-therapy in their practice must be flexible and able to provide a range of experiences which meet the client's preferences.

Summary

Overall, findings from this research indicate that there numerous pleasant sensory experiences which children have when playing with nature and being in a natural environment. The present study has built on the current body of eco-therapy literature by discovering that direct physical contact with natural materials was not enjoyable for some individuals. The natural environment and materials facilitated the

use of metaphors which the children used to attach meanings to their experience. The children's mood was significantly increased, as a range of positive emotions were noted across all participants which were associated with developing a positive place attachment to the garden.

This research does not come without its limitations. Whilst the nationality of one of the participants was Bulgarian, all of the children in this research were born and raised in England. This restricts the generalisability of these findings to children who come from a range of cultural backgrounds. Eco-therapy activities may be experienced completely differently by children who live outside of England. Therefore, it would be useful for this study to be replicated in different countries, with children from a variety of cultural backgrounds. This would enhance the ethnocentricity of the literature.

Following the unexpected finding from this study, further exploration in to the specific sensory experiences associated with eco-therapy that may not be enjoyed by some individuals is needed. It would be beneficial for counselling and psychotherapy practice to have deeper understanding into why some children do not enjoy direct physical contact with nature, and whether this would impact the effectiveness of eco-therapy interventions.

Reflexive Analysis

Reflexivity is the ability to understand and reflect on how your position as a researcher has impacted your research (Pitard, 2017). The complex nature of conducting qualitative research means that personal reflexivity is essential (Watt, 2007). Willig's (2013) reflexive model identifies two types of reflexivity: personal and epistemological. I have a strong passion for helping and working with children. I am certain this passion, along with my own positive experiences of engaging with nature, led to the development of this study. My career goals to work in therapy with children also impacted my decision to conduct research which adopted a child-centred approach.

In reference to my epistemological stance, I am in agreement with Smith and Osborn (2003), that participants are the experts of their own experiences. I strongly believe that children's thoughts and feelings about their experiences should be heard, which contributed to my decision to adopt a phenomenological approach to this research. Prior to data collection, I was concerned about how much verbal data I was going to be able to elicit from the children, given their young age, which was essential for IPA. This led to the decision to adopt numerous techniques into the data collection process. I feel my existing rapport with the children in the nursery contributed to the relaxed nature of the children and willingness to take part in the research. Additionally, having known the children for a few years, I felt confident in my interpretative ability.

Up until this experience, I thought that all interactions with nature would be positive. Afterwards, I understood that there were some aspects of the eco-therapy activity which two children did not enjoy, which was surprising to me. Conducting this research has significantly developed my knowledge on why eco-therapy is an effective psychotherapy, and also enlightened me on the children's perceptions of

their experience. This experience was valuable to me because my confidence in conducting interviews and analysing data has increased profoundly. My independence has developed immensely throughout this piece of work, which is important for my future prospects to complete a postgraduate course in play therapy next year.

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