"It Should Be Compulsory for All Parents and Children."

Experiences of an Outdoor, Nature-Based Parent/Carer and Child Intervention:

A Multiperspectival Interpretative Phenomenological Analysis

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A thesis submitted for the Doctorate in Educational Psychology (DEdPsy)

Cardiff University

May 2025

Acknowledgements

Firstly, I would like to thank my participating facilitators, parents and carers for your time and willingness to take part in my research, bringing such openness and honesty. It was a privilege to learn of your experiences, which I hope to have honoured throughout this thesis and in the wider changes it is hoped to inspire.

A heartfelt thanks goes to my supervisor, Dr Emma Birch. You have kept me grounded throughout this project and made every supervision a joyous and safe space, helping me to navigate tangled thoughts and reignite motivation in times of doubt. I am truly grateful to have shared this journey with you. Thank you also to Dr Penelope Edwards, who supported me through the final leg of the journey following VIVA.

To the TEPs, Assistant EPs, EPs and supervisors whom I have been fortunate enough to have worked alongside over the past three years. You have each inspired me personally and professionally and shaped the EP I hope to be. In particular, to my cohort who have made the challenges of the course feel bearable, and Amy and Bri, for always bringing a sense of adventure and keeping each other afloat when it all felt too much.

To my family and friends. It is safe to say I could not have made it through this course, let alone this thesis, without your unwavering support; my community from afar. Mum and Dad, you have believed in me since I first suggested this idea of becoming an EP and shown unconditional love, support and encouragement. I appreciate you more than you could imagine. Nanna, thank you for inspiring my love of nature and making me a better person, never failing to put a smile on my face. Lastly, to Danii and Nels, thank you for your patience and understanding in bearing with me throughout this course and for showing me that friendship easily overcomes distance. I can't wait to make up for lost time.

Finally, to James. Thank you for embracing this journey with me; every relocation, every all-nighter and every rescheduled plan. Your patience and support have been invaluable, both loudly in your encouragement and quietly in your easing of daily pressures to help me to focus, making this as calm and pain-free as possible. Thank you for being you.

Overview

This thesis consists of three parts: a major literature review, an empirical paper and a critical appraisal.

<u>Part One: Major Literature Review</u>

This major literature review consists of a scene-setting introduction followed by an overview of relevant theory. This encompasses the importance of parent and child relationships, theory surrounding the building of these relationships and literature regarding the role of nature and the outdoors. The systematic review will then encompass a more focused examination of the literature, regarding the literature review question; *How are the relationships of parents/carers and their children impacted following their co-participation in outdoor, nature-based experiences?* This will be followed by the relevance of this research area to educational psychology in practice and an outline of the current empirical study and the chosen research questions.

<u>Part Two: Empirical Study</u>

This section details the current empirical study, which explored the experiences and perceptions of two facilitators and five parents/carers who had taken part in an outdoor, nature-based parent/carer and child intervention. This was implemented through a primary school in the West Midlands of England with a focus on relationships. Following an introduction of literature, a comprehensive overview of the methodology is given, detailing the adoption of semi-structured interviews and interpretative phenomenological analysis through a multiperspectival lens. Findings from the two participant groups are presented alongside a consideration of the meaning created *between* them, which is then discussed in relation to the wider literature. Implications for educational psychologists, schools, families and wider systems are shared as well as the strengths and limitations of the study and suggestions for future research avenues.

<u>Part Three: Critical Appraisal</u>

This critical appraisal encapsulates a reflective and reflexive discussion of the research journey taken in the writing of this thesis, consisting of two distinct sections. The first explores the choices adopted and lessons learnt throughout the research process and

the development of the researcher as a research practitioner. The second section focuses on the contribution of the current study to existing knowledge, providing suggestions for future avenues of research and the researcher's plans for dissemination.

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List of Abbreviations

ACEs	Adverse Childhood Experiences
ADHD	Attention deficit hyperactivity disorder
ASSIA	Applied Social Sciences Index and Abstracts
BEI	British Education Index
BPS	British Psychological Society
CDAS	Child Development and Adolescent Studies
CYP	Children and young people
DDP	Dyadic Developmental Practice
DfE	Department for Education
DMM	Dynamic-Maturational Model
ELSA	Emotional Literacy Support Assistant
EP	Educational Psychologist
ERIC	Educational Resource Information Centre
GET	Group Experiential Statement
HCPC	Health and Care Professions Council
IPA	Interpretative Phenomenological Analysis
IWM	Internal Working Model
ONS	Office for National Statistics
PET	Personal Experiential Statement
PC(s)	Parent(s)/carer(s)
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RQ	Research question
TEP	Trainee educational psychologist
UK	United Kingdom
USA	United States of America

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Part One: Major Literature Review

Word count: 13,378

1. Introduction

1.1. Overview of the literature review

This literature review consists of a scene-setting introduction that will provide a rationale for the research topic. This is followed by three sections: an overview of relevant theory, a systematic review of literature and the relevance of the research to educational psychology in practice. The overview of relevant theory encompasses the importance of parent/carer (PC) and child relationships, the theory surrounding the building of these relationships and literature regarding the role of nature and the outdoors. The systematic review will then encompass a more focused examination of the literature, considering the literature review question; *How are the relationships of parents/carers (PCs) and their children impacted following their co-participation in outdoor, nature-based experiences?* This will be followed by the relevance of this research area to educational psychology in practice, after which the current empirical study and the chosen research questions will be outlined.

Sections relating to the rationale for the research topic, theoretical background and relevance to educational psychology in practice adopt a narrative approach in their composition. This takes inspiration from the narrative review process in which the aim is to expand understanding through individual interpretation and critique (Green et al., 2006). Given this research topic encapsulates several academic perspectives and topics, this approach was deemed appropriate by the researcher as it allows for a broad range of subjects to be covered "at various levels of completeness and comprehensiveness" (Grant & Booth, 2009, p.94). Due to the restrictions on word limits, a full narrative review process was not followed, meaning an explicit search strategy was not adopted. Instead, the researcher used their psychological and contextual knowledge of the topic to select areas of research that they deemed to have the greatest relevance and impact within the area of study. Research was discovered using 'snowballing' methods extending from generic terms entered into Google Scholar and Scopus, with a narrative approach adopted to present the information.

1.2. Rationale for the research topic

"So go outside. Look at the stars. Show your kids. And plant a seed in the movement. This is a message we can all take to heart."

<div align="right">(Roberts, 2009, p.217)</div>

1.2.1. A need for reconnection with nature

Louv (2005) emphasised the distinct absence of nature from children's lives in the modern day, advocating for them to be saved from "Nature-Deficit Disorder". Although not a genuine medical diagnosis, this pathological stance framed the wealth of research surrounding the physical, mental and social impacts of the absence of nature from our lives as a public health issue; a timely call for change (Roberts, 2009). A recent survey revealed 76% of 1000 children aged 7 to 14 years would like to spend more time in nature (National Trust, 2024). However, a survey of 3000 adults and children by the Islington Play Association (commissioned by OnePoll) in July 2022 revealed only 27% of the children to regularly play outside, compared to 80% of the 55- to 64-year-olds when they were children, and those who did play outside in both groups reported good or improved mental health (Save the Children, 2022). This reduction in regular outdoor play was largely attributed to children being encouraged away from this play due to disruption to neighbours (Save the Children, 2022). The nationally representative British Children's Play Survey also highlighted deterrents such as parental safety fears of the local social and physical environment, the risk of injury and its accessibility (Oliver et al., 2022), the last of which was echoed by the National Trust (2024). There is potential for PCs to accompany their children to areas of nature to facilitate this engagement in a safe and co-participatory manner. However, with more caregivers working than in previous generations (Office for National Statistics [ONS], 2022), PCs are less likely to have the time and energy to commit to their caregiver duties alongside the pressures of work responsibilities (Fantoli-Frommelt, 2024).

1.2.2. COVID-19 pandemic and outdoor space

The COVID-19 pandemic also had huge implications on access to outdoor space, with enforced lockdowns limiting children and young people (CYP) to their homes and neighbourhoods (Blundell et al., 2022). A study by Fielding and Harding (2024) showed the majority of 124 caregivers in England to have noticed a significant increase in their children's

outdoor play during the COVID-19 lockdown compared to prior, which had been counteracted since the restrictions were lifted. Friedman et al. (2021) also found 54.8% of 706 United Kingdom (UK) parents to report an increase in their children's connection to nature during the pandemic. However, 7.2% of the parents reported a decrease, and this was found to be predictive of CYP from low socio-economic status backgrounds. In addition, this decrease correlated with a significantly higher level of behavioural and emotional challenges than those who experienced an increase in connection to nature. Howlett and Turner's (2021) study across Cambridgeshire and North London also found the lockdown restrictions to reduce urban children's time spent outside, though it increased their parents' appreciation for the importance of green space to support wellbeing and increased desire for their children to have greater access to green space. However, rural parents did not show such differences. These findings demonstrate the exacerbated pre-existing inequalities regarding access to experiences in nature and subsequent impacts on well-being from the COVID-19 pandemic.

1.2.3. COVID-19 pandemic and family relationships

Further inequalities between families were also exacerbated as a result of the COVID-19 pandemic. Some studies from the UK reported a strengthening impact on parent-child relationships (Perelli-Harris & Walzenback, 2020) whilst others highlighted increased challenges. Parents of young children were disproportionately affected (Lee & Tipoe, 2021) and the financial insecurity and increased childcare responsibility of the lockdowns negatively impacted the mental health of working parents (Cheng et al., 2021; Tani et al., 2020). Mothers appeared to be more likely to lose their jobs, spend less time on paid work and spend more time engaged in childcare and housework compared to fathers (Andrew et al., 2022; Lee & Tipoe, 2021). However, there appeared to be larger strains on financial stability, mental distress, parent-child relationship investment and children's educational outcomes when fathers experienced negative labour market shocks compared to mothers (Hupkau et al., 2023). This does not reflect the dominant conclusion from international studies that suggested that fathers engaged in more caregiving than usual (Proulx et al., 2022). Regarding children living in separated families, many relationships with non-resident parents remained stable, though greater deterioration was seen for relationships that were less stable prior to the pandemic (Bryson & McKay, 2020).

1.2.4. Promoting change

The research has highlighted a particularly timely need to encourage the rebuilding of CYP's connection with nature and connections within families. In 2023, the United Nations Committee on the Rights of the Child (2023) issued General Comment No. 26 emphasising the need to provide children with equal opportunities to experience and connect with nature and promote their wellbeing. From 2019 to 2022, Natural England, the Department for Education (DfE) and Defra collaborated to enable 53,000 children from disadvantaged areas in the UK to have increased time in nature. This was via community forest visits, residential trips and improvements to school grounds through school-focused projects and Care Farms increasing their number of places by 54% (Natural England, 2022). In May 2023, the DfE (2023) also announced a £15 million investment into schools, colleges and nurseries to help CYP in deprived areas have increased access to nature and to improve the biodiversity and outdoor learning facilities available to them. There have also been increasing initiatives through organisations to engage CYP and their families in activities outdoors, notably through Forest School sessions which offer outdoor learning through child-centred, hands-on experiences in a natural setting (Forest School Association, 2021). Further examples include the World Wildlife Fund's (2024) "A Prescription for Nature" campaign launched in October 2024 as well as school-based initiatives such as The Daily Mile (Daily Mile Foundation, 2025). In order to build PC and child relationships outdoors, professionals such as those in the children's services (e.g. Chapman, 2023) have also advocated for therapeutic family work in outdoor spaces.

Part 1a. Theoretical Background

This section will focus on an overview of relevant theory, encompassing the importance of parent and child relationships, theory surrounding the building of these relationships and literature surrounding the role of nature and the outdoors.

2. Importance of caregiver-child relationships

2.1. Attachment Theory

For many decades, the importance of early caregiver-child relationships has been recognised, with attachment theory positioned as a seminal framework in developmental psychology (Swets & Cox, 2023). Bowlby (1953, 1970), considered the founder of attachment theory, proposed that the emotional connection between a primary caregiver and child is crucial for a child's social and emotional development and meeting their need for safety, protection and comfort. Containment and reciprocity are believed to be the two key processes that dictate the quality of this attachment (Douglas, 2007). Containment is described as how mothers or caregivers respond to and take on their child's complex emotions, showing that they are able to hold it without becoming overwhelmed by it (Bion, 1959). Meanwhile, reciprocity enables humans to relate to each other and share a warm, continuous relationship in which a young child and caregiver both find satisfaction and enjoyment and requires the mother or caregiver to be attuned to the emotional state of their child in order to form a secure attachment (Bowlby, 1970). Through these interactions from infancy, Bowlby (1991) believed the child constructs an 'internal working model' (IWM) for each attachment figure based on their experiences with them. This unconscious model then forms the basis of how the child relates to others and explores and engages with experiences throughout the rest of their life.

However, sustained secure attachments are not inevitable and can be impacted by a range of factors including loss, grief, abuse and neglect (Harlow, 2021). Ainsworth et al. (1978) established the notion of individual differences in the quality of attachment relationships through their standardised assessment, "The Strange Situation". This identified how infants react when separated from their caregiver and when a stranger is present,

uncovering three different attachment styles: an insecure-avoidant attachment, a secure attachment and an insecure ambivalent attachment. A fourth attachment style, disorganised, was later identified by Main and Solomon (1986).

However, attachment theory has faced criticisms concerning its cultural biases, potential oversimplification of human behaviour and methodological challenges (Harlow, 2021; Mehdi Abadi, 2023). For example, Rothbaum et al. (2000, 2001) highlighted its focus on Western-centric ideals and practices, making it unapplicable and potentially pathologising to practices in different cultural contexts. Mesman et al.'s (2016) research has further challenged its universality, demonstrating alternative attachment patterns across cultures and the need for cultural sensitivity in attachment research. Rutter (1980) also critiqued Bowlby's neglect of caregiver roles alternative to the mother-centric view of attachment, supported by the increasingly recognised role of fathers and other caregivers within attachment formations (Lamb & Lewis, 2013). This is important, considering family structures have diversified over the recent decades beyond traditional two-parent households, resulting in a variety of caregiver arrangements (Žilinčíková et al., 2023).

This extends to CYP in care who are likely to form multiple relationships with different caregivers, many of whom are likely to be temporary, with the strength of these relationships having the potential to perpetuate or change patterns from previous attachments (Quiroga & Hamilton-Giachritsis, 2015). These CYP are less likely to have secure attachments with their caregivers compared to peers living with their biological parents (Quiroga & Hamilton-Giachritsis, 2015) and are more likely to experience greater social, emotional and educational challenges (Brown et al., 2017; Fernandez, 2008). However, over time, these outcomes for CYP in care have shown to improve (Forrester et al., 2009) with placement stability, school support and in some cases therapeutic help showing as key factors in supporting this (Welbourne & Leeson, 2012).

2.2. Dynamic-Maturational Model (DMM)

In response to the critiques of attachment theory, Crittenden (2006) proposed a more nuanced and contextually and culturally sensitive understanding of attachment through the DMM. The DMM (Crittenden, 2006) highlights the dynamic nature of attachment across the lifespan and the development of unconscious self-protective

strategies through attachment relationships, in response to changing environments and life experiences. Whereas Ainsworth et al. (e.g. 1978) and Bowlby (e.g. 1970) focused their work on the security of a young child's relationship with their primary caregiver, Crittenden (2006) emphasised attachment as the dyadic relationship between an individual and a variety of functional attachment figures across their lifespan, with the purpose of overcoming danger. This allowed attachment behaviours that could be seen as maladaptive to be framed through a strengths-based perspective, understanding them as self-protective strategies that can evolve and be understood in the right context. This helps to strengthen the relationships between individuals and their attachment figures (Wilkinson, 2010). The more flexible framing of attachment theory within the DMM also provides a development from the fixed and pathologising implications of Ainsworth's categorisation of attachment (Smith et al., 2017) and the potentially unhelpful impact of using attachment labels (Webber, 2017).

3. Building caregiver-child relationships

In the midst of Dr. Patricia Crittenden's development of the DMM in the 1990s, Dr. Daniel Hughes was also developing Dyadic Developmental Practice (DDP). This practice was grounded in attachment theory, with a focus on CYP who had less secure attachments with their caregivers as a result of trauma. He highlighted the importance of fostering attunement, emotional regulation and safety when building secure child-caregiver attachments (Hughes, 1998). This later fed into his development of the PACE model (Hughes, 2009) which proposed four elements in developing positive interactions with children: Playfulness, Acceptance, Curiosity and Empathy. The PACE model helps adults (not just caregivers) to build trusting relationships with trauma-experienced CYP, encouraging them to slow their reactions and calmly tune into the CYP's emotions and experience (Hughes, 2009).

The PACE model (Hughes, 2009) also connects with Dr. Bruce Perry's work regarding relational safety and healing. Perry, a pioneering neuroscientist in the field of trauma, initially highlighted the neurological impact of adverse childhood experiences (ACEs) and trauma on brain development (Perry, 1997). Over the decades he refined his work, leading to the creation of the 'Regulate, Relate, Reason' framework (Perry & Winfrey, 2021). This

proposes the sequence of steps required to reengage the brain's regulatory systems when an individual is dysregulated, emphasising the need for emotional safety followed by connection with the individual, to enable them to understand, learn, think and reflect. This echoes understandings from Maslow's (1943) hierarchy of needs model (see Figure 1). This model encapsulates practical, physical and psychological needs, proposing that these exist in a hierarchy in which the higher order needs, such as belongingness, love and relationships with others, cannot be achieved without having met more basic needs, such as sense of safety and security (Maslow, 1943). This continues, with belongingness, love and relationships enabling an individual to develop self-esteem needs such as feelings of accomplishment, with the ultimate aim of self-actualisation.

Figure 1: *Illustration of Maslow's hierarchy of needs model (1943), retrieved from McLeod (2007).*
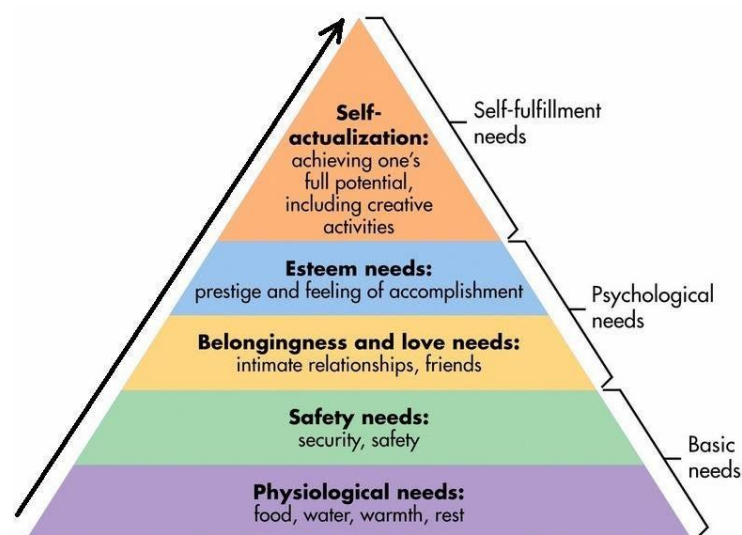
3.1.Secure Base Model

In the context of CYP experiencing multiple caregiver attachments, it is also important to consider how these relationships can be strengthened to minimise negative effects. Smith et al. (2017) further argued the understanding within attachment theory that a child's development is fixed by the age of two years, supporting Rutter et al. (2007) in the possibility of reversal of insecure attachment effects through later life experiences. However, Schofield and Beek (2014) defended that Bowlby did not stipulate irreversibility, but rather that the IWM can be revised, proposing its emphasis on the primary caregiver being a secure base. This was supported by their development of the Secure Base model

(Schofield & Beek, 2014), as shown in Figure 2. This provides a framework for building positive relationships and improving outcomes, informed by attachment theory. It helps infants, children and young people to feel greater security and resilience through their interactions with attachment figures who may not be their biological caregiver, such as family support workers, foster carers and adoptive parents. The Secure Base model (Schofield & Beek, 2014) groups these interactions into five dimensions of caregiving; availability, sensitivity, acceptance, co-operation and family membership, highlighting how relationships can be created and strengthened with different or new attachment figures. The dimensions of the Secure Base Model (Schofield & Beek, 2014) align with other theories such as Maslow's (1943) Hierarchy of Needs which suggests that safety, belongingness and love are the next most important needs after physiological needs in order to achieve an individual's esteem needs and self-actualisation. This model also proposes a similar four elements to the PACE model (Hughes, 2009).

Figure 2: *Illustration of the Secure Base Model by Schofield and Beek (2014), retrieved from Schofield and Beek (2017).*
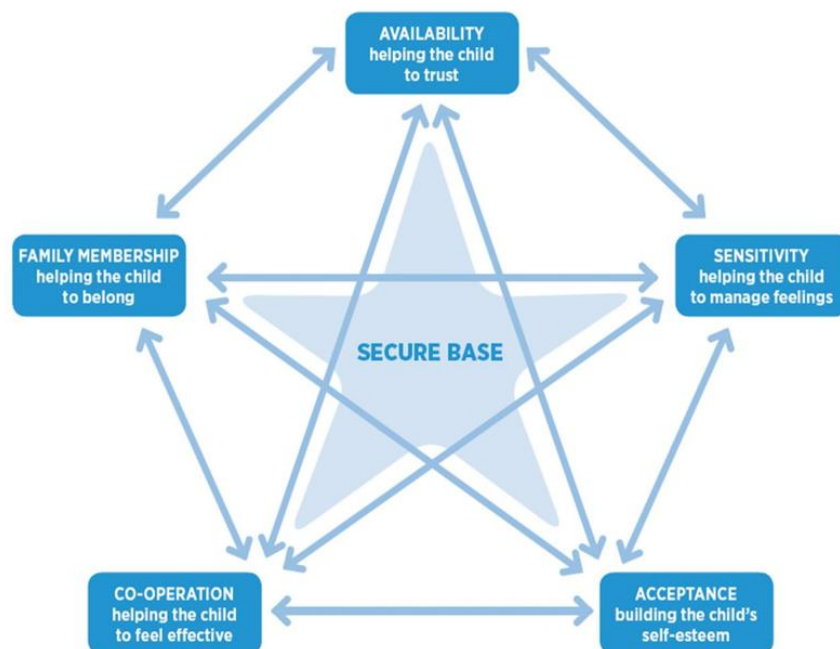
3.2. Systemic focus

These theories, models and frameworks have developed understanding surrounding appropriate approaches to building safe and containing relationships with CYP, especially those who have experienced ACEs and trauma. However, as supported by Bronfenbrenner's ecological systems model (Figure 3), it is important to consider the dynamic interplay of the wider systems surrounding a CYP and their impact on their life experiences and development. These span from the CYP's immediate environments such as their family, peers and school (microsystem), through to their cultural and societal contexts (macrosystem) and the passage of time (chronosystem), as shown in Figure 3 (Bronfenbrenner, 1992). Bronfenbrenner's theory of human development was later developed into the 'bioecological' model, emphasising the critical role of reciprocal, proximal processes of process, person, context and time in development (Bronfenbrenner, 2005).

Figure 3: *Illustration of Bronfenbrenner's (1992) ecological systems model, retrieved from Anand (2022).*
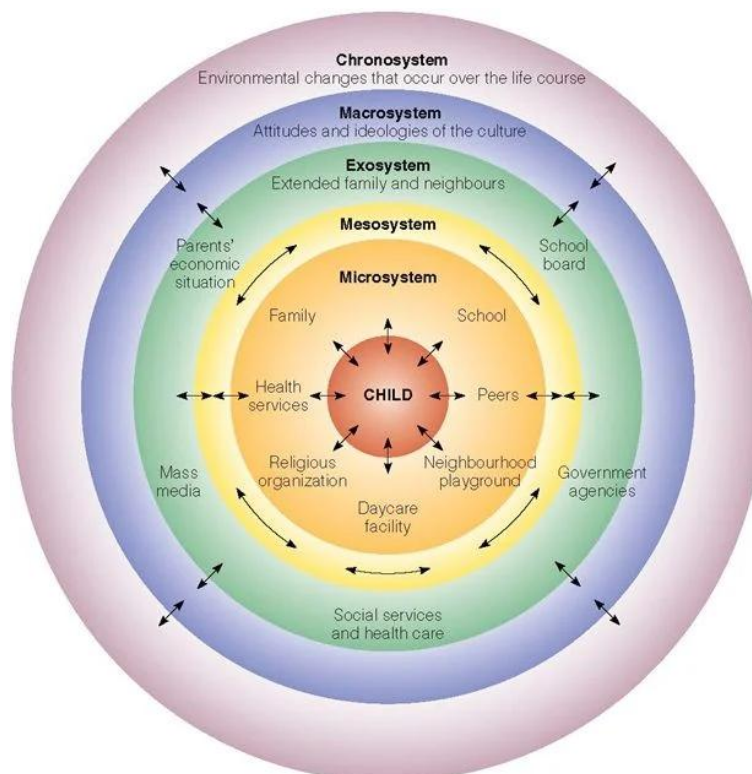
Authors including Dr. Karen Triesman and Louise Bombèr have applied concepts of trauma-informed practice to wider systems, increasing the implementation and relevance of the approaches. Triesman advocates the need for relational healing through the development of safe and attuned relationships with others, which not only requires individual practice but organisational change too (Triesman, 2021). She also emphasises the importance of effective caregiver support in trauma-informed care (Triesman, 2017) alongside the use of creative, playful experiences that are both sensory- and strengths-based (e.g. Triesman, 2018). Meanwhile, Bombèr's work has focused on helping school settings to become more attachment-aware and trauma-informed in their practice, enabling CYP to thrive academically, socially and emotionally (Bombèr 2007; 2011; 2020). She extended Perry's 3 R's model of 'Regulate, Relate and Reason' (Perry & Winfrey, 2021), adding a fourth R; 'Repair', advocating the need to reconnect following a relationship rupture (Bombèr, 2020). This was particularly pertinent in her emphasis on the role of educators as secondary attachment figures, providing CYP with safety, trust and connection, and the potential for schools to create powerful environments for relational healing and academic learning (Bombèr, 2007). She also highlighted the importance of collaboration between educators, therapists and families in supporting CYP through attachment difficulties, further strengthening the need for a systemic approach (Bombèr, 2011).

3.3. Theraplay®

These theoretical underpinnings can be used to inform interventions aimed at building connections and relationships between adults and CYP. An example of this is Theraplay®, a short-term, attachment-based intervention with the aim of building PC and child relationships through structured, play-based interactions (Munns, 2000; Tucker & Smith-Adcock, 2017). It is evidence-based, drawing upon Bowlby's IWM (1991), hypothesising the need for CYP to experience positive and attentive interactions with their caregivers to reduce their likelihood of developing behavioural and relationship difficulties (Money et al., 2020). It also adopts principles from DDP and the PACE approach (Hughes, 2009) as well as neurological theories supporting emotional co-regulation (e.g. Polyvagal Theory, Porges, 2009) and the importance of shared, intentional and emotional experiences between a caregiver and child (e.g. intersubjectivity, Trevarthen, 1998). It is structured upon

four elements found within healthy relationships; challenge, nurture, structure and engagement (Norris & Lender, 2020) and has shown to be helpful in schools and clinical settings to address a wide range of childhood challenges as well as trauma-related experiences (Tucker & Smith-Adcock, 2017). Theraplay® has been found to be effective when conducted dyadically and in group settings (France et al., 2023), however a systematic literature review by Money et al. (2020) highlighted a need for more rigorous empirical research on its use.

4. Role of nature and the outdoors

4.1. Connection with nature

'Nature' is referred to within this paper in terms of the collective physical world aside from humans and human creations. With more CYP disconnected from nature as a result of increasing urbanisation, technology use and indoor play facilities and fewer safe outdoor spaces (Summers & Vivian, 2018), it is important to emphasise the significant, positive impacts that direct contact with nature has shown to have on CYP's affective, cognitive and moral development (Kellert, 2002). Key theories underpinning the positive effects of nature include the Biophilia hypothesis (Ulrich, 1983; Wilson, 1984), which suggests that humans have an innate drive to connect with nature for survival and psychological restoration, strengthening cognitive capacity and wellbeing. Ulrich (1983) and Ulrich et al. (1991) also suggested the Stress Reduction Theory which posits that the natural environment can lower stress and in turn enhance cognition. Kaplan (1995) later proposed the Attention Restoration Theory, which states that elements of the natural environment can alleviate mental fatigue and support attention recovery through providing a contrast to the constant goal-directed attentional demands often found through immersion in built environments. More recently, Hartig et al. (2014) suggested that natural environments can affect health and wellbeing through four interlinked pathways: air quality, physical activity, stress-reduction and social cohesion.

These theoretical groundings have been supported by a wealth of research across each stage of child development, including several systematic reviews. For example, Gill's (2014) review on children's engagement with nature revealed several well-supported

benefits, including increased physical activity, greater pro-environmental attitudes and nature connectedness into adulthood and improvements in mental health and emotional regulation, with particular benefits for CYP with attention deficit hyperactivity disorder (ADHD). Cognitive benefits for CYP have been shown across educational levels from spending 10 to 90 minutes in nature each day, which appeared to restore attention from mental fatigue and subsequently aid academic performance (Mason et al., 2021). Vella-Brodrick and Gilowska (2022) also showed that opportunities for CYP to connect with nature, especially in educational settings, can enhance cognitive functioning and that schools are well-placed to facilitate relief from cognitive overload and stress, fostering wellbeing and learning. Studies including Kuo et al. (2019) and Lieberman and Hoody (1998) have also found experiences with nature to increase enthusiasm for learning in children of primary and secondary school age. Further studies have related benefits such as physical health (Coe et al., 2023; Wood et al., 2014), motor development (Fjørtoft, 2004) and wellbeing (Park & Riley, 2015) specifically to natural environments as opposed to general outdoor settings (e.g. traditional man-made playgrounds), further implicating this unique contribution of nature.

CYP themselves have expressed their enjoyment of being in nature, such as in a recent survey of 2000 CYP's views across England (Natural England, 2024). Results showed 91% of the CYP to agree with the statement 'Being in nature makes me very happy', including 35% who completely agreed and 30% who strongly agreed. Few CYP disagreed (1%) and 8% neither agreed nor disagreed (Natural England, 2024). Silva et al.'s (2023) review further supported the psychological, physical and social wellbeing benefits from nature, echoing improved mental health, cognitive function and mood, stress levels and greater nature connection. Although Silva et al. (2023) highlighted methodological fragilities and information gaps within the research base, they believed there to be sound validity in advocating for the integration of nature-based interventions in health and social practices.

4.2. Risky and adventurous play

However, there can be barriers to such nature-based engagement, including the fear of risk regarding environmental challenges (e.g. adverse weather conditions), privacy concerns and safety concerns (Troughton et al., 2024). Parents' perceptions of risk have also shown to limit CYP's opportunities to experience risk (Burns & Gottschalk, 2020; Niehues et al., 2013; Ryan et al., 2024) despite regular and repeated exposure to outdoor risky play benefitting CYP's physical, socio-emotional, cognitive and mental health as well as their creativity and resilience (Brussoni et al., 2015; Burns & Gottschalk, 2020). Sandseter (2010) defined risky play as "thrilling and exciting forms of physical play that involve uncertainty and a risk of physical injury" (p. 22) which can be synonymous with adventurous play (Oliver et al., 2022). Sandseter et al. (2020) found the outdoor environment to be particularly conducive to risky play in their study focused on young children.

Children are shown to commonly experience feelings of thrill and exhilaration (bordering on fear), followed by pride and achievement following risky play (Coster & Gleeve, 2008; Sandseter, 2009, 2010). It has also been theorised to develop resilience surrounding fear (Sandseter & Kennair, 2011) and anxiety (Dodd & Lester, 2021) through the natural exposure to uncertainty, coping and arousal and associated learning opportunities. Significant increases in self-esteem, conflict sensitivity and concentration were also found in four- to six-year-olds who engaged in risky play over three months (Lavrysen et al., 2017), however this was based on teacher observations. Despite cultural differences, risky play seems universally appealing across child development (Coster and Gleave, 2008; Kleppe et al., 2017; Sandseter, 2007). The benefits of outdoor risky play have already been recognised in existing outdoor initiatives such as Forest School which boasts of supporting participants to overcome risks, helping them to become "healthy, resilient, creative and independent learners" (Forest School Association, 2021, para. 3).

Ryan et al. (2024) advocate for parents (mothers in particular) to be supported in reframing perceived risk, to enable these opportunities for their children, especially during outdoor, risky play. A nationally representative sample of 1919 British parents supported this through open-ended survey questions, with parents naming positive attitudes and beliefs towards adventurous play as a key facilitator to such play, as well as the presence of

adult supervision and their perceptions of their child's attributes and personality (Oliver et al., 2023). It was suggested that further education as to the benefits of adventurous play and the encouragement of collaborative, whole-family involvement, for example, can facilitate these opportunities (Oliver et al., 2023).

4.3. Importance of place and space

Gill's (2014) systemic review found time spent in nature to be associated with a stronger sense of place; a multidimensional phenomenon, encompassing physical, social and psychological aspects of humans' relationships with their environment (Beidler & Morrison, 2016; Convery et al., 2012). It has shown to be vital in individual and community identity, wellbeing and respect for the environment (Hausmann et al., 2015; Hunziker et al., 2007), formed through interactions with the environment, and mediated by personal experiences, culture and the environment's physical characteristics (Pooran et al., 2016; Vali et al., 2014). This emotional, cognitive and behavioural bond that individuals form with specific places was originally referred to as 'place attachment' by Altman & Low (1992), seeing the setting as an active contributor to interpersonal processes and outcomes. This has since been expanded into a tripartite framework by Scannell & Gifford (2010), describing place attachment as a three-dimensional construct encapsulating person (who is attached), process (how they are attached) and place (what they are attached to) with key functions of security and belonging, identity, continuity and stability and social connection.

Nature in particular has been found to offer a therapeutic, neutral space that fosters equal, collaborative and empowering dynamics, encouraging activities that challenge individuals to overcome personal limitations and discover strengths (Troughton et al., 2024). However, this study was in the context of engagement in mental health services, potentially reducing generalisability to other forms of intervention. These findings nonetheless align with Deci and Ryan's (2000) Self-Determination theory which posits that when an individual's need for autonomy, competence and relatedness are supported by the social and physical environment, they are more likely to be intrinsically motivated and achieve greater wellbeing, authenticity and resilience. This also makes nature a conducive environment in fostering a growth mindset; the belief that individual talents can be developed through effort, strategies and external input (Dweck, 2016). Bow & Buys (2003)

also found place attachment to the natural environment to enhance sense of community, strengthening social bonds and individuals' joint connection to that environment. This highlights both the physical, emotional and psychological importance of the locality of interventions, especially those related to connection-building.

4.4. Connection with relationship-building

There are explicit links between the previously-stated theoretical underpinnings of caregiver and child attachments and the natural environment. The playful aspect within the PACE model (Hughes, 2009) aligns with Schofield and Beek's (2014) encouragement of caregivers to engage in new, enjoyable activities and play with the CYP to help to demonstrate the five dimensions of caregiving in the Secure Base model. In a briefing paper by Gordon (n.d.), the Secure Base model (Schofield & Beek, 2014) is also referred to in the promotion of outdoor play between caregivers and children, given the numerous benefits and opportunities that the outdoor environment provides. In particular, one of the most powerful and reliable predictors of child wellbeing and resilience is said to be family wellbeing, which is supported by positive PC-child interactions (Newland, 2014). It could be supposed that facilitating these PC-child interactions within nature would only strengthen this positive impact further, given the wellbeing benefits found from being in nature (Hartig et al., 2014; Silva et al., 2023; Vella-Brodrick and Gilowska, 2022). Although the benefits of nature engagement for families are significantly under-researched, Izenstark and Ebata (2016) advocated for family-based nature activities as a pathway for positive family functioning, given nature's attention-restoring effects benefitting family interactions and routines.

5. Part 1a chapter summary

This chapter has explored theory and research surrounding two key areas: PC-child relationships and natural, outdoor environments. The evolution of attachment theory has highlighted the foundational role of PC-child relationships in child development, resilience and wellbeing. This has informed the development of trauma-informed, systemic and relational approaches and models to support such relationships. Meanwhile, theories supported by a robust evidence base have emphasised the physical, psychological, social

and cognitive benefits from CYP's engagement in natural, outdoor environments and risky, outdoor play; engagement that has decreased in recent generations. This has highlighted a need to support PCs in facilitating such opportunities, such as through whole-family involvement. In addition to these individual benefits, there is the suggestion of interpersonal benefit to PC and child relationships from outdoor experiences in nature. This aligns with literature regarding the importance of place and space, with nature suggested to be a therapeutic, neutral and safe space for interventions to take place in.

Overall, the interlinking of these factors implicates the benefit of creating opportunities for PCs and children to spend time together in natural, outdoor environments. As such, the next chapter will explore the impact of such co-participation on PC-child relationships in greater depth.

Part 1b. Systematic Literature Review

6. Introduction

This systematic literature review focused on exploring and critically reviewing the available literature regarding the co-participation of PCs and their children in outdoor, nature-based experiences. Systematic reviews have been commended for their unbiased, transparent and comprehensive nature (Siddaway et al., 2019). As such, it is hoped that this review will provide a clear understanding of the current knowledge base in this area, with a particular focus on PC and child relationship outcomes.

6.1. Formulation of the review question

With the narrative review in Part 1a having culminated in the suggested benefits of shared PC and child experiences in nature, this systematic review endeavoured to explore the available literature base around this. In initial literature searches, freedom was given as to the focus of the PC and child experiences in nature, though their co-participation was prioritised. However, on discovering that this resulted in an eclectic mix of studies with unrelated outcomes, just enough studies were identified to warrant a more specific focus on outcomes for PCs' and their children's relationships, in line with this enquiry's focus on attachments and relationships.

Consequently, the final review question was as follows:

How are the relationships of PCs and their children impacted following their co-participation in outdoor, nature-based experiences?

6.2. Review strategy

In order to systematically review the literature relating to the above review question, several databases were accessed during October 2024 based on their relevance to child development, psychology, health and social studies. These included SCOPUS, Ovid APA PsycInfo®, Ovid MEDLINE® ALL, Ovid Embase, Child Development and Adolescent Studies (CDAS), British Education Index (BEI), Educational Resource Information Centre (ERIC) and ProQuest Applied Social Sciences Index and Abstracts (ASSIA). Due to the limited number of

eligible papers resulting from these databases, the search was also extended to ProQuest Dissertations and Theses Global.

Experimentation with the search terms used within these databases began with search terms relating to the outdoors, experiences, PCs and children being entered as four separate categories and expanded following inspiration from search results. However, further refinement revealed that more relevant studies were being found when PCs and children were combined into one category with a dyadic focus, e.g. "parent-child". Following a Scopus database search, the term 'outside' was then removed from the outdoor-related search category as it only added further results in which 'outside' was used in sentences unrelated to its outdoor connotation. See Table 1 below for the full list of search terms used.

Table 1: *Systematic Literature Review Search Terms*

Search Category One	Search Category Two	Search Category Three
Outdoor	Experien*	Parent-child
Forest	Intervention	Care*-child
Nature-based	Session	Family-therapy
Wild*	Therap*	Family-based
Adventure*	Program	Parent-adolescent
(Outside)	Programme	Care*-adolescent
	Course	
	Class	
	Interaction*	
	Co-participation	
	Play	

Key. (*) truncation character used to search for additional letters at the end of a word (e.g. experiences or experiential).

Where possible, limiting the search terms relating to the outdoors to within seven words of those relating to experiences refined the results further, to a point of saturation where no relevant papers were showing outside of this limit. Equivalent words relating to

each of these three search categories were then entered with Boolean operators such as 'OR' and 'AND' (see Appendix A).

The results from the database searches were initially filtered to show peer-reviewed journal articles in all but one database (based on available filters). With initial database searches having resulted in limited eligible papers for review, dissertations and theses were also included in the search using ProQuest Dissertations and Theses Global. This was in consideration of literature supporting the use of theses within systematic reviews (Moyer et al., 2010). Here, the search was initially filtered to show full text results. All database searches were then cumulated, duplicates were removed and the titles and abstracts of the 383 remaining records were screened in line with the inclusion and exclusion criteria shown in Table 2.

Table 2: *Systematic Literature Review Inclusion and Exclusion Criteria.*

Inclusion criteria	Exclusion criteria	Rationale
Context: Focusing on the joint involvement of PCs and their children in outdoor experiences.	Does not focus on the joint involvement of PCs and their children in outdoor experiences.	To support an understanding of the impact on family relationships as opposed to other forms of relationship.
Outcomes: Relevant to family relationships.	With outcomes irrelevant to family relationships.	To support an understanding of the role of joint experiences in outdoor environment on these family relationships and attachments.
Design: Empirical studies	Opinion pieces, reviews, position papers	To support the validity of the review through ensuring that it reflected findings from verifiable data.
Peer-reviewed	Not peer-reviewed	To support the validity of the review through ensuring that the study findings used were from credible and quality sources.

This reduced the number of records to 26. These were further assessed through consideration of the full text using the same eligibility criteria, resulting in 13 final papers eligible for review. One of these papers detailed two empirical studies (Freeman & Zabriskie, 2002); an unpublished doctoral thesis prompting the discovery of its original copy (Kugath, 1997), and the second from an unpublished manuscript which could not be found (Potter & Duenkel, 1997, as cited in Freeman & Zabriskie, 2002). Due to the limited number of papers, the researcher included this second paper, acknowledging the limitations of the reduced detail available to critique and the potential misinterpretation or reporting bias through the secondary interpretation. This resulted in the final systematic review detailing 14 empirical studies, including three Doctoral theses. Full details of the search strategy can be found illustrated by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses [PRISMA] (Page et al., 2021) model in Appendix B.

These 14 studies were critically evaluated with the support of the Mixed Methods Appraisal Tool (Hong et al., 2018), which was appropriate due to its examination of qualitative, quantitative and mixed methods studies. Appendix C outlines characteristics of these 14 studies alongside a critique of each. Due to the limited number of eligible papers for use, all were still used but with such critiques acknowledged.

7. Critical review of the literature

Examination of the 14 chosen studies highlighted that they all took place in the United States of America (USA), limiting the ability to generalise the conclusions drawn to other countries, cultures and contexts. The limited cultural diversity of the participants further limited the generalisability of the results of the studies. Due to the limited number of eligible results from the database searches, results were accepted from any year, resulting in studies meeting the inclusion criteria dating from 1991 through to 2023. Although the earlier studies are limited by their relevance to modern society and culture, this author felt it important to acknowledge the sparsity of research over the decades, allowing consideration as to why certain time periods may have prompted this focus within the research field. Restrictions were also not given to the age of the CYP of focus within the studies, as in the context of limited results, priority was given to the impact of the joint outdoor, nature-based experiences between PC and child on their relationships as opposed

to refinement of the child's age. As such, search terms including 'child' and 'adolescent' were included. Extending this to 'teen*' and 'young person' did not reap further results. Although this reduced the ability to compare the results of the studies due to their focus on different developmental stages, it enabled a clearer picture to be drawn in response to the review question.

This critical review will discuss the 14 studies with consideration for the above, under three key contexts of outdoor, nature-based experiences that were identified; wilderness family camps, recreational outdoor family programmes and unstructured family-based nature activities. This will be with the aim of answering the literature review question: *How are the relationships of PCs and their children impacted by their co-participation in outdoor, nature-based experiences?*

7.1. Wilderness family camps

Within the 14 selected studies, five focused on three- to nine-day camps during which family members shared in nature-based activities in a wilderness setting. These included studies by Bandoroff and Scherer (1994), Huff et al. (2003), McLendon et al. (2009), Overholt (2013) and Potter & Duenkel (1997, as cited in Freeman & Zabriskie, 2002). Of all of the studies, these five studies collectively discussed the widest variety of relationship-based impacts resulting from parent and child co-participation.

Bandoroff and Scherer (1994) described an 'innovative' family-focused intervention, extending from a 21-day survival expedition that adolescents completed in the high desert terrain in southern Idaho. Although the specific characteristics of the adolescent participants were not disclosed, they were from a population of 13- to 18-year-olds who had primarily been referred by their parents due to a presentation of challenging behaviours and low school performance, with the intention of improving these. The families of 27 of the adolescents opted to participate in four days of co-participation in experiential family therapy while camping and trekking in the wilderness, immediately following the original expedition. This intervention had specific topics of focus for each day, including emotional repair within families, building trust, communication and negotiation.

The results from parent and adolescent questionnaires administered on the first and last day of the original program and six weeks following the joint intervention gave 'overwhelmingly positive' (p.11) support for the intervention. Many appreciated the opportunity for connection away from home distractions and perceived it as having played an essential role in rebuilding family relationships, increasing trust and reducing anxiety about the future. They also benefitted from the knowledge and support gained from sharing the experience with other families. Those who showed less improvement still reported increased communication and negotiation skills that were helping at home, as well as improved maintenance of good relationships. These results were strengthened by their comparison to control group data from families who did not participate in the additional intervention, and their short-term longitudinal nature. Five different questionnaires were also utilised, prioritising those with greatest relevance to the study's aims as well and a high internal consistency reliability and average reliability rating. However, this led to purely self-reported, quantitative data being collected, reducing the accuracy of its representation to the participants' lived experiences.

It is also important to recognise that Bandoroff and Scherer's (1994) study stemmed from a context of youth wilderness therapy programmes that have since raised controversy due to concerns surrounding unethical practices, including coercion, harm to participants and inadequate regulation (Stull, 2021). This highlights the need for the results to be viewed with caution, especially as there may have been conflicts of interest in promoting this new approach within these programmes from funding bodies for example, potentially giving the results a positive skew. The youth also may not have yet felt they could speak their honest opinions, especially as the participating PCs were likely invested in the programme's success given their commitment to it thus far.

McLendon et al. (2009) more recently explored the impact of family-directed structural therapy in a three-day therapeutic wilderness family camp, using a quasi-experimental, non-equivalent control group design. Twenty-five families who attended the local Community Mental Health Centre voluntarily attended one of nine of these camps, evaluated using two quantitative questionnaires at the start, at a six-week follow up and six months after the start. Results showed a clinical improvement in family functioning for the families who experienced the camp, from the start through to the 6-month follow-up. This

included a statistically significant improvement in family cohesion as well as a continued improvement in family adaptability, however this did not reach statistical significance. In comparison, the control group showed family cohesion to decrease from the start to six weeks and increase from six weeks to six months and vice versa for family adaptability, though neither of these reached statistical significance. This gave strong support for the longitudinal relational benefit of these shared outdoor experiences, though having only collected quantitative data, it again lacked rich, contextual data. This limited the depth and accuracy of its data interpretation.

However, Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002) explored similar family wilderness experiences through qualitative means, using open-ended, semi-standardised interviews. Seven families totalling 12 adults and 12 children participated in either a 5- or 9-day residential family camp either in Canada or mid-western United States, where they took part in outdoor adventure-based activities in the secluded wilderness. These results supported those of Bandoroff and Scherer's (1994), with parents and children reporting increased interaction, cooperation and trust, better family cohesion (as also found by McLendon et al., 2009), and greater prioritisation of time for each other as a result of the camps. They also showed a developed sense of community with the other families who took part with them. Additional to Bandoroff and Scherer's (1994) results, they also found that families were more relaxed with each other, had broken down interpersonal shields and had greater acceptance and support for each other as a result of their cooperation. Parents reported rediscovering their inner child, which supported a role shift in equalising their relationships with their children, leading to interactions at a greater depth than before. Both parents and children felt a greater connection with nature, and a greater perceived sense of safety and freedom allowing for growth through independence and risk-taking in a way that could not occur at home.

However, whilst the utilisation of semi-standardised interviews with parents and children separately allowed for rich data to be gained from both perspectives, an element of caution must be given due to the researchers' subjectivity in the interpretation of the results, especially given the second layer of interpretation though being a secondary reference. In overcoming this potential bias, some researchers adopt both quantitative and qualitative approaches, such as Huff et al. (2003). They explored the influence of challenging

outdoor recreation on parent-adolescent communication through a quasi-experimental design. Thirty-two families allocated themselves to a four-day camp, unknowingly with either a low, medium or high level of challenge ranging from a family camp in a mountain ranch to a survival trek in the high desert mountains of Arizona. Results were collected via a pre- and post- questionnaire completed by the parents and adolescents and followed up with systematic interviews that were conducted on the final day of the camps.

As hypothesised, participants who had the more challenging experience were found to have more open parent-adolescent communication, however the difference between them and the group with the lowest challenge was not statistically significant. It was concluded that challenging recreation of any level of intensity can improve parent-adolescent communication, supporting family relationships. It was the cooperation and teamwork involved in the sharing of the activities in the natural environment that bonded the families and aided their communication. Further results uncovered similar findings to Bandoroff and Scherer (1994) and Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002), showing that the families appreciated the extended time focused on each other and that the activities increased their trust in each other. They specifically echoed Potter and Duenkel's (1997, as cited in Freeman & Zabriskie, 2002) findings in having enabled the families to learn more about each other, increasing their understanding and support for each other. Huff et al. (2003) additionally found increased acts of affection between parents and adolescents and greater kindness, resulting in less conflict.

These findings were supported by the presence of a control group, the random allocation of participants to the different camps and the questionnaire being revised to make it more appropriate for use with parents and adolescents, aiding the reliability of the data. The interviews were also conducted by trained staff as opposed to the researchers themselves, reducing researcher bias. However, despite the random allocation of participants, the lowest challenge camp had the largest families attending with the youngest mean age of adolescents (13.9 years compared to 15.1 and 16.7 years old in the other camps) which may have reduced the comparability of the groups. Hull et al. (2003) also acknowledged that the participants may not have perceived the level of challenge in each group similarly to the researchers, perhaps making perceived challenge a more appropriate indicator, reducing the rigour of the conclusions drawn.

The range of outcomes found by Huff et al. (2003) and Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002) were further supported by a doctoral thesis by Overholt (2013), which used a qualitative case study approach with participant observations, in-depth interviews and artifact collection. Overholt (2013) explored father-child relationship development and role negotiation among 17 family members from nine families and four instructors, who participated in an eight-day Outward Bound family course. Results showed numerous benefits, supporting prior findings of Bandoroff & Scherer (1994), Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002) and Huff et al. (2003) on enhanced family communication and trust. They also supported Huff et al. (2003) and Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002) in enabling parents and their children to have deeper understanding and respect for each other's challenges, increasing their mutual support, appreciation and reliance. In extension to this, Overholt's (2013) results showed the family members to have an increased sense of gratitude for each other and a shared sense of accomplishment and pride, highlighting the necessity of working together as a family. In further support of Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002), Overholt's (2013) results echoed a greater sense of independence in the family members and a changed outlook on the world, improving their relationship with nature.

Despite the rich data collected with Overholt's (2013) study, the author also acknowledged its limitations such as the possibility of the participants having responded in socially desirable ways, considering she collected the data herself. They also potentially may have had less reliable recall of their experiences, given the interviews were conducted with family members who had participated in the course within 2008 to 2012. However, this recall of impacts following a range of time periods also strengthens the results by demonstrating their longevity and their significance to be able to be recalled a while later.

Overall, these studies all captured positive impacts on PC and child relationships following their joint engagement in outdoor activities within a residential wilderness setting, spanning several days. These impacts were seen across contexts and time frames, through the use of a range of qualitative and quantitative methodologies. The most commonly seen were improvements in communication, a greater ability to negotiate and cooperate and an increase in trust between the family members. However, these results are limited to the

wilderness environments of North America; a context rarely found or able to be replicated across other countries.

7.2. Recreational outdoor family programmes

Meanwhile, five of the 14 selected studies explored the impact of PC and child co-participation in experiences that took place through recreational outdoor family programmes. These varied from weekend events to one-day programs that were either one-off or ongoing events that welcomed attendance when suitable for families, most of which had a therapeutic focus. These included studies by Birnbaum (1991), Burg (1994), Dorsch et al. (2016), Kugath (1997) and Norton et al. (2019).

Birnbaum (1991) explored the impact of an innovative, two-day therapeutic program for ten bereaved families. This took place at an environmental retreat centre in the Pocono Mountains of Pennsylvania and followed bereavement support groups that the children and parents had been involved in for between eight to 20 weeks prior to this program. The program involved voluntary participation in a range of outdoor, nature-based activities, including activities more specifically targeted towards community-building and griefwork. Results from a written survey sent a fortnight following the program revealed 'enthusiastically positive' (p.27) evaluations of all elements of the weekend. Key relationship impacts included the formation of social networks between the families which continued afterwards and an increase of vulnerability and comfortability between family members, supporting their emotional and physical connection as well as their sharing of memories. The participants also specifically commented on the positive impact of the natural surroundings.

These results were collected through a Likert-scale evaluation as well as open questioning through written surveys, though the internal reliability of these surveys was not shared. The observations from the author's own experience of these sessions also supported these findings, however it is arguable that these may have been influenced by the observer-expectancy effect which may also have promoted demand characteristics within the participants. There was also a lack of control or comparison group, the co-participation of parents and children in all activities could not be guaranteed, and there was an unknown mediating impact of the prior bereavement session lengths and the length of

time since experiencing the bereavement. This study also took place over 30 years ago, making the findings less relevant to modern society and culture.

More recently however, Norton et al. (2019) also took a therapeutic approach through exploring the effect of family enrichment adventure therapy on children and families affected by abuse and neglect. Two purposive samples (with a total of 32 youth aged eight to 17 years and their families) received counselling services at ChildSafe, but only one sample of 18 youth and their families participated in outdoor family adventure therapy. This included activities such as hiking, kayaking, geocaching, archery, low and high ropes, rock climbing and camping, with a focus on PC and child collaboration to promote positive, healthy change. Results from the Family Assessment Device completed before receiving services and three months after, as well as thematic analysis of focus group data, found families who took part in the adventure therapy to have had an insignificant improvement from the clinical to the sub-clinical scores in communication and general functioning. Similar to Birnbaum (1991), the families felt a greater sense of openness and acceptance with each other and the relationships formed from the multifamily group setting were impactful in helping families to heal. However, results from this study also showed the participating families to have gained greater communication, trust, closeness, comfort around each other and problem-solving skills from the intervention compared to those who did not take part, with better family functioning and quicker return to normalcy.

The richer results from Norton et al.'s (2019) study compared to Birnbaum's (1991) are likely largely testament to the qualitative verbal data that was collected through the focus groups, as well as the presence of a comparison group. It is arguable that the focus group environment may have created social desirability bias, conformity and/or unequal participation in the responses from the participants. However, this was reduced through previous participants in the intervention contributing towards the draft focus group questions and being present in the focus groups, facilitating collaboration, empowerment and comfort to express concerns within the groups. There was also pre- and post-data allowing greater accuracy of the impact of the intervention itself, and the collection of data three months later allowed for a better understanding of the longevity of the effects. Norton et al.'s (2019) study supported Birnbaum's (1991) findings that PC and child participation in outdoor activities in a therapeutic context has positive relationship impacts,

especially when there is a greater focus on co-participation. This demonstrated historical consistency of impact and is important given the relatively small sample size used in both.

Meanwhile, Burg (1994) conducted a doctoral thesis exploring the views of practitioners within the field of adventure family therapy from a variety of training backgrounds and experiences. This included 21 participants who had experienced working with families through adventure family therapy outdoors who were recruited through their recognition from international presentations, research, publications, recommendations, conferences and snowballing techniques. Their views were collected regarding the use and distinction of adventure family therapy from other mental health fields, its benefits and limitations, when it is appropriate and what its future developments could be. They completed a ten-item, open-ended, opinion-based questionnaire followed by a 458-item, seven-point Likert-scale questionnaire derived from the first. Four of these participants were then randomly chosen to take part in 30-minute telephone interviews to gain reactions to the survey's results.

Despite these results stemming from practitioners' opinions on family adventure therapy rather than direct feedback, they supported Norton et al.'s (2019) results. This was particularly in its benefit to the development of trust and communication, greater mutual support and problem-solving abilities through cooperation and stronger family functioning. They also supported Birnbaum's (1991) results in the increase in vulnerability between family members in supporting them in verbalising issues that may be challenging to convey. In addition, Burg (1994) also found one of the most significant findings to be that families would learn to have fun together and enjoy each other's company, which is fundamental for family strength. These findings were strengthened through the use of the Delphi method, which allowed for a less biased and hierarchical sharing of ideas among participants. However, these were ultimately the opinions of practitioners who were self-selected to participate and would naturally show high enthusiasm and responsibility for the field, likely biasing their endorsement of the approach.

Whilst the above studies have taken a therapeutic focus with residential elements, studies by Kugath (1997) and more recently Dorsch et al. (2016) describe PC and child co-participation in single-day outdoor adventure programs. Kugath's (1997) doctoral thesis explored the effect of an 8-hour family outdoor adventure program in the mountains of

central Colorado on parental and child perceptions of family functioning through the involvement of 24 families. This one-day focus was in response to the high cost of family camps, to make the enriching experience of outdoor programmes more accessible to families. Both quantitative and qualitative data was collected through questionnaires, observation and semi-structured interviews (with a purposive sample of 11 families). Meanwhile, Dorsch et al. (2016) analysed the effect of an outdoor recreation program in the American Mountain West on individuals with disabilities and their family members. This was through the use of semi-structured focus group responses to gain the views of five individuals with disabilities, four family members (three parents) and eight program staff.

Interestingly, the studies only shared relationship outcomes related to improved family functioning (which was insignificant for Kugath, 1997), more positive relationships and a greater sense of inclusion within the family, achieved by overcoming barriers to joint activities and enabling collaborative decision-making. Kugath's (1997) results otherwise focused on the strong link between family participation in outdoor recreation and family cohesiveness, particularly in parents' perceptions. Fathers reported significant improvements in family communication and even one month later, families described powerful memories that fostered closeness, bonding and support. While findings regarding problem-solving were mixed, families reported discovering strengths, areas for future improvements within their family unit and greater awareness of how to address family development, which was unique to this study. Meanwhile, Dorsch et al.'s (2016) findings highlighted how these experiences created community and friendships; a sense of belonging in an emotionally safe environment. As this outdoor recreation program targeted individuals with disabilities, the findings also focused on the common ground built within families, facilitating family functioning.

However, neither Kugath's (1997) study nor Dorsch et al.'s (2016) study included control groups to allow for a more refined understanding of the specific influence of the programmes. They were also both limited in their approach to qualitative data collection; Dorsch et al.'s (2016) due to their use of focus groups risking conformity bias, while Kugath's (1997) interviews only involved 11 of the families as a whole-family response. This likely led to key voices being missed through exclusion or through stronger voices taking precedent. Kugath's (1997) participants were self-selected to participate, introducing bias, though the

sub-sample for interview were selected through purposive sampling, ensuring a variety of backgrounds and perspectives were represented. These interviews were also conducted within the participants' homes where they felt at greater ease, and further analysis (negative case analysis) was conducted to ensure further validity. Meanwhile, Dorsch et al.'s were purposively sampled though may have been comprised by demand characteristics due to participants' rapport with one of the researchers through the programme, which was lessened by involving a second, external researcher. The trustworthiness of the focus group data would also have been strengthened through its triangulation between the three groups of participants (the individuals with disabilities, their family members and the program staff).

Overall, the findings from this section demonstrate the flexibility and continued positive relationship impacts of PC and child co-participation in these outdoor, nature-based experiences within different contexts. The differing intricacies of these relationship outcomes between studies suggest that the context and lens of the experiences make an important difference. However, on the whole they show core similarities, perhaps in relation to the mediating impact of the nature-based, outdoor environment. The historical consistency of core findings over the decades further reinforces the findings, suggesting a timeless element to the benefit of PC and child co-participation in outdoor, nature-based camps and programmes. However, the studies discussed so far have focused on organised events with a specific aim that participants have agreed to participate in or talk about. It is arguable that this may have biased the participants towards expecting and consequently experiencing a perceived positive change in their relationships with their family members, as is consistent with Vroom's (1964) Expectancy Theory of Motivation.

7.3. Unstructured family-based nature activities

This final section will explore four of the 14 studies that focus on PC and child co-participation in outdoor, nature-based experiences through unstructured events, with a greater focus on everyday living. These included studies largely focused on work by Dina Izenstark and colleagues (Izenstark et al., 2016, Izenstark & Ravindran, 2023 and Izenstark et al., 2021) which explored the impact of involving activities in nature within the family

routine, as well as a study by Toews et al. (2020) which focused on the impact of gardens in prison visitor areas.

Izenstark et al. (2016) explored rural, low-income mothers' use of family-based nature activities to promote family health, focusing on 11 rural U.S. states that were below 185% of the federal poverty level. From a larger study, 85 purposively-selected mothers with at least one child aged 12 years or younger participated. Semi-structured interviews were conducted by trained interviewers within the mothers' homes or at an alternative, convenient and comfortable location. Mothers received $30-40 for their participation and the data was analysed using grounded theory by multiple researchers. Results showed walking in nature together to be the predominant activity mentioned. It was clear that nature-based activities had become part of the family identity as a memorable activity they did together, and it was believed that nature fostered relationships within the family, with other families, the community and with the environment around them. Although this study was limited by its use of monetary reward (potentially increasing demand characteristics) and purely the mothers' perspective, the study used a large, geographically diverse sample. Particular attention was also given to increasing the quality of the findings, such as through the employment of trained interviewers and multiple researchers to allow for cross-examination of interpretations and reduce subjectivity.

A few years later, Izenstark et al. (2021) explored the affective and conversational benefits of mothers and their daughters walking together in nature. In a within-subjects experimental design, 28 mother-daughter dyads were randomly allocated to two counterbalanced conditions; a 20-minute walk together indoors, and another outdoors. This followed a 10-minute attention-fatiguing activity to increase their sensitivity to the condition effects. Data was collected through self-reported scores before and after each condition, alongside audio-recorded observations. The daughters were shown to report an increase in positive affect from the outdoor setting whilst the mothers maintained their positive affect across both. This gives interesting comparative insight into the children's views, given Izenstark et al.'s (2016) focus on the mothers' perspective. However, both the mothers and daughters reported a decrease in negative affect after both settings, though the outdoors appeared to promote more positive interactions and more substantial conversation. It was concluded that the outdoors promotes positive social interactions

between family members and the company of a family member in nature has psychological benefits. This supports Izenstark et al.'s (2016) results and suggests that only a short exposure in nature together is needed to see benefits.

However, Izenstark et al.'s (2021) study still has potential bias elicited from the monetary reward, and the reduced ecological validity from the experimental conditions and the participants' awareness that their conversations were being recorded. Nonetheless, unlike many of the selected studies so far, the two counterbalanced conditions allowed for greater clarity as to the distinct contribution of the outdoors. There were also pre- and post-measures that showed high reliability within this study, further strengthening the understanding of the impact of the walk itself. Yet the data was limited to mother and daughter relationships, limiting its generalisability to other family structures and relationships.

Izenstark and Ravindran (2023) most recently expanded this lens through exploring the associations between childhood family-based nature activities and family relationship quality in emerging adulthood. This was from the perspective of 451 undergraduate students aged 17 to 27 years from a university on the West Coast of the United States, who answered a retrospective, online survey between 2018 to 2020. This involved sociodemographic questions and self-reported Likert-scale questions measuring family communication, cohesion, social support and the type and regularity of family-based nature activities across different stages of their life. Results showed participants with greater stability in their involvement in family-based nature activities to have more positive family relationship quality in emerging adulthood. It also appeared that participation in social, physical, nature-focused and travel types of outdoor family activities in particular were related to this, as opposed to participation through sports and entertainment. This suggests that activities with greater direct interaction with nature elicit greater relationship outcomes, strengthening the idea of the natural environment being the key contributor to this difference.

This study complimented Izenstark's previously mentioned studies through gaining the children of the family's perspectives on their family-based experiences across different periods of their lives. Although this was measured through quantitative means that did not allow for elaboration, the measures did allow for a variety of aspects to be accounted for,

creating a more holistic picture across childhood. This retrospective nature of the data does risk influence from memory and recall bias, and given the responses were from a largely female sample (85.5%), there are still underrepresented perspectives from brothers and fathers. Students were also motivated to answer the survey through the reward of receiving credits, potentially reducing the accuracy of the data. However, the data from surveys with fewer than two responses were removed and the scales themselves showed good internal consistency reliability and good internal validity, increasing the likelihood of the responses being accurate.

The above studies have explored the experiences of PCs and children who have lived together, however alternative family setups (such as those who live apart) have not been explicitly considered. A final study by Toews et al. (2020) did exactly this, through a mixed methods study investigating incarcerated women's and their visitors' use, preferences for and perceived impact of a prison garden. An anonymous survey including open and closed questions was completed over three weeks by 81 adult respondents. This constituted 36 incarcerated women, two adult children of incarcerated mothers, 31 family members, eight adult friends and one caregiver of a child with an incarcerated mother. Meanwhile, 18 hand-drawn pictures were received from children aged 17 years or under of their favourite place in the garden, over the same time period. Twenty-three semi-structured interviews lasting ten minutes on average were then conducted with incarcerated women and their visitor(s) resulting in 50 interviewees in total. These explored their evaluation, use and perceived impact of the garden and their ideas for improvement.

Results from Toews et al. (2020) showed the garden to facilitate more natural, home-like interactions between mothers and children, and interviewees described direct improvements in parent and child relationships. This was attributed to the increased frequency, length and quality of visits since the garden's creation. Mothers reported feeling more like the mother they were before prison, with more private space to balance attention across children and connect with other family members. The results were strengthened by data collected across different weathers and contexts and by the mixed-methods design, allowing a more holistic understanding from different perspectives. However, the ten-minute interviews likely limited depth due to their shortness, and families' presence may have limited interviewees' honesty. The children's drawings risked subjective researcher

interpretation, and extraneous variables such as the nature of the preexisting family relationships were not considered or controlled for, limiting conclusions about the garden's unique impact. Nonetheless, this study showed that joint outdoor, nature-based experiences can positively impact PC-child relationships, even in alternative family setups and man-made outdoor spaces.

8. Part 1b chapter summary and holistic critique

This systematic literature review detailed 14 studies with the aim of answering the research question; *How are the relationships of PCs and their children impacted by their co-participation in outdoor, nature-based experiences?* These studies fell into three categories; wilderness family camps, recreational outdoor family programmes and unstructured, family-based nature activities. Studies within the first two categories showed a wide variety of relationship outcomes whilst those from the unstructured family-based nature activities showed a smaller range, echoing those mentioned by the previous studies. The studies from the wilderness family camps focused on challenge, with common relationship outcomes being better communication, negotiation and cooperation between PCs and children, alongside greater trust. Across the three categories, the wilderness family camp studies uniquely contributed to families experiencing reduced anxiety about the future, an increased sense of gratitude for each other, a shared sense of accomplishment and pride in each other and an improved relationship with nature.

The recreational outdoor family programme studies had a more therapeutic focus, commonly resulting in better family functioning, cohesion, adaptability and stability as well as a greater awareness of and openness to discussing issues, leading to increased support for each other. This latter outcome was unique to the recreational outdoor family programmes, as well as a discovery of family strengths, areas for future improvement and children's greater sense of inclusion within the family and family decisions. PCs and their children also engaged in more shared problem-solving and the experiences elicited the building and sharing of memories. Meanwhile, the unstructured, family-based nature activities studies showed the building and maintaining of positive relationships as the most common relationship outcome from the studies, and did not bring any new outcomes.

The findings from this literature review show strong support for the positive impact that PC and child co-participation in outdoor nature-based experiences has on their relationships. It suggests that the recreational outdoor family programmes; most of which were fluid or one-off attendance for a single day; showed just as many (if not more) relationship outcomes as the residential wilderness family camps that lasted for three to nine days consecutively. This implies that the time and resources invested in these experiences do not have to be extensive to reap benefits. The unstructured family-based nature activities also showed how more spontaneous family routines can create positive relationship impacts, even just through time together in a garden. However, the organised programmes with intentional activities within natural landscapes did show a greater variety of relationship outcomes.

The generalisability of the systematic review results is limited, due to all of the studies being USA-based (further discussed in *Part Three, section 2.2*) and having limited participant demographics, especially in the high proportion of individuals identifying as White compared to black and minority ethnic groups, further repressing unrepresented voices. There is also the possibility that the studies were biased towards families who had engaged in the experiences until the end, not accounting for those who did not attend fully or had potentially dropped out, biasing the results towards those with more positive experiences and perspectives. However, across the 14 studies there were a range of contexts, time frames and perspectives considered across several decades, with strong agreement in the relationship impacts found across them. This strengthens the conclusion that the co-participation of PCs and their children in outdoor, nature-based experiences can strengthen their relationships with each other and others.

Part 1c. Relevance to Educational Psychology in Practice

9. Relevance to educational psychology in practice

Despite a strong theoretical basis for the use of the outdoors in creating a relationship-building space for PCs and their children, there is limited empirical research exploring its impact or individuals' experiences of it, especially outside of the USA. Research further extending this to the Educational Psychology profession is currently non-existent, tested through combining the systematic search terms above with '*educational psycholog*',* with no relevant results received. This is surprising, given the increasing systemic involvement that educational psychologists (EPs) have with families to support CYP's educational and emotional development (Young et al., 2019), including the development of interventions and involvement in therapeutic work with PCs (Atkinson et al., 2011).

9.1. Systemic role of the EP

As acknowledged by Bronfenbrenner's theory of human development (Bronfenbrenner, 1992; 2005) and Pellegrini (2009), home and school are two significantly influential settings in a child's life in which the events of one have a reciprocal impact on the child's experience of the other. Dowling and Osborne (2003) advocated for a joint systems approach between home and school in which the two work together to more effectively address children's difficulties. However, the linking of the home and school system in EP practice has progressed slowly over the years with some such as Peake (1999) arguing that the profession prioritises schools' and local authority needs over those of parents and families. Jones (2003) advocated for EP practice to have a greater focus on the child and family which was supported by MacKay (2006) who said that EPs are 'uniquely placed' (p.14) to provide collaborative, holistic service across the home, school and community. More recent studies such as by Buehler and O'Brien (2011) and Newland (2014) have also shown parenting capacity, family wellbeing and family relationships to be key predictors of child wellbeing and resilience. Given these are central aims within EP practice, it is logical for EPs to focus on these family-based influences within their work (McGuiggan, 2020). Dunsmuir et al. (2014) argued that working with parents is widely accepted as central to good practice for practitioner psychologists.

The strength of the caregiver-child relationship has also shown to have an impact on the CYP's academic performance. A longitudinal study of 402 students aged 12- to 17-years-old showed those with positively perceived parent-child relationships to report higher academic psychological capital and achieve better academic performance (Carmona-Halty et al., 2022). Studies by Rathee and Kumari (2022), Prakash (2022) and Toor (2021) supported this, showing significant positive correlations between parent-child relationships and academic achievement in secondary school students. In particular, Prakash (2022) found parental acceptance and involvement to promote academic self-efficacy, reducing academic stress which enabled successful academic performance.

Cowan and Cowan (2002) highlighted that interventions targeting parent-child relationships have also been found to further improve CYP's academic outcomes. However they also emphasise the need for these relationships to be considered in the context of relationships inside and outside of the family, such as those with peers, their teachers and within their school, neighbourhood and other cultural institutions. This is important considering the strong evidence base supporting the improvements in academic performance as a result of positive student-teacher (Al Nasseri et al., 2014), student-peer (Kiuru et al., 2015; Van Herpen et al. 2024; Yu et al., 2023) and parent-teacher relationships (Fu et al., 2022; Hughes & Kwok, 2007; Russel & Qiu, 2024). This further emphasises the importance of the EP's role in facilitating these connections when working between these systems, to benefit the CYP's academic performance, alongside their social and emotional development.

Despite this strong support for direct EP involvement with family systems as well as school systems, McGuiggan's (2021) recent small-scale exploration of EPs' work with families highlighted a dissonance of perceptions on the matter. EPs reported limited opportunity for family-based interventions in their current work, though showed a desire to engage in this and saw it as a valuable contribution of the EP role. Unfortunately, a traded service model was viewed as a significant barrier in this form of work; a form of service delivery that is becoming increasingly implemented (Woods, 2014a; 2014b); though hope of further exploring family-based interventions in this context was sparked. Some EPs have achieved this through facilitating multi-family groups in schools, acknowledging that schools play a significant role in early intervention (Whittles, 2020). These provide therapeutic

intervention to a group of parents and children who collaboratively engage in tasks to support targeted outcomes for the children, such as around emotional wellbeing (Asen & Scholz, 2010). These are focused within the school setting as opposed to outdoors and have occurred in UK schools for over 30 years, though research on their effectiveness in this context is sparse (Whittles, 2020).

9.1.1. The contribution of the outdoor world to the EP role

EPs are required under the Health and Care Professions Council (HCPC, 2024) as well as the British Psychological Society (BPS, 2021) to have awareness of the impact of culture, equality and diversity on their practice, promoting inclusion and equal opportunities to enable all children and young people to thrive (Children and Families Act, 2014; UK Government, 1995; 2010). This can include supporting the secure attachments between CYP, their caregivers and their school to enable access to the developmental and educational benefits these can reap (Randall, 2010) as well as facilitating equitable opportunities for CYP and their families to access the benefits of nature (e.g. Gill, 2014). This is especially pertinent given the regional inequalities in access to natural, green space (ONS, 2021) which are further mediated by family socioeconomic status (Ridge, 2011). It is important for EPs to attend to the further exacerbated inequalities from the COVID-19 pandemic which impacted numerous aspects of CYP's lives, including their access to natural, green space (Howlett & Turner, 2021), their academic attainment (Blundell et al., 2022) and parent-child relationships (Andrew et al., 2022; Lee & Tipoe, 2021; Hupkau et al., 2023; Bryson & McKay, 2020).

In recent years, there has also been increasing advocacy within the research field for the increased involvement of EPs in matters regarding nature and the climate crisis, notably O'Hare's (2022) advocacy for the potential role of the EP in the context of the wide-ranging impacts of the climate breakdown on CYP, their families and communities. McNally (2022) also argued for EPs playing a greater role in increasing CYP's contact with nature, suggesting that EPs are well-placed to bring their skills in research, consultation and systemic change to support and develop initiatives. EPs could also play a pivotal role in ensuring the ethical and evidence-based implementation of opportunities, given these are fundamental values within the profession (BPS, 2021). This is especially pertinent following concerns and allegations raised regarding the coercion, harm to participants and inadequate regulation of

wilderness programs within the "troubled teen industry"; a term given to the system of youth treatment facilities operating primarily in the USA (Stull, 2021) which have sparked the creation of advocacy groups calling for ethical practice (Mater, 2022).

As is learnt through implementation science, evidence-based interventions also require careful, authentic adoption to ensure their effective application, which EPs are in an ideal position to support through their collaboration and familiarity with schools and their knowledge of supporting theory (Moir, 2018). Successful implementation is complex and requires pragmatic consideration, understanding what is feasible amidst restrictions on time, funding and resource and relevant to the local context (Moir, 2018). For this reason, it is important to research organically-arisen interventions and grass-root projects in order to inform effective recommendations for EP services and service users and allow for gaps in the research field to be addressed from an ecologically valid perspective. Given the established benefit of home and school collaboration within EP work (e.g. Mackay, 2006), the increasingly systemic focus within EP involvement (e.g. Pellegrini, 2009) and a greater acknowledgement of the natural world within the profession (e.g. O'Hare, 2022 and McNally, 2022), an amalgamation of these aspects within the EP role is fitting.

10.   The current study

The above literature review highlighted the valuable benefits that can arise from combining joint relationship-building experiences between PCs and their children within the context of the natural, outdoor world. However, it has also exposed the sparsity of research into this area, especially any that is outside of the USA or that was considered in the context of school or the role of the EP. Although a range of formats for such interventions were explored within the identified studies, none researched the application of a set series of individual sessions over several weeks, and most researchers had direct involvement in their implementation. The studies themselves highlighted a need for more qualitative and longitudinal methods within future research into this area (Freeman & Zabriskie, 2002).

This limited scope is additionally interesting given that nature-based, outdoor PC-child sessions are occurring within the UK. Admittedly, those advertised online are predominantly organised in England with an early years focus through community groups,

services or forest schools (independently from mainstream schools) and require payment to participate (e.g. Painshill, 2025). This does not exclude the possibility of wider opportunities that may be occurring without online publicity. Nonetheless, it appears that research on the impact of such programmes is either not being conducted or is not being published within mainstream research avenues. This reduces the extent to which such initiatives can become recognised and establish credibility and limits opportunities for collaboration and funding on further research or incentives (Madden et al., 2024).

The current study sought to address this gap in the research, contributing to the intersection of studies involving child-caregiver relationships and joint engagement in the natural, outdoor world. It explores the experiences and perceptions of two facilitators and five PCs who had taken part in an outdoor, nature-based PC and child group intervention through a mainstream primary school, with a focus on relationships.

10.1. Research questions (RQs)

Interpretative Phenomenological Analysis (IPA) was the data analysis method of choice for the current study. This allowed the freedom for the participants' lived experiences from the intervention to be valued without firm boundaries constricting their responses (Smith et al., 2021). This was especially pertinent given the limited field of research into such interventions amidst the plentiful research evidencing the variety of outcomes that can result from different elements of such an intervention. Considering the two groups involved in this analysis, a multiperspectival approach to IPA was adopted, allowing for acknowledgement to be given to the space between the meaning-making of the two participant groups (Larkin et al., 2019). As such, the following RQs reflect this promotion of the participants' rich and unique experiences and the analysis approach:

RQ1: How did the PCs perceive and experience the outdoor, nature-based PC and child intervention?

RQ2: How did the facilitators perceive and experience the outdoor, nature-based PC and child intervention?

RQ3: What understanding does the convergence and divergence of the PCs' and facilitators' perspectives and experiences provide about the outdoor, nature-based PC and child intervention and its implications for educational psychology practice and wider systems?

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"It should be compulsory for all parents and children."

Experiences of an Outdoor, Nature-Based Parent/Carer and Child Intervention:

A Multiperspectival Interpretative Phenomenological Analysis

Part Two: Major Empirical Study

Word count: 11,929

1. Abstract

The aim of this study was to explore the experiences and perceptions of two facilitators and five PCs who had taken part in an outdoor, nature-based PC and child intervention with a focus on relationships. The researcher interviewed two facilitators and five PCs who took part in the intervention from November to December 2023. IPA (Smith et al., 2021) was adopted throughout the study, informing the use of semi-structured interviews focused on the participants' retrospective perceptions and experiences of the intervention. Following immersion into the researcher's interpretation of each participant's data, group themes for each participant group were created. This was followed by consideration of the space *between* the findings of the two groups through a multiperspectival IPA data analysis approach, giving voice to the rich, mutual meaning-making that occurs between individuals (Larkin et al., 2019). This resulted in the creation of four overarching themes; *Strengthening the microsystem, Safe community, Risk versus freedom* and *Seeds of hope*, ultimately emphasising nature's contribution to the intervention and its potential use in future incentives. This is further discussed with relation to psychological theory and research, following which the strengths and limitations of the study are outlined and implications for educational psychologists (EPs), schools, families and wider systems and are considered, alongside avenues for future research.

2. Introduction

For many decades, the benefits of connecting with nature (Gill, 2023; Mason et al., 2021; Vella-Brodrick & Gilowska, 2022; Silva et al., 2024) and the importance of the caregiver and child relationship (Swets & Cox, 2023) have been highlighted. Theories advocating for the building of caregiver and child relationships suggest that nature could provide a conducive environment for this. For example, Hughes' (2009) PACE model promotes playfulness and curiosity in caregiver and child interactions, whilst Schofield and Beek's (2018) Secure Base model encourages caregivers to engage in new, enjoyable activities and play. A briefing paper by Gordon (n.d.) more explicitly linked the Secure Base model (Schofield & Beek, 2014) with the promotion of outdoor play between caregivers and children in consideration of the numerous benefits and opportunities that the outdoor environment provides.

However, CYP are becoming increasingly disconnected from nature due to increasing urbanisation, restricted safe outdoor space and greater indoor play opportunities (Summers & Vivian, 2018). With more caregivers working than in previous generations (ONS, 2022), PCs are less likely to have the time and energy to commit to their CYP (Fantoli-Frommelt, 2024). The COVID-19 pandemic further exacerbated inequalities in access to nature (Blundell et al., 2022) and family relationships (Andrew et al., 2022; Lee & Tipoe, 2021). This had a particularly negative impact on CYP from low socio-economic backgrounds (Friedman et al., 2021), urban locations (Howlett & Turner, 2021), parents of young children (Lee & Tipoe, 2021) and children from separated families with less stable relationships with their non-resident parents (Bryson & McKay, 2020).

Literature has explored the impact of PC and child co-participation in outdoor, nature-based experiences; however this is limited. A systematic literature review conducted in October 2024 revealed only fourteen relevant peer-reviewed studies, all based in the USA. These found a range of relationship benefits from experiences involving family wilderness camps, recreational outdoor family programmes and unstructured family-based nature activities. The review highlighted a significant lack of research into such experiences within the UK in more accessible and community-focused contexts. There are also limited studies on experiences that have occurred organically without researcher involvement, and

none involving a series of weekly sessions. These papers themselves highlighted a further need for more qualitative and longitudinal methods within future research into this area (Freeman & Zabriskie, 2002).

There is also a significant gap in the literature linking such experiences to the school context or the role of the EP. Considering the influence that a CYP's relationship with their PCs can have on their academic performance (Carmona-Halty et al., 2020), this is an important consideration. Bronfenbrenner's (1992; 2005) theory of human development highlights the influence of these wider factors in an individual's life, and as such, home and school have shown to be two significantly influential settings in a child's life in which the events of one have a reciprocal impact on the child's experience of the other (Pellegrini, 2009). EPs are increasingly working with wider systems surrounding a CYP to support the CYP's educational and emotional development (Young et al., 2019), including the development of interventions and involvement in therapeutic work with PCs (Atkinson et al., 2011). EPs also value evidence-based, ethical practice which includes promoting equal opportunities (BPS, 2011), making them well-placed to support and develop such initiatives alongside their knowledge of implementation science (Moir, 2018), and their skills in research, consultation and systemic change (McNally, 2022).

2.1. The current study

This study aims to explore the experiences and perceptions of two facilitators and five PCs who had taken part in an outdoor, nature-based PC and child intervention with a focus on relationships, delivered through a mainstream primary school. IPA is adopted to explore this aim, involving the analysis of the retrospective perceptions and experiences of the facilitators and PCs who took part in the intervention from November to December 2023. Considering the exploratory aim of this approach and the ethos that participants were 'experts-by-experience' (Smith et al., 2021, p.50), the nature of the findings was not hypothesised. Instead, meaning was inductively evoked and derived from their experiences and perspectives with acknowledgement also given to the space between the two participant groups, through a multiperspectival approach to analysis (Larkin et al., 2019). Implications for EP practice, wider systems and future research are drawn alongside acknowledgement of the strengths and limitations of the study.

2.1.1. Research questions

RQ1: How did the facilitators perceive and experience the outdoor, nature-based PC and child intervention?

RQ2: How did the parents and carers perceive and experience the outdoor, nature-based PC and child intervention?

RQ3: What understanding does the convergence and divergence of the PCs' and facilitators' perspectives and experiences provide about the outdoor, nature-based PC and child intervention and its implications for educational psychology practice and wider systems?

3. Methodology

3.1. Theoretical framework

This study was guided by the theoretical framework shown in Figure 4 below.

Figure 4: *Theoretical framework of the current study.*

Ontology	Epistemology	Theoretical Base	Method
Critical realist	Social constructionist	Multiperspectival IPA	Semi-structured interviews
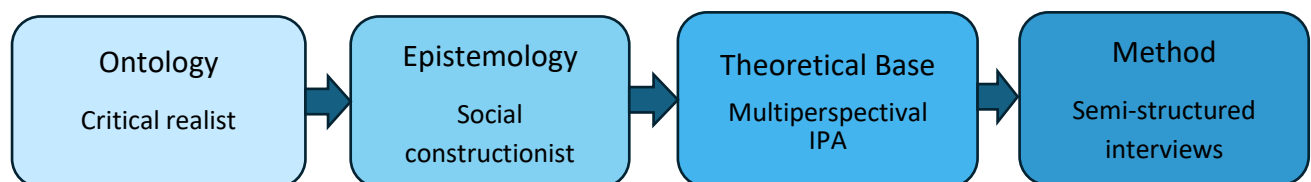
3.2. Research design and paradigm

A qualitative design was used to capture the rich experiences and perspectives of the PCs and facilitators involved in the outdoor PC and child intervention. A social constructionist epistemological stance was adopted, underpinned by a critical realist ontology. A critical realist ontology acknowledges the existence of some form of common reality but recognises that our perspectives, experiences and knowledge vary as we cannot fully access reality (Kozhevnikov & Vincent, 2020). This supports the researcher's acknowledgement of a form of common reality, such as the facilitators and PCs having shared a particular experience in the time frame specified, whilst allowing for the researcher's appreciation that each participant would have their own substantiations of the experience and that no one 'truth' exists regarding this.

Meanwhile, a social constructionist epistemology recognises that phenomena are constructed through the language used to discuss them (Burr, 2015) and influenced by the cultural and social setting in which they occur (Gergen, 2015). Whereas a constructivist epistemology places the construction of meaning within the individual (Gergen, 2015), social constructionism focuses on the co-creation of knowledge through social processes and interactions (Burr, 2015). As such, allowing for the participants' constructs of their experience to contain contradictions and changes over time, influenced by their potential co-construction with others within and/or outside of the intervention and with the researcher through the interview process. This is relevant to the multiperspectival design adopted within this study, which intentionally explores what happens *between* the

individuals involved, which Larkin et al. (2019) state as a fundamental idea encompassing family therapy and human systems theory. See *Part Three, section 2.3.1* for further elaboration on these adopted perspectives as well as the researcher's underpinning axiology.

3.3. The intervention

This intervention took place through a mainstream primary school in the West Midlands of England. This school was chosen due to pragmatic considerations as well as the potential contribution of its intervention to the research base, as explored in Table 3.

Table 3: *Considerations informing this school's selection for participation.*

Pragmatic considerations	Unique contribution to research
The researcher was working alongside this school as part of their professional placement as of September 2023. This meant that the researcher had: • A richer understanding of the context of this intervention. • Pre-existing relationships with school staff to aid recruitment. • Regular access to the school to facilitate the offer of face-to-face interviews at a logistically convenient time for the participants. The pre-existing relationships between the school's Inclusion Lead and the PC participants could also be drawn upon to support the ethical recruitment of PC participants.	• This was the only school, within the researcher's awareness, carrying out this form of intervention within the local authority in which the researcher was based. • This intervention reflected an initiative organically implemented by a school in response to recognised need, which was free for the PCs and children to access. It was also located within one of the 10% most income-deprived areas of the UK (ONS, 2021), indicating what can be locally achieved with the right support and resources*.

* Funding was secured by the school to enable collaboration with the local outdoor education service.

The school's Inclusion Lead worked alongside an external Outdoor Educator to co-create and facilitate four morning sessions for five PCs and their children, who were students in Year 4 or 5 at the school. PC and child pairs had been individually invited by the Inclusion Lead, in response to the recognition that the wellbeing and school experience of the children involved could be nurtured through creating opportunities for one-to-one connection with their PCs, in the context of circumstances that may have impacted this (such as care experiences and family illness). The sessions spanned four weeks during November and December 2023, prior to the researcher's involvement. They were informed by the professional knowledge of each facilitator with a particular focus on contributions including attachment theory, outdoor education, growth mindset (Dweck, 2016) and Theraplay® (Norris & Lender, 2020). These sessions lasted three hours each and took place during school hours. They began and ended with the group walking together between the school and local town park, during which conversation and joint attention on the natural surroundings were encouraged, with co-participation of the nature-based activities in Table 4 facilitated within the town park.

Table 4: *Intervention programme for each session.*

Date	Programme
14/11/23	PC and child pairs engaged in a bush craft activity followed by a group fire pit with discussion.
21/11/23	Orienteering task in which the PCs and children worked together to find photos across the park. A guided walkie-talkie activity in which the PCs sat where they could not see their children, relaying instructions to them via walkie-talkies to guide them to hidden clues across the park.
28/11/23	PC and child pairs attempted to make small, water-tight shelters for an animal figure to sit in, using natural materials that they found. They then made their own fires and had smores and hot chocolate.
12/12/23	PCs and their children supported each other across an outdoor high ropes course.

3.4. Interpretative phenomenological analysis (IPA)

This study adopted an IPA approach, allowing exploration into the participants' unique and subjective perceptions and experiences of the intervention that is inductive as opposed to being guided by a predetermined theory (Cohen et al., 2017). This is due to IPA's theoretical underpinnings of phenomenology (study of conscious, subjective experience), hermeneutics (interpretation and analysis of how a phenomenon appears) and ideography (detailed study of individual instance, Smith et al., 2021). Within IPA, a double hermeneutic process occurs in which the researcher subjectively interprets the interviewee's own understandings of their experience and perceptions. The researcher then provides an additional perspective through analysis of the reported experience, its connections with other accounts in the dataset and through links to psychological theory (Smith et al., 2021).

Although the adopted epistemology and ontology are not archetypal when using IPA, this approach was chosen because of its qualitative, phenomenological focus on how individuals make sense of their life experiences and its suitability for a small, purposive and homogenous sample (Smith et al., 2021), as in the current study. Although previous research on this topic has not shown to utilise this method, the use of IPA in educational research has been supported (Noon, 2018). This researcher saw multiperspectival IPA to align with a social constructionist epistemology and critical realist ontology through the shared acknowledgement of there being no singular 'truth' (Burr, 2015; Kozhevnikov & Vincent, 2020; Smith et al., 2021) whilst still allowing for social constructs to be situated within a common external reality (Fish, 1996; in Crotty, 1998). As such, it was believed that the preservation of the participants' idiographic experiences was possible whilst accepting that the homogenous sample of participants used in IPA (Smith et al., 2021) accessed some form of common external reality (see *Part Three, section 2.3.1* for more details).

3.4.1. Multiperspectival IPA

This study adopts multiperspectival IPA, extending the commitment to idiography by combining two distinct perspectives from directly related groups who have been immersed in the same experience. This design maintains IPA's phenomenological and hermeneutical grounding whilst adopting a more systemic perspective, increasing the inferential range of

the inquiry (Larkin et al., 2019). As Larkin et al. (2019) state, "Meaning is 'in between' us, but is rarely studied that way in phenomenological inquiry." (p. 194).

3.5. Semi-structured interviews

Participants' views were collected using semi-structured interviews between April and June 2024. This allowed for the rich exploration of narratives that naturally arose through the interview with a focus on the participants' individual experiences and perceptions. It was hoped that the open-ended questions would also prompt a sense of empowerment for the participants, allowing them to focus on what they perceive as important (Smith & Osborn, 2015). Although the adoption of multiperspectival IPA extends to the meaning created *between* both groups of participants (Larkin et al., 2019), individual interviews were still deemed as more appropriate than focus groups, for example. This is because they allowed for the rich exploration and immersion into each individuals' sense-making of the intervention in the context of their personal circumstances and world-view, in line with the phenomenological focus of IPA (Smith et al., 2021).

The provisional interview questions for the participants (Appendix I) included six key questions following guidance from Smith et al. (2021). Prompts were provided with priority given to the direction of conversation taken by the participant. Participants had the option to attend the interviews online via Microsoft Teams or in person within an allocated room at the associated primary school. The interviews were recorded and transcribed via Microsoft Word, with the transcripts later refined by the researcher.

3.6. Participants

IPA is most effectively used with a small, homogenous sample of participants who have shared a similar experience or phenomenon (Smith et al., 2021). In the case of multiperspectival IPA, these are two homogenous groups that are interlinked (Larkin et al., 2019); in this case through having different perspectives on the same, shared experience. The researcher purposively selected and recruited the two facilitators and five PCs who took part in the intervention during November to December 2023. This was in line with Smith et al.'s (2021) recommended sample size of four to ten participants for professional doctoral theses. Although this researcher would have ideally included the children's voice too, within

the limits of sample size and time the voices of the PCs were prioritised given their co-participation with their children was a key, unique factor within this intervention and the researcher perceived their ability to indicate their children's experiences through second-hand reports. The facilitators were also prioritised as they gave key insight into the implementation of the sessions and a more removed stance on its impact, enabling a wider systemic perspective to be gained.

3.6.1. Participation criteria

The participation criteria can be found in Table 5 (for facilitator participants) and Table 6 (for parents/carer participants) below. These criteria only excluded one PC from taking part, who attended only one of the sessions.

Table 5: *Inclusion and exclusion criteria for facilitator participants.*

Inclusion Criteria	Exclusion Criteria
• Have planned, organised and facilitated all of the PC and child intervention sessions run in November to December 2023.	• Have not planned, organised and facilitated all of the PC and child intervention sessions run in November to December 2023.
• To be able to give informed consent and engage in a detailed discussion about their perspective and experiences.	• Unable to give informed consent and engage in a detailed discussion about their perspective and experiences.
• Aged 18 years or above.	• Aged under 18 years.

Table 6: *Inclusion and exclusion criteria for PC participants.*

Inclusion Criteria	Exclusion Criteria
• Have taken part in the majority of the PC and child intervention sessions (three of the four) run in November to December 2023.	• Have not taken part in the majority of the PC and child intervention sessions (three of the four) run in November to December 2023.

• To be able to give informed consent and engage in a detailed discussion about their perspective and experiences. • Aged 18 years or above.	• Unable to give informed consent and engage in a detailed discussion about their perspective and experiences. • Aged below 18 years.

3.6.2. Details of recruited participants

Table 7: *Characteristics of the participating facilitators and PCs*

All Participants	Facilitators	PCs

• Lived in the West Midlands of England at the point of participation in the intervention and at the point of interview.	• N = 2: Robin and Francis*
	 • Professional roles:
	    o School Inclusion Lead (N = 1)
	    o Outdoor Educator (N = 1)
		• N = 5: Harley, Laurie, Sam, Ellis and Alex*
		 • Relationship to child who they attended the sessions with:
		    o Biological mother (N = 2)
		    o Biological father (N = 1)
		    o Grandparent with parental responsibility (N = 1)
		    o Foster carer (N = 1)

To support participant anonymity, gender-neutral pseudonyms and pronouns have been used.

3.7. Recruitment method and procedure

Ethical approval for the study was granted in April 2024. As the desired participant pool was limited to those involved in this specific intervention, both of the facilitators and all of the PCs who met the inclusion criteria were recruited through the process shown in Figure 5 and Figure 6 below.

Figure 5: *Recruitment method and procedure for the facilitator participants.*

Initial invitation e-mails

Ethical approval was granted in April 2024. The facilitators of the intervention were contacted directly via e-mail from this point by the researcher as they were already known to each other through their work in the local authority. An invitation e-mail was sent (Appendix D) detailing the study and inviting them to a phone call if desired, with the information sheet (Appendix E), online consent form link (Appendix F) and interview questions (Appendix I) attached.

Organising the interview

Follow-up e-mail conversations then confirmed a place and time for the interviews to take place.

Interviews

These were conducted either via Microsoft Teams or in-person at the school; whichever was preferred by the facilitator. Each interview began with general rapport-building conversation and clarification as to their informed consent to participation. The interviews were then audio-recorded via Microsoft Word.

Debrief

Following each interview, the researcher verbally debriefed the facilitators. They then received the debrief form (Appendix G) via e-mail, thanking them for their involvement and reminding them of their right to withdraw.

Figure 6: *Recruitment method and procedure for the PC participants.*

Gatekeeper consent

A gatekeeper e-mail (Appendix H) was sent to the facilitator who worked at the school through which the intervention took place. With respect for the pre-existing relationship they had with the PCs who participated in the intervention, this requested that they invited the PCs to consent to their contact details being shared with me and forwarding them if so.

Initial phone calls

Having received the PCs phone numbers from the facilitator, the researcher then sent the PCs an initial invitation e-mail (Appendix D) and phone-called each to introduce themself and the study and outline what their participation would involve (as per the information sheet, Appendix E), inviting them to participate. As all of the PCs invited agreed to participate, a time and place for the interview was agreed that was best for them. This facilitated the accessibility of information and the building of rapport with the PC participants.

Invitation e-mails

After phone-calls, the PCs were sent follow-up invitation e-mails (Appendix D), containing the information sheet (Appendix E), the consent form link (Appendix F) and interview questions (Appendix I), confirming their participation and the agreed time and location of the interview.

Interviews

These were conducted between May and June 2024, either via Microsoft Teams or in-person at the school; whichever was preferred by the PC. Each interview began with general rapport-building conversation and clarification as to their informed consent to participation. The interviews were then audio-recorded via Microsoft Word.

Debrief

Following each interview, the researcher verbally debriefed the PCs. They then received the debrief form (Appendix G) via e-mail, thanking them for their involvement and reminding them of their right to withdraw.

3.8. Pilot interviews

All interview data that was collected was included in the current study, due to the limited pool of participants who had experienced this specific intervention. Before the interviews, the researcher studied Smith et al.'s (2021) recommendations and rehearsed their technique with a colleague. The first interview of each participant group then acted as a pilot, with the participants being asked for feedback on their interview experience. This was used alongside the researcher's own ongoing reflection on their questioning and interview approach to improve future interview technique.

3.9. Ethical considerations

Ethical approval for this study was granted in April 2024 by the Cardiff University School of Psychology Ethics Committee, due to its adherence to ethical guidelines outlined by the BPS (2018) and the HCPC (2019). See Appendix J for details of ethical considerations.

3.10.   Validity

The validity of this study was explored using Yardley's (2000) criteria for assessing qualitative research; see Appendix K.

3.11.   Data analysis

The interviews from the facilitator and PC participants were audio-recorded and transcribed via the Microsoft Word transcription tool. These transcriptions were then manually corrected through the researcher replaying the audio recordings of the interviews. This also built the researcher's familiarity of the participants' responses, aiding immersion into their individual sense-making. The researcher also completed the analysis of each interview before progressing to the next and analysed each group's data with a week's gap, facilitating unconvoluted group-level analysis. The analysis was reviewed by the researcher's supervisor to ensure accuracy and integrity to the IPA approach.

Although there is no formal process to IPA analysis, the researcher acknowledged their inexperience and used Smith et al.'s (2021) guidance to inform the steps shown and exemplified in Appendix L. This produced Personal Experiential Themes (PETs) for each

participant (Appendix M), followed by Group Experiential Themes (GETs) for each participant group (Figure 7 and Figure 8). As outlined by Larkin et al. (2019), the multiperspectival element of the analysis *between* the two groups then involved the process outlined in Appendix L, having identified the participant groups as two 'directly related groups' (p.186). This analysis resulted in the group-level matrix shown in Appendix N and refined in Table 8 with four connecting themes identified.

In an attempt to address the criticisms of IPA subjectivity (Bryman, 2016), the researcher aimed to maintain a reflexive approach throughout the analysis process, bracketing off pre-conceptions of the topic where possible (Finley, 2008). However, the researcher acknowledged their personal and professional positionality in support of involvement in nature and their prior knowledge from their experiences, which Finley (2008) also states can provide helpful insights. As supported in the 'double hermeneutic' that IPA researchers engage in, there will always be an extent to which the researchers' subjectivity enters the process of sense-making (Smith et al, 2021). As such, the researcher saw themselves as a sculptor of the data as opposed to an archaeologist digging for a singular truth.

4. Findings

This section presents the findings from the facilitator interview analysis (*Part Two, section 4.1*) that relate to RQ1, and the PC interview analysis (*Part Two, section 4.2*) that relates to RQ2. Connections between the facilitator and PC interview analysis are then explored in *Part Two, section 4.3*, relating to the multiperspectival level of analysis (Larkin et al., 2019) referred to in RQ3.

4.1. Findings from the facilitator interview analysis

Three GETs were identified from the two facilitators' interviews: 'implicit, authentic gain from nature', 'skilful perseverance of the facilitators' and 'wider systemic ripples'. Each GET encapsulated two to three subordinate themes that were accrued from the PETs of each facilitator (Appendix M).

Figure 7: *Illustrative map of the facilitators' GETs and subordinate themes.*
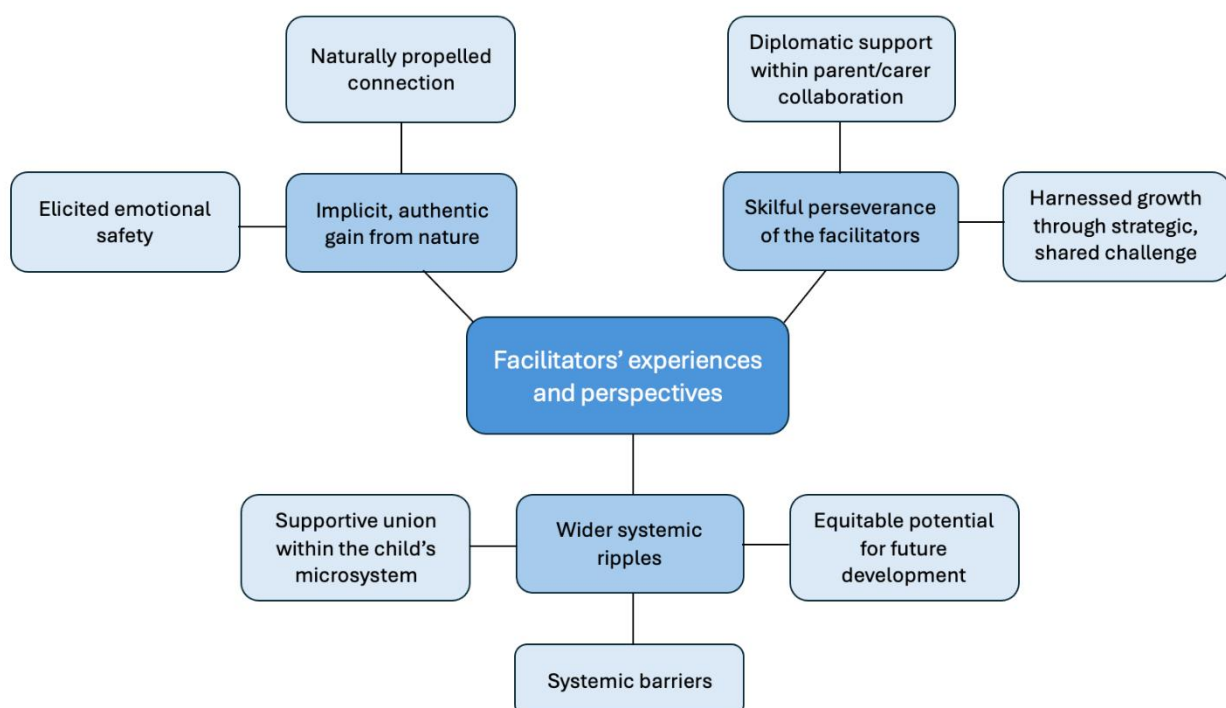
4.1.1.   Implicit, authentic gain from nature

This GET referred to the facilitators' perception of nature's contribution as a third facilitator, acting as a catalyst to the building of relationships through the promotion of joint

attention in the present moment. This enabled the creation of emotional safety between the group members in a space constructed between them.

4.1.1.1.   Naturally propelled connection

This subordinate theme highlights nature as a catalyst, accelerating connection. Both facilitators emphasised nature's authentic role in creating a dynamic environment conducive to the building of relationships by filtering distraction and capturing shared focus in the present moment, recognising it as a third facilitator. This happened in as simple as the walk to the park, suggesting the impact lay in the pace, space and place created rather than the expense or extravagance of the activity. The children quickly began to model the adults in noticing the natural world around them and showed greater authenticity and neutralised conceptions of power. The facilitators perceived their roles more as enablers, creating safe and structured opportunities to harness the benefits of nature whilst also knowing when to step back and trust the process.

"...they went from this sort of bustley, excitable... It's this sort of atmosphere to sort of well, it was just intimate. If if it- for want of other word, between parent and child." Robin talking about the walk to and from the park, p.8

"There's something powerful about fire you know, it's all in this safe and structured environment, but just it just sort of...stops. And the fire did the work for us, you know, they were just staring and enjoying and building it up and up." Robin, p.12

Francis captured how this shared focus and nature connectedness propelled the building of communication and trust within and between PC and child dyads, creating group cohesion and safety and facilitating a later shift to more vulnerable topics of conversation.

> *"...Ooh! Look at this plant, look at this tree, you know look at this thing. Can you hear the bird? Kinda thing and it's just to gain that trust and and build that sort of group dynamic. But then as you go on, you start to ask a bit more searching questions and more leading questions, just to get things- but you couldn't do that at the beginning because that trust of what I've said being kept confidential would not be there."*
> *Francis, p.8*

4.1.1.2.   Elicited emotional safety

The facilitators noticed a therapeutic and affective benefit from the outdoor environment, with the natural surroundings providing a rare pause for peace and stillness. It appeared to create a mutual, relaxed and non-judgemental space in which a sense of emotional safety and security was elicited between the group members as they grew in comfortability. The facilitators also valued silence as a time to slow the pace and make space for reflection, which the PCs appeared to become more comfortable with over time. The use of 'should' in Francis' quote below reflects the need for constant stimulation that has been normalised in society, that was being challenged through these sessions.

> *"It was really open and honest and they were just chipping in with things... [...] And I think that's the beauty of the outdoor of the of the outdoor education experience, is that it provides us the opportunities in a sort of relaxed, secure environment, I guess."*
> *Robin, p.19*
>
> *"...Sometimes when we have those conversations, you get this silence, and that silence is important. But for the parents and carers, you could see that initially they felt uncomfortable like ohh should be saying something something should be happening. No. Enjoy that silence. People can think and you know, um so that was interesting watching that develop." Francis, p.8*

This greater emotional safety appeared almost paradoxical in the context of the perceived risk and reduced physical safety that PCs had communicated to the facilitators about the outdoors. Robin also reflected on the reversal of this they had witnessed within

school environments, where CYP's physical safety has shown priority over their emotional safety.

> *"...you can build those relationships with the um students very quickly [...] They're always on guard. I just, yeah. Always on their guard." Robin talking about the contrast of working with students in the outdoors compared to at school, p.21*

The natural surroundings also appeared to provide a sense of freedom from expectation. The school-based facilitator in particular found the environment to focus their attention on the present with mindful and stress-relieving effect, leaving the demands and distractions of school life behind. They appeared to respond well to being able to construct the space flexibly with freedom from the associations and boundaries of school, aiding the compartmentalisation of it as 'their' space that held a specific, shared meaning.

4.1.2. Skilful perseverance of the facilitators

The facilitators reflected on the intentional pace and space that they collaboratively created within the sessions, encouraging the development of skills and emotional growth through engaging the PCs and children in shared challenges. This required careful planning and flexible contracting of the space with the PCs to accommodate needs and increase investment.

4.1.2.1. Harnessed growth through strategic, shared challenge

The facilitators reflected on their successful working relationship with mutual respect and trust, utilising a successful marriage of knowledge from their different disciplines. This enabled innovative, spontaneous thinking and experimentation from a place of altruistic motivation and belief in the outdoor impact, spurring their willingness to branch into the unfamiliar territory of PC collaboration and persevere in the face of challenge. The familiarity the facilitators had with the families' needs and their understanding of child development aided the tailoring of the sessions and enabled a

sensitive, targeted approach.

> *"...also personal because I get a lot of a lot of- er erm [tut]... reward from that, type of work."* Robin, p.2
>
> *"...we're very aware that for a lot of those children, things that were going on outside of school, they were thinking about during the day, that was their concentration during the day. They were then thinking about these things at home and that was affecting them, yeah."* Francis, p.2

While nature was seen as a catalyst for connection with implicit effects, the facilitators portrayed its benefits as needing to be harnessed through consciously experiencing nature as opposed to merely existing in it. They advocated for adopting lateral thinking in achieving this, bringing the activities back to basics and giving value to all opportunities for connection with a focus on the framing given to the space. They acknowledged the collaborative effort needed in this, with all participants contributing to the shaping and success of the intervention.

> *"...Somebody saying to you go for a walk when you go to a walk and you, you trudge along, you don't go to.. experience, you just go for a walk. So I think there's a difference there."* Francis, p.20

The facilitators created opportunities for shared challenge between the PCs and their children, exposing them to tasks to promote their listening, teamwork and problem-solving skills and build their resilience and self-esteem. This appeared to have an equalising impact on their relationships, with them supporting each other in overcoming fears and gaining a shared sense of achievement. The unique variety of the activities appeared to ignite a child-like curiosity in all, promoting child-led, joint attention at a pace that mirrored nature. The flexible, non-prescriptive approach seemed key to the intervention's success, with the innately dynamic space relinquishing some control and predictability, giving further permission for all to engage in riskier, outdoor play within a risk-averse society.

"...It was a real challenge for them, but they succeeded and did it and they were like wow look, I've not done anything like that since I was a kid." Robin, p.17

"Being outside meant you.. You come across all sorts of things that you don't plan for. [...] So just.. Doing things as they occur spontaneously and when the child saw something that they were interested in you, going taking notice of that as well. I think that was the important thing. So we went by some water and some of them saw something in the water. And then they're all there looking in the water. Now, the instant reaction in school is, stay away from water is not safe." Francis, p.17

4.1.2.2. Diplomatic support within PC collaboration

The facilitators reflected on the significant dynamic shift that occurred in involving the PCs in the intervention. Amidst initial fears of risk and uncertainty, they embraced this with a collaborative rather than authoritative approach, aiming to prioritise feelings of safety in the delicate contexts of the PCs' involvement. The facilitators alluded to needing to clarify the relationship-focused premise of involvement and the co-participation of the PCs, which some feared was beyond their comfort zone, adding to feelings of vulnerability.

"...It was a novel approach into unchartered waters, I mean we certainly haven't done anything like this at all with the outdoor ed service." Robin, p.15

"...People think oh wow, that's like, you know, big stuff, canoe, climbing all the big stuff- [...] And I was trying to explain to them it's not just that, you know, we're looking at how you interact with each other, giving you time together, all those kind of things. [...] ...a couple of them were like, oh, yeah, no, it's great. My child can go and do that. [...] But I'm not doing that. It's like no, but that's not what it is *small laugh*. That's the idea." Francis, p.3-4

However, clear communication, the building of trust and the sensitive management of the PC's expectations helped to overcome initial resistance. Coming alongside the PCs with understanding and flexible accommodation of individual needs further supported this, and PC investment grew with time.

The facilitators talked of prioritising the empowerment of the PCs and their children throughout the sessions, getting alongside them to aid their experiential learning. The facilitators modelled ways of encouraging the children to engage in supported risks, to develop their independence and self-esteem and to spark their curiosity and connection with nature. They felt that over time the PC became motivated to replicate these approaches; an outcome stemming from their co-participation in the activities.

"And I guess that's what our work is all about, that we do it... with them." Robin, p.31

The facilitators perceived greater risk-aversion and hesitation from the PCs who were direct relatives to their children, needing to provide greater encouragement and permission for them to enable riskier play compared to the foster carers. This suggested that the dynamic of the caregiver-child relationship impacted opportunities to navigate such risks.

"...Those that are the foster carers, they were quite fine with this. They were like as long as this is safe and we know that there's safety in place, yeah, let's give it a go, this is great, this is healthy. It was more those who were connected as a family, either a parent or a carer, it was kind of like, oh, I don't know if they can." Francis, p.10-11

The intervention also highlighted the need to navigate the differing agendas of the facilitators and PCs. This included how the activities were carried out, with some PCs preferring to conduct them just with their child as opposed to as a group or vice versa, requiring flexibility and clarity as to the purpose of the tasks, as Francis eludes to below.

"...We'd put this together thinking that parent and that child can walk and talk together, but they didn't. They formed little groups and then that sort of thing changed how we were with them, because we were thinking this is your personal time together, but then they were talking to somebody else and we were like no, no, no let's be talking. So, so we changed how we did things to increase that personal time, but also increase the group, sort of dynamic time..." Francis, p.6

The progression of relationships was also interrupted by the inconsistency of PC attendance due to external responsibilities, limiting the sense of safety within the group and the efficacy of the intervention. This alerted the facilitators to the need for flexibility and the prioritisation of accessibility when involving PCs and of the greater risk of involving PCs for greater reward, given the PCs' agendas also had direct implications on their children's attendance and experience.

4.1.3. Wider, systemic ripples

Finally, the facilitators looked to the wider implications of the intervention. This included the opportunities it posed in bringing together the systems around a child to create equitable and inclusive opportunities to explore and meet their needs. However, the systemic barriers to this were also acknowledged.

4.1.3.1. *Supportive union within the child's microsystem*

The facilitators shared how the intervention broke down perceived barriers between home and school by taking both into a separate, mutual space. Francis' quote below gives a metaphorical impression of the physical barriers of the school perpetuating the mental barriers, hindering collaboration and progress.

> *"...as a school you try as much as you can to be welcoming and encourage them in. But for a lot of parents and carers, it's like, no, there's the gate, I'm standing outside, you're inside, and I'm not coming and I think this just helped breach that and bring them in and encourage them in." Francis, p.6*

This collaboration in a neutral, outdoor space also appeared to equalise power dynamics, reducing blame, responsibility or pressure that may have been implied if the sessions took place at the school or at the family home, creating greater receptivity. This also gave the facilitators and PCs a holistic, shared insight into the needs of the children, the impact of their environment and how they could best be supported. Francis reflected on how this increased the openness, honesty, trust and respect between home and school following the intervention, leaving them feeling more like a supportive friend rather than a professional perceived in a hierarchy. This positively impacted on the children's school

experience, especially given the ongoing presence of the school-based facilitator in the children's school lives.

This prioritisation of the PC's engagement appeared key in the success of the intervention, upskilling them and boosting the longevity of the impact. The transference of the PC's outlook onto their children increased the importance of bringing the PCs on this journey. Amidst the multidirectional building of relationships, the facilitators noticed a shift in the PC's perspectives on school at a wider level, dispelling negative impressions they had held from their childhood. These changing attitudes had direct implications on the attitudes of their children towards school, further benefitting their outcomes upon leaving the intervention.

"...I think their expectations were less or not as positive as they actually experienced. And I think that's a lot of the success that we got from that... [tut] um. We we showed them that obviously school has changed." Robin, p.38

The facilitators also noticed the forming of relationships between families in the group, as the group developed a sense of safety, empathy, vulnerability and community with each other. It was speculated that the relatability of life events supported this by reducing shame and building a dynamic of understanding, empathy and belonging. This appeared to free the PC's mental capacity, enabling them to focus more on their connection with their children. Friendly, respectful competition began to develop in the context of group support where they also shared pride, supporting each other through challenges and ultimately building their resilience alongside each other. This helped to form a group identity that the children thrived off, developing their social skills which transferred to their school life, supporting their relationships with their peers and teachers.

> *"...as the weeks went on, you could see the connections between those adults, that was changing. So, I think well it's it's being more relaxed, isn't it? I think making those connections, it makes you feel more relaxed because you think, OK, I'm trusted here and I'm not, you know, somebody's not looking at me and judging me..." Francis, p.20*
>
> *"...we gave them an identity... And that was, you know, not something that we discussed before, but. These children definitely had a group identity." Robin, p.39*

Despite the non-academic focus, the facilitators also shared wider skill development that they believed the children benefitted from in their executive functioning, lateral thinking, resilience and independence that would support their school wellbeing, readiness for learning and prepare them for life beyond school. This was largely through introducing them to situations just outside of their comfort zone and modelling clear expectations and boundaries.

> *"...wanted them to build up their resilience. It's like when they when they faced with a new situation, what skills have they got to be able to face up to the situation. And even and if it's a new situation that they have never met before, can they work it out?" Robin, p.31*

4.1.3.2.   Equitable potential for future development

The facilitators perceived the overall success of the intervention to unveil future possibilities in further increasing its accessibility and impact. Robin reflected on the equitable and inclusive opportunities that it could inspire, especially as an antidote to the exacerbating impacts of the COVID-19 pandemic.

> *"How do you go from that though from, from being cooped together in small flat. As in, you know, as an example, to building some of those relationships, which must've been strained in those COVID times? [...] ...but they went from that to producing some of those small, I would say it's small, tiny moments..." Robin, p.20*

Robin referred to the small moments that can be created during the intervention through relatively low-cost means that plant seeds of hope for families. This gave the implication of greater accessibility and affordability of the intervention for systems such as schools, needing merely an outdoor space and appropriate knowledge to aid facilitation. Francis furthered this, acknowledging that it may not be necessary for schools to buy into third-party organisations, though this collaboration of knowledge arguably strengthened the organisation and facilitation of the sessions.

> *"...Some of the activities of just going sitting somewhere and talking, just going, erm, building things out of the sticks and what have you, those sorts of things we can do without having to pay for [an outdoor education service]. [...] So there's a way that we can do that without it having to cost money, necessarily, it's more time." Francis, p.22*

The perseverance, resilience and optimistic mindset of the facilitators also contributed greatly to the success, potentially as well as the intervention being initiated from within the system as opposed to being 'done to' the system. Both facilitators reflected on how the outdoors and the intervention model lends itself to adaptive approaches that can be tailored to holistically explore and target the needs of different audiences whilst retaining the core focus of co-participation. The extension of this model to wider caregiver and adult-child relationships was considered, including teachers. However, Francis referred to the limit of their expertise and control in navigating further developments of the intervention as facilitators.

> *"I do wonder whether we could look at some of these things a bit differently and say what does happen when we go into a different environment? Is that child still showing.. different behaviours that went by, you know, with something different there. Or are they actually just not coping very well in the school setting, you know. [...] Quite how you do it, I don't know." Francis, p.25*

This highlighted an area of potential development for wider professionals to become involved with, who could contribute specific knowledge, as Robin explores below.

> *"...if the Ed Psych had been working with that parent and child in school as well and you know, and and had more of an insight into there as well, we could, you could steer us down the avenue and this is a whole new world again for us. It would make what we do even more impactful." Robin, p.37*

This systemic, collaborative and potentially multi-agency approach was perceived to open avenues for the intervention to have even greater targeting with person- and family-centred focus, possibly furthering its impact. This perception was, however, coupled with the facilitators' acknowledgement of the success of the sessions in their flexibility and adaptability, questioning this need for greater structure and specificity.

4.1.3.3. Systemic barriers

The facilitators highlighted the systemic barriers that could interfere with the success and progression of the intervention. Robin reflected on the systemic homeostatic undervaluing of outdoor education, with it seeming positioned on the periphery; misunderstood and consequently not prioritised for funding. This has prevented equitable opportunities from being offered to those who may need it most, requiring an element of personal sacrifice and vocation in keeping the service alive.

> *"...I've been working in the industry for nearly 30 or 30 years and it I feel like I've been. It's like a circular argument. And it's not changed." Robin reflecting on their time in the Outdoor Education service, p.34*

This unpredictable funding had also resulted in the current intervention's occurrence into the winter months during cold weather, impacting engagement. Francis reflected on the financial barrier and lack of systemic appreciation from a school's perspective too, highlighting the lack of trust in the risk versus reward ratio of this type of work, resulting in a perceived need to prove its impacts to gain support. This suggested the survival of school systems in a threatened state, making them more reactive than proactive and preventative, clashing with the incentives of the intervention. Francis suggested how this was

perpetuating and exacerbating issues in schools with direct impact on children's learning and wellbeing at school.

> *"So whenever you want to do anything of this, it's like, but stuff costs money, resources, cost money. But going out of school and it all comes down to finance. And I think if we could get rid of that financial block and look at the benefits of what this brings. It reaps loads of rewards. We need to somehow get rid of that financial block." Francis, p. 27*
>
> *"...obviously the earlier you can get in and do these kind of things, the longer you've got that benefit for. We tend to unfortunately and we will see it goes, we'll see it goes to a bit of a crisis, we shouldn't be there." Francis, p.27*

This extended to the facilitators reflecting on the shifted focus of the curriculum away from flexible relationship-building opportunities and outdoor experiences, with the demands of school outcomes and academic learning taking priority. They advocated for widening the scope of the school curriculum to accommodate such interventions as this, enabling wider staff members to build direct relationships with families as opposed to just those with specific positionings within the school system (e.g. Inclusion Leads).

> *"I really wish they could have more scope to do that within the curriculum... it's so confined, and the teacher/pupil relationship is so important, and yet we spend the least time on it." Robin, p.29*

4.2. Findings from the PC interview analysis

Figure 8: *Illustrative map of the parents' and carers' GETs and subordinate themes.*
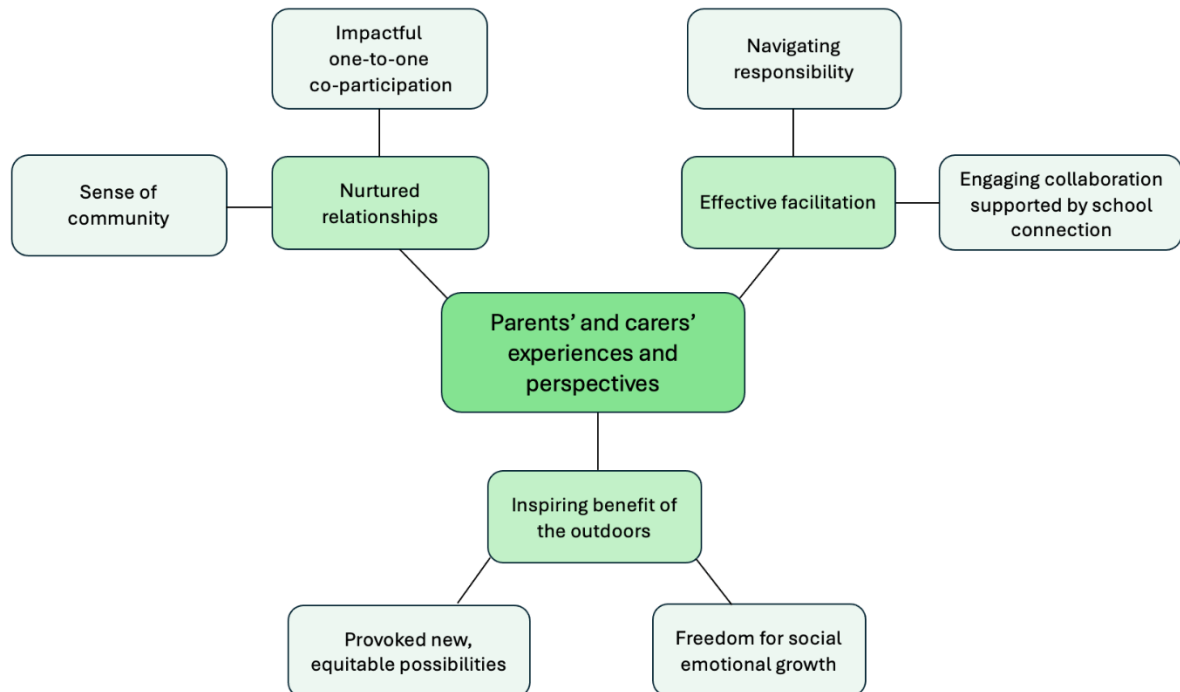
4.2.1. Nurtured relationships

This GET referred to the relationships that were developed between PCs and their children as well as between families, in which a sense of community was created. However, it also highlighted personal tensions surrounding groupwork and barriers to outdoor co-participation in everyday life.

4.2.1.1. Impactful one-to-one co-participation

Each PC appreciated and benefitted from their one-to-one co-participation in the outdoor activities. The novelty of the activities for both PC and child played a key role in this alongside the dynamic, outdoor space, sparking mutual enjoyment and fun.

> *"I think because I was enjoying it, he was enjoying it, because he was enjoying it, I was enjoying it. It it's that knock on effect isn't it?" Harley, p.3*

This extended to their opportunity to problem-solve and work as a team with their children. There was a sense of empowerment that emanated from the accounts of the parents from their ability to rediscover and teach their children new skills and ways of thinking.

> *"...obviously the discipline is not there and you just you're just having fun and a good laugh so. Yeah, but obviously I could I could bring some of my what I've learnt in in the Army to it like lighting the fire, how easy it is for me to start a fire. Yeah. And- and in that respect I could show [child]." Sam, p.15*

For some, this intervention contributed to the maintenance of their positive relationship with their child, giving them an opportunity to spend quality time together. For others, it marked a significant turning point in their relationship following a period of turbulence. Harley shared the enthusiasm and physical affection that grew between them and their child as the sessions progressed, and the role that anticipation and timing played. Ellis, meanwhile, felt the sessions contributed to normalising and rebuilding their parental role in their child's life.

> *"When the sessions were on, he would get up in the morning, like I say fling his arms around me and then go don't forget, I'm gonna meet you later at school. [...] ...as time went on he was looking forward more and more.. [...] ...It was the right thing at the right time..." Harley, p.10*
>
> *"And obviously we were still... they'd only just come back to me. So it was still nice to build bridges as... Spend time together. Just me and him." Ellis, p.4*

This prompted reflection from the majority of the PCs as to what was preventing them from engaging in such activities with their children in everyday life. Their conclusions centred around the interference of technology. Some furthered this with reflection on the risks of the internet which they are now required to balance as PCs, as opposed to the risks of the outdoors.

> *"...I think some parents you don't tend to play that much as what we would have when I was a kid when we wanted to play cause you didn't have gadgets. Whereas now kids they've got phones and stuff, so and adults are the same. Do you know what I mean? So you just think there's not as much hands-on activities anymore is there?"* Alex, p.15

This alluded to technology being an equal barrier for both PCs and their children, suggesting a mirroring of behaviour which was perpetuating this disengagement from outdoor activities, supporting the need for co-participation outdoors. This broad construction of the activities as 'hands-on' also suggests a disengagement from activities requiring individuals to be physically involved in the present moment. Further barriers included the pull of parental and personal responsibilities which caused all of the PCs to miss at least one intervention session. Beyond this physical absence, Ellis also talked of the emotional absence they experienced during the sessions, due to the location and timing of the sessions coinciding with unpredictable legal and social factors in their personal life. This highlighted a need for the PC to feel physically and emotionally safe for them and their child to benefit fully.

> *"And that's what I didn't want, but I can't help it. Being on edge, do you know what I mean, then as much as I try and hide it, I think he knew."* Ellis, p.26

In contrast, the experience prompted deeper personal reflections and shifts in Harley's relationship which they rooted in the hope and openness that they approached this intervention with. This further showed the impact of timing and mindset as well as the power of reflection in facilitating growth through this intervention.

> *"I think it's given us a lot more than we've realised. Especially over the last few months, you start to look back and realise what it has given us and it it gave us that time to be together and that was, I think that was the most important thing. [...] ...to have that time together, no pressure, no separation." Harley, p.1*
>
> *"...I'm never going to take anything for granted, ever again. Not with the kids." Harley, p.7*

4.2.1.2. Sense of community

The PCs largely showed an appreciation for being involved in the intervention alongside other families, creating a sense of community over the weeks spent together. This appeared to stem from a sense of relatedness from their circumstances, promoting a sense of belonging and reduced isolation. This was supported by their sharing of this unique experience within a small, inclusive group, in which they felt safe to be vulnerable, highlighting the importance of tailoring the intervention to the needs of a specific group and promoting consistency of group members.

> *"...if it had just been me and him, I don't think it would have worked in that sense because there were other children around him, I think he was thinking we're all in the same position as me. [...] I think you can feel isolated at times. You know you're the only person in the world with the problem, your problems, and you're not. You never are are you. [...] ...it was nice to talk to other parents..." Harley, p.5*

Many valued the combination of one-to-one time with their child and groupwork activities, which appeared to promote teamworking and collaborative problem-solving. A key facet of this involved the empowerment of the children, encouraging them to share in taking the lead and build their confidence, as explored by Laurie.

> *"...they did bits where it was , like each kid had a different thing to do and we all had to follow that one child and do like that child's taking the lead and another child would take the lead and it was just good to sort of... Like, give each child that sort of boost up and like, oh, I'm I'm in charge now..." Laurie, p.3-4*

Over time, this progressed to a shared sense of pride and achievement between the group members in which they appeared to form a supportive family, encouraging each other. This seemed to have a direct positive influence on the children, helping them to challenge themselves and push beyond their comfort zone.

> *"...with that little girl, yeah, she didn't want to do it because she was scared. So you watched her build her own... Like she conquered her fear and thought I'm gonna do it, because everyone else was like, "Come on!' All kind of egged her on. And then she did it. And then she was so proud of herself cause she'd done it. So, it was nice to be part of that." Alex, p.24*

However, Ellis shared how they found the groupwork element and interpersonal dynamics challenging and unnecessary, preferring to focus on their child. This may have been reflective of their greater vulnerability and limited window of tolerance from events in their personal life at the time, making the navigation of group dynamics an added strain. This emphasised the necessity of understanding individuals' needs when selecting a group for such an intervention, considering not only their readiness but the compatibility of the group members.

> *"...when you're in my situations, you've got a lot going on, and when you're up there or local, you're on edge. You need to think about things. So when you are inviting parents to things like this I think it's important to invite the right parents and make sure all parents get on." Ellis, p.41-42*

4.2.2. Effective facilitation

This GET captured how the PCs perceived the facilitators to effectively engage both them and the children, challenging their constructions of responsibility and risk. They also appreciated the connection of the intervention through school, supporting the longevity of the intervention's benefits.

4.2.2.1. Navigating responsibility

For a few of the PCs, strong narratives of responsibility as a PC became apparent. Many felt their parental independence and autonomy were retained throughout the intervention, supplemented with the guidance and structure from the facilitators. However, Ellis' negative experiences with previous agencies coinciding with the fragility of rebuilding their relationship with their child following their recent reunion had impacted Ellis' trust and relationship-building with others. This impacted their perceptions of the facilitator's intentions and sense of safety with others in the group, resulting in times of feeling undermined and defensive of their parental role.

"I'm here if he needs correcting. I'll do it. Cause that's what I thought, end of the day I'm their parent. You don't need your... You're here to supervise the activities, not getting involved, when it comes to parenting, cause I'm there. I'm the parent." Ellis, p.18

This extended to differing agendas between Ellis and the facilitators regarding what was acceptable in wet weather, due to the direct implications of potential illness on them as a single parent, limiting their attendance. This highlighted the need to meet the PCs where they were at and exercise clear, understanding communication throughout. However, hindsight had given Ellis a new perspective and appreciation for the intervention that they were not able to access at the time, further demonstrating the power of reflection.

"I appreciate it looking back at it now, but at the time, when it's being set up, it feels different." Ellis, p.18

Meanwhile, other PCs reflected on how the intervention shifted control and responsibility to their children at times, encouraging them to take the lead. This balancing of

power required the PCs to learn to sit back and let go, which many felt uncomfortable with in the face of risks.

> *"...so they had to sort of hold it and... lead everybody on that sort of path erm and we kind of like as the adults kind of let them lead rather than us being like oh let's go this let's go that way." Laurie, p.5*

Harley furthered this idea, sharing how they believed this and the unstructured environment elicited child-like, authentic behaviours in the children and PCs alike. They talked of the 'permission to be a bit naughty' (p. 16), echoing the tension that many PCs shared in weighing up how much freedom they could give their child whilst keeping them safe, given their greater awareness of risks. The guidance of the facilitators appeared to free an element of responsibility from their shoulders, shifting their perspective towards greater engagement in risky play during and following the intervention.

> *"...it's one of those harder ones, isn't it? You know, the how much freedom do you give a child? I mean you, I mean. I suppose the truth is you'd love to give them all the freedom in the world. [...] ... but unfortunately these days it's just not feasible as it's so. But yeah, I think it's easy for us all to forget as parents/carers that er, sometimes they need the permission to be a bit naughty. [...] That was one thing I got from it is er, probably protecting him too much." Harley, p.16*

4.2.2.2.   Engaging collaboration supported by school connection

Many of the PCs praised the intervention for how engaging it was for them and their children. They believed the implementation of the intervention through school increased the familiarity and respect for each PC's individual circumstances and allowed for better targeting of need enabling earlier, preventative intervention.

> *"...I think it was the right thing at the right time." Harley, p.11*

The positivity and words of encouragement shared by the facilitators were appreciated by all. The pace and chosen activities appeared to capture the minds and curiosity of the PCs and children, which was especially appreciated by those who mentioned that either they or their children who were neurodivergent, as Alex explains below.

"...instead of going into it really deep, which that would bore me because I'm ADHD, like it it made it fun and it was like short, sweet. Do you know what I mean? Like just snippets of information so the kids weren't bored and nor were the parents." Alex, p.5

Each of the PCs gave credit to the strong working relationship between the facilitators. They appreciated the rare opportunity to bring home and school together into the same context, meaning they formed stronger relationships with the school. This was encouraged through one facilitator being the school Inclusion Lead, meaning pre-established familiarity and rapport could be built upon and transferred back to the school context. This enabled maintenance, strengthening and for Ellis, repair of the home-school relationship following a period of rupture, allowing new perspectives to be gained. This had propelled the PC's building of trust, respect and feelings of reassurance with the school, which began to generalise to wider members of staff for some.

"I don't look at them as teachers, they are more friends than they are anything else." Harley, p.13

"And I'll respect that, because she took that stance and... we spoke and we moved forward. And now there's respect. So I'm not gonna disrespect [school-based facilitator]. No. " Ellis, p.23

Each PC also shared how the school collaboration had benefitted their children's engagement at school. Laurie reflected on how their child's greater familiarity with the school-based facilitator and expanded social network with the other children from the intervention had made them more excited to attend school during and after. Other PCs echoed this, adding that their child had shown greater social confidence upon returning to school and a more focused outlook, with some believing it had contributed to academic

improvements.

> *"...because it was an activity she got to do with me as well as school, it's something she's always going to remember, I think. [...] ...it just made her feel a little bit more easy and more excited about it because, like mixing school and home life it doesn't often happen..." Laurie, p.8*

4.2.3. Inspiring benefit of the outdoors

Finally, this GET referred to the fundamental contribution of the natural, outdoor environment to the intervention, eliciting social and emotional growth in both the PCs and their children and sparking equitable considerations for future developments.

4.2.3.1. Freedom for social-emotional growth

The PCs shared how being outdoors enabled them to reconnect with nature in a way that family life had distracted them from, each believing the outdoors to be fundamental to the success of the intervention. Beyond their widened consideration of their children's independence and engagement in risky play, some experienced personal growth as a result of the outdoor activities. Alex shared how they had developed their patience and teamworking skills with their children, following years of approaching activities separately due to their awareness of their limited tolerance in this area.

> *"Yeah, to try and do some team building to try and do things together and start thinking you do that, I'll do that, then we can do that. Instead of separating it, just try and have a bit of patience to do it with like. [...] ...it showed you that you can do it."*
> *Alex talking about what they had learnt from the intervention, p.21.*

The PCs also noted the positive impact of nature on their children. This centred around the freedom that the outdoors elicited, creating an unstructured environment away from the restrictive boundaries of the indoors. The PCs noticed their children increasingly connecting with nature, eliciting adventure and excitement and provoking their imagination for learning through rich, sensory experiences.

> *"It's that freedom. Yeah, you know how it's structured. Its its informal structure. You, they're seeing things that they may not have noticed. Trees, birds, whatever. You know, they see nature again…"* Harley, p.9
>
> *"She loves being outdoors, she thrives on it, really. She loves- she loves being outside."* Sam, p.14

This was noted to be particularly helpful for children who were neurodivergent, for whom the flexible, dynamic environment and the freedom to move around helped them to remain regulated and focused. The increased engagement of the children and the authenticity of the space appeared to increase the children's feeling of safety, boosting their confidence as they developed their independence and leadership skills, enhancing their resilience, teamwork and communication. This highlighted new strengths in the children that the PCs had not necessarily noticed before, creating a rewarding experience for all. This extended to emotional developments, with Harley sharing how their child had grown in maturity throughout the intervention, showing greater respect, consideration and empathy. This had generalised to their home life, improving their child's relationships with their siblings. Their sense of humour also returned, which Harley pinpointed as a turning point in their relationship.

> *"As far as I'm concerned, now we're putting things right and I mean it's always gonna be an ongoing thing now. […] …he sort of mature more now and also some of, it's sort of off the subject a bit, but his sense of humour has come back. […] I've never seen him laugh so hard in my life and I thought, well, where have you been?"* Harley, p.6-7

4.2.3.2.   Provoked new, equitable possibilities

Many of the PCs shared how the intervention had sparked new family routines and engagement outdoors both one-to-one and with wider family members, reducing engagement in technology as a result. Each of the PCs expressed how they would partake in the intervention again if given the opportunity and it was feasible. The physical element of the outdoor activities had also posed challenges for some, emphasising a need for

continued flexibility and adaptability in planning to accommodate a range of needs and abilities.

"I found the the journey very, very rewarding and I would do it again." Sam, p.19

"I absolutely loved it, erm, so I think if I hadn't have experienced sort of going out in the woods and adventuring with them then, erm, I probably wouldn't have pushed to do something like that." Laurie discussing future outdoor opportunities they have taken up since the intervention, p.14

The experience had also inspired wider thinking as to the future possibilities for the intervention. The PCs shared how they would recommend it to other PCs, with Sam advocating for its benefit in widening foster carers' communities whilst Harley, Laurie and Alex recommended it as an experience all PCs should experience. Alex also recommended its expansion to wider caregivers in a child's life, focusing on those who may struggle to find time to engage with their children or may not have access to such outdoor opportunities otherwise. They hoped for greater opportunities to collaborate with school, urging for more funding to be focused in this area.

"I'd certainly recommend it to other foster carers. I think it's great for making for building bridges, because I know a lot of foster carers do struggle with their relationship between themselves and the children they have in care." Sam, p.18

"It should be compulsory for all parents and children." Harley, p.20

"...Where the children get happy is, it comes from their roots at home. So if you've got happy parents you've got a happy child. So if they don't get that chance to have that bonding with their child, at least they're, they're by doing that, they've got that opportunity. So it's important isn't it really?" Alex, p.23

Ellis also recommended joint outdoor activities with greater permanence which they felt intervention lacked, such as building school allotments. They explained this would enable PC and child pairs to revisit their work over time and build upon it, boosting their

anticipation and shared sense of achievement in seeing the fruits of their labour. This may also create a talking point, supporting longer-term impact and opportunities for connection.

"Well, that was something we'd done together but now it's gone. But if we'd been able to do something where it, well, not stays permanently, but stay so when the kids can go have a look at it for a week or two so they know, ohh look what we've done!" Ellis, p.40

4.3. Connections between the facilitator and PC interview analysis

As this study adopted a multiperspectival IPA design, it is important to extend the analysis to exploring the meaning made *between* the participant groups, as well as within them, to show the interaction and overlapping of the participants' lifeworlds (Larkin et al., 2019). Using Larkin et al.'s (2019) analytic strategies, four key themes were identified through the examination of convergences and divergences in the data of both participant groups. These were:

Strengthening the microsystem	Safe community
Risk versus freedom	Seeds of hope
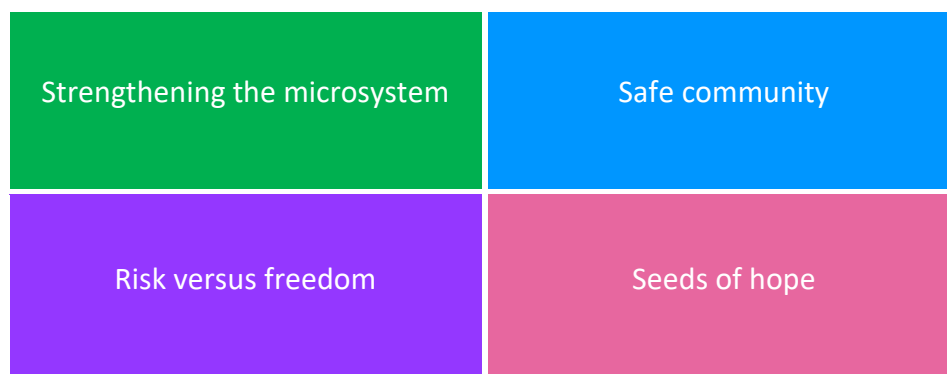
The matrix in Table 8 elaborates on these themes, demonstrating the group-level convergences and divergences that align each group with each theme. A more detailed individual-level analysis can be found in Appendix N.

Table 8: *Group-level matrix representation of the themes connecting the facilitators' and PCs' interview data.*

Participant Group		
	Facilitators	**PCs**
Connecting theme — **Strengthening the microsystem**	• True impact stemmed from home and school collaboration given their influences are interrelated, and giving focus to what happens in the space between. This was supported through providing early clarity through clear communication, coming alongside the PCs and equalising power dynamics. • The familiarity of the school-based facilitator with the families boosted the understanding and targeting of needs, increasing the efficacy of the intervention. The facilitators then combined their knowledge of the outdoor education, child development and learning to design and deliver the sessions. • The intervention rebuilt, strengthened and maintained relationships between home and school through one of the facilitators being school-based. It also enabled both to see the children in a neutral space, building mutual understanding of their needs. This combination led to greater trust, respect and more open communication between them going forwards, meaning the children's needs could be met more effectively. • The creative and sensitive facilitation of the sessions within the dynamic natural	• Home and school collaboration strengthened the home-school relationship during and following the intervention, as well as the children's relationships with and in school. This enabled greater understanding and targeting of each child's needs through increased respect, trust and more open communication. • The facilitators empowered and challenged the PCs and children, aiding their personal development. This enabled them to discover new strengths in themselves and each other which they could carry into life beyond the intervention. This shared learning equalised the power dynamic and built deeper understanding between PC and child, further supporting connection. • The intervention rebuilt, strengthened and maintained relationships between the PCs and their children, largely due to the shared, fun and novel experiences, the joint problem solving, the anticipation of each session and the inspiring escape from distraction that nature provided. Some changes were more significant than for others, depending on the context of the relationship at the start and their openness to change.

		environment had positive multi-level impacts on the relationships between the PC and child dyads as well as them and the facilitators. A focus on playful, experiential learning, co-participation and spontaneous, child-led curiosity supported this.	• Multi-level benefits to relationships became apparent through wider impacts on those with family members back at home, with families changing routines to incorporate greater co-participation in the outdoors. This provoked reflection on nature as a remedy from technology use.
	Safe community	• Emotional safety was nurtured by the mutual, non-judgemental outdoor environment that enabled familiarity and comfortability between group members. The multiple sessions over the weeks with the aim of maintaining consistent group members built upon this. However, the absence of each PC from at least one session due to personal responsibilities threatened this safe consistency, highlighting a need for adaptability and accessibility. • This was supported by the tailoring of the sessions to the needs of the group, increasing a sense of relatedness between group members which appeared to result in greater empathy, openness, trust, quicker rapport-building and reduced shame. • The group problem-solving promoted teamworking which further developed group support, exemplified through friendly and respectful competition alongside encouragement and shared pride, which built resilience. • Nature connectedness facilitated group identity and cohesion, and acted as a	• The sessions promoted a sense of group belonging and community through the connections built with the other of PCs and children, despite their individual differences. This was found to reduce feelings of isolation, which was supported by a sense of relatedness with the other families and the consistency of the majority of group members each week. The mutual outdoor environment also seemed to create a non-judgemental space that could be uniquely constructed by the group members, creating a group identity. • The niche shared experience and equalisation of roles also promoted team-working and group problem-solving as well as shared pride in achievements. The small group size was highlighted as an enabler for this through being less overwhelming, enhancing feelings of emotional safety and willingness to challenge themselves, developing their resilience and flexible thinking. • However, one PC had greater resistance to the group-work element, highlighting the importance of considering group dynamics and personal circumstances.

		catalyst to connection-building, nurturing sense of belonging. It also elicited greater relaxation and stress-relief, having a mindful impact.	
Risk versus freedom		Risks: • The dynamic shifts from involving PCs and their differing agendas, which could impact them and their child's attendance and collaboration, impacting success and longevity of impact. Greater risk for greater gain. • The weather, time of year and physical ability of PCs risked engagement. • The vulnerability of the PCs in taking part in the intervention and the fear of judgement. • The PCs navigating responsibility regarding the risks of the outdoors. Freedom: • Allowing nature to have its implicit impact and mirroring its pace, allowing authenticity, spontaneity and risky play away from systemic expectations, structure, rules and hierarchies, enabling the inclusive meeting of needs. • Encouraging shifted perspectives towards taking calculated risks enabling growth through challenge. • Emotional safety in the context of perceived reduced physical safety; the reverse of school at times. The safe, non-judgemental, mutual environment appeared to cognitively free most of the	Risks: • The risk and navigation of the home and school relationship due to differing agendas and levels of perceived autonomy and trust. • Interference of personal responsibility limited attendance. • The weather, time of year and physical ability also risked PC engagement. • Interpersonal risks of embarrassment, judgement and distrust relating to vulnerable personal contexts, which risked impacting the child's experience too. • The responsibility on PCs to weigh up the risks of technology and the online world compared to those of the outdoors. Freedom: • Giving their child the freedom to be a child through the unstructured environment eliciting child-like, authentic behaviours. • Personal gain from reconnecting with the freedom from limits and expectation that nature provides compared to indoor environments, in a dynamic space conducive to the inclusive meeting of needs. • Learnt the freedom of letting go, allowing their child to engage in risky play enabling shared growth through challenge. The responsibility taken by the facilitators

		PCs to focus on their connections with their children.	appeared to cognitively free the PCs, aiding their openness and relaxation. • Freedom to try activities they may not have experienced or accessed otherwise.
Seeds of hope		• Hope for revitalised relationships: The intervention presented the opportunity to support relationships, upskill PCs and challenge perspectives. • Hope for new collaboration: The improved home and school relationships and shared understanding extended beyond the intervention, aiding the children's experiences of school. • Hope for better futures: The social, emotional and executive functioning skills and group identity that were built facilitated the children's relationships with peers and staff in school and increased their resilience, supporting their school wellbeing and sense of school belonging as well as their life beyond school. • Hope for greater targeting and adaptation: The intervention's overall success inspired the potential for it to be refined and informed through a multi-agency approach with wider professionals and integrated with wider techniques and wider adult-child relationships. • Hope for flexible facilitation: The intervention highlighted how those positioned in schools with understanding of the children's needs, relationships with families and an understanding of child development are well placed to facilitate.	• Hope for revitalised relationships: The intervention formed lasting memories between PCs and their children and maintained, strengthened and rebuilt their relationships. • Hope for new collaboration: The intervention both maintained and shifted PC's perspectives in favour of the school and developed their trust, respect and sense of reassurance towards the school, benefitting the home-school relationship. • Hope for better futures: The experience showed increases in the PC's children's school engagement and achievement, refocusing outlook and increasing their enjoyment of school. It also provoked social and emotional development in both the PCs and their children and promoted the children's independence, resilience and flexible thinking through problem-solving and teamwork. • Hope for greater school wellbeing: The facilitation through school enhanced their child's school social experience and network and made their child more excited to come to school. • Hope for greater connection with the natural, outdoor world: The experience inspired new family engagement and reconnection with the outdoors through

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• Hope for shifted systemic priorities: This could provide an opportunity for schools to rethink their priorities with a shift back to building safety and relationships and reconnecting with the outdoors, creating greater scope for this type of work. • Hope for being a valued approach to preventative practice: Wider systems need to be on board to navigate future opportunities in overcoming logistical and financial constraints to facilitate the implementation, reach and impact of interventions such as this and enable proactive, preventative practice. Demonstrating this risk versus reward ratio from within the system has shown here to facilitate systemic change. • Hope for equitable opportunities: This intervention showed the impact of pace, space and place provided, not the costliness of the activities involved, aiding its accessibility to other settings.	changed routines and less engagement with technology. It shifted the PC's view of their own enjoyment of the outdoors. • Hope for further opportunities: The intervention inspired thoughts as to how it could be adapted to aid longer-term impact and sense of shared achievement, such as through school gardening projects. • Hope for equitable opportunities for all: All PCs would partake in the intervention again and would recommend to other PCs, including foster carers, wider caregivers and those for whom these one-to-one opportunities are limited.

Note. This matrix presents this information at a group-level in order to capture the broad perspectives for ease of interpretation. The coloured words within each section highlight topics of convergence between the PC and facilitator data within each theme, embedded in their relevant context for comparison of convergence and divergence of meaning.

5. Discussion

The current study aimed to gain insight into the lived experiences and perspectives of the facilitators and PCs who participated in an outdoor, nature-based PC and child intervention. This was to understand the impact of such an intervention and its implications, given the supposed benefits of the elements it encompassed and the sparsity of research in this area relating to the UK and wider professionals. This discussion explores the findings from the facilitators' and PCs' interviews and their relation to each other as per the group themes identified in *Part Two, section 4.3*, to answer the research questions and develop a multiperspectival stance in the context of existing literature and psychological theory, enabling implications to be drawn.

5.1.Strengthening the microsystem

The results of both the facilitator and the PC interviews highlighted the positive impact that the intervention had on rebuilding, strengthening and maintaining the relationships within each child's microsystem (their immediate environment, Bronfenbrenner, 1992; 2005). The PCs' experiences echoed the relationship impacts discovered across each of the studies included within the systematic literature review (*Part 1b*). Better communication and cooperation were frequently reported by all, mirroring this outcome's frequency in this systematic literature review (Bandoroff & Scherer, 1994; Burg, 1994; Huff et al., 2003; Izenstark et al., 2021; Kugath, 1997; Norton et al., 2019; Overholt, 2013; Potter & Duenkel, 1997 [as cited by Freeman & Zabriskie, 2002]; Toews et al., 2020). Seven of the studies supported the increased shared understanding, familiarity and acceptance reported by this study's participants (Birnbaum, 1991; Burg, 1994; Huff et al., 2003; Izenstark et al., 2021; Kugath, 1997; Overholt, 2013; Potter & Duenkel, 1997 [as cited by Freeman & Zabriskie, 2002]). Five also echoed how the families valued time in nature away from distractions (Bandoroff & Scherer, 1994; Huff et al., 2003; Izenstark et al., 2016; Potter & Duenkel, 1997 [as cited by Freeman & Zabriskie, 2002]; Toews et al., 2020).

Many of the PCs valued the opportunity for one-to-one shared experiences that sparked child-like curiosity and shared joy; a finding that was echoed by Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002), Burg (1994), Dorsch et al. (2016) and Toews et

al. (2020), through the PCs rediscovering their inner child. This study also reflected the increase in affection that was shown by Huff et al. (2003), Birnbaum (1991) and Izenstark et al. (2016). The above relationship impacts resonated with findings from systematic review papers spanning the three identified types of experiences: wilderness family camps, recreational outdoor family programmes and unstructured family-based nature activities. This suggests that such outcomes can result from PC and child co-participation in outdoor, nature-based activities, regardless of time and context. Also, that the current intervention elicited a multiplicity of outcomes through an effective blend of adventurous, therapeutic, regular and unstructured elements, complemented by the differing expertise of the facilitators. This implies that the structure of short, weekly sessions over several weeks used by the current intervention was not only more accessible but retained several benefits reported by Bandoroff and Scherer (1994), Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002), Huff et al. (2003), McLendon et al. (2009) and Overholt (2013) from more intensive camp experiences.

Both participant groups also highlighted the benefit of the hands-on, fun and novel experiences that were shared in the dynamic environment of nature. This encouraged joint attention, cooperation and curiosity that participants believed could not be harnessed as effectively inside, especially amidst the distractions of technology. This supported the principles of the PACE approach (Hughes, 2009) and the Secure Base model (Schofield & Beek, 2018), whilst emphasising the importance of strengths-based, sensory and playful experiences in creating safe and attuned relationships with others to support relational healing, as advocated by Triesman (2018; 2021). The emphasis on co-participation was appreciated by all, with the impact of which supporting Trevarthen's (1998) theory of intersubjectivity. The weekly sessions also built excitement and anticipation, which aided the building of connection over time, supporting literature regarding how anticipation can prolong and amplify positive experiences, serving as a powerful motivator to pursue what we deem meaningful and important (Elpidorou, 2020).

However, despite the positive experiences overall, there was a disparity in the extent of the impact of the intervention on the PCs' and children's relationships. Those who felt they already had a strong relationship with their child believed it to purely maintain this, whilst a PC who was approaching with hope from a turbulent relationship gained more

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significant perspective shifts and progression in their relationship with longer-term impact. This highlighted the significance of repair following a relationship rupture, as advocated by Bombèr (2020). This may also be understood through Bowen's (2012) Family Systems Theory, which posits that relational change is rooted in the family system's management of anxiety, differentiation of self and interruption of projection. PCs who sought to maintain familial homeostasis or avoid blame may have minimised problems, reducing this narration of improvement compared to PCs who felt they could recognise past ruptures without threat to their identity, making change more visible (Bowen, 2012). This demonstrates the importance of parental attitude, openness and readiness for change in the shaping of the relational dynamics and the perceived efficacy of the intervention.

Meanwhile, all PCs appeared to value the strengthening of their relationship with school through the home-school collaboration. This facilitated a shared understanding of their children's needs and how they can be supported going forward, helped by the mutual, outdoor context which reduced potential blame and gave an indication as to influence of the environment on the child. This aligned with Dowling's (2003) joint systems approach, which advocates for building the relationship between the home and school system to facilitate communication, clarifying differences in perception through a focus on 'how' rather than 'why'. Some also experienced wider relationship benefits with other family members, peers and teaching staff, acknowledging the interrelated influence that the home and school systems can have in a child's life, as supported by Bronfenbrenner (1992; 2005).

This home-school collaboration was helped through the facilitators building rapport with the PCs as early as possible, providing clarity of expectations, building trust and coming alongside them with empowerment to equalise power dynamics. The benefit of this collaborative rather than authoritative approach for many aligned with Deci and Ryan's (2000) Self-Determination Theory, advocating individuals' need for autonomy, competence and relatedness to foster intrinsic motivation and engagement in activities. This demonstrated the tensions of agenda raised with one PC, whose negative interpretation of the facilitators' actions threatened their sense of autonomy and competence as a parent, resulting in their weakened engagement. Greater initial co-construction of the intervention sessions with the PCs may have tempered this outcome.

5.2. Safe community

Both participant groups valued a sense of a safe community that developed within the group. This was perceived to be partially created through the mutual, outdoor environment that appeared to facilitate less judgemental interactions between participants, eliciting emotional safety and security. The group's shared focus on nature facilitated group cohesion, nurturing a sense of belonging and reducing feelings of isolation. The weekly meetings also created a group identity in their construction of the space. This supported Scannell & Gifford's (2010) tripartite theory of place attachment and Bow and Buy's (2003) findings that place attachment to the natural environment plays a vital role in the development of a sense of community, facilitating bonds interpersonally and with the environment. Within the systematic literature review (*Part 1b*), Dorsch et al. (2016) also echoed these findings, reporting the development of community and friendships between the families involved in the outdoor programme, within the emotional safety of the environment. Bandoroff & Sherer (1994) found families to benefit from the knowledge and support gained from the shared experience outdoors, as did Birnbaum (1991) who attributed this to the positive impact of the natural surroundings.

The facilitators further reinforced this collaboration through adopting a sensitive and understanding approach, empowering group members with a focus on group team-working and problem-solving. This promoted shared learning and pride in achievements and equalisation of roles from the facilitators coming alongside the PCs and encouraging the children to take the lead in the natural, neutral environment. This supported Troughton et al.'s (2024) recognition of nature as providing a therapeutic setting of neutrality where more equal, collaborative and empowering dynamics can be created between those delivering and receiving the intervention. There was also a sense of relatedness between group members that was enabled through the tailoring of the sessions to the needs of the group, resulting in greater empathy, openness, trust, quicker rapport-building and reduced shame.

However, there was also dissonance in this view, with one PC highlighting their greater resistance to the group-work element, wanting to prioritise one-to-one time with their child instead. This PC acknowledged the impact of their negative personal circumstances at the time, contributing to them feeling less safe, relaxed and trusting,

impacting their connection with the sessions and their comfortability with other group members. Triesman (2021) discussed how a foundation of safety and trust is paramount, with an absence of this often leading to restricted thinking, playfulness, empathy, connection and much more (Triesman, 2021); elements drawn upon within this intervention and experienced by other PCs. Maslow's hierarchy of needs (1943) also positions safety needs just above physiological needs and as a basis for love and belonging, linking to components of stability, protection from harm and freedom from fear. Further to this, within the Secure Base model (Schofield & Beek, 2014), two of the core dimensions of relationship-building with attachment figures refer to the availability and sensitivity of the caregiver; both of which were reduced for this PC due to their circumstances.

Although the activities in the natural environment facilitated a sense of emotional safety and community for many of the participants, this highlighted the mediating impact of personal experiences, emotional availability and group dynamics on this for individuals. These also reduced this PC's sense of positive place attachment due to negative connotations relating to the specific park, reducing the benefits that could be gained from this. This suggests a need for these aspects to be considered when inviting families to the sessions, alongside a need to meet individuals where they are at.

5.3. Risk versus freedom

A prominent theme across all participants was the need to weigh up risk versus freedom, prompting reflection on wider life decisions. The facilitators acknowledged the potential risk in involving PCs who would likely have differing agendas and the impact of this on attendance and collaboration and the success and longevity of impact. This was a particular concern in the context of the intervention which elicited vulnerability, requiring emotional safety through consistency. These concerns were echoed through the voices of the PCs in the current research, who acknowledged the interference of personal responsibility which had resulted in none of them managing to attend every session. Some of the barriers to engagement mentioned by Troughton et al.'s (2024) participants were also echoed by the PCs, including a fear of risk to safety which was worsened by non-ideal weather conditions. However, consistency was supported through the PCs being reassured by the effective facilitation from the facilitators.

Some PCs spoke of the risk of vulnerability and judgement as to their ability and decision-making. The facilitators echoed this, acknowledging the greater vulnerability and fear of unknown territory for the PCs, which especially presented in those with a biological relationship with their child, perhaps suggesting greater feelings of blame and responsibility. However, the elements of group consistency supported this vulnerability, and all participants agreed that being outdoors helped them to feel greater release from this judgement, supporting their emotional safety. They also gained from reconnecting with the freedom from the limits and systemic expectations that nature provides. This is supported by the biophilia hypothesis (Ulrich, 1983; Wilson, 1984), stress reduction theory (Ulrich, 1983) and attention restoration theory (Kaplan, 1995) which propose humans' innate drive to connect with nature for survival and psychological restoration, strengthening cognitive capacity and wellbeing.

This resonates with this researcher's suggested paradox in section 4.1.1.2 within the results. This refers to the lower perceived physical safety but greater perceived emotional safety of the outdoor, nature-based environment which appeared as a reversal of the perceived school environment in which physical safety can appear prioritised over emotional safety (due to increasing curriculum demands and strain on teaching staff, for example); see Figure 9.

Figure 9: *A context-dependent paradox of perceived physical and emotional safety.*
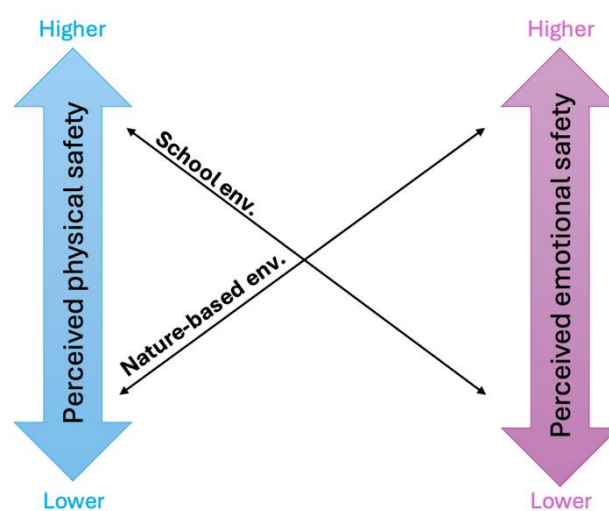
Note. Env. is an abbreviation of 'environment'.

A significant contender within this risk versus freedom dynamic was that of harnessing growth through challenge in the context of risk-averse parental perceptions. The facilitators encouraged a shift in the PCs' perspectives towards riskier, outdoor play in the context of boundary setting, reframing barriers into opportunities for learning and having greater appreciation for small moments. This allowed the children to problem-solve independently and for all to be pushed outside of their comfort zone to discover new strengths, skills and perspectives. This is in line with the four elements of Theraplay®; challenge, nurture, structure and engagement (Norris & Lender, 2020) as well as the importance of children experiencing adventurous challenge and risky play (Ryan et al., 2024; Burns & Gottschalk, 2020). Despite initial resistance, the PCs were largely open to this shift and noticed how the unstructured, natural environment elicited child-like, authentic behaviours in them all. This supported findings by Potter & Duenkel (1997, as cited in Freeman & Zabriskie, 2002) who found parents to rediscover their inner child, gain a greater connection with nature and greater appreciation for the growth it could elicit through independence and risk-taking in a way that could not occur at home. This also appeared to support the PC-child relationships, aligning with Huff et al.'s (2003) findings that shared challenging play can improve communication and family relationships.

Over the course of the intervention, the PCs appeared to adopt less risk-averse perceptions of the outdoors, shifting the paradox to the outdoors becoming an environment of greater perceived emotional *and* physical safety (Figure 10). Overholt (2013), Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002) and Toews et al. (2020) also found co-participation in the outdoor environment to create a greater sense of safety and freedom, allowing independence and risk-taking. This supported Savery et al. (2016) who found children, PC and practitioners involved in Forest school to become less risk-averse in the context of 'supported risks'; those facilitated in a safe context with protection from serious harm with reassurance from the practitioners, as in the current intervention. The increased emotional safety in the current study also appeared to help the PCs to feel less judgement in allowing their children to take such risks whilst strengthened their relationships with their children, enabling them to feel greater freedom and trust.

Figure 10: *A context-dependent paradox: Shifted perspectives in the nature-based environment.*
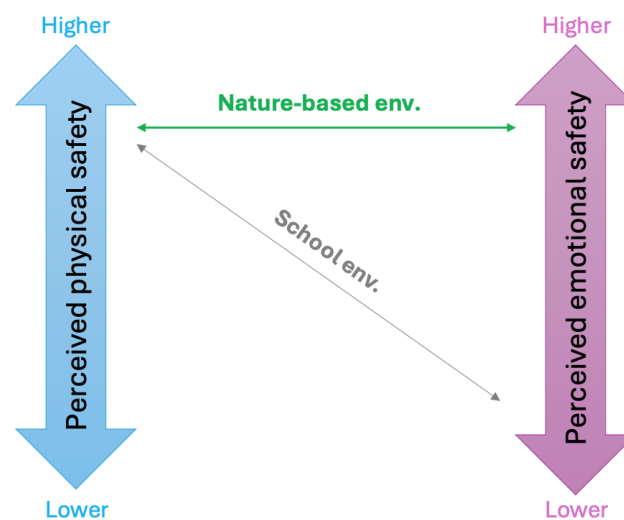
The facilitators endorsed the outdoors as a dynamic space allowing authenticity, spontaneity and riskier play away from systemic expectations, structure, rules and hierarchies. The non-judgemental and mutual environment was perceived to free most PCs' cognitive load to focus on their connections with their children, aiding outcomes. This environment was also praised by both groups for its adaptability and supportive inclusivity of individual needs, especially those relating to ADHD. This was particularly in regard to the freedom it allowed for movement and flexible, playful activities that provided sensory inputs, which stimulated interest and supported imagination and understanding. This supported literature showing the benefit of the outdoor environment for individuals with ADHD (Gill, 2023) as well as Kaplan's (1995) attention restoration theory.

This prompted reflection from the PCs, such as the responsibility on them to weigh up the risks of technology and the online world versus those of the outdoors. Recent publicity as to the risks of the online world for CYP, such as through the television series *Adolescence* (Netflix, 2024), has begun to shift public narratives, alongside news stories of fatalities resulting from social media use (e.g. Kay & Rhoden-Paul, 2025). This infers a greater relative safety in CYP immersing in the outdoor world away from technology, in line with the suggestion in the current results of the outdoors being a remedy to technology use. Instead of merely removing access to technology which may be concluded by some, it could be that encouragement of outdoor opportunities provides a more beneficial alternative that

preserves CYP's freedom of choice and autonomy. Afterall, research has shown children to want this greater freedom and engagement with the outdoors (National Trust, 2024; Skenazy et al., 2025), adding "if parents want their kids to put down their phones, they need to open the front door." (Skenazy et al., 2025, para. 15).

5.4. Seeds of hope

The intervention had planted seeds of hope at an individual and systemic level for both the facilitators and the PCs. At an individual level, both groups had new hope for revitalised relationships between PC and child, a closer level of home-school collaboration and for better futures for the children through the new skills and social emotional growth and the more effective meeting of need elicited. The intervention fostered basic needs of safety and security, enabling psychological needs to be met in line with Maslow's hierarchy (1943). Through building relationships, belonging and self-esteem from overcoming challenges, children and PCs were supported towards self-fulfilment needs such as self-actualisation, promoting creativity, learning and hope for better futures.

The PCs built on this by seeking greater school wellbeing for their children and deeper family connections with nature, leading to new routines, more patient perspectives and their own increased enjoyment of the outdoors. This echoed findings by Kugath (1997) in which families discovered areas for future improvements within their family systems and greater awareness of how to address family development. This emphasises the importance of including the PCs within such an intervention, given the experience helped to shift parental perspectives as to the safety and accessibility of outdoor activities with direct impact on their children's opportunities to access the outdoors and the benefits of nature. Potter and Duenkel (1997, as cited in Freeman & Zabriskie, 2002) and Overholt (2013) also found PC-child co-participation outdoors to improve their relationships with nature. However, one PC suggested a need for greater permanence of the achievements between the PC and child during the intervention, such as through building a school allotment together that could be revisited, provoking further points of connection and conversation and a prolonged shared sense of accomplishment. This would strengthen the esteem needs within Maslow's (1943) hierarchy, creating a greater grounding for self-actualisation.

However, this would sacrifice the equalising value of meeting on neutral ground away from the home and school setting.

At a systemic level, both the facilitators and the PCs hoped that this series of sessions would inspire further sessions, providing equitable opportunities for other families. They felt it to be an especially important opportunity for carers who may not have other community, wider family members and caregivers, and PCs with limited time for one-to-one connection with their children otherwise. The facilitators also emphasised the need for greater priority for the building of emotional safety and relationships within the school curriculum and policies, which have shown to be fundamental in facilitating CYP's wellbeing, learning and social outcomes (Al Nasseri et al., 2014; Hughes & Kwok, 2007; Shean & Mander, 2020). This could be supported through outdoor interventions such as this, with the co-participation of school staff members potentially supporting CYP's transference of emotional safety into the school environment. Through the lens of the afore-mentioned paradox (section 5.3), this would facilitate the nature-based *and* school environment being perceived with greater physical and emotional safety (Figure 11).

Figure 11: *A context-dependent paradox: Shifted perspectives in both environments.*
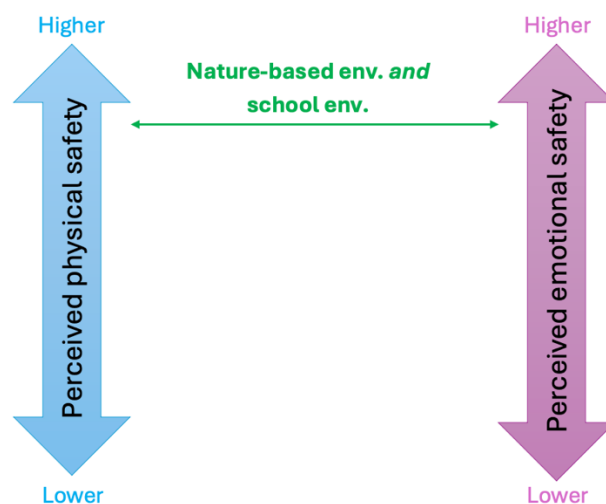
This inspired the possibility of refining the intervention through multi-agency collaboration to make it more evidence-based and impactful, including the suggestion of involvement with the EP service. This supports Bombèr's (2011) advocacy of collaboration between educators, therapists and families in supporting CYP, and the potential for schools

to create powerful environments for relational healing as well as academic learning (Bombèr, 2007).

There was also a wider concern as to the significant constraint on this form of work from the systems surrounding it. The facilitators emphasised the homeostatic undervaluing of outdoor education, restricting its reach and impact through financial constraints. They also acknowledged the greater strain on finances and resources within school systems (e.g. Ofsted, 2024) which can create further barriers to such implementation, despite the contribution of such work to proactive, preventative practice. Bartle and Eloquin (2021) discuss the social defences that an organisation can adopt to minimise emotional distress from such strains rather than face the task of overcoming them, to regain a more comfortable equilibrium. They also acknowledge the consequences that can threaten the survival of educational organisations if progress is not demonstrated, causing potential resistance due to the trust needed in the risk versus gain ratio. This can contribute to what Dowling (2003) refers to as a circular causality of events, perpetuating such issues causing an exacerbation of inequalities, requiring a punctuation of events to interrupt this.

In the case of the current intervention, the COVID-19 pandemic and a trend in children's circumstances within the school created a punctuation point, drawing upon the expertise of those within the school and external services. Whilst the school-based facilitator acknowledged the potential of maintaining a level of efficacy with greater financial accessibility independently from the outdoor education service, their contribution was appreciated, especially in combination with the skills and knowledge of the school Inclusion Lead. This highlighted the importance of availability of such collaboration for schools, as well as ensuring an appropriate knowledge of child development, psychology of learning and an appreciation for the benefits of nature and the collaboration of system around a child. The fact the current intervention took place in a school in one of the 10% most financially deprived areas nationally (ONS, 2021) further strengthens its case for accessibility, as well as demonstrating how schools can respond to need through the creative use of knowledge and resource. Expanding the evidence base surrounding such interventions will help to inform wider thinking as to the collaboration of systems within the natural, outdoor world, with the hope of creating wider, systemic influence on those who have the power and authority to make more significant, equitable changes.

5.5. At the core: The importance of environment and nature's potential

This researcher proposes that at the core of this study's findings was the pivotal and unique role that the outdoor, nature-based context played in providing a conducive environment for this PC and child intervention, resulting in numerous inter- and intra-personal outcomes. This emphasises the importance of the reciprocal interactions between individuals and their environment throughout development and the impact of proximal processes (notably context), as stated by Bronfenbrenner (1992; 2005). The interpersonal outcomes focused on the strengthening of relationships within the child's microsystem whilst the intrapersonal outcomes particularly reflected the building of emotional safety and shifting of perspectives. However, the likelihood of experiencing these outcomes as a result of the nature-based context appeared to be mediated by several factors, such as the PCs' co-participation in the activities with their children. This interpretation of findings is encapsulated in

Figure 12.

Figure 12: *A visual summary of findings.*
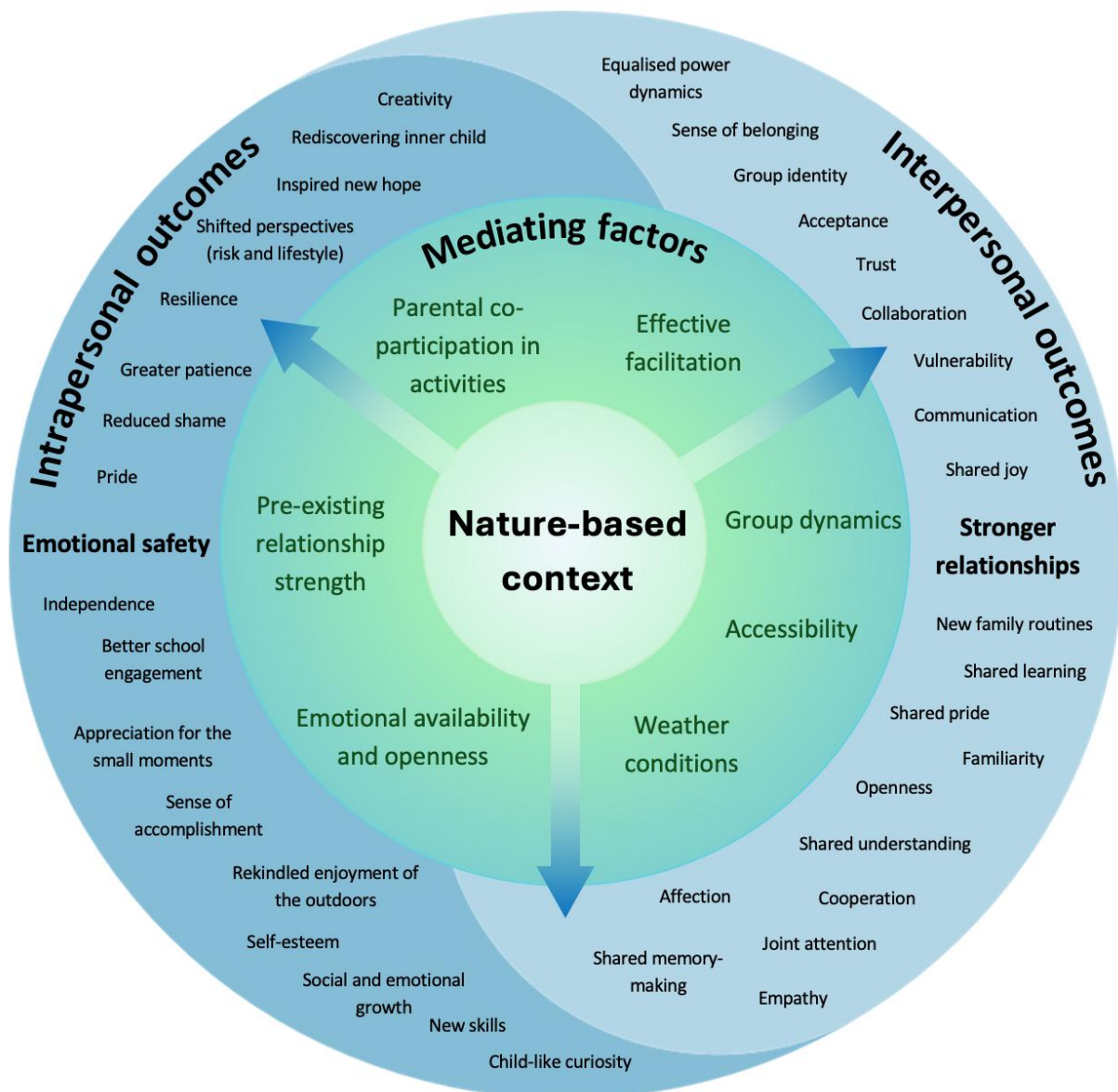
When considering how the nature-based context specifically contributed to this intervention, this researcher proposes three key aspects, established through a distillation of the study's findings and above discussion:

- **The nature-based context provided a dynamic, unpredictable and unstructured environment.** This appeared to facilitate authenticity, spontaneity, anticipation, adaptation and inclusivity of needs.

- **The nature-based context equalised power dynamics between those participating.** This appeared to be through the creation of a neutral environment away from systemic roles, hierarchies, expectations and distractions which also appeared to reduce judgement and blame between the systems (e.g. home and school). The co-

constructed place attachment of the intervention to the outdoor setting week-on-week further supported this.

- **The nature-based context supported inter- and intra-personal growth through shared challenge.** This was through nature enabling opportunities for co-participation in adventurous play and fun, novel experiences and challenges.

This researcher suggests that these aspects of nature's contribution to the intervention most significantly link to three areas of psychological theory, shown in Table 9.

Table 9: *Proposed theoretical underpinnings of nature's contribution to the intervention.*

Deci and Ryan's (2000) Self-Determination Theory (SDT)	Place Attachment theory (Altman & Low, 1992; Scannell & Gifford, 2010)	Biophilia Hypothesis (Wilson, 1984)/Stress reduction theory (Ulrich, 1983)/Attention Restoration Theory (Kaplan, 1995)
SDT posits that psychological growth, intrinsic motivation and wellbeing are supported when three basic psychological needs are met: *autonomy, competence, and relatedness* (Deci & Ryan, 2000). The dynamic, unstructured nature-based environment appeared to encourage *autonomy* through the freedom to utilise the environment and resources creatively and the promotion of independence and leadership in taking initiative. *Competence* was nurtured through the mastery of challenges, successfully problem-solving and the overcoming of personal fears and boundaries through novel experiences and adventurous play.	Place attachment theory conceptualises bonds to place as shaped by the interaction of person, process, and place (Scannell & Gifford, 2010). The natural setting, as a neutral and dynamic space outside of established systemic structures (e.g., home or school), appeared to provide a shared mutual territory in which traditional roles and hierarchies were softened. Through repeated, week-on-week engagement, participants co-constructed attachment to the outdoor environment, which may have fostered a sense of joint ownership and inclusivity. This resonates with how place attachment is theorised to support social bonds and emotional security (Altman & Low, 1992),	These theories emphasise the therapeutic benefits of being immersed in natural environments, notably those linked to stress reduction, increased cognitive capacity and psychological restoration. These may help to fundamentally explain the increased emotional safety, authenticity and attentiveness that appeared in the outcomes from this nature-based intervention, facilitating the subsequent interpersonal benefits.

Relatedness was achieved through shared challenge, collaborative exploration and joint achievement between participants in a context that facilitated authenticity away from distraction. As such, the nature-based context not only shaped the form of the intervention but also appeared as an active mechanism in facilitating outcomes, aligning with SDT's emphasis on environments that nurture self-motivated, connected, and adaptive functioning (Deci & Ryan, 2000).	suggesting that the outdoor setting not only actively facilitated a reduction in judgement and blame, but also supported the formation of more balanced, collaborative relationships.	

5.6. Implications for educational psychologists

Table 10: *Implications of the study for educational psychologists.*

How EPs could support the implementation and facilitation of a similar intervention	Implications for broader EP practice
• As discussed in *Part One, section 9* and *Part Two, section 2, Introduction*, EPs are well positioned to support the effective, ethical implementation of an intervention such as this, given they are 'uniquely placed' (p.14) to provide collaborative, holistic service across the home, school and community (MacKay, 2006) and can contribute understanding of psychological research and theory. In particular, EPs can support school systems in guiding them through the preparation and implementation phase informed by Implementation Science (Moir, 2018), ethically navigating pragmatic and logistical constraints such as funding and resource. • To support the accessibility of such intervention, EPs could utilise pre-existing avenues of time, school funding and EP support such as the Emotional Literacy Support Assistant (ELSA) programme. This involves school staff being trained and supervised by EPs to	• This study demonstrated how with the appropriate knowledge, skills and belief in the success of an incentive, schools can harness positive change through an innovative and creative use of resources. EPs can support this through effective training and empowering of staff, helping them to reframe challenges into possibilities and promoting proactive, equitable and preventative practice with direct impact on children's experiences of school. • This study highlighted the importance of including PCs alongside their children within intervention and focusing on supporting parental perspectives in order to facilitate new opportunities and growth for their children. • This study exemplified the harnessing of nature and outdoor space to elicit positive social, emotional and cognitive impacts, challenge narratives (such as around navigating risk), shift perspectives and build connection. It also portrayed the

promote the emotional wellbeing of CYP, following which the ELSAs are allocated time and school budget to deliver an ELSA intervention within school (Krause et al., 2019). This current intervention compliments the essence of ELSA and would enable continued EP support to aid the targeting and efficacy of the intervention.

- The current study highlighted the importance of tailoring the intervention sessions to the needs of the PCs and children, as well as ensuring the PCs' and children's readiness to access the intervention. It also demonstrated the need to consider the group dynamics, given a large contribution to the success of the current intervention was from the connection and group belonging that was elicited, aiding vulnerability and openness. An EP could support the selection of participants of an intervention through their person-centred work across families in the school and their greater understanding of the interactions of the systems around a child. This could also aid the creation of more specific targets for involvement, aiding the planning and facilitation of the sessions.

importance of the place, space and pace elicited in the success of therapeutic work. It is hoped that this will inspire wider utilisation of natural, outdoor space within the EP profession. This may be through recommendations given by EPs, the context used for observation to aid holistic understanding, the environment chosen for in-person work such as consultation and intervention (such as Theraplay®, multi-family groups and video interaction guidance) and even an EP's own lifestyle choices to foster their wellbeing, in line with their proficiency guidelines (HCPC, 2024, SoP 6.3).

  - The neutral, outdoor environment appeared to promote an equalising effect on power dynamics (alongside the co-participation), which may support an EP in adopting a collaborative role as opposed to an expert role. This may also contribute to an EP maintaining their integrity in line with the BPS (2021, clause 3.4) through demonstrating an avoidance of collusion with one system. However, the maintenance of confidentiality within the surroundings would require careful consideration, in line with HCPC (2024, SoP 5.1).

- Through their use of consultation, EPs can support school and PC buy-in to the intervention through contributing a neutral, mediating and evidence-based stance as a result of not being directly implicated in the system and the historic relationships within it. For systems feeling greater strain and resistance, this may be informed by a psychoanalytic approach (Bartle & Eloquin, 2021), helping systems to overcome potential social defences and shifting focus, reframing their thinking as to the possibility of such work. For families who may feel greater vulnerability, EPs may facilitate joint home and school consultation to co-construct an understanding of the intervention and how it could most effectively meet their needs with logistical feasibility. This would help the families to feel greater ownership and voice in these decisions in line with the current facilitators' advocation of doing 'with' them not 'to' them, supporting engagement.

- The current study also highlighted the benefit of reflection on the participants' experiences of the intervention. With EPs' knowledge and competence in reflective practice, they could facilitate reflective sessions to both the facilitators and the families, upskilling them to continue this in their absence.

  - This may also inspire adaption of the intervention model to target alternative adult-child relationships, such as teacher-student relationships.
  - This research may also contribute to the evidence base supporting the need for urban greening, increasing the accessibility to natural outdoor space to all families, which EPs can advocate for within their local authorities.

- This study showed the power of bringing together the home and school system, supporting Dowling's (2003) advocation for a joint systems approach.

- The emphasis on co-participation of PCs and their children within this intervention may provoke wider thinking as to how this could be incorporated into EP work in order to widen an understanding of the interaction of the home system in the child's life. This could perhaps compliment an EP's promotion of person-centred practice, bringing the child into the space with their PC/s during sessions instead of there being separation in the involvement of the two.

5.7. Implications for schools, families and wider systems

Table 11: *Implications of the study for schools, families and wider systems.*

Implications for schools	Implications for families	Implications for wider systems
• To consider how the implementation of a similar intervention focused on PC-child co-participation within a natural, outdoor environment can support the presenting needs of CYP in their educational provision. This can be facilitated through consideration of the mediating factors shown in Figure 12. • To seek opportunities for direct PC-school collaboration in interventions and initiatives. • To creatively utilise resources and knowledge available within and outside of the school system to enable a focus on proactive, preventative practice in responding to presenting need. This includes ensuring those who are best positioned to facilitate such opportunities (e.g. Inclusion Leads, ELSAs,	• To consider how co-participation in outdoor, nature-based activities can be incorporated into family life, particularly at times when relationships may need extra support. • To consider how general exposure to natural, outdoor surroundings can be promoted in the lifestyles of all family members, with a focus on actively connecting with nature and slowing the pace, away from technology. • To reflect on their children's opportunities for risky play and challenge, considering the extent to	• For greater value to be placed on enabling CYP, schools and families to engage in outdoor, nature-based opportunities together in a way that is accessible to all. For example, through continuing investment into incentives as shown by Natural England (2022) and DfE (2023) and providing sufficient funding for Outdoor Education services to provide outreach work to communities where they would have greater impact. • Increasing access to natural, green spaces within communities (e.g.

ALNCos) are given appropriate time and resources to plan and facilitate the sessions effectively. • To reflect on the value of natural, outdoor space and its multifaceted benefits in curriculum design, intervention use and design of the school grounds. This includes the gain of investing in collaboration with local Outdoor Education services, and/or enabling staff to gain outdoor qualifications (such as through the Forest School Association (2021)). • To consider the use of natural, outdoor space in facilitating the repair of ruptured relationships in school, such as between peers or between students and teaching staff. • To consider the knowledge-base of their staff in reframing and supporting the needs of the students, adopting a holistic view of the wider factors that may be influencing a child's readiness for learning and school wellbeing and the importance of relationships. Training may be sought from external agencies such as the local Educational Psychology Service.	which they could enable this freedom with the realms of safety.	through urban greening), especially in areas of greater deprivation.

5.8. Strengths and limitations

Table 12: *Strengths and limitations of the current study*

Strengths	Limitations
• A major strength of the study was the use of multisperspectival IPA, which enabled both the facilitators and the PCs to share their experiences and perspectives. The process of IPA for each individual group followed by the convergence and triangulation between both allowed for a rich interpretation of the experiences of the intervention to be gained. This extended the findings beyond previous research in this area, both in its exploration of this topic in the UK and to the level of analysis and interpretation that was undertaken. Larkin et al. (2019) argue the potential for this multiperspectival element to be more persuasive than analysis drawn from a single sample, due to the consensus and transparency that such triangulation can provide. However, they were clear this was persuasiveness focused on meaning, not causality (Larkin et al., 2019).	• This study did not include the children's direct perspectives; instead, their views were represented only through second-hand accounts from their PCs and the facilitators, limiting the reliability of the accuracy of their representation. • With the interviews occurring six months following the intervention sessions, the data may have been subject to memory and recall bias, undermining the credibility of the research findings. Nonetheless, the epistemology adopted in this study acknowledged the influences of social processes in shaping an individual's constructed reality and meaning-making, with IPA giving value to these, instead of searching for one truth. • The facilitators' responses may have had a bias towards the positives of the intervention, driven by a personal and financial motive to promote it. • Each of the PCs missed one session of the intervention due to personal and parental responsibilities. Although this highlights a

- This study contributed to a limited pool of research within the EP profession that adopted an IPA methodology (Oxley, 2016). Its use in educational contexts has been supported (Noon, 2018).

- This study explored an organically-arisen intervention which was implemented without the researcher's involvement in response to presenting needs from within a school system, presenting what was pragmatic and feasible amidst restrictions on time, funding and resource. This is a core element of consideration for the effective implementation of any intervention into a system (Moir, 2018), informing recommendations from an ecologically valid perspective.

- The collecting of the data half a year following the intervention's completion enabled longitudinal perspectives to be gained on the intervention's impact and time for the intervention to be reflected upon.

- Use of semi-structured interviews allowed for natural exploration of topics as they arose, enabling the participant to lead the narrative as per what they deemed to be important, in line with the methodological aims of IPA (Smith et al., 2021). Giving the participants the choice to conduct these in-person or online also helped them to be comfortable, relaxed and open.

- need for logistical accessibility when including PCs, it is not possible to comment on the impact that full attendance to the sessions would have had, limiting the strength of the results.

- Due to the 'double hermeneutic' that a researcher engages in during IPA analysis, it is acknowledged that there would always be an extent of researcher subjectivity influencing the data, however this was approached with reflexivity and the researcher's awareness of their own biases.

- The participant groups were not as homogenous as hoped, due to the facilitators approaching from different professional roles and the PCs adopting different relationships with the children instead of all being foster carers, for example. However, this was counterbalanced to an extent by each participant having engaged in the same experience at the same time.

- This study could not give reliable insight into the impact of this intervention had on child's performance, engagement and wellbeing in school.

- Due to the time constraints in the completion of this research, it was not possible to revisit the participants to ensure the research findings accurately captured their voices.

5.9. Future research avenues

- Exploring what the effective involvement of EPs in the implementation of such interventions looks like (e.g. via ELSA) through action research.

- Gaining the view of children involved in this type of intervention.

- The impact of applying the intervention to other adult and child relationships, such as teachers and children or wider caregivers.

- Whether the implementation and impact of the intervention would vary in different areas of socio-economic, educational or environmental contexts (e.g. secondary education instead of primary, urban compared to rural, Wales instead of England, on school ground compared to public ground).

- Measuring impact on school performance and wellbeing, perhaps through pre- and post-measures.

6. Conclusion

This research explored experiences of an outdoor, nature-based PC and child intervention implemented through a primary school, from the perspectives of the PCs and facilitators involved. The intervention had a focus on relationships, encouraging PC-child co-participation through harnessing an effective combination of adventurous, therapeutic, and unstructured elements. This elicited a multiplicity of outcomes supported by the collaboration of expertise from the two facilitators (the school Inclusion Lead and an Outdoor Educator), who demonstrated an understanding of needs, developmental psychology and the influence of systems around a child.

Between both groups of participants, it became clear that the intervention had not only contributed to the maintenance, strengthening and rekindling of PC-child relationships, but had prompted wider relationship development between home and school and the group members. This had promoted social-emotional growth and wider skill development, shifting perspectives regarding home routines and risk-taking in the promotion of freedom. Positive effects had also been noticed on the children's social and academic engagement and wellbeing at school. The outdoor, nature-based environment appeared to be central in enhancing the experience with a catalytic effect on the speed of relationship building and a

neutralising impact on power dynamics. This helped the participants to engage in joint focus in the present moment away from distractions. However, challenges were highlighted in the accessibility of the intervention and the importance of considering group dynamics, personal circumstances and time of year in the timing and planning of the sessions.

Overall, this study demonstrated that the intervention was a step towards creating equitable and accessible opportunities for CYP and their families to engage in together within a natural, outdoor environment. It had planted seeds of hope for both the PCs and the facilitators at an individual and systemic level, emphasising a need for greater financial value and acknowledgement to be given to outdoor education and the fostering of children's relationships to facilitate their success. It also highlighted the additional benefits to be gained by including PCs in such incentives and challenging their perspectives, given PCs can facilitate further opportunities for their children. It is hoped that the insights gained will inspire EPs to incorporate and advocate such values personally and through their work with schools, families and communities, expanding on pre-existing avenues and knowledge.

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"It should be compulsory for all parents and children."

Experiences of an Outdoor, Nature-Based PC and Child Intervention: A

Multiperspectival Interpretative Phenomenological Analysis

Part Three: Critical Appraisal

Word count: 7942

1. Introduction

This critical appraisal encapsulates a reflective and reflexive discussion of the research journey taken in the writing of this thesis. As supported by Pellegrini (2009), this is written from a first-person perspective in line with this ethos, as I turn a critical eye to myself as a researcher. This appraisal consists of two sections. The first of these explores the research process and the development of myself as a research practitioner, with reflection on my research choices from inception to completion, including lessons learnt and how these complemented my development alongside my professional practice. The second section focuses on the contribution of the current study to existing knowledge, elaborating on suggestions for future avenues of research and my plans for dissemination.

2. The research process and the development of the research practitioner

2.1. Inception of the research idea

2.1.1. Personal and professional drive

The topic of this research was rooted in both personal and professional interest. For as long as I can remember, the outdoors has been fondly intertwined into my life experiences. As a child who enjoyed splashing through muddy puddles and searching for bugs, I learnt early lessons in seeking joy in the mundane. Rainy, reluctant hikes up-hill challenged my determination and resilience and family camping trips created poignant moments for connection and memory-building with loved ones. Though I may not have appreciated it at the time, the natural world has always been a place of safety and restoration for me; an aspect I lean into now with greater intention in the frenzy of adult life. However, my professional career has prompted me to reflect on the privilege entrenched in these personal experiences; the opportunities and access to nature afforded to me since birth, facilitated by a stable, loving family with supportive values and an able body to embrace the range of experiences in. I am under no illusion that such experiences

and perspectives are commonly shared by others, knowing that for some the natural world may be associated with indifference, dislike, pain, fear, or may be purely inaccessible.

Whilst working in an alternative provision for 11- to 16-year-olds, I was given the responsibility of supporting the implementation of a non-academic outdoor intervention revolving around outdoor learning (e.g. building allotments from scratch) and growth mindset principles (Dweck, 2016) facilitated by outdoor metaphors. We fostered life skills in addition to those focused on in the classroom, including interpersonal, teamwork, problem-solving and technical skills. Engagement grew with time and the intervention appeared to aid the building of trust and relationship between staff and students, facilitating wider school engagement and learning. I was struck by the positive impacts that could be reaped through the opportunities we created with previously 'dead space' on the school grounds alongside largely voluntary donations of resources and the skills of the teaching assistants leading it, who had no additional specialist training. It felt accessible and particularly poignant upon learning that this outdoor experience was novel for so many students. Upon leaving this role to start my training to become an EP, I was secure in my interest in promoting equity of outdoor experiences for CYP, which was further cemented through reading Stuart-Smith's (2020) book on the restorative power of nature, given to me upon leaving my role.

Upon becoming a trainee educational psychologist (TEP), I realised how different schools and provisions were utilising outdoor space, largely through Forest School sessions in primary schools, and felt the outdoors could be harnessed further. During my first year of training, I focused an assignment on how EPs can address culture, equality and diversity with CYP from low socio-economic status backgrounds, with specific regard to the role of nature within this. This highlighted the stark inequalities in access to the social, educational, psychological and physiological benefits of nature (Vella-Brodwick & Gilowska, 2022) due to socioeconomic background (Office for National Statistics, 2021) which were further exacerbated by the COVID-19 pandemic (Blundell et al., 2022; Friedman et al., 2021). I was particularly drawn to McNally (2022), raising whether it was time that EPs advocated for CYP to have increased contact with nature. This highlighted my drive to explore ways in which the outdoors and its benefits could be more accessible to CYP and how we were well-placed as EPs to facilitate this.

These personal and professional drives have been subject to significant reflexivity throughout the research process. This was especially important in the context of adopting IPA within my design, focusing on how individuals make sense of their life experiences (Smith et al., 2021). This process involved a double hermeneutic, in which I interpreted the individuals' interpretations of their experiences, requiring my awareness of the influence of my pre-existing knowledge and pre-conceptions (Smith et al., 2021). Husserl (1927; in Smith et al., 2021, p. 12) proposed that researchers 'bracket off' such influences to enable them to be immersed in the individual's phenomenology and reduce the risk of moulding this to the pre-conceived notions or taken-for-granted experiences of the researcher. However, Heidegger (1962/1927; in Oxley, 2016, p. 56) argued that we can never truly achieve such separation as our understandings are drawn from our own position; hence IPA advocates for researchers to actively reflect on what they do bring to the interpretative process (Oxley, 2016). As such, I was mindful not to approach this research with pre-conceived hypotheses and remained alert to my emotions and reactions, to enable me to challenge their rooting and their influence. Such reflections will be revisited throughout my account of the research journey below.

2.1.2. A bottom-up approach

Wanting to explore possibilities in outdoor contexts, I was keen to research a phenomenon within an educational setting that was 'naturally occurring'; implemented organically within a system, borne from response to acknowledged need. I had considered carrying out action research, supporting the implementation of an outdoor intervention within a school setting. However, not only would this have faced logistical and time constraints considering my move to a different local authority during the research process, but in the interest of accessibility, I wanted to explore the implementation experience, participatory experience and impact of a phenomenon instigated by a system itself. My hope was that this inductive, bottom-up approach would provide an understanding as to what was feasible and realistic within the 'real world' and what the EP profession could contribute to this. I also thought that enabling the setting's ownership of the phenomenon would help to ensure their engagement in the research, avoiding the risk of an expert approach in which I was imposing practice onto a setting that may not be translated effectively. This felt additionally unethical considering my potential unfamiliarity with the

system and lack of developed relationships with those involved, risking more harm than good and disloyalty to the principles of implementation science (Forman et al., 2013).

With this in mind, I was drawn towards an intervention that was being trialled in a primary school I worked with as a TEP. Despite this intervention being supported by buy-in from an outdoor education service (reducing its financial accessibility), the school itself was situated in one of the 10% most financially deprived areas nationally (ONS, 2021), piquing my curiosity as to what was being achieved here despite a potentially more financially- and socioeconomically-strained context. This sparked my initial scoping of the literature to ascertain the extent of existent literature on this focus of intervention; which was sparse. I was aware of my conflict of positionality within this system, presenting as a TEP in my professional role and a researcher the next. However, fortunately I was relatively new to working with this school and my professional involvement did not overlap with these sessions or those involved, allowing me to create distinct separation between the two from the perspective of myself and the participants. I further ensured that my participant interview days did not coincide with TEP case work, supporting my mental separation of the two roles.

Further to this, I became starkly aware of my inadvertent agenda to 'celebrate' these sessions, stemming partly from my own biases as well as a desire to 'give back' to the facilitators in positively promoting their work. This was especially pertinent given their enthusiasm to co-operate with my research. Such reflections further consolidated my plan to adopt a research method that did not impose positionality or directional bias, but instead enabled participants to freely convey their rich experiences and perceptions of the intervention. This informed my decision against using appreciative inquiry (Cooperrider et al., 2008), as despite it being a tempting, strengths-based approach, I was aware that the participants would be reflecting on a historical event and I wanted to value all aspects of their experiences; positives and negatives, successes and shortcomings. This was to enable a rich, unbiased picture to be built to aid considerations for the implementation of similar interventions.

2.2. The literature review process

Upon approaching the literature review, I knew that I wanted to capture the convergence of literature from numerous avenues. I took inspiration from a narrative approach, allowing for coverage of a broad range of subjects "at various levels of completeness and comprehensiveness" (Grant & Booth, 2009, p. 94) and presented summaries of literature within themes of key topics which I perceived to provide the greatest theoretical contribution the intervention, drawn from my psychological knowledge and dissection of the core facets of the intervention. These were attachment theory, relationship-building and the impact of the outdoors. Mindful of criticisms surrounding the subjectivity of narrative reviews with researchers selecting findings that support their held positions (Green et al., 2006), I corroborated these areas of focus with my supervisor and a social worker who had close awareness of the studied intervention. I also aimed to present the research with neutrality, for example through balancing historical claims from attachment theory with contemporary models and understandings to provide a wider understanding. I would have liked to have incorporated greater criticality at this stage which was hampered through a prioritisation of covering a greater number of topic areas.

My demonstration of criticality featured more heavily within the systematic literature review, focused on the impact of PC and child co-participation in outdoor, nature-based experiences on their relationships. The decision to adopt this approach stemmed from a desire to demonstrate the extent of research surrounding similar interventions to that in my study in a critical, objective and transparent approach. This felt important in helping to overcome the risk of confirmation bias from my personal and professional drive in this area. The systematic approach also helped me to more securely identify the gaps in the research and consequently the unique contribution of my own. Having never conducted a systematic literature review before, this was a steep learning curve for me and I greatly appreciated the support from the Cardiff University library service along the way.

Crystallising my review question and associated search terms required significant consideration and helped me to identify which key aspect/s I wanted to capture with priority. Involving nature-based, outdoor experiences was a must and I realised that an important element of the intervention in question was the co-participation of the PCs and

children in the outdoor activities, and the impact this had on their relationships. Consequently, search terms relating to co-participation were prioritised, which significantly reduced the results alongside the specificity of the PC and child relationship, no matter the age of the child. I also decided not to limit the country or year as I realised that despite cultural and societal differences in the use and approach to the outdoors, experiences in the outdoors are not limited to the UK or one period of time, and actually noticing these historical and locational differences would only add richness to our understanding of how such experiences have evolved.

The general trend of research showed greater results on child experiences in nature since 2022, despite opportunities in nature always existing. This surprised me, though I reflected on the influence of the COVID-19 pandemic in this, and whether greater attention was drawn to the need for engagement with the outdoors because of the restrictions of this, alongside advances in technology. The pandemic provided a punctuation point perhaps, whereas in earlier decades, society may have taken for granted the outdoor world as it was far more ingrained into their daily lives. I also reflected on how children's play has shifted over the decades, with independent outdoor play more common in the past, contrasting the greater reliance on parental-led activities outside in the modern day due to fears of risk, fewer opportunities and greater entertainment opportunities within the home (Summers & Vivian, 2018).

Having filtered the papers to those relevant to my review question, I was surprised to find that they were all USA-based. I considered how this may reflect the cultural and emotional significance of wilderness in the U.S., shaped by the closure of the American frontier in 1890, which spurred efforts to preserve its role in national identity (Miles & Watters, 1984). I learnt that since the initiation of Outward Bound in the USA in 1962, utilisation of specialised wilderness therapy programs grew followed by Louv's (2005) concept of Nature Deficit Disorder which further spurred a resurgence of outdoor education in the USA (Miles & Watters, 1984), reflected in the research. While studies on family wilderness camps and recreational programs spanned 1991-2019, I noticed research on unstructured family-based activities to have emerged more recently (2016-2023), perhaps reflecting evolving societal attention to family dynamics, accessibility, and the relational and

psychological benefits of frequent small-scale nature interactions (e.g., Izenstark et al., 2021; Mason et al., 2021).

Overall, I found myself finding the (lengthy) process of the systematic literature review satisfying, facilitating a comprehensive understanding of the gaps in the literature and complementing the narrative approach in preparing the ground for the empirical study.

2.3. Methodological considerations

2.3.1. Ontology, epistemology and positionality

Within research, axiology encompasses what the researcher believes is valuable and ethical (Killam, 2013), informing the research area chosen and the decisions made throughout the research process. This was an important consideration for me, especially given an EP's duty to practice within the ethical guidelines outlined in BPS (2021). I reflected that this research was guided by my belief that all children deserve the opportunity to build positive relationships with their caregivers and access the benefits of the outdoor, natural world to support their learning, development and wellbeing. However, I also believed that inequalities prevent this, which have been exacerbated by recent events such as the COVID-19 pandemic and that EPs are well positioned to facilitate access and promote such opportunities through their work with CYP and the systems around them.

Throughout the research process however, I have grappled with my ontological and epistemological positioning. A relativist ontology and a constructivist epistemology initially seemed like the positionings that I 'should' adopt, given these are archetypal when using IPA. This is due to the focus on the individuals' unique realities, experiences and their own sense-making and constructs of such experiences (Smith et al., 2021). However, from early on I chose to adopt a social constructionist epistemology as this felt most fitting with my own understanding of how knowledge is acquired. Within the empirical study, I believed the participants' perceptions and experiences of the intervention to have been co-constructed through the social processes and interactions they had with one another and their children, potentially alongside others external to the intervention. They would also have approached the intervention with perspectives and experiences of their relationships and premise of involvement that were historically, culturally and socially-bound (Burr, 2015). As such, these

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perspectives may have developed contradictions and changes over time and context since the intervention and in further co-construction of sense-making during the interviews.

However, throughout my data collection and initial write-up, I assumed I was adopting a relativist positioning, though with time this presented as increasingly unfitting to the positioning as a researcher. My use of a systematic literature review alone exemplified my openness to there being a form of external, observable reality, given the positivist tendencies of systematic reviews (Gordon, 2016). I realised I held assumptions about a common external reality within my study; for example that the sessions happened, that the facilitators and PCs played different roles within these sessions but that they all shared this particular experience of the intervention in the time frame specified. However, I also believed that each participant had their own substantiations of the experience of the intervention and that there was not one 'truth' as to how it was experienced. This positioning was incoherent with relativism, which does not make claims about an external reality, and was more aligned with a critical realist ontology. This recognises that our perspectives, experiences and knowledge vary as we cannot access reality, but we ultimately intersect within some form of common reality (Kozhevnikov & Vincent, 2020). This sparked discomfort at this point of the research process, as continuing to adopt a relativist lens created a sense of disconnect from the research and as though I was masking under a different guise. During further reading, Berger's (2020) argument for a researcher's understanding of their own personal epistemology and ontology being crucial to the investigation of knowledge consolidated my realisation that a critical realist stance is what I had been adopting all along. As such, I felt more comfortable in this shift as it was more a case of amending the accuracy of my reporting rather than shifting my approach to the whole study.

Nonetheless, I then became aware of potential incoherence of critical realism with social constructionism and an IPA approach, though further reading helped me to secure alignment in my understanding of these approaches. I established that although social constructionism posits a belief in the creation of knowledge through social processes and interaction with the understanding that there is no singular 'truth' (Burr, 2015), it does not deny that such social constructs can be situated within an external reality (Fish, 1996; in Crotty, 1998). As such, it is surely feasible to access an individual's socially-constructed,

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individual sense-making of their experiences whilst simultaneously recognising that such experiences possess a common external validity, even if it is not directly accessible. Meanwhile, IPA does not attempt to seek a single truth or reality that can be generalised across participants or wider. It instead focuses upon the individuals' sense-making of their reality and prioritises the preservation of the idiographic nature of their experiences through the interpretation (Smith et al., 2021). I perceive this as being possible whilst still accepting that the homogenous samples of participants used within IPA (Smith et al., 2021) access some form of common external reality, despite this not being the focus of exploration.

My reflection on a social constructionist epistemology also fed into my awareness of the influences of my subjective values, interest, experiences and beliefs on the research process, which Braun and Clarke (2022) and Burr (2015) acknowledge that the researcher cannot completely detach from. These would have unavoidably influenced my constructions, responses and interpretations throughout the research process, making my awareness of positionality crucial in enhancing the integrity of the study (Mosselson, 2010). I had initially seen myself as being an outsider as I was not part of the intervention nor researching it at the time and did not have membership to the participant groups, as I was neither a PC, nor had I facilitated or taken part in such an intervention before. Although this may have resulted in me being perceived by the participants as someone who could not relate or fully understand their experiences, I saw this as a strength as I could capture the experiences from a naturalistic lens. The intervention was able to be organised, implemented and experienced amongst uninterrupted, real-world implications and challenges from within a school system, which provided significant learning opportunities.

However, I then read Dwyer and Buckle's (2009) paper discussing the space between the binarised way of thinking about outsider and insider positionality. This made me realise that we can never truly be an outsider when becoming engrossed in the personal experiences and perceptions of others, especially when we bring our own perceptions, experiences and values on the phenomena. Such aspects of my perspective meant that I would never be able to adopt true objectivity or neutrality on the subject, making my continued reflexivity centrally important.

2.3.2. Multiperspectival IPA

IPA was a new approach to me that I discovered more about throughout the research process. This choice was made as my aim was to elicit the voices of the limited number of individuals who experienced this intervention and to learn from the interpretation of these voices, whilst retaining respect for their individuality, in line with Smith et al. (2021). My hope was that this would provide insight into how such an intervention was experienced from different perspectives to help to aid understanding of such a phenomenon, not to create a set of generalisable outcomes. IPA was deemed more fitting than alternative methods such as appreciative inquiry (explained above in *A bottom-up* approach) or reflexive thematic analysis, due to this detailed focus on the participants' phenomenological experiences.

The facilitator and PC participants constituted two directly related subgroups, meaning they were immersed in the same experience but had two different perspectives on it, which I discovered constituted as multiperspectival IPA (Larkin et al., 2019). This initially raised alarm as I noted Smith et al. (2021) recommend that beginners should only focus on one group with four to ten participants for a piece of professional doctoral research, however I was incorporating two groups. I learnt along the journey that incorporating two subgroups requires an extra level of analysis (Larkin et al., 2019), focusing on sense-making *between* the subgroups as well as within them. I worried that I had 'bitten off more than I could chew' and lacked the time or ability to do this justice, however I was reassured through conversation with a previous TEP who had also used IPA with two subgroups, with the same total number of participants. Our conversation and further supervision helped to remotivate me. I realised that through having collected the data early in the research process, I had sufficient time to conduct the analysis comprehensively, so long as I maintained a disciplined and consistent approach. Larkin et al.'s (2019) paper and the updated guidance from Smith et al.'s (2021) handbook also supported this process, and in hindsight I am grateful for the rich insight that the combination of both perspectives provides. This taught me the value of spending more time exploring an approach prior to beginning the research, but also the importance of maintaining integrity to the approach. This also taught me not to be afraid of challenge and discomfort within the research process but to persist, as this can often create richer outcomes in the long run.

2.3.3. Semi-structured interviews

I chose to use semi-structured interviews as my method of data collection as this gave me the space to adopt an in-depth exploration of individual perspectives (McIntosh & Morse, 2015; Willig, 2013) in line with the IPA approach. Although all of the participants shared the experience of the intervention in question, they each approached it from different lenses and circumstances. I wanted to provide the space for such individual experiences to be shared in safety and with an openness that may not have felt comfortable in a group setting, considering the participants knew each other and had played a role in each other's experiences. I also provided a loose interview schedule to share with the participants to help them to feel more prepared and relaxed, but wanted to be predominantly led by them. Further prompts were then informed by the different aspects of the theoretical grounding of the intervention and guidance from Smith et al. (2021), helping me to manage potential bias from my own personal and professional drive in this topic. The interview schedules for the facilitator and the PC participants had natural variations due to the different contexts of their involvement.

2.4. Participants

Although my research had a naturally limited participant pool consisting of those who had taken part in the specific group of intervention sessions, I toyed with whose perspectives I gave voice to; those of the facilitators, PCs or children. My instinct was to focus on the PCs, considering their involvement was the aspect that differentiated this intervention from other adult-led outdoor education experiences for children. Considering Smith et al.'s (2021) recommendation of sample size for professional doctoral research, I then decided that it would be beneficial to extend this to the facilitators in order to give a multi-perspectival stance on the experience and shine a light on the implementation and facilitation of the intervention, supporting future endeavours in other schools and local authorities. The absence of the child's voice was a significant loss which I hope to shine a light on in future research on such interventions, away from the time and logistical constraints of doctoral thesis demands.

I felt incredibly fortunate that all of the participants accepted the invitation to participate, given the success of this study was dependent on this. I believe this was greatly

supported by having made the choice to utilise the built relationship between the school Inclusion Lead and the PCs in the recruitment process and making the effort to phone call each of the PCs, supporting early rapport-building. I felt that this positive reception and response-rate also gave promise to the investment of the participants in the intervention and their ability to recall their experiences, considering the intervention had taken place half a year before data collection. Having secured participants, I later experienced temporary uncertainty as to the true homogeneity of the participant group of the PCs, considering they each had different contexts to their relationships with their children; some were care-experienced, others had experienced separation through illness and so on. However, I realised that a 'homogenous' sample of individuals is always going to involve a degree of individual difference, and ultimately their commonality was in their prior experiences having impacted their relationships with their children, resulting in the valued opportunity to spend more time together.

2.5. Data collection

I was initially apprehensive about the data collection process as I was inexperienced at conducting research interviews, especially within IPA methodology. I studied Smith et al.'s (2021) recommendations and rehearsed my technique with a colleague for their feedback ahead of my first interview. Although I didn't have a separate pilot interview due to the limited participant pool, the first interview of each participant group acted as a pilot in the sense that immediately following the interview, the participants were asked for feedback about their interview experience which I learnt from alongside my own reflections. In my first interview, I tried to talk minimally, allowing for silence to help to prompt the participant to elaborate and reflect further as recommended in IPA interviews (Smith et al., 2021), though this felt unnatural and rigid. However, having thought we had finished the interview, new points began to be raised in casual conversation that we wanted to capture, and so the recording was continued.

This restart made me alert to the social constructionism element of knowledge creation. Although I did not want to become over-influential in the participants' narratives, I realised that some extent of conversational approach led to richer insights to be shared, perhaps due to the participant feeling more at ease with the more natural flow of

conversation alongside the shared process of sense-making. This helped me to relax into future interviews, however I found myself battling with this fine line of researcher involvement, given a criticism of using semi-structured interviews is the extent of influence a researcher can have on the conversation (Kallio et al., 2016; Willig, 2013). I still retained conscious pauses and it was rewarding seeing the power of reflection in action, with the interviews creating a punctuation point of meaningful reminder of the intervention and what it meant to them now. Such examples exemplify the learning journey I experienced throughout the data collection process, which I believe made me a far more confident and competent researcher along the way.

It was also important to me that the participants were able to choose for the interviews to be online or in person; whichever was more comfortable for them, as I hoped this would contribute to a relaxed environment that would be conducive to their open engagement. I was also aware that I was working with complex home and school systems and so was willing to prioritise the logistics and timings desirable to the participants to enable their voices to be heard. Although Braun and Clarke (2022) advised against virtual interviews due to their restriction on rapport-building and observation of non-verbal communication, Archibald et al. (2019) found participants using online interviews to rate their experience as highly satisfying and generally rated this above other mediums including face-to-face. I personally did not feel the use of the virtual platform to raise significant issues in data collection, but rather that the accessibility and convenience it provided the participants was an invaluable contribution.

However, working around the PCs' logistics did result in me conducting two of the PC interviews back-to-back. I had not appreciated the impact this would have on my alertness and capacity for the second interview, and fear my reduced energy made me more reliant on the interview schedule and perhaps less receptive to the interviewee. This made me reflect on how conducting research is more than the process outlined on paper; it is the energy and soul that you bring to it, especially when working with people and their real, lived experiences. This helped me to realise the impact of my mental and physical state when entering work with individuals through my practitioner role too, in line with the Standards of Conduct, Performance and Ethics (HCPC, 2024, SoP 6.3). Although I believe I was fit to practice, my cognitive load would have impeded my ability to immerse myself in

the participants' experience and potentially limited the depth of conversation. This taught me a valuable lesson in the need to space out participant interviews in order to approach each equally fresh-minded, balancing the real-world implications within the research process.

2.6. Data analysis

The data analysis process of IPA was far lengthier than I had anticipated, which I contributed to through my wish to do a thorough job. This was especially pertinent given criticisms I had seen of students keeping their analysis too descriptive and not accessing a conceptual level of analysis (Hefferon & Gil-Rodriguez, 2011). I soon realised the richness of understanding that was created in becoming wholly engrossed in each participant's narrative at a time. This required careful time management, as I wanted to ensure that I fully analysed each participant group to the point of establishing GETs before moving onto the next group. I also separated this from the writing of my major literature review to reduce the influence the research would have had on my interpretation. I also had my research supervisor review my PETs and GETs and approach to analysis to ensure the accuracy and integrity of my IPA approach.

Despite starting this research journey with the idea that more participants meant richer outcomes, I truly began to understand the value of delving into the narratives of a small participant sample that IPA advocates for (Smith et al., 2021). I was afraid that the quality of the five-participant PC group would be lost during analysis and that I would have an unequal representation of voice between the two groups. I tried to overcome this by spending a lot of time amending the GETs for the PC group particularly, revisiting them at different points to ensure they captured the individual narratives appropriately. I would likely aim to adopt a smaller number of participants if using IPA in future for this reason.

Throughout the analysis process, I found the reminder of finding points of consonance and dissonance most helpful when creating themes across participant data. This was especially pertinent when creating the GETs for the PC group. I initially had 'barriers to engagement' as a GET of its own, which was informed by each of the participants. However, with further dissection I established that these elements could be encapsulated through the other GETs, if adjusted to a framing that appreciated the idiosyncrasies of each specific GET.

For example, themes surrounding parental fears of illness due to cold weather and challenges in interpersonal dynamics were placed under 'Navigated power dynamics' as these related to differences in agenda that needed to be managed between the facilitators and the PCs.

When focusing on the multiperspectival element of the analysis that looked *between* the two participant groups, I found it surprisingly uncomplicated to establish connecting themes as there appeared to be a high level of consonance between the two participant groups. This concerned me as I was afraid that I had unconsciously biased the data towards my own values and perspectives making them consistent, despite consciously trying to bracket off my own pre-conceptions on the topic as recommended by Finley (2008). I found comfort in the time I had committed to engrossing myself in each participant's data which helped me to separate my own biases, and in having had second opinions on my PETs, GETs and data analysis method from my supervisor. Having not experienced a similar intervention to the one being studied also helped me to have a separation from the data, meaning I could approach with genuine curiosity. I was aware of the 'double hermeneutic' that researchers engage in during IPA analysis, meaning there would always be an extent to which the researchers' subjectivity enters the sense-making process (Smith et al, 2021).

2.7. Presenting findings with anonymity

When navigating the write-up of the findings, my main concern was respecting the anonymity of the participants, especially given that they all knew each other, took part in the experience together and would likely be able to identify each other's quotes and contributions with little information. As such, I endeavoured to keep my reporting as non-identified as possible whilst trying to maintain integrity to the voice of each participant; a delicate and challenging balance. The first step I took was to randomly allocate each participant a timeless, gender-neutral pseudonym and refer to each as 'they/them' so that individual genders were also anonymous. This decision on pseudonyms was made as opposed to allocating participants numbers or letters, as this felt dehumanising, especially in the context of wanting to empower their stories and life experiences. In light of guidance from Wang et al. (2024) that I discovered since, I wanted to enable the participants to have a voice in how they would like to be presented in the research. However, this was a later

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reflection in the research process, making it unfeasible to talk to each participant within the timescale. Had the participants not known each other, I may have linked each participant's pseudonym with their specific age, gender and relationship to the child. Though on reflection, I realised that I was not going to be making explicit comparisons or claims regarding such details, making this level of specificity unnecessary.

Within the *Results* section, I spent many redrafts trying to retain the individuality of participants' ideography, whilst presenting overall findings across both groups within a limited word count. I drew on advice from Smith et al. (2021) for when working with larger samples, presenting each GET at a group level before delving into more abstract and conceptual interpretation. To capture the participants' ideography, I also included supportive quotes and views. However, I also remained mindful of my choice of quotes as to support anonymity and to reduce harm to participants (Oates et al., 2021). This meant that I endeavoured to choose quotes that neither included explicitly identifiable information, nor did they share information that could have been hurtful or offensive to other participants, especially out of context. Although this may have limited the impact of quotes, I decided that the key messages were still portrayed, maintaining integrity to the data, without posing a risk to ethical practice. Elsewhere I also made sure not to link large volumes of participant data with their pseudonym, such as within the matrix portraying contributions to the summary themes across the two groups (Appendix N).

I was again mindful of the influence of my own experiences, views and values when writing up my study, especially the results and discussion. To help reduce the influence of my unconscious bias, I made sure to honour and present themes that encapsulated all of the data, whether positive or negative. As highlighted by Larkin et al. (2019) when conducting multiperspectival IPA, I also remained conscious of not giving more power to the voice of one group over the other. Larkin et al. (2019) exemplified that it is likely that "one sample will have more recourse to sociocultural capital than the other" (p. 189). I wondered whether this would be the facilitators in this instance, considering they were implementing and leading the intervention from professional positions, suggesting a relative position of power compared to the PCs. Although I did not feel a power imbalance in my consideration of either group, I was concerned as to the extent to which the facilitators' data would be presented compared to that of the individual PCs due to there being fewer facilitators in

their group. However, I tried to give equal consideration to the ideographic contribution of each participant during the *Results* and when creating the summary themes between the two groups.

2.8. Personal reflection

Overall, I have grown significantly across the course of this research journey, both as a researcher and within my professional practice. With this being my first experience of purely qualitative research and of IPA, I have had the opportunity to challenge beliefs and assumptions that I held at the start of the process. For example, my preconception that 'good quality' findings are those that have been gathered from a large number of participants and can be generalisable; a positivist conception entrenched in me during the years of education preceding this doctorate. My reconsideration of this has been supported by my increased awareness of my epistemological and ontological view as a researcher, especially that surrounding critical realism, as explained in the *Ontology, epistemology and positionality* section above. I am glad that I took the opportunity to truly reflect on this and to reach an alignment between my positioning and my research, rather than my research adopting a separate positioning from me that seemed the 'easiest option', that I was merely entertaining.

I believe my practitioner role contributed to this research process largely through the transferable skills I have developed (such as those in rapport-building, listening and organisation) and my rehearsed reflexivity. Had it not been for my position of involvement in the local authority, I likely would not have been aware of or able to access the research opportunities how I did. However, this made me aware of the need to make the distinction of adopted role explicit when conducting research within the researcher's professional realm, ensuring that any competing motives or biases are acknowledged and managed. Nonetheless, I see the practitioner and researcher roles as having bidirectional benefits. As Dwyer and Buckle (2009) stated, "We cannot retreat to a distant "researcher" role" (p. 61). I have come to recognise that the researcher role becomes integrated into our practitioner role through the curiosity, respect for the individuals' lived experiences, our interpretation of the perspectives and co-constructed sense-making that we engage in each day. Engaging in this thesis has opened my eyes to how I manage my own biases within my practice, and

the richness that can be gained from really listening to individuals' stories and representing them with integrity.

Although I have faced highs and lows along the way, I have built my resilience and ability to manage competing demands, such as those of placement and normal life, whilst also maintaining my wellbeing. As someone with an inclination towards feeling like I could always do more, this has helped to teach me boundaries around what is 'good enough'; a lesson I have taken into my practice too. I am very grateful for how smoothly many of the elements of the process went, especially the recruitment of participants. My desire to research an organically-implemented phenomena presented high-risk, but I believe that such risk has paid off in enabling rich insights into an example of how the outdoors can be used to create positive change for CYP, through the unity of the systems around them. When considering the intervention itself, I have been truly inspired by the sheer commitment of those working in school systems such as this one to think creatively and go above and beyond to provide their CYP with valuable experiences, despite constraints on time and resources. I hope for others to receive this research with open minds and a willingness to think outside of the box in creating possibilities.

3. Contribution to knowledge and dissemination

This section will now focus on the contribution that this research can make to the literature to future research and plans for the dissemination of findings. For the contributions that this research can make to EP practice, schools, families and wider systems, please refer to *Part Two, Section 0 and 5.7.*

3.1. Contribution to the literature

This research aimed to explore the experiences and perceptions of an outdoor, nature-based PC and child intervention through a primary school, and the implications this has for future practice. A literature review conducted in October 2024 only revealed 14 empirical studies related to PC and child co-participation in outdoor, nature-based experiences with relationship-focused outcomes, all based in the USA. As a result, this research contributed by providing an empirical study of such an intervention within a UK context. This also appeared to be the first to explore a set series of individual sessions over several weeks, without direct researcher involvement in their implementation or facilitation. This was also the first to take place through a school and to adopt IPA methodology, allowing for the rich exploration of participants' experiences and perspectives. Not only was this also the first study to relate such an intervention to the role of the EP, but it also contributed to a limited pool of research within the EP profession that adopted an IPA methodology (Oxley, 2016).

When considering the findings of the current study, they show a distinct overlap with those of the 14 empirical studies from the systematic literature review. This suggests that despite cultural, societal, historical and locational differences between the studies, the impact of nature appears to be consistent and reliable. The alignment of the current findings with theoretical groundings and previous literature also supports this. However, the richness of the data in the current study also allowed for an understanding of the real-world implications of implementing such an intervention within a school system. This includes the pressures and barriers that may prevent such an initiative from being accessible, perhaps to those who need it most.

3.2. Contribution to future research

My hope is for this study to spark further curiosity as to the role of nature in supporting relationships in the microsystem around a child through schools and the role of EPs in supporting this. It is promising that such work is occurring organically and accessibly within schools, with individuals using initiative and collaborative working to step out in faith and trial such incentives. However, it is important for such efforts to be documented and explored to further the evidence-base and lead to refinement of incentives. Future research could focus on widening the research base on such incentives with consideration for their implementation and impact at varying levels. This could include at a secondary school level for example, especially given this is a period when young people's nature connectedness has been shown to decrease (Richardson et al., 2019; Hughes et al., 2019; Bell et al., 2003).

With the current study having explored the implementation and impact of an organically-implemented intervention, future studies could take the next step in exploring the initiation of such an intervention in another school setting. In light of the implications for EPs that arose from the current study, EP services could conduct action research to explore how EPs can best contribute to the implementation and support of such incentives. Considering the tools and skills employed by EPs to elicit pupil voice and the distinct absence of the child's view in the current study, future research could focus on children's perspectives of such interventions, eliciting a person-centred focus within the research. The impact of the intervention on CYP's school performance and wellbeing could also be ascertained using pre- and post- measures.

3.3. Dissemination of findings

The dissemination of research findings is an important consideration for as Freemantle and Watt (1994) advocate, "professionals have a role in ensuring the key research evidence is promoted" (p.133). I will be sure to share my findings with the participants of the research who deserve to have priority in their distribution. I plan for this to be via the creation and sharing of an accessible poster that summarises the study, as well as a link to the unpublished thesis via the Cardiff University ORCA website. Beyond this, my dissemination will likely depend on the targeted audiences.

Harmsworth and Turpin (2000/2002, in Sedgwick & Stothard, 2021) proposed three main dissemination purposes. The first of these was in building awareness for audiences for whom some recognition would be helpful but who don't need detailed knowledge of the research findings. In my case, this may be families who may be interested in ways in which they could engage in nature or build their relationships. The second purpose was understanding, for those who would benefit from a deeper comprehension of the research findings. For example, this may be school teachers and teaching/learning support assistants. The final purpose was action, for audiences whose awareness of the research findings should directly result in changes of practice. Such audiences would require the appropriate knowledge and skill set to be able to implement sustainable change. In this instance, this would include EPs, school staff including those in Senior Leadership Teams, Special Educational/Additional Learning Needs Coordinators, ELSAs, Outdoor Educators and those placed in systems controlling the distribution of funding to different sectors to enable such incentives to occur. This final stage is where the focus of the dissemination of these research findings will be focused.

As such, my plans for dissemination include the creation of a research poster and the presentation of my research to fellow TEPs at the end of year conference through my doctorate. I will seek opportunities to share my research in wider conferences and on wider platforms such as educational psychology blogs. In terms of my own practice, I plan to create a training package that I can present to future EP teams that I work in, as well as within schools whom I work alongside. I plan to promote this work through my consultations and recommendations shared, as well as through systemic-level work, helping to promote consideration of how wider school systems could implement such incentives. I eventually hope to use my research findings to inspire outdoor work with the home and school system through the training of ELSAs. I believe ELSAs are well-placed in the system to promote such interventions, especially given that they are trained by EPs and receive ongoing EP supervision through their work. I also hope for the opportunity to publish this work in an academic journal and to be able to further this research field myself in the future, welcoming collaboration with other researchers who share my interest.

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Appendices

Appendix A – Systematic literature review database search strings

Appendix B – PRISMA flow diagram: Search strategy for the systematic literature review

Appendix C – Overview of studies included in the systematic literature review

Appendix D – Invitation e-mails to participants

Appendix E – Information sheet for participants

Appendix F – Link to the consent form through Qualtrics

Appendix G – Debrief form for participants

Appendix H – Gatekeeper e-mail for the school Inclusion Lead

Appendix I – Semi-structured interview schedules

Appendix J – Ethical considerations

Appendix K – Application of Yardley's (2000) criteria for assessing qualitative research

Appendix L – Data analysis procedure and examples

Appendix M – Participants' PETs

Appendix N – Matrix representation of the connecting themes for the facilitators' and PCs' data at an individual level

Appendix A: Systematic literature review database search strings.

Database	Search string	Number of results
SCOPUS	TITLE-ABS-KEY (outdoor OR forest OR nature-based OR outside OR wild* OR adventure*) W/7 (experien* OR intervention OR session OR therap* OR program OR programme OR course OR class OR play OR interaction* OR co-participation OR co-play) AND TITLE-ABS-KEY ("parent-child" OR "care*-child" OR "family-therapy" OR "family-based" OR "parent-adolescent" OR "carer-adolescent")	297
Ovid APA PsycInfo® (*'outside' removed for the following search strings*)	((outdoor OR forest OR nature-based OR wild* OR adventure*) adj7 (experien* OR intervention OR session OR therap* OR program OR programme OR course OR class OR play OR interaction* OR co-participation OR co-play)).mp.[mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word] AND ("parent-child" OR "care*-child" OR "family-therapy" OR "family-based" OR "parent-adolescent" OR "carer-adolescent").mp.[mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word]	110
Ovid Embase	((outdoor OR forest OR nature-based OR wild* OR adventure*) adj7 (experien* OR intervention OR session OR therap* OR program OR programme OR course OR class OR play OR interaction* OR co-participation OR co-play)).mp.[mp=title, abstract, heading word, drug trade, original title, device manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word] AND ("parent-child" OR "care*-child" OR "family-therapy" OR "family-based" OR "parent-adolescent" OR "carer-adolescent").mp mp.[mp=title, abstract, heading word, drug trade, original title, device manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	28
Ovid MEDLINE® ALL	((outdoor OR forest OR nature-based OR wild* OR adventure*) adj7 (experien* OR intervention OR session OR therap* OR program OR programme OR course OR class OR play OR interaction* OR co-participation OR co-play)).mp.[mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary	43

	concept word, anatomy supplementary concept word] AND ("parent-child" OR "care*-child" OR "family-therapy" OR "family-based" OR "parent-adolescent" OR "carer-adolescent").mp mp.[mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]	
EBSCO (including BEI, ERIC and CDAS)	TX (((outdoor or forest or nature-based or wild* or adventure*) N7 (experien* or intervention or session or program or programme or course or class or therap* or interaction* or co-participation or co-play or play))) AND TX ((parent-child or care*-child or family-therapy or family-based or parent-adolescent or carer-adolescent))	117 (duplicates already removed)
ProQuest ASSIA and ProQuest Dissertations and Theses Global	noft((outdoor OR forest OR nature-based OR wild* OR adventure*)) AND noft((experien* OR intervention OR session OR program OR programme OR course OR class OR therap* OR interaction* OR co-participation OR co-play OR play)) AND noft((parent-child OR care*-child OR family-therapy OR family-based OR parent-adolescent OR carer-adolescent))	57 and 60

Appendix B: PRISMA flow diagram: Search strategy for the systematic literature review.

Identification

Records identified through database searching:
    SCOPUS (n = 297)*
    Ovid APA PsycInfo® (n = 110)
    Ovid MEDLINE® ALL (n = 43)
    Ovid Embase (n = 28)
    EBSCO inc. BEI, ERIC and CDAS (n = 117; duplicates already removed)
    ProQuest ASSIA (n = 57)
    ProQuest Dissertations and Theses Global (n = 60)

Total n = 712

Records removed *before screening*:

Records marked as ineligible by automation tools (for all databases except ProQuest Dissertations and Theses Global):
- By publication type (peer-reviewed journal articles) and by language (English): (n = 72; 47; 0; 7; 71;12) Total n = 209

Records marked as ineligible by automation tools for ProQuest Dissertations and Theses Global:
- By language (English) and by 'Full text' (n = 5)

Duplicate records removed (n = 115)

Screening

Records screened by title and abstract:
(n = 383)

Records excluded: Not relevant to outdoor, nature-based experiences involving the joint participation of PCs and their children; not empirical studies.
(n = 357)

Reports assessed for eligibility
(n = 26)

Reports excluded:
- Focus of the study was not on joint parent/carer and child involvement in outdoor, nature-based experiences (n = 5)
- Outcomes of the study were not relevant to family relationships (n = 7)

Included

Studies included in systematic literature review:
    Peer-reviewed journal articles (n = 11)
    Theses papers (n = 2)

Total n = 14**

*Before search terms were updated to exclude 'outside'.
**Two of these studies were included in a single peer-reviewed journal article.

Appendix C: Overview of studies included in the systematic literature review.

Please note, some relevant extracts have been taken directly from the papers in order to accurately capture key elements for this overview. Quotation marks for the author's prose have not been added, however they have been used for participant quotations and key phrases.

Reference & Country	Aim/s	Participant Characteristics	Methodology	Findings relevant to the review question	Critique
Bandoroff & Scherer (1994) Wilderness family therapy: An innovative treatment approach for problem youth. **Country:** Idaho, USA	To evaluate the impact and feasibility of a four-day family-focused intervention called The Family Wheel for 'troubled' adolescents and their parents, involving an intensive experiential family therapy while camping and trekking into the wilderness (the high desert of southern Idaho). The Family Wheel aimed to enhance participants' perceptions of their family functioning, reduce 'problem' behaviour of the adolescents and improve adolescent self-concept	27 self-selected 'middle-class' families (25 two-parent families, one single mother-daughter pair and one single father-daughter pair) Specific details of adolescent participants unknown, however they were from the population of those involved in the standard wilderness survival program with: • Age 13-18 yrs. • Mean age 15.9 yrs. • 65% male • 35% female • 90% White • 10% Black/Hispanic/ Asian descent Primarily referred by their parents to the program for 'substance abuse, behaviour problems, poor school	Following the adolescents' standard 21-day wilderness program, they were joined by their parents for 4 additional days of trekking. Each day had a different theme: emotional repairing of family troubles, trust, communication (respect, responsibility and reciprocity) and negotiation. 10 trials of the intervention over one summer: two therapists at each (one present for all trials). Questionnaires: • A 15-item Likert-scale questionnaire designed specifically for evaluation of the programme (how helpful/satisfying intervention was)	• Reactions overwhelmingly positive. • 95% rated content most/very helpful – experiential activities, metaphors & processing sessions particularly meaningful. • Many appreciated the opportunity for family intimacy away from home distractions. • Training in relationship skills a particular strength. • Numerous expressed appreciation for sharing experience with other families, benefitting from their knowledge and support. • 92% mostly/very satisfied. • FAMIII = participating families rated family functioning pre-test as within clinical range, but post-test as in normal range. • Adolescent ratings of delinquency dropped for participating & non-participating adolescents &	• Took place two decades ago – outdated? Refers to 'problem youth', 'difficult to treat youth' and 'behaviour problems'; a different approach and perspective within society to now. Wilderness therapy originally seen to 'challenge the maladaptive social behaviours of problem youth' (p.2). • Specific participant detail demographics unknown. • No randomised assignment to treatment and non-treatment groups as logistically impractical so exposed to potential selection bias of families more amenable to change (acknowledged by author). • Relatively small sample, hampering evaluation of efficacy (acknowledged by author). • Measures were discrete, quantified data, not allowing scope for more detailed exploration of personal experience. • Measures were self-reported with a relatively short follow-up time (acknowledged by author).

beyond the outcomes of the normal wilderness programme for adolescents only.	performance and delinquent activity'. Data was also collected from 39 families who did not participate in the Family Wheel program, aiding comparison.	• The 50-item, self-report, Likert-scale family assessment measure III (FAM III), assessing family functioning. • The self-reported delinquency checklist (SRDC) to collect information from the adolescents on their 'problem behaviour'. • The revised behaviour problem checklist (RBPC) for parental assessment of their adolescent's 'problem behaviour'. • Self-description questionnaire III (SDQ III) to evaluate self-concept. Pre- & post- administered: • Day 1 of usual program (parents & adolescents) • On completing the usual program (adolescents) • 6wks after completion of the joint intervention (parents & adolescents) Information on family functioning, adolescent behaviour and adolescent self-esteem also gathered from 39 families who did	self-concept also increased for both. • Many believed the program was essential to rebuilding their relationships and a critical component to their continued success. Also reported increased trust and less anxiety regarding the future. • Nearly a third of the participating families wrote letters of appreciation and encouraged its continuation. • Less successful families still reported that the communication and negotiation skills were helping at home. It has helped the maintenance of good relationships between them. • Adolescents and parents in both groups agreed their families were functioning more effectively at follow-up. • With the participants being 'quite troubled families', suggestion made that this intervention is more effective with families functioning in the borderline/better ranges of family functioning. Rigors of the wilderness therapy could accentuate conflictual family relationships.	• Measures more focused on adolescent's behaviour than the affective changes to the adolescents and their families. • Limited distinctive scores showing particular benefit of intervention. • Seemed to have more hopeful messages conveyed informally rather than being captured through measures – they were using measures that weren't accurately capturing the essence of the change that occurred? Author questioned the sensitivity of the instruments, suggesting observational methods may have been better suited. • Write up of the results biased toward positive changes rather than areas where not much change was seen vs control. • Participants were primarily middle-class Causasians, limiting generalisability (acknowledged by author). • No clear research questions. • Starting to have a more systemic lens – seeing family as playing a role in children's behaviour and the impact of homeostatic patterns in maintaining behaviour. • Also appreciates the benefit of relationships and building self-concept and self-esteem and empowerment.

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			not participate. Were similar to participant group in major demographic and SES variables.	• Particularly challenging families tend to distract from group process. • Seem to be more successful with younger adolescents with less severe history of 'behavioural disturbance'.	• Sampling strategy relevant to aims of study and sample is representative of the target population. • Intervention was administered as intended. • Baseline assessments (control group) and pre- and post-measures taken aiding the validity of the evaluation of the intervention itself & longer-term impacts. • Had control group data from families who did not participate. • Preference given to assessment tools with high internal consistency reliability and average reliability. • Many different measures used, focusing on different aspects for a more holistic understanding of impact. • Were able to give their own reflections on the process too having been involved from the start.
Birnbaum (1991) Haven Hugs & Bugs. An innovative multiple-family weekend intervention for bereaved children, adolescents and adults.	Evaluation of a two-day therapeutic program for bereaved families, held at an environmental education camp/retreat centre in Pocono	10 families ranging from 2-6 members (mean number 4). 26 children aged 2-16 13 adults 3 unaccompanied adolescents (aged 15-20).	Initial survey to guage interest. Participation in a two-day therapeutic program full of outdoor, nature-based activities. Participation in all activities was voluntary. Evaluated by a written evaluation sent to	• Initial survey revealed that virtually all potential participants were interested in this intervention, and parents very much wanted to accompany their children. • Including whole families was very useful and therapeutic. • Participants remarked on positive impact of natural surroundings.	• Took place over three decades ago – outdated? • Joint participation wasn't encouraged throughout, just for central activities. • Relatively small sample size. • Focus more on the impact on bereavement than relationships. • No pre-post test • No control group

Country: Pennsylvania, USA	Mountains, Pennsylvania. Program aimed to: • Provide a weekend of fun for bereaved children and families. • Provide an opportunity to make or renew friendships with other bereaved individuals and families • Facilitate continued work with both children and families on their grieving.	All were bereaved from the loss of family members. Had all previously been involved in 8-20 week bereavement support groups for children and parents.	participants two weeks after. Responses received 3-6 weeks after event. • Included a Likert-scale evaluating organisation, schedule of events, flow of activities and overall planning, the activities and food, accommodation, natural setting, facilities, staff, setting overall, transport and overall impact. • Open questions on activities, structure, staffing and logistics, what was most and least helpful, weekend's overall impact, effect of natural surroundings, impact of having parents attending too and suggestions for improvement. • Researcher also gave reflections from their involvement and observations (unofficially). • Phone call follow-ups with families.	• Evaluations 'enthusiastically positive' with almost all elements receiving excellent ratings. • Parents and children had connected to others easily. • New friendships had formed that were continued afterwards. • Facilitated the development of social networks. • Elicited the sharing of memories with each other. • Moments of emotional and physical connection. • Sharing of the experience as a family was therapeutic. • Allowed families to get in touch with their feelings and feel comfortable expressing them and comforting each other.	• No rigorous data analysis or mention of the internal reliability of the survey used. • It is not possible to know the mediating impact of the different lengths of involvement in the bereavement support groups that the participants had been involved with prior to the study. • The researcher was also involved in the sessions, potentially increasing the likelihood of demand characteristics from the participants through the observer-expectancy effect. • Large amount of planning informed the intervention, including consultation with previous camp organisers and reviewing literature. Was a bespoke design tailored to the intended purpose. • Facilitated open reflections from participants through open questioning. • Author was able to reflect on their own experiences and observations.
Burg (1994) Exploring adventure family therapy: A modified Delphi study.	To enhance the current knowledge of the principles of adventure family therapy.	21 questionnaire participants: 6 women, 15 men. Average age 36.7 years – range 27 to 49.	Opinions of practitioners obtained through: • A 10-item, open-ended opinion-based questionnaire	• A benefit of adventure family therapy was a focus on positive family attributes and strengths.	• Took place two decades ago – outdated? • Participants were not the families themselves, but others commenting on their experience –

(Doctoral thesis) **Country:** Purdue University, Indiana, USA	Gain an understanding of opinions about the current thinking of practitioners in the field of adventure family therapy. Their views were collected regarding the use and distinction of adventure family therapy from other mental health fields, its benefits and limitations, when it is appropriate and what its future developments could be.	4 bachelors level degrees earnt, 9 masters and 8 doctoral between them in a range of disciplines. Had a variety of training backgrounds and experiences. 4 interview participants from these. Participants were from a panel including 'knowledgable' people who have experienced working with families within an adventure medium. • Those recognised through presentations/ research/publication • Sample list of adventure family therapy practitioners provided by editor of a relevant newsletter. • Practitioners recruited at relevant conferences. • Practitioners nominated by those	(completed by 21 panelists) • A 458-item 7-point Likert-type scale questionnaire derived from the first questionnaire (completed by same 21 panelists) – 387 considered in this analysis. • A 30-minute qualitative telephone interview with a randomly chosen sub-sample of 4 panelists to discuss the results from the survey. – analysed through coding to create themes.	• Particularly helpful for family members who find verbalising issues difficult/unable to see the issues/resistant. • The benefit to family strengths and resources (development of trust, communication, connection and fun) – one of the highest scoring was families learning to have fun together and enjoying each other's company. A significant point as a family needs to like being around each other if it is to strengthen itself. • Most helpful for increasing support, trust, problem solving, cooperation and communication within families. • Can restructure boundaries and create bridges across families, e.g. step-families. • Differs from adventure therapy with other groups because families have a strong bond, a history, a culture and may produce greater emotional intensity.	lack of potential validity and influenced by their subjectivity. • Questionnaires used through Delphi method are criticised as weak in design, administration, application and validation (acknowledged by author). • Differing interpretations as to some of the terms used in the questionnaires, leading to sporadic results. • Study was limited to being exploratory and descriptive in nature as no statements could be made as to the effectiveness of adventure family therapy in the resolution of family issues, and the findings represent opinions (acknowledged by author). • Results represent a discrete period of time (September 1993 to July 1994), during which knowledge bases were continuing to grow (acknowledged by author). • Participants were self-selected and so may have been biased towards those with particular viewpoints and enthusiasm, limited its external validity (acknowledged by author). • Use of Likert-type questions limited the internal validity of responses, especially as 'Do not know' was not included as an option (acknowledged by author).

| | | in the first three categories through snowballing. | | | • Author stated an artificial establishment of the statistical selection criteria for items in the final profile.
• The panelists showed high enthusiasm and personal responsibility to the field, potentially leading to a biased endorsement of the approach in their responses (acknowledged by author).

• There is adequate rationale for using a mixed methods design.
• Mixed methods approach allowed for a range of measures to capture a more holistic picture and allowed for a greater sample of views and data to be collected.
• Delphi method equalised the negative effects that can be found in traditional conferences/group meetings (e.g. dominant characters, irrelevant communication, conformity). Allowed for non-hierarchical sharing of ideas among participants (acknowledged by author).
• Methodology of study was revised – interviews allowed for closer examination of opposing views that would have otherwise been missed through Delphi method. However, there is no empirical |

					validation for this (acknowledged by author). • Interviews were randomly selected. • Likert-scale questionnaire had a large number of items to gain a detailed picture of views. • 80% target population responded to survey • Different components of the study are effectively integrated and interpreted to explore the aims.
Dorsch et al. (2016) The effect of an outdoor recreation program on individuals with disabilities and their family members. **Country:** American Mountain West	To analyse the effect of an outdoor recreation program on individuals with disabilities and their family members. Specifically: • What are the effects of participation in the program on individuals with a disability? • How does participation affect participants' family members? • How are staff who administer	Purposeful sampling. Families and program staff recruited to triangulate understandings and gain perspectives of multiple stakeholders. 17 participants (10 male, 7 female): • 5 individuals with disabilities (3 males, 2 females) aged 24-35yrs (mean age of 30yrs). Had diagnoses of congenital or acquired disabilities including spina bifida, traumatic brain injury and	Qualitative case study. Three semi-structured focus groups: One for the individuals with disabilities, another with family members and another for the program staff. Last 60 mins for the first two groups and 80 mins for the program staff. Following each focus group, the moderator performed a conversation summary. Focus groups were recorded and transcribed verbatim. Two researchers then analysed using inductive analysis and	• Created a sense of community in an emotionally safe environment. • All could interact and build positive relationships with each other. • 'Safe place' that elicited a 'sense of belonging'. • Opportunity for individuals with disabilities to make friends with shared interests or a variety of abilities. • Staff member shared how a participant with disabilities formed a relationship with his son (aged 9) without disabilities through a rafting experience. • Enjoyment and enthusiasm for the program shared by all involved. • Gave participants shared joy and fun.	• One of the family members was a wife, not a parent/carer. • No control group. • Focus groups may have led individuals to conform and not give their views if they were contrary to the general consensus, potentially reducing the extent to which the data portrayed a true picture. • Participants having built rapport with one of the researchers through the program may have subjected their responses to demand characteristics. • Clear reasoning for methodology given. • Researchers between them had both inside and outside understanding of the program, aiding with both rapport with the participants but also objectivity

the programming influenced by their involvement in the program?	scleroderma as well as autism. • 4 family members (2 mothers, 1 father and 1 wife), aged 23-68yrs (mean age of 51.8yrs). • 8 program staff (6 male, 2 female) aged 23-64 (mean age of 34.3yrs).	constant comparative method. Themes were then identified through coding. Focus group data was then compared.	• Overcame barriers, helping the individuals to feel more part of their family. • All participants were in agreement that the program enhanced relationships for all involved. Especially the enhancement of social opportunities for the individuals with disabilities to build friendships. • Benefitted the whole family, allowing for feelings of stability. • Program became the centre of the family system, allowing the family to develop a sense of normality and engage with each other in ways that had not been possible before. • Helped to nurture common interests among family members and facilitated relationship building within the family. • Reduced caretaker responsibility of the family, contributing to the functionality of the family system. • Led to increased social skills, enhanced self-concept, improved self-confidence, increased wellbeing and increased social involvement with groups.	from the outside perspective; both perspectives deliberately balanced. • Focus groups allowed participants to build on each other's ideas and semi-structured design allowed for richness of data. • Conversation summary following each focus group allowed participants to clarify or extend responses, aiding the depth and trustworthiness of the data. • Two researchers analysed the data, reducing subjectivity in its interpretation. • Trustworthiness of the data also boosted through data triangulation across the three focus groups, researcher triangulation and an audit trail.

| Kugath (1997)

Unpublished doctoral thesis

Country:
Mountains of central Colorado | The effect of one-day family outdoor adventure program on parental and child perceptions of family functioning, including family problem solving, communications, cohesiveness and general functioning | 24 families (61 children) who participated in an 8-hour outdoor adventure program. | Quantitative and qualitative data.

<u>Quantitative data</u>
Collected in the morning just before the program began and again immediately following the program in the evening.
• Sub-scales from McMaster's Family Assessment Device (FAD) and Moo's Family Environment Scale (FES). Addressed problem solving, communication, general functioning and cohesion.
• Required families to respond with perceptions of the family as a whole

<u>Qualitative data</u>
Collected through observations during the program and follow-up semi-structured interviews with a purposive sample of 11 families approx. one month after their experience.
Occurred in family homes with children also involved when present. | • Structured outdoor family recreation programming has a strong positive relationship with family strength.
• Overall showed a strong relationship between family participation in outdoor recreation and family cohesiveness & these positive effects continued a month afterwards.
• Significant increase in mothers' and fathers' perceptions of family cohesiveness due to program participation.
• Fathers showed significant improvements in their perceptions of family communication.
• Problem solving and general functioning improvements weren't significant.
• Qualitative findings strongly confirmed that the program increased all family member's perceptions of family cohesiveness.
• One month after of the program, powerful memories of the experience persisted, and families claimed to have grown much closer as a result. Families described closeness, bonding, coming together and support. | • Quantitative data collected as a whole-family response, meaning individual opinions may have been unrepresented or data may have been biased towards the strongest voice in the family.
• Participants were self-selected so may have been subject to biases (acknowledged by author).
• Internal consistency and test-retest reliability for the subscales used were stated and supported their use.
• Purposive sampling of those selected for interview ensured that a variety of backgrounds and perspectives were represented (acknowledged by author).
• Interviews happened in family homes where they would likely feel most at ease and able to respond effectively, increasing the quality of the data. Further analysis was also done to add to the validity of the data (e.g. negative case analysis).
• Mixed methods design of also including interviews allowed for the identification of a variety of other variables that were not initially addressed. E.g. improvement to participants' self-esteem, family trust, adaptability and love. All of these are also consistent with family systems theory and common findings at |

			Analysed by domain and theme. Prolonged engagement, persistent observation, triangulation, negative case analysis and member checks also employed.	• One 16yo said the challenge of the climbing made them want to encourage each other and increased understanding of each other. • The activities brought families together. • Another family described how the program brought together their step-family. • Interview findings were varied regarding family communication, problem solving and general functioning, compared to how strongly family cohesion was viewed. • Families talked about discovering unknown family strengths for the first time. • Others identified weak areas in their family and planned to make future improvements. • Many families reported greater family awareness, allowing them to begin addressing family development in different ways. • Perceptions were improved, e.g. how they should include children in more decisions at home.	the time in the use of outdoor recreation programming (acknowledged by the author). • Study also had a longitudinal element. • Valid reasoning given for both studies' methodologies.
Freeman & Zabriskie (2002)	Qualitative enquiry into the meaning of family residential	• 7 families who participated in a	**Potter & Duenkel (1997):**	• Structured outdoor family recreation programming has	• Author's own interpretation of reporting these two studies, instead of the original authors.

The role of outdoor recreation in family enrichment. Detailed Potter & Duenkel (1997, unpublished manuscript) **Country:** Colorado and Canada/mid-western USA	camping experiences. Hoped to better understand the structure underlying the experience of families involved in residential camping experiences through exploring, describing and seeking meaning from families' experiences.	residential camp experience. • 12 adults, 12 children. • Had all participated in either a 5- or 9-day family residential camp program either at an environmental learning center in mid-western US or at a residential camp in Canada. • Both were in the secluded wilderness adjacent to a lake. • Both camps used outdoor adventure-based activities.	Purely qualitative: Open-ended, semi-standardised interviews. Parents and children were interviewed separately. All interviews were taped, transcribed then analysed, focusing on the meaning rather than simply the content. Emerging themes placed into clusters to describe family's overall experience (early IPA?).	a strong positive relationship with family strength. • Emergent themes across families had 3 clusters: creation of an alternative culture (including removal of interpersonal shields, role shift and acceptance of diversity), developing a sense of community (including safety, simplicity, relationship with nature, extended sense of family, interdependence and meshing of families) and the importance of an experiential component (including interaction, cooperation and trust). • Family members were more relaxed and had more time for each other and prioritised each other. • Rediscovery of parents' inner child supports relationships with children. Makes them feel like a 'bunch of friends' • Shift of roles is an eye opener for children who then go home and interact with their parents at a deeper level, strengthening their relationships. • Emphasis on the revitalisation of connections to each other and their sense of community.	• Original paper not available, meaning a full critique of the original study could not be completed, so limited to the information presented by Freeman and Zabriskie (2002). • Specific ages of the children and circumstances of the families' involvement unknown. • Interpretation of interview data subject to researcher's interpretation, weakening the strength of the conclusions drawn. • Has shone a light on empirical research which otherwise would not have been seen. • Interviews were conducted separately for adults and children, allowing for distinction and freedom of their perspectives to be shared. • Use of semi-structured interviews allowed for flexibility for participants to discuss beyond their original responses (acknowledged by author), allowing for the collection of rich data.

				• Parents & children both perceived greater sense of safety and freedom. Children were able to be more independent and take risks that allowed growth in ways not possible at home. • Interdependence supported acceptance that it is okay to rely on each other and each have a role, supporting family connection. • Experiential activities supported cooperation and support of each other. Also elicited sense of trust in a context that encouraged acceptance. • Greater relationship with nature and sense of place.	
Huff et al. (2003) The influence of challenging outdoor recreation on parent-adolescent communication. **Country:** Arizona/Utah, USA	To test the following hypotheses: • Individual family members participating in a challenging family outdoor experience will demonstrate significant improvements in communication	32 families (total number of participants was 114). Families consisted of at least one parent and one 'at-risk' adolescent. Risks included 'opposition and defiance, substance abuse, poor school performance, negative family and peer relationships and depression'.	Quasi-experimental design. High challenge group = survival trek in the high desert mountains of Arizona. Medium challenge group = Hand-cart trek in the mountains of the northeast Utah.	• Challenging recreation, no matter the level of intensity, can improve parent-adolescent communication. • Partial support for higher levels of challenge manifesting more open parent-adolescent communication. Quantitative results showed that communication of participants in the most challenging group and least	• No longitudinal data or time to reflect following the experience, once the families had returned home. • Families in the lowest level of challenge had the largest families and youngest ages of youth, which may have influenced the data and ability to accurately compare the groups. • Participants may not have perceived the levels of challenge how the researchers did, depending on their life experiences

measures between pre- and post- tests. The control group will show no significant change. • Individual family members participating in the survival experience (high challenge) will demonstrate the highest significant improvements in communication measures between pre- and post-tests, followed by the medium challenge and then the low challenge, in comparison to the control group.	Ages of the children ranged from 2-26 but only individuals aged 12 and over completed questionnaires and interviews (7 were under the age of 12). Participated in a four-day challenging outdoor experience in one of four groups: three 'treatment' groups representing high, medium and low challenge and a control group. High challenge = 7 families (21 participants) Medium challenge = 8 families (34 participants) Low challenge = 8 families (31 participants) Control = 9 families (35 participants). Families largely White. Two families had one parent of Latino origin. Average ages of youth who contributed to the data was 15.3yrs, and	Low challenge group = A 'rustic' family camp at a ranch in the mountains of Arizona. Participants self-selected weeks to attend based on dates, unaware of the challenge level. A control group was formed from the waiting list. Quantitative: Parent/Adolescent Relationship/ Communication Scale (PARCS) used to measure parent-adolescent open communication. Parents and adolescents were asked the same questions. Was revised from the PACS to use the same broad categories of open and problem communication as well as questions on support, trust, affection, blame and conflict resolution. Completed pre- and post-program. Qualitative:	challenging was not significantly different. • Bonded families through working together and cooperation. • Gave opportunity to spend extended time together. • Improvements in communication, trust and support. • Increased affection and kindness and reduced conflict. • Parents and adolescents learnt new characteristics and perceptions about their families. Could understand each other better. • Improved communication contributed to family bonds. • The new environment, improvement in communication and new perceptions of family members produced feelings of family cohesion. • All families from the camps felt closer and more unified.	and approach to different activities (acknowledged by author). So, perceived challenge may have been a better indicator. • Lack of cultural diversity in the participants limits its generalisability. • Utilised three different experimental groups and a control groups, increasing the validity and rigor of the findings. • Used pre- and post- tests. • Tested clear hypotheses. • Mixed methods allowed for rich data to be collected • Revised the use of a questionnaire to make it more appropriate for use with the parents and adolescents (making the wording more accessible and adding categories), aiding the reliability of the data. These changes were also reviewed by an expert panel to evaluate their content validity, and administered to 102 college students and analysed for reliability, of which strong internal consistency was found (alpha = .94). • Random allocation to the groups reduced bias. • Prior to the program, staff received over 100 hours of training from experts and training in proper techniques in interviewing

		for the parents was 46yrs. Broken down, it was: High challenge = 15.1yrs (youth), 42.1yrs (parents) Medium challenge = 16.7yrs (youth), 51.1yrs (parents) Low challenge = 13.9yrs (youth), 42.2yrs (parents) Control group = 15.6yrs (youth), 46.5 (parents) Average family size for each group: High challenge = 3.9 members Medium challenge = 4.4 Low challenge = 5.9 Included 5 single parents and three blended families. 25 mothers, 22 fathers and 67 adolescents completed the research instruments. 114 participants completed the quantitative measures: High challenge = 21	Systematic in-depth interviews conducted to provide contextual meaning for the findings from the quantitative analysis. They focused on communication patterns within families during challenging programs. Conducted the morning of the last day of the camp. Interviews were recorded, transcribed and coded following grounded theory methodologies.		adolescents was also given, increasing the quality of the data. • Staff conducted the questionnaires and interviews, reducing the influence of the researchers in the data.

		Medium challenge = 32 Low challenge = 30 Control group = 31 Parents and one adolescent from each family participating in the challenge groups were interviewed.			
Izenstark et al. (2016) Rural, low-income mothers' use of family-based nature activities to promote family health. **Country:** Across 11 U.S. states, including California, Hawaii, Illinios, Iowa, Kentucky, Massachusetts, Minnesota, New Hampshire, Tennessee, Texas and Washington.	To explore the following research questions: 1. How and why do rural, low-income mothers' use the natural environment as a means for promoting health for themselves and their families? 2. What perceived health impact does engagement in family-based nature activities have on mothers and their families? 3. How does living in the context of rural poverty impact mothers' ability to utilize family-based nature activities to	Part of a wider study which collected data from families who had household incomes at or below 185% of the federal poverty level and who lived in counties across 11 states classified as having an Urban Influence Code (UIC) of 5 or higher. Data was collected in 2 waves – only the second used in this study. 85 mothers with at least one child aged 12 or younger, residing in a rural county. Purposively selected from a larger sample of 444. 78.5% White 6.3% American Indian	In-depth semi-structured interviews conducted by trained interviewers. Took place in mothers' homes or at a convenient and comfortable other location. Interviews took on average an hour and a half. Mothers were offered a monetary reward of $30-40 for their participation. Data analysed using grounded theory coding techniques by multiple researchers. • Data analysis was an iterative process, involving moving forward and back through process to	• Walking in nature together was the predominant activity mentioned. • Family-based nature activities became part of the family identity, being something the whole family did together. • Nature fostered family relationships. • Encourages socialising and building of friendships with other families. • Facilitated the building of memories. • Emphasises the interactional relationship between mothers, fathers, the environment and the community.	• Mothers had a monetary reward for involvement, which may have made them more subject to participant bias especially in the context of being low-income families. • Only captured the voice of the mother, preventing examination of other family members' perceptions of participation (acknowledged by author). • Limited information as to what constitutes a 'rural setting'. • Interviews conducted by trained interviewers, increasing the quality of the data. • Mothers were interviewed in a comfortable setting, facilitating their openness and honesty. • Interviews were in depth and long, collecting rich, detailed data. • Several researchers were involved in the analysis process, allowing for cross-examination of interpretations and so reduced subjectivity in the findings.

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	promote their and their family's health?	5.1% African-American 3.8% Pacific Islander 2.5% Asian. Aged 19-59yrs (average 33.67yrs) and 45.6% were married. Had 1.98 children on average (between 1 to 5) 32% employed – 42% of whom worked over 35hr weeks. Average annual income = $15,000-19,999	develop a substantive theoretical model.		• Interview questions directly relate to research questions. • Large sample size of mothers from a range of geographical localities.
Izenstark & Ravindran (2023) Associations between childhood family-based nature activities (FBNA) and family relationship quality in emerging adulthood. **Country:** West Coast, USA.	To explore: 1.(A) How does frequency of participation in FBNA change across the early life course? and (B) Does the trajectory of FBNA across the early life course differ by race/ethnicity, sex, and family income? 2. Does the trajectory of FBNA frequency across the early life course	451 undergraduate students who primarily identified as Asian American (57%) and Latinx (42.7%). Response rate = 94% Aged 17-27yrs (mean age 19.6yrs). Primarily female (85.5%). Participants within the sample identified as Asian or Asian American (44.9%),	Retrospective, online Qualtrics questionnaire that took place between 2018-2020. Included: • The Family Communication Scale to measure family communication (10-item, self-report with Likert-scale). • Family Adaptability and Cohesion Evaluation Scale III to assess family cohesion (10 items on	• Participants who showed greater stability in family-based nature activities across the early life course reported more positive family relationship quality in emerging adulthood. • Specifically, greater participation in social, physical, nature and travel types of outdoor family activities (as opposed to sports and entertainment) were associated with more positive family relationship quality in emerging adulthood.	• Self-report survey with students motivated by the credit at the end – may have reduced the accuracy and quality of their results as they may have had limited investment in answering correctly. • As study was retrospective, the responses may have been subject to memory and recall bias (acknowledged by author). • Largely female sample with limited range of demographics from a single university, limiting generalisability. • Data was reduced to quantitative responses, not allowing scope for

	predict family relation- ship quality in emerging adulthood? 3. Are different types of outdoor activities associated with better family relationship quality in emerging adulthood?	Latinx (e.g., Hispanic, Latino, or Spanish origin; 42.7%), White (18.7%), and Black or African American (5.8%). The Colleges of Education (37.4%), Applied Sciences and Arts (26.8%), and Social Sciences (12.2%) were the most common colleges represented in the sample based on participants' reported area of study.	family cohesion utilised, self-report with Likert-scale). • The Multidimensional Scale of Perceived Social Support to measure family social support (4-item subscale utilised with 5-point Likert scale). • Asked about the family-based nature activities that they were involved in and how often (7-point Likert scale). Different periods of life enquired about listed: early childhood (4-6yrs), middle childhood (7-11yrs), early adolescence (12-14yrs), adolescence (15-17yrs) and the present time (18yrs and older). • Sociodemographic characteristics collected On average, the survey took 20 mins to complete. Incentive offered in the form of credits towards their course grade.		the sharing of deeper perspectives and experiences. • Surveys with fewer than 2 questions answered were removed from the final data set. • Scales used in questionnaire showed good internal consistency reliability and good internal validity. • Several different scales used aiding a holistic understanding. • Study primarily consisted of Asian American and Latinx participants – a voice often missing from the outdoor recreation literature (acknowledged by author).
Izenstark et al. (2021)	To explore: 1. Do mothers and daughters report	28 mother-daughter dyads.	Within-subjects experimental design including two	• Daughters reported an increase in positive affect after the outdoor setting,	• The rewards for involvement may have elicited participant bias.

The affective and conversational benefits of a walk in nature among mother-daughter dyads. **Country:** Midwestern USA	increased positive affect and decreased negative affect after a walk in nature compared with an indoor walk, and does this vary based on time and setting? 2. Do mothers and daughters express more positivity and reduced negativity during a nature walk compared with an indoor walk, and does this vary based on time, setting, or person (mother versus daughters)? 3. Does the content of mothers' and daughters' conversations differ during a nature walk compared with an indoor walk, and does this vary based on time, setting, or person?	Daughters aged 10-12yrs (mean age = 10.66). Mean age of the mothers was 40.5yrs. 75% participants identified as White. 11% identified as African American.	counterbalanced conditions – a 20-minute walk indoors and a 20 minute walk outdoors. Mother-daughter dyads were randomly assigned to each. All experienced a 10-minute attention-fatiguing activity in order to increase sensitivity to the effects of the conditions. Self-reported positive and negative effect collected before and after each condition through the Positive and Negative Affect Schedule (PANAS) and the Positive and Negative Affect Schedule-Child form (PANAS-C). Audio-recorded observations also collected to code expressed positivity, negativity and conversational content during each condition. Received $25 and 2 free passes to a local recreation centre for their participation in the study.	whereas mothers maintained their positive affect across both settings. • The company of a family member in nature has psychological benefits. • Mothers and daughters both reported a decrease in negative affect after both walks, regardless of setting. • Outdoors promoted positive social interactions between family members. • Mothers and daughters engaged in more substantial conversations outdoors.	• Sample size limited the power to detect associations (acknowledged by author). • Limited generalisability to other family structures and relationships (acknowledged by author). • Being audio-recorded during the walks may have led the mothers and daughters to interact in unnatural ways, reducing the ecological validity of the data (acknowledged by author). • The data was only collected over a short period of time. • No longitudinal effects recorded. • Lack of cultural diversity in the participants limits its generalisability. • Involved two counterbalanced conditions, allowing for more accurate conclusions to be drawn as to the distinct contribution of being outdoors. • Included pre-, during- and post-tests, further aiding the accuracy of understanding of the impact from the walk itself. • Both the PANAS and PANAS-C showed high reliability within this study.

| McLendon et al. (2009) Family-directed structural therapy (FDST) in a therapeutic wilderness family camp: An outcome study

Country: Midwestern USA | To compare, over six months' time, families receiving usual services from a Community Mental Health Center (CMHC) and attended camp, with families receiving only usual services from the same CMHC. Ran from Sept 2003 to June 2004. | Families experiencing active substance abuse/domestic violence screened from the participant pool.

25 families (93 individuals) who attended CMHC services also voluntarily attended one of nine three-day wilderness family camps.
• Referral criteria: A need for family therapy to address behaviour problems of a 'Seriously Emotionally Disturbed (SED' child, or a problematic adult relationship. Children with SED had a diagnosable mental disorder that negatively impacted their functioning at home, school or in the community.
• Included: 52 children (21 SED), aged 6-17yrs (mean age of 12.1yr) and 41 adults | Quasi-experimental, non-equivalent control group design.

Data was collected from the treatment group using:
• The Family Adaptability and Cohesion Scale II (FACES II) – a 30-item measure of family functioning along two dimensions, adaptability and cohesion.
• Child Behavior Check List Parent Version (CBCL) = 118 problem specific items, 20 competence items.

Data collected at 3 time intervals: at the start, at the six-week follow-up and then six months following the first time. | • Treatment group showed clinical improvement in family functioning from baseline to six weeks. This included family cohesion as well as adaptability, although this did not achieve statistical significance.
• Treatment group continued to improve in the area of family functioning from six weeks to six months, in cohesion and again in adaptability though again, this did not reach statistical significance.
• Comparison group did show improvements but they were not statistically significant. | • The samples were not randomly selected and the comparison group did not have an equal number of participants to the 'treatment' group (acknowledged by the author).
• Only quantitative data was collected, meaning that context and richness data from gaining the participants' voice could not be gained for deeper, more accurate interpretation.
• Lack of cultural diversity in the participants limits its generalisability.
• Was the first study of the time to do a wilderness camping program focusing specifically on family functioning throughout the experience.
• Utilised a control group, allowing more accurate conclusions to be drawn as to the impact of the therapeutic family wilderness camp.
• Longitudinal design allowed for effects over time to be recorded, allowing for a more holistic impression to be drawn. |

		aged 27-64yrs (mean age of 40.9yrs). • 19 two-parent families, 9 single-parent families. • 1 African American, 4 Hispanic and 88 White Comparison group: • 15 families (57 individuals) from the CMHC population. • Required at least one child in the family to have been diagnosed with SED. • Included: 31 children (17 SED), aged 8-20yrs (mean age of 12.9yrs) and 26 adults, aged 30-55yrs (mean age of 41.3yrs). • 11 two-parent families, 4 single-parent families. • 12 Hispanic and 45 White.			
Norton et al. (2019) Family enrichment adventure therapy: A mixed methods study examining the impact of	To examine whether adventure therapy is 1) an effective mental health intervention for child and adolescent	Two purposive samples. Both received counselling services at ChildSafe, but only one sample also participated in the outdoor family	Children in both groups completed the Trauma Symptom Checklist for Children before receiving services and three-months post-admission. This measured the impact of	• Families who took part in the adventure therapy moved from clinical to sub-clinical scores in communication and general functioning, though these results were not statistically significant.	• Not known how many participants were interviewed or who they were. • Relatively small sample size (acknowledged by author) • Did not include a random selection of participants, nor was

trauma-informed adventure therapy on children and families affected by abuse. **Country:** Texas, USA	survivors of abuse and neglect, and 2) an effective intervention for families affected by abuse and neglect.	enrichment adventure therapy. Total of 32 children and their families participated • 18 youth in the study group and 14 youth in the comparison group. • Both groups of youth were largely Hispanic or White, with the majority of youth having experienced sexual abuse. • Youth were aged 8-17yrs. • Most were diagnosed with 'Adjustment Disorder' and lived with both parents.	trauma as manifested both in symptoms of posttraumatic stress disorder and other psychological distress symptoms. One caregiver from each family completed the Family Assessment Device before receiving services and three months after admission. This assessed the structure and transactions of the family system. Qualitative data collected via focus groups with sub-sets of the two groups and transcribed and coded for textual and thematic analysis.	• Family functioning increased for both groups, however those involved in the adventure therapy reported greater communication, trust/closeness and problem-solving skills gained from the intervention. • Families who took part in the adventure therapy also reported a faster return to normalcy and a greater sense of empowerment and healing than those who did not take part. Also helped them to move from 'stressed' to 'not stressed' in their communication and family functioning. • Also enhanced family behaviour and skill building. • Multifamily group setting was powerful in helping families to heal. • Families could share with one another to help normalise their experiences and move forward with less stigma and shame.	there a true comparison group receiving no services, which may reduce internal validity (acknowledged by author). • No long-term data collected past three months, so long term impact was unknown (acknowledged by author). • Lack of cultural diversity in the participants limits its generalisability. • Had a control/comparison group, allowing for greater accuracy of the impact of the adventure program. • Mixed methods design allowed for rich data collection. • Justification given for the tool used. • Had some longitudinal data up to three months. • Presence of pre- and post-measures. • Past family enrichment adventure therapy participants helped to draft focus group questions and facilitate the focus groups to aid the collaboration and empowerment of the participants and how comfortable they felt discussing their concerns.
Overholt (2013) Exploring familial relationship growth and negotiation: A case study of	To understand the phenomenon of father-child relationship development and	21 participants who were members of 9 families, or instructors working for the courses.	Qualitative case study approach. Participant observations, in-depth interviews and collection of artifacts.	Engagement elicited: • a sense of accomplishment • appreciation for each other, • the ability to ask for help, • bonding time,	The following were acknowledged by the author: • Participation was voluntary, so some previous course participants

Outward Bound family courses. *(Doctoral thesis)* **Country:** Colorado, USA	role negotiation of family members who participated in an eight-day Outward Bound family course between 2008-2012. This course provided activities to intentionally promote relationship development through facilitating challenge, communication and shared experience.	• 9 parents, all fathers or grandfathers aged 34-85yrs at time of interview. • 8 children/ grandchildren aged 15-21yrs. • 4 instructors (3 male, 1 female) aged with 20-60yrs.		• enhanced communication, • a sense of gratitude, • increased independence, • learning about each other and oneself, • changed outlook or perception of the world, • individual growth, • pride in themselves and in each other's accomplishments • reliance on each other • increased respect for the everyday challenges the other faces • the ability to share emotions more openly • increased trust in one another • the necessity of working together as a family.	chose not to take part in the study. • Participants may have responded in socially desirable ways, making it difficult to understand the true nature of their experiences. • Participants may have been limited by memory and ability to recall the experience after a significant period of time had passed. • Observation took place during the summer of 2012 and was limited to the courses offered by the Colorado Outward Bound School. There were originally two courses scheduled for the summer, but one was cancelled due to low enrolment. • An unexpected number of fathers participated in multiple courses with different children, making it difficult to contact the expected number of unique family units. • Collected rich data over a variety of methods. • Demonstrated the longevity of the impacts through them still being recalled years later in some instances. • Justification for methods used.
Toews et al. (2020) Feeling at home in nature: A mixed	To evaluate incarcerated women and their	Survey:	Anonymous survey completed over a three-week period. Included:	• Made visits less stressful and boring, and they could	• Interviews were only ten minutes, limiting the depth and detail of

method study of the impact of visitor activities and preferences in a prison visiting room garden. **Country:** Iowa, USA	visitors' use of and preferences for a prison garden, and to understand the impact the garden had on them and their relationships.	81 respondents, including women and visiting adults. 36 were incarcerated women (44.4%). 2 were adult children of incarcerated mothers (2.5%). 31 were family members (38.3%). 8 were adult friends of the incarcerated women (9.9%). 1 was a caregiver of a child with an incarcerated mother (1.2%). 19 respondents (23.5%) completed the survey after their first visit in the garden. Drawings: 18 drawings from children Interviews: 23 interviews with an incarcerated woman and her visitor(s), resulting in 50 interviewees in total.	• Closed questions about the identity of the respondent, the activities they engaged in, the impact that being in the garden had on the visit and whether they would recommend the garden to others (with 'other' category for elaboration). • Open-ended questions about likes and dislikes about being in the garden and their experience. • Respondents could answer it each time they visited the garden. Drawings: • Children aged 17 and under could submit a hand drawn picture of something they liked in the garden or their favourite place in it. These were completed over a three-week period. Interviews: • Semi-structured conducted over two consecutive weekend	connect through games outside. • The garden facilitated home-like interactions between the children and adults in that they could do things together that they would do at home. • Interviewees perceived and directly experienced that the garden improved the relationship between the parent and child, in the increased frequency and length of visits as well as the quality of the time together. • It made visitors more likely to return, making leaving each other easier and leading to more connection points. • Greater interaction between mothers and children because they could now play activities together and act more naturally together. • Freed the mothers to feel like the mother they were before prison. • Also better relationships/the possibility of such between the incarcerated women, their children and other family members. • Helped mothers with multiple children to balance their attention across all children.	the data collected (acknowledged by author). • Conducting joint interviews with the incarcerated woman and their visitor(s) there may have limited their openness and honesty in the presence of each other (acknowledged by author). • No data was collected about the nature of family relationships prior to the visit or other factors that can influence the quality of the visit, which could have impacted how people experienced the garden, limiting understanding that can be drawn from the findings (acknowledged by author). • Purely having the children's drawings with no further context may have limited or weakened the researchers' interpretation of what the children were trying to convey. • Mixed-methods design allowed for a more detailed understanding in accessible ways so that all could have their voice heard who experienced the garden. • Responses were collected over an extended period of time, allowing for opinions to be shared within a range of weathers and contexts. • Justification given for each of the methods chosen.

			visiting days in Sept 2018. • Included incarcerated women and her visitor(s) including children. • Occurred in a place of preference. • Asked what they liked and disliked about the garden, how they used it and the activities they engaged in, the impact the garden had on them and their ideas for improvement. • Average interview length was 10 minutes.	• The garden provided spaces to spend private time with children and family members.	

Overview of relationship outcomes from the systematic literature review papers

Relationship outcomes	Wilderness family camps					Recreational outdoor family programmes					Unstructured family-based nature activities			
	Bandoroff and Scherer (1994)	Potter and Duenkel (1997)	Huff et al. (2003)	McLendon et al. (2009)	Overholt (2013)	Birnbaum (1991)	Burg (1994)	Kugath (1997)	Dorsch et al. (2016)	Norton et al. (2019)	Izenstark et al. (2016)	Toews et al. (2020)	Izenstark et al. (2021)	Izenstark and Ravindran (2023)
Better communication and negotiation/ cooperation	X	X	X		X		X	X		X		X	X	
Better family functioning/cohesion and adaptability/ stability	X	X		X			X	X	X	X		X		X
Building/maintaining positive relationships	X		X					X	X	X	X	X		X
Removal of interpersonal shields/ role shift/greater acceptance/ understanding/ vulnerability/respect		X	X		X	X	X	X					X	
Relationships built with other families/community/ sense of belonging	X	X				X			X	X	X			
Greater trust between family members	X	X	X		X		X			X				
Family time together prioritised away from distractions	X	X	X								X	X		
Rediscovery of inner child helped bonding		X					X		X			X		

with children/shared joy and fun														
Families were more relaxed together		X								X		X	X	
Greater awareness and openness to discussing issues leading to greater support for each other						X	X	X		X				
Greater sense of safety and freedom, allowing independence and risk-taking		X			X							X		
Increased affection and kindness/physical and emotional connection			X		X						X			
Greater problem-solving together							X			X				
Elicited building/sharing of memories						X		X						
Improved relationship with nature		X			X									
Greater sense of inclusion in the family activities and decisions								X	X					
Discovery of family strengths and areas for future improvements								X						
Reduced anxiety about the future	X													
Sense of gratitude for each other					X									
Shared sense of accomplishment/pride in each other					X									

Appendix D: Invitation e-mails to participants

<u>Invitation e-mail for facilitator participants</u>

Hi,

As part of my training to become an Educational Psychologist, I am interested in focusing my thesis research on the experiences and perceptions of those who were involved in the relationship-building, outdoor parent/carer and child sessions that you have been running.

As one of the facilitators of these sessions, I would greatly value the opportunity to talk with you further about your lived experiences and perceptions of these sessions. Hearing your story will allow for a deeper understanding of what occurred during these sessions and what can be learnt from them. This can then help to support other PCs, inform the future work of professionals such as Educational Psychologists and further develop the body of research.

Your involvement in this project will take place between April and September this year and will involve a relaxed conversation between us in the form of a semi-structured interview lasting approximately an hour. This interview can take place online or in person at [school name], wherever you feel most comfortable, and will involve me asking a few broad questions about your experiences and perceptions of the sessions which will be sent to you a week in advance. These questions are deliberately broad to allow you the freedom to share your story and guide it to what is important to you. To help with analysis, the interview will be recorded and transcribed either via Microsoft Teams or Microsoft Word and then completely anonymised, so your data cannot be traced back to you. You will have the right to withdraw from the study up to a week after the interview.

If you are interested, please see the information sheet attached and please do not hesitate to get in touch if you have any questions.

If you are happy to participate, please complete the consent form via the link below, by XX/XX/XX.

Consent Form:

https://qfreeaccountssjc1.az1.qualtrics.com/jfe7/preview/previewId/15c72831-c776-4717-9200-aa0c6960598a/SV_7Qws0j2KjcJLUk6?Q_CHL=preview&Q_SurveyVersionID=current

I look forward to hearing from you.

Kind regards,

Emily Carbonero

Researcher:	**Research Supervisor:**	**Cardiff University's Research Ethics Committee:**
Emily Carbonero Trainee Educational Psychologist School of Psychology Cardiff [email]	Dr. Emma Birch Research Supervisor School of Psychology Cardiff [email]	School of Psychology, Cardiff University, Tower Building,, 30 Park Place, Cardiff, CF10 3AT [email]

<u>Initial invitation e-mail for PC participants</u>

Dear [PC's name],

I understand that [Inclusion Lead] recently got in touch with you about a research opportunity that will explore your experiences of the outdoor parent/carer and child sessions that you took part in last year. I am leading this research project as part of my training to become an Educational Psychologist and warmly invite you to consider taking part. In brief, taking part would involve a relaxed conversation with me lasting about an hour during which I will ask open questions that you will have seen advance, in the format of a semi-structured interview. You will have the choice of having this interview in person or online and your responses will be recorded and completely anonymised, so they cannot be traced back to you.

I would love to talk with you further about what your involvement in this project would look like and answer any questions you may have.

Would you like to let me know an ideal time for me to call you for us to discuss this further? I have your preferred contact number written as XXXXX XXXXXX. Alternatively, I can just email a written information sheet for you to read through if this would be preferable.

I look forward to hearing from you.

Kind regards,

Emily Carbonero

Researcher:	**Research Supervisor:**	**Cardiff University's Research Ethics Committee:**
Emily Carbonero	Dr. Emma Birch	School of Psychology,
Trainee Educational	Research Supervisor	Cardiff University,
Psychologist	School of Psychology	Tower Building,,
School of Psychology	Cardiff	30 Park Place,
Cardiff	[Email]	Cardiff,
[Email]		CF10 3AT
		[Email]

Follow-up e-mail for PC participants

Dear [parent/carer's name],

Thank you for [your reply/making the time for our call].

I have attached the information sheet which outlines what your taking part in this project would involve [which details everything that we discussed on the phone]. Please read it through and do not hesitate to contact me with any questions or concerns.

If you would like to take part in this project, please complete the consent form below:

Consent Form:

https://qfreeaccountssjc1.az1.qualtrics.com/jfe7/preview/previewld/15c72831-c776-4717-9200-aa0c6960598a/SV_7Qws0j2KjcJLUk6?Q_CHL=preview&Q_SurveyVersionID=current

If you would not like to take part then please let me know in a reply to this email. Thank you for your time and consideration.

Kind regards,

Emily Carbonero

Researcher:	Research Supervisor:	Cardiff University's Research Ethics Committee:
Emily Carbonero Trainee Educational Psychologist School of Psychology Cardiff [Email]	Dr. Emma Birch Research Supervisor School of Psychology Cardiff [Email]	School of Psychology, Cardiff University, Tower Building,, 30 Park Place, Cardiff, CF10 3AT [Email]

Appendix E: Information sheet for participants.

You are invited to take part in a project exploring your perceptions and experiences of the nature-based, outdoor parent/carer and child sessions that you took part in last year.

1. What is the purpose of this research project?

This study hopes to develop an understanding of your perceptions and lived experiences of these sessions and the role that the outdoors played in your experience of the sessions. This will help to create recommendations and inform potential future interventions for PCs and professionals, such as the Educational Psychology Service.

2. Why have I been invited to take part?

You have been invited because you were a valued member of a small group of individuals who experienced these bespoke sessions. Your story of your involvement in these sessions is important in understanding their value and what can be learnt from them.

3. Do I have to take part?

No, your participation in this research project is entirely voluntary. If you would like to take part in the research, you are invited to read and accept the statements of consent in the consent form (accessed via the link in the original e-mail). However, you may withdraw at any point up to a week following your interview by informing me (Emily Carbonero) and your data will be removed from the dataset with no negative consequences. During the interview, you can choose not to answer any of the questions and you can end the interview at any time without giving a reason.

4. What will taking part involve?

Your participation will involve taking part in a semi-structured interview lasting approximately an hour with Emily Carbonero, the researcher. You can choose to have this interview either online via Microsoft Teams or in person, at [associated school's name]. If this takes place online, you will need to find a quiet, private room for this to take place in which is out of earshot from others, aiding confidentiality. To allow for analysis, the interview will be recorded and transcribed via Microsoft Teams or Microsoft Word. The key questions that you will be asked will be sent to you a week before the interview to allow you time to reflect on your responses and feel more relaxed during our conversation.

5. Will my taking part in this research project be kept anonymous?

All information collected during the interview will be securely and confidentially stored and will be completely anonymised at the point of the final transcription onto Microsoft Word. At this point, the recording will be permanently deleted. There will be no identifiable trace between yourself and your data beyond this point. However, there will be an exception to this

confidentiality if information is shared that constitutes a risk of harm to a child young person or vulnerable adult; in which case safeguarding procedures of the school and of Cardiff University will be followed.

6. What will happen to my personal data?

Any personal and individually identifiable information collected from (or about) you during the research project will be kept confidentially and will be securely stored and processed according to the General Data Protection Regulation (GDPR), until it has been anonymised or destroyed. All remaining data will be retained for a minimum period of 5 years after the end of the project or after publication of any findings based upon the data (whichever is later).

Information will only be accessible to the myself as researcher and my research supervisor.

Cardiff University is the Data Controller and is committed to respecting and protecting your personal data in accordance with your expectations and Data Protection legislation. Further information about Data Protection may be found at https://www.cardiff.ac.uk/public-information/policies-and-procedures/data-protection. This includes your rights, the legal basis under which Cardiff University processes your personal data for research, Cardiff University's Data Protection Policy, how to contact the Cardiff University Data Protection Officer and how to contact the Information Commissioner's Office.

7. Who is organising this research project?

The research has been organised by Trainee Educational Psychologist, Emily Carbonero with the support of Cardiff University research supervisor, Dr. Emma Birch.

8. Who has reviewed this research project?

This research project [has been reviewed and given a favourable opinion by the School of Psychology Research Ethics Committee, Cardiff University. Secretary of the Ethics Committee, School of Psychology, Cardiff University, Park Place, Cardiff, CF10 3AT. [contact details]

Should you have any questions relating to this research project, please do not hesitate to contact me.

Researcher:	Research Supervisor:	Cardiff University's Research Ethics Committee:
Emily Carbonero [e-mail]	Dr. Emma Birch [e-mail]	[e-mail]

Appendix F: Link to the consent form through Qualtrics

https://qfreeaccountssjc1.az1.qualtrics.com/jfe7/preview/previewId/15c72831-c776-4717-9200-aa0c6960598a/SV_7Qws0j2KjcJLUk6?Q_CHL=preview&Q_SurveyVersionID=current

Appendix G: Debrief form for participants

Thank you for taking part in this research project. Your time and shared responses are greatly appreciated.

What was the study about?
- Understanding your perceptions and experiences of the nature-based, outdoor parent/carer and child sessions that you took part in last year.
- Your story is important in understanding the value of these sessions and what can be learnt from them.

What will happen to the information gathered?
- The findings will be written up and submitted to Cardiff University as part of the researcher's doctoral studies and may be used in presentations and published in a journal.
- Data will not be traceable to you once the interview transcription is complete.
- Any recorded data will be deleted once it has been transcribed.
- You will be e-mailed a link to the final research paper on Cardiff University's ORCA website, in case this is of interest.

If any of the themes from this interview have been upsetting or disturbing and you would like to seek further support, the services below are well-positioned to provide this:

- Mind. This link also includes contact details for other organisations providing support, such as Anna Freud, Barnardo's and Family Action: https://www.mind.org.uk/information-support/tips-for-everyday-living/parenting-and-mental-health/#OrganisationsThatCanHelp
- NSPCC. https://www.nspcc.org.uk/keeping-children-safe/support-for-parents/mental-health-parenting/
- Young Minds. https://www.youngminds.org.uk
- *[Contact details of school family engagement officer]*
- *[Contact details of local parenting support group]*

If you wish to withdraw your data from this study, please contact me within the next week and this will be organised.

Privacy Notice:

Any personal and individually identifiable information collected from (or about) you during the research project will be kept confidentially and will be stored and processed according to the General Data Protection Regulation (GDPR), until it has been anonymised or destroyed. All data will be retained for a minimum period of 5 years after the end of the project or after publication of any findings based upon the data (whichever is later).

Cardiff University is the Data Controller and is committed to respecting and protecting your personal data in accordance with your expectations and Data Protection legislation. Further information about Data Protection may be found at https://www.cardiff.ac.uk/public-information/policies-and-procedures/data-protection. This includes your rights, the legal basis under which Cardiff University processes your personal data for research, Cardiff University's Data Protection Policy, how to contact the Cardiff University Data Protection Officer and how to contact the Information Commissioner's Office.

This research project [has been reviewed and given a favourable opinion by the School of Psychology Research Ethics Committee, Cardiff University. Secretary of the Ethics Committee, School of Psychology, Cardiff University, Park Place, Cardiff, CF10 3AT. [contact details]

Should you have any questions relating to this research project or would like to request a copy of the information sheet, please do not hesitate to contact me via e-mail: Emily Carbonero (Researcher) – [e-mail}, Dr. Emma Birch (Research Supervisor) – [e-mail]

Appendix H: Gatekeeper e-mail for the school Inclusion Lead

Hi,

As part of my training to become an Educational Psychologist, I am interested in focusing my thesis research on the experiences and perceptions of those who were involved in the outdoor parent/carer and child sessions that you have been running.

I understand that you took responsibility for initially inviting the parents/carers to these sessions and have kept in contact with them and/or their children since through your role as Inclusion Lead at their children's school.

I would be very grateful if you could please contact the parents/carers who were involved in the most recent group of sessions, however you feel is best, asking for their permission to have their contact details shared with me.

Key messages to share:

- I am really interested in hearing their experience of the parent/carer and child sessions.
- I would like to get in touch with them so that I can talk to them further about what this research is about, what their involvement would look like and to answer any questions.
- There is no obligation for them to share their contact details with me if they do not want to.

Please could the titles, full names, email addresses and preferred phone numbers of each consenting parent/carer be emailed to me in response.

Many thanks,

Emily Carbonero

Researcher:	**Research Supervisor:**	**Cardiff University's Research Ethics Committee:**
Emily Carbonero Trainee Educational Psychologist School of Psychology Cardiff [email]	Dr. Emma Birch Research Supervisor School of Psychology Cardiff [email]	School of Psychology, Cardiff University, Tower Building,, 30 Park Place, Cardiff, CF10 3AT [email]

Appendix I: Semi-structured interview schedules

Semi-structured interview schedule for the facilitator participants

The interview will start with an introduction, clarification of the participant's informed consent to participate, their right to withdraw and data protection. They will also be reminded of the constraints of the confidentiality of the conversation if information is shared that constitutes a risk of harm to a child, young person or vulnerable adult, which would result in the school and Cardiff University's safeguarding procedures being followed.

1. What originally inspired you to facilitate these parent/carer and child relationship-building, outdoor sessions?
   Prompts:
   - *Was there a personal interest or drive?*
   - *Was there a professional interest or drive?*
   - *Were the planned sessions underpinned by any research or theory?*
   - *What helped you to prepare and plan for the sessions?*

2. How would you describe your experience of taking part in the parent/carer and child sessions?
   Prompts:
   - *What do you think were the high points of the experience and what could have been better?*
   - *How would you describe your relationship with the PCs and children throughout the sessions?*
   - *Did the sessions occur as planned or was a lot of adaptation required?*

3. How do you think the parents and children experienced the sessions?
   Prompts:
   - *What impact, if any, do you feel the sessions had on their relationships?*
   - *Do you think they found it a positive or negative experience overall and why?*
   - *Were there certain relationships that responded better to these sessions than others? If so, why do you think this is?*

4. What is one of your favourite memories from the sessions? This may be a memorable moment or a particular activity, for example.
   Prompts:
   - *What activity was happening at the time?*
   - *Was this nearer the start or the end of the sessions?*
   - *How did you feel in this moment?*
   - *How do you think the PCs and children experienced this moment?*

5. What role did being outdoors play in your experience of the sessions?
   Prompts:

- *Do you think being outdoors impacted the experience of the PCs and children involved? If so, how and why?*
- *Did you notice any changes in yourself from being outdoors for these sessions?*

6. What inspiration has facilitating these sessions given you for the future in your own life and/or in your work?
   Prompts:
   - *What did you learn from the sessions?*
   - *Would you implement these sessions again?*
   - *What would help you to implement them in the future and what might you change, if anything?*

Debrief.

Semi-structured interview schedule for the PC participants

The interview will start with an introduction, clarification of the participant's informed consent to participate and their right to withdraw. They will also be reminded of the constraints of the confidentiality of the conversation if information is shared that constitutes a risk of harm to a child, young person or vulnerable adult, which would result in the school and Cardiff University's safeguarding procedures being followed.

1. How would you describe your experience of taking part in the parent/carer and child sessions?
   Prompts:
   - *How would you describe your relationship with the facilitators, the other PCs and children throughout the sessions?*
   - *Did you have any expectations of what you thought the sessions would be like? If you did, what were they and did your experience meet these expectations?*

2. How do you think your child found the sessions?
   Prompts:
   - *How do you think they felt during the sessions?*
   - *Did they talk about the sessions afterwards? If so, what did they say?*
   - *Was there a session that you felt they engaged with more compared to other sessions? If so, why do you think that is?*

3. Did you notice that the sessions had an impact on your relationship with your child? If so, how would you describe this impact?
   Prompts:
   - *What was your relationship with your child like before, during and after the sessions?*

- *What impact, if any, has this experience had on your relationship in the months since the sessions finished?*

4. What is one of your favourite memories from the sessions? This may be a memorable moment or a particular activity, for example.
   Prompts:
   - *What activity was happening at the time?*
   - *Was this nearer the start or the end of the sessions?*
   - *How did you feel in this moment?*

5. What role did being outdoors play in you and your child's experience of the sessions?
   Prompts:
   - *Do you often have experiences with your child outdoors? Have these increased or decreased since taking part in these sessions? E.g. tried recreating one of the activities in your own time?*
   - *Do you feel this impacted the enjoyment of the sessions, and why?*
   - *Do you think the sessions would have had a different impact if they were held indoors?*
   - *Did you notice any changes in yourself from being outdoors for these sessions?*

6. What key points did you learn and take away from your experience of these sessions?
   Prompts:
   - *What were the high points of the experience and what could have been better?*
   - *Knowing that these sessions were organised by your child's school, has this changed your view or relationship with their school at all? If so, how?*
   - *Would you recommend similar sessions to other PCs in a similar situation to yourself?*
   - *Have the sessions changed your view of or approach to parenting?*

Debrief.

Appendix J: Ethical considerations.

This research project was approved by Cardiff University's Research and Ethics Committee.

Risk assessment receipt number: 1708089025_3932

Ethics committee reference number: EC.24.03.12.6984R

Informed consent and participant information:

The participants' informed consent was enhanced through verbally discussing what their involvement would entail with them, as well as through invitation e-mails (Appendix D) that contained the information sheet (Appendix E) and consent form link (Appendix F). For the facilitator participants, this verbal communication was through the researcher's professional role in collaboration with them. For the PC participants, this involved the school-based facilitator (who had a pre-established relationship with the PCs) informing the PCs of the study as requested (Appendix H) and gaining their consent for their phone numbers and e-mail addresses to be shared with the researcher. The researcher then e-mailed and called the PCs, explaining the study and talking through the information on the information sheet (Appendix D) before sending them a follow-up e-mail (Appendix D). This enabled any questions or queries to be addressed in the moment and allowed the researcher and participants to begin building rapport, allowing for more comfortable and open communication throughout the interview process.

The information sheet (Appendix E) detailed that the participants had the right to withdraw from the study at any time up to a week after their interview, after which their transcripts were to be anonymised and untraceable to them. It also highlighted that they could choose not to answer any of the interview questions and can end the interview at any point without reason.

The participants were sent the key questions from the interview schedules (Appendix I) a week ahead of their interview to facilitate their informed consent to take part in the interview, and to help them to feel as prepared and comfortable for the interview as possible. Their informed consent was then verbally clarified again at the start of the interview alongside their right to withdraw.

Debriefing:

At the end of each interview, the participants were talked through the contents of the debrief form (Appendix G) and had the opportunity to ask any questions. The debrief form was then e-mailed to them immediately following the interview.

<u>Anonymity, Confidentiality and Data Storage</u>

Initial PC names and contact details from the gatekeeper (school Inclusion Lead) were securely stored in a Microsoft Word document on the researcher's Cardiff University OneDrive and the original e-mail correspondence were deleted. Completed consent forms were then downloaded from Qualtrics and securely stored on my Cardiff University OneDrive, following which the data gathered on Qualtrics and the initial Microsoft Word document containing contact details was permanently deleted. The downloaded consent forms were kept separately from the study data and will be retained for a minimum period of 5 years from the end of the project or after publication of any findings based upon the data (whichever is later). This is in line with section 2.9 of the 'Research Project Conduct' Cardiff University document.

To reduce the risk of any personal information being overheard by others, the online interviews were conducted within a quiet, private room out of earshot of others with participants encouraged to do the same. To reduce these risks during in-person interviews, a private room in the associated primary school was made available for the interviews where they would not be overheard or interrupted.

The non-anonymous interview recordings and automatically-generated transcriptions from Microsoft Word were secured stored on the researcher's Cardiff University OneDrive. The recordings and original transcripts were permanently deleted once the transcripts were checked, refined and anonymised. At this point, any personally-identifiable information was also be redacted from the transcripts and all participants were given pseudonyms to replace their real names. These pseudonyms and associated pronouns were gender-neutral to add an extra layer of anonymity, given the participants knew each other. Only the researcher and their university research supervisor had access to the data.

To further support the anonymity of the participants during the write up of the research, effort was made to reduce the amount of participant data associated with their pseudonym, limiting the extent to which they could be identified through their responses.

<u>Managing Risk of Harm</u>

The researcher was aware that the participants may find the discussion upsetting, especially the PC participants if they chose to talk about distressing elements of their relationship with their child and/or the impact of the intervention. To help to manage this risk, the participants were given the broad interview questions in advance to aid preparation and were aware that they could choose not to answer any questions if they do not want to. They were also aware of their right to withdraw from the study at any point up to a week after their interview, and space was created for them to ask any questions before and after the interview. The researcher also monitored how each participant was during the interview, using professional judgement to check in, change topic or stop the interview and seek further support if needed.

Contact details for services who could provide further support were signposted to in the study debrief for the participants to pursue if desired (Appendix G).

To manage the risk of the researcher being negatively emotionally impacted by the content shared in the interviews, they regularly accessed supervision with their placement supervisor and research supervisor, where they could discuss any concerns they had and have them contained. There was also the risk of harm (e.g. physical/verbal abuse) from the researcher working on their own with participants, which agreed and approved plans had been put in place for in the case of this eventuality either online or in person.

Appendix K: Application of Yardley's (2000) criteria for assessing qualitative research.

Yardley's (2000) framework below for assessing validity and quality in qualitative research outlines considerations that were addressed throughout the research process, in the context of IPA (Smith et al., 2021).

Core principles and criteria for validity of research (Yardley, 2000)	How the study meets this criteria
1. Sensitivity to context	• The study was granted ethical approval from Cardiff University's Ethics Committee. • The context of research that this study was positioned in was explored through a narrative approach in *Part One,* which was also explicitly linked to its application to the EP profession. This was strengthened by a thorough systematic review of studies specifically relating to the intervention and focus applied in the current study. Relevant literature is also incorporated into the introduction and discussion sections of *Part Two*. • Clear inclusion and exclusion criteria were used to purposively recruit the sample of participants, as outlined in section 3.6.1 of *Part Two*. This captured the experiences of both the facilitators and PCs who took part in the intervention, providing perspectives from different contexts. • Broad, relevant participant demographics were provided whilst maintaining anonymity. • Participants were able to elaborate on their experiences through the use of open-ended, semi-structured interview questions, enabling an accurate account to be gained. The inductive process of IPA further supported this, facilitating

	sensitive interpretation of the data that stayed as true to the data as possible through frequent revisits of the transcripts and reflexivity of the researcher as to their own influences and bias (see *Part Three)*. • Informed consent was sought at the beginning of participant recruitment as well as at the start of each interview, alongside opportunities for questions to be answered. Participants were also informed of their right to withdraw at any point up to a week following their interview. • Participants received a debrief form following their interviews, containing information on accessing support if required. • The relevance and contribution of this study to the context of EP practice is discussed.
2. Commitment and rigour	• The researcher conducted a literature review that explored the wider literature base through a narrative approach as well as a thorough systematic review where each study was critically appraised alongside a group critique. • Seven semi-structured interviews were conducted across two participant groups, loosely following interview schedules (Appendix I), following the lead of the participants. • Collection of the data began early in the research process, allowing time for thorough immersion in the data and analysis of each transcript and participant group in turn, in line with Smith et al.'s (2021) guidance. This allowed for a comprehensive, in-depth analysis to take place

	involving a lengthy process of revisiting and refining the themes with a phenomenological rather than purely descriptive focus, upholding the rigour of the IPA process.
	• All PETs and GETs were cross-referenced by a research colleague.
	• Research surrounding the multiperspectival element of the analysis enabled the researcher to commit to a thorough, guided approach to understanding the links between the two participant groups, with particular reference to Larkin et al. (2019). This is supported by the analysis seen in Appendix N.
	• A research diary supported the researcher's reflexivity along the process alongside regular supervision.
3. Coherence and transparency	• The IPA process was coherent with the guidance outlined by Smith et al. (2021) and Larkin et al., (2019) and the steps followed are outlined transparently in Appendix L, supported by illustrative extracts.
	• The PETs for each participant are shown for each participant in Appendix M, with the GETs for each group shown in *Part Two, section 4.1 and 4.2.* The process of establishing the multiperspectival themes is demonstrated across *Part Two, section 4.3* and Appendix N.
	• Each of the processes that contribute to this thesis have been openly and clearly explained, be it throughout *Part One* and *Part Two,* their

	appendices and/or in *Part Three*, including decisions made and steps followed. • The researcher was transparent with their ontological and epistemological positioning (*Part Two, section 3.2*) and their explanation of this and its proposed combination with the analysis methods chosen (*Part Three, section 2.3.1*). • The researcher was reflexive throughout and navigated complications and decisions with openness, as is reflected in *Part Three.*
4. Impact and importance	• This study focused on a gap in the research, especially in the use of the outdoors to facilitate a parent/carer and child relationships in the UK, in the context of EP practice. • The importance and impact of this study for EP practice are discussed in *Part One, section 9* and *Part Two, section 0*, alongside recommendations for future research and plans for dissemination in *Part Three, section 3*. These plans for dissemination and the systemic work of EPs could positively impact familial relationships and upskill and inspire school staff and wider professionals. This could potentially prompt the wider application of this form of intervention to other relationships (e.g. student-teacher relationships). • Due to the idiographic and uniquely individual nature of the findings from IPA research, the results of this study are not generalisable to the wider population (Smith et al., 2021). However, the findings of this study may promote thinking as to how schools, EPs and EP services can facilitate

	such interventions and how families can benefit from experiences in the natural, outdoor world.

Appendix L: Data analysis procedure and examples

<u>IPA for each participant group</u>

The following analysis procedure was followed when conducting the initial IPA analysis on the individual participant transcripts for each participant group, based on Smith et al.'s (2021) guidance.

Stage of analysis	Description
Reading and re-reading	The researcher read the participant's interview transcript a few times, both alongside the audio-recording and without, in order to immerse themselves in the original data and ensure the participant is at the centre of the analysis. This also helped the researcher to map the narratives shared across the interview in a simple timeline down the side of the transcript.
Exploratory noting	The researcher noted anything of interest from within the transcript, beginning to identify specificities in how the participant made sense of their experience. This fluidly developed with the re-reading of the transcript in the previous stage. There were three different levels of interpretation captured in this noting: • Descriptive = Describing the content of what the participant said, the subject of talk and summarising important elements at face value. • Linguistic = Exploring the participant's specific use of language and how this may contribute to understanding their experience. This included functional uses of language, pauses and vocalisations that were not words. • Conceptual = A deeper and more abstract focus of thinking, rooted in the participants' words with a draw upon the researchers' experiential and/or professional knowledge to help to make sense of the participant.

Constructing experiential statements	The researcher crystallised and consolidated their thinking so far, through combining important detail from the transcript and exploratory notes into experiential statements, aiming to maintain their complexity. These related directly to the participant's experiences or their sense-making of them.
Searching for connections across experiential statements	The researcher mapped how the experiential statements fitted together, clustering them to provide a structure that highlighted the most interesting and important aspects of the participant's account. Methods of clustering the statements included: • Similarity. • Polarisation (the combining of conflicting or contrasting statements to highlight complex, seemingly contradictory aspects of the experience). • Narrative organisation (themed in the unfolding events of a participant's biography, reflecting a temporal process). • Functional analysis (focusing on the function of the language that is deeply intertwined with the meaning and thoughts of the participant).
Naming Personal Experiential Themes (PETs)	The clusters of related experiential statements were titled to describe their characteristics and these clusters were refined further, forming PETs with differentiated sub-themes.
Moving on to the next case	The researcher repeated the above steps with the remaining transcripts of the participants from that participant group, respecting the individuality of each.
Developing Group Experiential Statements (GETs)	The researcher sought for similarity and difference (convergence and divergence) across the experiential statements and PETs of the participants from that participant group, creating a set of GETs and sub-themes representing that group. This drew upon shared and unique features of the experiences of the contributing participants.

Multiperspectival IPA between the participant groups

Once the GETs had been established for each participant group, the researcher then engaged in a multiperspectival level of analysis, guided by Larkin et al. (2019). They outlined this as an approach for capturing more complex and systemic experiential phenomena through the use of multiple perspectives, as adopted in the current study. They advocated for this as a way of 'increasing the inferential leverage of idiographic and phenomenological inquiry' (p.184, Larkin et al., 2019).

In response to this, the researcher followed the subsequent steps to complete the analysis:

Stage of analysis	Elaboration
Clarification of the multiperspectival IPA design.	The researcher reflected on the design of multiperspectival approach being adopted. They confirmed that the two groups were directly related as they were immersed in the same experience with different perspectives on it.
Development of connecting themes	Whilst aiming to retain IPA's commitment to the participants' individual sense-making, the researcher considered the PETs, GETs and related subordinate themes of each group. They began to cluster them with a focus on their convergence (patterns and connections) and divergence (conflicts and differences). Analytic strategies recommended by Larkin et al. (2019) that supported this thematic development included: • Consensus/conceptual overlap (convergence). • Conflicts of perspectives (divergence). • Reciprocity of concepts (perspectives that complement each other). • Paths of meaning (shared meanings from the same or different experience). • Lines of argument (storying important dimensions to provide an analytic narrative).

Naming of connecting themes	This process was supported by creating a visual representation of the analysis through a matrix (Appendix N and Table 8), enabling contributing information for each connecting theme to be considered holistically and titled as appropriate.

Examples of exploratory noting on the transcripts

Key:

- Blue font indicates descriptive noting.
- Green font indicates linguistic noting.
- Pink font indicates conceptual noting.
- Purple font in capitals indicates experiential statements.

Impact of nature

Errr, obviously I've got the outdoor side of it, erm, ...we know it's hard to qualify and quantify what... the medium of the outdoors does... brings, you know, brings to the the party, if you like. Erm. But we know it works. Yeah. You know, we've seen the results, you know, and and it's like, this was a novel experiment... A novel opportunity it's like well let's give it a go. Let's see how we get on.

Phrasing the outdoors as a method of change/'substance that something grows in' - suggests something with implicit impact rather than just existing

Idiom - party suggests a playful, enjoyable experience with little structure or leadership

IT IS UP TO US TO REAP THE BENEFITS THAT NATURE OFFERS

00:04:25 E

Yeah, absolutely.

Suggests it was new as well as unexpected to some extent, that collaboration like they'd been given this chance from powers above

'Novel' used a lot

OUTDOORS HAS IMPLICIT IMPACT

00:12:33 E

It all to be quite new and fresh.

00:12:35 K

Yeah, yeah, yeah. And... er I guess in some respects it was testing them?...
not testing them, but challenging them in different ways. Because the whole
point of it was actually it was a challenge between parent and child.

Idea of trial, testing a hypothesis. Highlights the experimental nature of this.

Idea of growth through challenge, instead of a wholly nurturing/ therapeutic approach.

GROWTH THROUGH CHALLENGE

00:12:48 E

Mmm.

00:12:49 K

Impact of the activities

So the er... with another moment, when we were doing the bushcraft
[clears throat] erm, when, they had to li- light a little scratch fire. So it's
parent and child working together, um... you know, and they were quite
bustley and chatty. And then as soon as we started it went totally quiet and
they were almost whispering to each other.

Instant connection through shared focus

NATURE-BASED ACTIVITIES FILTERED DISTRACTION AND NOISE, CAPTURING THEIR SHARED FOCUS

00:13:11 E

Wow.

00:13:13 K

Metaphoric of their building connections?

Um... and then they got the fire going and they just, it's only a little fire, an
individual fire and they just build it up in front them and they- the engage.
And it went really quiet and me and Ruth again looked at each other and
went wow. Yeah... So we had all these, we didn't really know what the
impact of the activities were gonna be so it was like a... let's give it and try
and see what happens? Just. Yeah, you know, and that was a not an
unintended consequence. But yeah. Or, you know, outcome.

Repetition emphasising the 'quiet'.

Quietness symbolic of connection, not conversation - nature minimised the 'noise' and distractions, allowing focus?

CONNECTIONS BUILT IN THE MOMENT

Trial and error but successful

ALLOWING NATURE THE FREEDOM TO HAVE AN IMPACT

00:13:44 E

Just couldn't be sure it would happen that way.

00:17:54 E

Do you feel like they gained something from it themselves too almost?

00:17:57 K

WAS AN IMPORTANT FIRST STEP TO FACILITATE FUTURE DEVELOPMENTS

SIGNIFICANT DYNAMIC SHIFT IN INVOLVING PARENTS TOO

I hope so yeah. I don't know. I mean, I can't really assess the long term... effect of that. But it was, at least w-, it was a start, you know, and we'll make an effort and we and we sort of. Well for us as well it was a novel approach into unchartered waters, I mean we certainly haven't done anything like this at all within the outdoor ed service. And you know, looking at how brave my my [clears throat] manager. Just said well go with it. Just said let's see what happens.

Why is there this sense of fear and risk towards the added element of involving parents? Locus of control?

Elements of risk and uncertainty - a trial that felt very unfamiliar despite their experience working with parents, children and the outdoors separately

Didn't go in with a set agenda, more experimental and open-minded

Language of bravery, as though this carried great risk

YOU DON'T KNOW UNTIL YOU TRY

00:18:28 E

That's brilliant.

00:05:10 E

Pre-existing relationships helped

That's really interesting and I guess that that clarity that you gave the parents over that time really, really helped, was helped by relationships you've built with them too, or perhaps helped that relationship building.

POSITIONING OF STAFF IN SCHOOL DISTINCTLY INFLUENCES THE STRENGTH OF PRE-EXISTING RELATIONSHIPS NEEDED FOR THE SUCCESSFUL INITIATION OF THESE SESSIONS

Pre-existing rel with the family crucial for building trust & clarity for positive involvement especially in situations where parents / cares may already feel under scrutiny.

Facilitation of sessions more successful because of her role & identity within school?

Interesting importance of defined & perceived role of adult within school & impact on rel building.

Teachers framed as not who CYP can go to for emotional support?

00:05:20 R

Yes. Yeah. And I think for most of the children, I've got a relationship that with them in school because I'm not a teacher, I'm not in their class, but I pick them up when you know they're struggling in class, or when something's upset them. I I picked them up and had a chat with them so having that relationship with those children, they then talk to their parents or carers so their parent or carer knows me through that, rather than knowing me directly.

vicarious relationship with parents / carers

Perhaps contributed to their initial hesitations for involvement as direct rel hadn't been built?

Insecurity as to what conclusions had been drawn about them via their children?

DIRECT RELATIONSHIPS WITH PARENTS/ CARERS NEED TO BE FOSTERED INITIALLY

00:05:45 E

Yeah, absolutely. And do you think, erm, have the sessions changed your relationship with the children and the parents and carers, at all?

00:05:54 R

Yes, definitely, definitely, yeah.

Yes. Yes, that's the. I def- I definitely would it. Initially you talk about things that you just happen across. Ooh! Look at this plant, look at this tree, you know look at this thing. Can you hear the bird, kinda thing and it's just a gain that trust and and build that sort of group dynamic. But then as you go on, you start to ask a bit more searching questions and more leading questions, just to get things- but you couldn't do that at the beginning because that trust of what I've said being kept confidential would not be there. You couldn't do that.

00:11:38 E

No, absolutely. And think it, it highlights how important- slowing the pace and having that time is in in these sort of relationships, it's not something that can be rushed.

00:11:49 R

Yeah. Yeah, it was. It was quite interesting as well, just talking about the pace, sometimes when we have those conversations, you get this silence, and that silence is important. But for the parents and carers, you could see that initially they felt uncomfortable like ohh should be saying something something should be happening. No. Enjoy that silence. People can think and you know, um so that was interesting watching that develop.

00:12:14 E

Do you think they became more comfortable with that and accepting?

00:12:16 R

Yes, definitely. Definitely, yeah.

Handwritten margin annotations:

Building of deeper connection takes time & cannot be rushed.

Stumbling over words from excitement /passion for what was saying.

Nature connection initiated the building of communication & trust between pairs & group, facilitating a later shift to deeper topics.

Needed to deliberately manufacture a deeper level of communication

SHARED NATURE CONNECTEDNESS FACILITATED INITIAL GROUP COHESION, ENABLING A TRANSITION TO MORE VULNERABLE AND TRUSTING CONVERSATIONS LATER ON.

Skill of facilitator in knowing this to be able to facilitate the sessions appropriately

challenged perceptions

'should' - reflects society's need for constant stimulation in order to feel safe and okay

Being away from technology naturally provides a different pace - facilitates reflection

Shared, immediate focus on something all could relate to facilitated cohesion & group belonging.

Fear of shame & being exposed

more important in context of more complex situations who may've had more -ve exp of others judging them & need to show their best side to ensure the can continue their position of responsibility.

TRUST WAS A PARTICULARLY IMPORTANT FACTOR IN THE RELATIONSHIPS WITH THE PARENTS/ CARERS

Initial discomfort of silence which became more accepted over time

felt unnatural - not used to having a slowed pace & time to reflect.

GRADUALLY INCREASED PARENT & CARER ACCEPTANCE OF SLOWING THE PACE AND SITTING IN THE MOMENT

FACILITATORS VALUED SILENCE AS TIME FOR REFLECTION, SHIFTING PERSPECTIVES

Increased exposure normalised a slower, more reflective and less stimulating pace

Example of exploratory statements becoming PETs from one participant's transcript

PET A: THE IMPLICIT IMPACT OF NATURE	
Subordinate theme 1: Nature as the third facilitator	
Supporting experiential statements:	*Associated transcript quotes:*
The outdoors has implicit impact (p4)	*"We know it's hard to qualify and quantify what… the medium of the outdoors does [...]. But we know it works."*
A need to trust the process (p7)	*"It was like, wow, we, just, me and [Francis] looked at each other and we just weren't expecting it."*
Nature-based activities filtered distraction and noise, capturing their shared focus (p11)	*"They were quite bustley and chatty. And then as soon as we started it went totally quiet and they were almost whispering to each other."*
Allowing nature the freedom to have an impact (p11)	*"…We didn't really know what the impact of the activities were gonna be so it was like a… let's give it a try and see what happens?"*
Facilitators' role was to provide safety and structure (p12)	*"There's something powerful about fire you know, it's all in this safe and structured environment, but just it just sort of…stops. And the fire did the work for us, you know, they were just staring and enjoying and building it up and up."*
Importance of space away from distractions (p13)	*'These activities force them… to interact on that one-to-one level [...] and it gave them a b- bit of time, a bit of space to do that"*
The nature-based activities did the work (p13)	*"I think the bushcraft activity was a really positive and high impact but also the the radio one as well because afterwards they were… they were actually some of them they were actually holding hands."*
Trusted the process (p17)	*"I wasn't expecting them to y'know, to be able to, for it to work like that, umm. But we just let it run."*

Approached with flexibility, willing to step back and let nature play its role (p18)	*"...we adapted the fire one... we had planned about four activities for that day and we only did two of them. [...] ...we just rolled and let it run"*
Expertise in knowing when to step back, rather than knowing how to be active (p18)	*"It worked so well we just let it go."*
Subordinate theme 2: Nature as a catalyst	
Change can happen over just a few sessions (p6)	*"We only had four sessions with their parents."*
Impact quicker and stronger when accurately targeting need (p7)	*"... on that first session we kind of reengaged and...we...so it's lunchtime and they were coming back and they had to say goodbye to each other and er, and they were just hugging each other."*
Positive impact after just one session (p8)	*"The initial one where the the parents in one in the front and the children behind, then towards the end of the session... the children were walking with the parents... deep in conversation, erm and that happened from right early on, so probably after the first session."*
The outdoors naturally created an atmosphere conducive to instant connection (p9)	*"...they went from this sort of bustley, excitable... It's this sort of atmosphere to sort of well, it was just intimate. If if it- for want of other word, between parent and child."*
Connections built in the moment (p11)	*"...then they got the fire going and they just, it's only a little fire, an individual fire and they just built it up in front of them and they- the engage. And it went really quiet and me and [Francis] again looked at each other and went wow."*
Instant impact from short activities (p13)	*"...probably just takes like maybe 10 minutes? 10 minutes. But when they came back in again, it was like... As if they've been away for a week."*
The outdoors speeds the building of relationships (p21)	*"...you can build those relationships with the um students um very quickly, um in a in a in half a day session even or even a full day that you can't do in the classroom."*
Positive impacts seen in four weeks (p23)	*"...the impact that that had on the relationships by the end of the sessions in just four sessions already..."*

PET B: PROMOTED EQUITABLE RESTORATION AND GROWTH	
Subordinate theme 1: Therapeutic, affective benefit	
Gain personal reward (p2)	*"…also personal because I get a lot a lot of- of erm [tut]… reward from that, type of work."*
Powerful, emotional impact on everyone, whether direct or indirect (p7)	*"And it was like, wow, we just, me and [Francis] looked at each other and we just weren't expecting it. […] …it was really powerful."*
Personal gain for PCs amidst personal challenges and stress factors (p15)	*"Some of them were alcoholics. Some of them had drug problems, um [clears throat] unemployment, you know, and and they they just kept coming back."*
Elicited authenticity, openness and trust within the group (p18)	*"…we just opened it up and we're just chatting about various things and and they were really open and honest…"*
Emotional safety and security nurtured by the mutual, non-judgemental outdoor environment (p19)	*"It was really open and honest and they were just chipping in with things… […] And I think that's the beauty of the outdoor of the of the outdoor education experience, is that it provides us the opportunities in a sort of relaxes, secure environment, I guess."*
Nature connectedness facilitates trust and openness (p20)	*"…and just experience sat listening to the wind in the trees and the birds. And I think that sort of facilitated some of the… openness in the reviews as well. And I guess you can only get that from the outdoors…"*
Nature provided a rare pause for peace and stillness, creating a sense of safety (p20)	*"…this must be quite rare to get that moment of peace and you know, and that's something that we provided for them is like we just stopped it, you know, and and and just experience sat listening to the wind in the trees and the birds"*
Helps to fulfil an individual's growth needs, bringing them closer to self-actualisation (p20)	*"…we've had this moment in our activities and so… you know where they where they feel contentment. They feel fulfilled. […] So they've actually self actualised."*
Nature provides greater emotional safety in the context of perceived reduced physical safety; the reverse of school (p21)	*"…you can build those relationships with the um students very quickly […] They're always on guard. I just, yeah. Always on their guard."*

Subordinate theme 2: Equitable and inclusive opportunities	
Responding to CYP's presenting needs at the time (p1)	*"Erm a lot of them had had parental issues, separation... erm [clears throat]...and then erm and then from that [Francis] approached us as we had a chat about it and then we came up with like a pilot project."*
Sessions tailored to the needs of the group (p4)	*"So we knew wh- where they were at between interpersonal relationships, um their self-esteem, and their confidence um and we kinda devised the activities around that, really."*
A variety of inexpensive activities focused on working together (p10)	*"The whole range, the whole range, which is designed so they were working with each other the whole way through."*
Inclusivity of nature (p12)	*"I think she's pretty, quite hyper? [...] and even they were just totally into it."*
Creating equitable opportunities following the exacerbating impacts of the COVID-19 pandemic (p14)	*"It's that joint experience, shared positive shared positive experience. I think a lot of them with COVID as well, it must have been, it must have been really hard..."*
Joint outdoor sessions are an antidote to the exacerbating impacts of the COVID-19 pandemic (p20)	*"How do you go from that though from, from being cooped together in small flat. As in, you know, as an example, to building some of those relationships, which must've been strained in those COVID times? [...] ...but they went from that to producing some of those small, I would say it's small, tiny moments..."*
Benefits can be seen across a range of caregiver relationships (p27)	*"Foster dad. Foster daughter. Yeah, that worked really well."*
Outdoor work is accessible and lends itself to adaptive approaches (p29)	*"Every child is slightly different [...]...we try to plan for that, and maybe that's what why outreach works as well."*
Subordinate theme 3: Wider skill development	
Lifelong learning (p3)	*"...Part of our aim is for, like, lifelong learning and making changes that are going to stay with them"*

Facilitated communication (p19)	*"…Sometimes it's a bit contrived, but that was at the very end… it was really open and honest and they were just chipping in with things, that that quite surprised us really."*
Outdoor experiences teach wider life skills (p22)	*"It's sort of that… lateral thinking, thinking outside the box, um giving them a a vast array of experiences that they can draw upon them."*
Targets wider executive functioning skills, facilitating readiness to learn and resilience at school (p30)	*"…Something else as well I haven't mentioned is the executive functions as well, and that ability to organise, and that was part of the big part of the the structure."*
Clear preparation and expectations modelled to children and PCs, facilitating independence (p30)	*"…She expected them to look at the weather forecast and then come fully prepared […] and we were teaching the parents as well. I guess in some respects, to help better prepare the children."*
Develops lateral thinking skills that are otherwise not given focus (p32)	*"Left field thinking, you know. And I suppose a lot of children that we work with haven't got that they are quite weak in that area."*
PET C: SHARED GROWTH FROM INVOLVING PCS	
Subordinate theme 1: Shared, healthy challenge	
New experiences can stir anxiety (p5)	*"Yeah, they would get- and they were really nervous, The parents were really nervous, yeah."*
New experiences for the parents and carers (p10)	*"It was a real contrast for them."*
Growth through challenge (p11)	*"Because the whole point of it was actually it was a challenge between parent and child."*
Separation challenged fear of risk but created connection (p13)	*"They were like whoa, I'm not, you know. The park isn't safe and not let my child go off on their own […] …And it really got them talking to each other."*
Equalised power between adults and children through shared challenge (p13)	*"The child was out of view of the parent. Erm. And they were gonna go on their own… On this circuit around the park, guided by the parent."*

Focused activities in the zone of proximal development (p16)	*"…throughout all of it, I wanted it to be successful. […] They're gonna get the fire going themselves and we had to have a successful outcome and that really helped."*
Shared new experiences (p16)	*"I imagine that might have been the first time some of them had done that."*
Designed to elicit success, nurturing shared achievement (p16)	*"Even the high ropes course we just we did a little bit of ropes course, and stopped. And then we did a bit more. And eventually we ended up at the top section of the course. Which worked really well."*
Helped each other overcome fears and achieve (p17)	*"…it was a real challenge for them, but they succeeded and did it and they were like wow look, I've not done anything like that since I was a kid."*
Building resilience and self-esteem through independent problem-solving (p31)	*"…when they faced a new situation, what skills have they got to be able to face up to the situation. And even and if it's a new situation that they have never met before, can they work it out?"*
This pushes them outside their comfort zone, preparing them for life beyond school (p32)	*"And I said the more experiences you've got, the stronger you know, you know, unless you face you sort of erm... become, you know, they're being stretched to the end of their comfort zone."*
Creating opportunities that will challenge the CYP in a safe environment (p32)	*"Ooh it's tricky. Well why is it tricky? What have you gained personally from doing something that's hard?"*
Importance of exposing to safe risk in this risk averse society in preparation for adulthood (p33)	*"…the children we worked with, are completely risk averse, erm you know it was a real challenge…"*
Subordinate theme 2: Approaching the new dynamic with understanding	
Familiarity with group members is essential (p4)	*"…we had actually worked with some of the children before […] …we knew wh- where they were at between interpersonal relationships, um their self-esteem, and their confidence um and we kinda devised the activities around that, really."*

Engagement and shared experiences were prioritised (p5)	*"…it also gave us that opportunity to do erm, think, to get a shared experience. They were doing something that they would hopefully remember [clears throat]… that they did together."*
A need for the PCs to feel safe first (p6)	*"…so the opening was… parents walking along together, catching up, like ooh you remember, this, you know we were at school"*
Shift of power dynamic with parent/carer involvement (p10)	*"I was a bit worried about the… Ma-make you know, making sure they're engaged."*
Required trust between adults (p13)	*"…but what they didn't know was that, what we had to tell them, was that erm, we could see the child, at all times […] and they didn't like that."*
Parental investment grew over time (p14)	*"When they came back they really wanted to do more."*
Significant dynamic shift in involving parents too (p15)	*"…it was a novel approach into unchartered waters, I mean we certainly haven't done anything like this at all with the outdoor ed service."*
Need for a sensitive approach (p15)	*"I would say the- the most of them weren't receptive to start with, they were very, very wary."*
Importance of managing expectations to increase acceptance and collaboration (p16)	*"…once they realised, yeah, the activities that we were doing. They were they kind of calm- the- they realised it wasn't going to be a walk up Snowdon or"*
Accommodation of individual parent/carer needs (p21)	*"…I think for some of them, they wouldn't have been able to do without going for a cigarette."*
The weather and time of year reduced parental engagement (p25)	*"So we think the time of year was crucial so I think it's definitely the. Yeah, it was raining and they didn't like, they didn't like the rain"*
Occasional tensions surrounding the agenda of the PCs and facilitators (p26)	*"There's people going ohh I'm not coming in today, it's gonna be too cold. And and their parents, some of the parents actually kept their children off school."*
Building rapport and understanding with the PCs important for managing resistance (p26)	*"…having that maybe rapport you built as well for the first one helped too"*

Need to understand family dynamics and meet them where they're at (p26)	*"...we had one father and son, and they were doing the photo orienteering... and this and he and he was really competitive."*
The need to manage expectations of involvement to ensure investment and shared intentions (p26)	*"And he was on his phone texting somebody. Umm, you know, and and then you know, and he kept saying, come on come on, catch up..."*
A need to appreciate the idiosyncrasies and complexities of the parent/carer and child relationships (p27)	*"...we had one father and son, and they were doing the photo orienteering... and this and he and he was really competitive."*
Supportive not authoritative (p31)	*"And I guess that's what our work is all about, that we do it... with them."*
Subordinate theme 3: Improved outcomes	
True impact stems from home and school collaboration (p3)	*"...you can do what you like in school time, but when they go back home, they get into the environment, you know, the home environment [...] So maybe if we can improve those relationships... then that's going to make a big, big impact."*
Combining home and school system increases efficacy (p4)	*"So, well, what happens when the parents were involved as well. Would that make it even more... more powerful?"*
Shared memories aid the building of relationships (p5)	*"They were doing something that they would hopefully remember [clears throat] ...that they did together."*
The sessions facilitated a shift from internal focus to shared focus (p6)	*"...parents walked along together, catching up [...] And the children were walking behind... and at the end... I mean, that's something we need to go into really"*
Ensuring the PCs are engaged as a priority for success (p10)	*"I was a bit worried about the... Ma- make you know, making sure they're engaged."*
The equal involvement of PCs boosts the success and longevity of the impact (p23)	*'...they have a whole family intervention [...] for some families that would be great [...] And if we threw that into the outdoor side of that as well, it would be great wouldn't it."*
An immersive and empowering learning approach (p31)	*"...it's that idea that education is done with them, not to them."*
Upskilling the PCs and challenging perspectives (p38)	*"So obviously in some respects its changing the parents' perspective. Giving them, you know, more skills."*

The implicit transference of parent/carers' outlook on their children increases the importance of bringing them on this journey too (p38)	*"...I think their expectations were less or not as positive as they actually experienced. And I think that's a lot of the success that we got from that... [tut] um. We we showed them that obviously school has changed."*
PET D: KNOWLEDGABLE AND PROACTIVE COMMITMENT OF THE FACILITATORS	
Subordinate theme 1: Creativity and perseverance	
Altruistic motivation of the facilitators (p2)	*"...also personal because I get a lot of a lot of- -r erm [tut]... reward from that, type of work."*
Willingness to branch into unfamiliar grounds (p3)	*"Erm... and it was quite a novel project for us?"*
Creative and experimental approach (p4)	*"...we kinda devised the activities around that, really. Umm, and then we then threw in the parents side of it. So, well, what happens when the parents were involved as well..."*
Facilitators were resilient in the face of challenge (p5)	*"...we were like, OK, we've got a lot of work to do *both laugh*..."*
Persevered and were resourceful amongst logistical constraints (p9)	*"So in my mind not long enough, but that's all the time we had."*
Trial and error approach (p12)	*"...But then we did a ra- we decided to throw in a radio activity"*
You don't know until you try (p15)	*"...And you know, looking at how brave my my manager. Just said well go with it. Just said let's see what happens."*
Strong anecdotal belief in the impact of the outdoors (p21)	*"...you can build those relationships with the um students um very quickly, um in a in a in half a day session even or even a full day that you can't do in the classroom."*
Facilitators showed a personal, vocational commitment to outdoor work (p21)	*"...I'm probably getting 50% of the money I would be getting as a classroom teacher..."*
Requires lateral thinking to promote lateral thinking (p22)	*"It's sort of that...lateral thinking, thinking outside of the box, um giving them a a vast array of experiences that they can draw upon..."*
Subordinate theme 2: Successful collaboration of expertise	

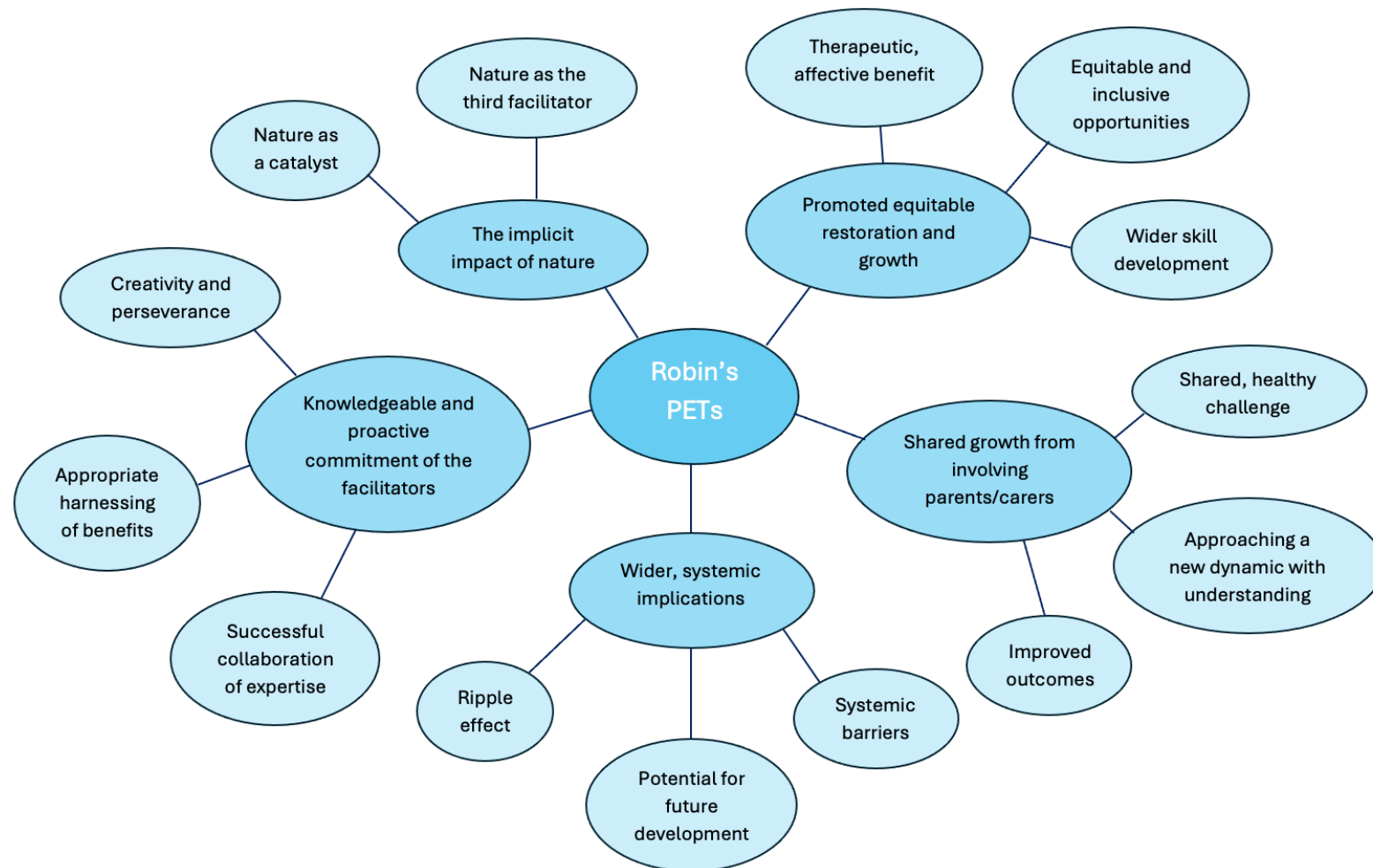|	
Successful, established working relationships between facilitators (p1)	*"…We – I ha- had previously worked with [Francis], with other children…"*
Mutual trust and respect between facilitators (p1)	*"…from that she then approached us and we had a chat about it and then we came up with like a pilot project."*
Wealth of experience was helpful (p2)	*"…I've been working in the outdoors since… w-well, since 1991 so."*
Strong working relationship enabled innovative thinking and experimentation (p3)	*"So it's a, it's a really small project that we we came up with, y'know, we didn't really.. [tut] we didn't really sort of erm know what impact would that that would have."*
Trial inspired by combination of expertise (p3)	*"…making changes that are going to stay with them [tut]. Erm… and then and then [Francis] mentioned that we're working with the parents as well…"*
Facilitators had separate areas of focus (p3)	*"…[Francis] monitored it, she set it all up […] …obviously I've got the outdoor side of it…"*
Subordinate theme 3: Appropriate harnessing of the benefits	
You reap what you sow (p2)	*"…I get a lot of a lot of- of erm [tut]… reward from that, type of work."*
Long term impact requires exposure over time (p3)	*"…Sometimes when you do an outdoor education session, you might be just a one off… and you think well what is really what is the true impact of that […] …part of our aim is for, like, lifelong learning…"*
It is up to us to reap the benefits that nature offers (p4)	*"…it's hard to qualify and quantify what… the medium of the outdoors does…brings…"*
Reconnection can be found in the mundane (p8)	*"…But we started at [name] school and walked into the park, that was part of it."*
Positive impact can be found when value is given to all opportunities for connection (p8)	*"…then towards the end of the sessions… the children were walking with the parents… deep in conversation…"*
The beauty of taking it back to basics (p12)	*"…the fire did the work for us, you know, they were just staring and enjoying and building it up and building it up."*

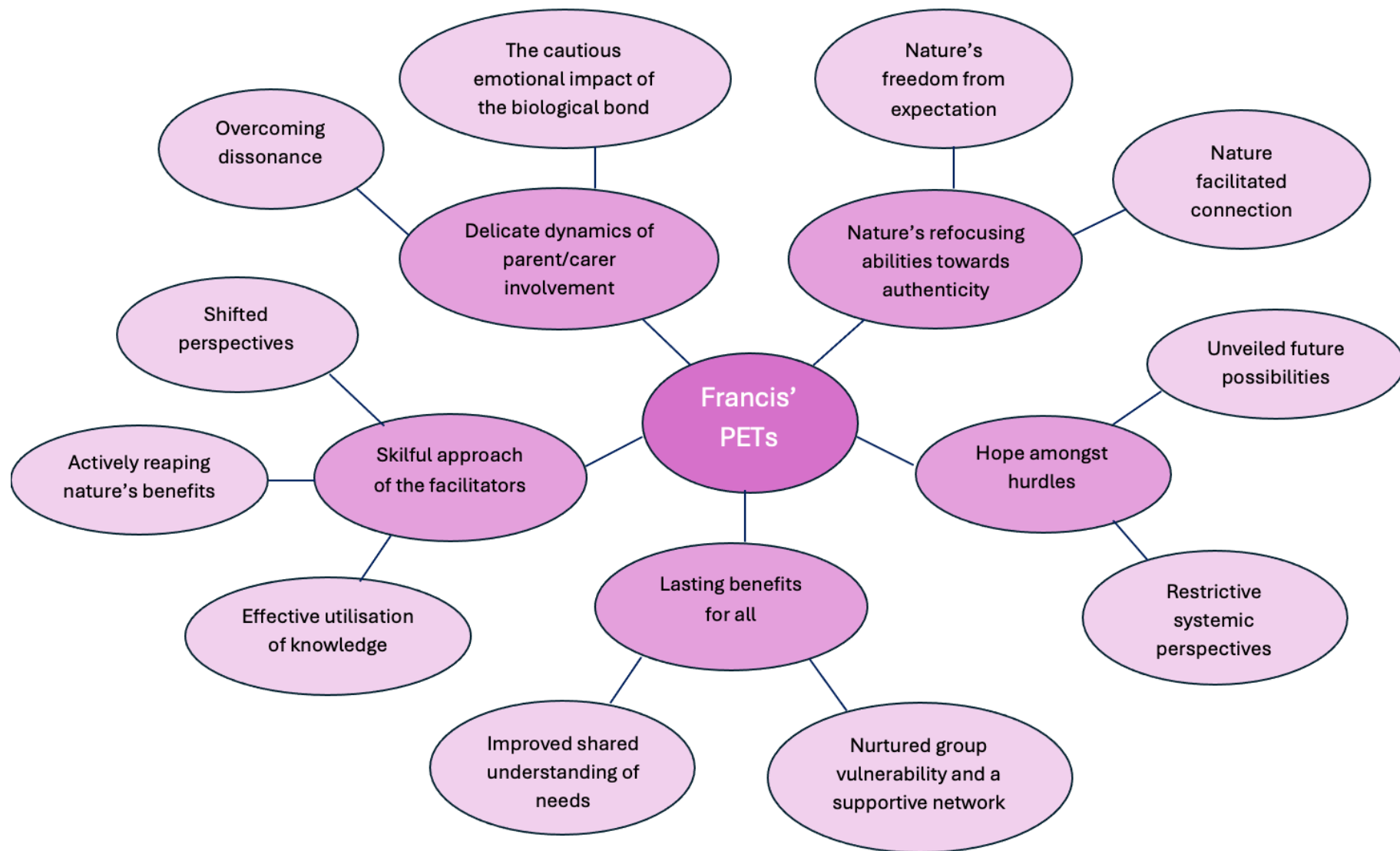|	
Reaping benefits is an active process (p14)	*"…It's that joint experience, shared positive shared positive experience."*
Positive impact relies on the intention and framing given to that space (p14)	*"Walk to the shops and then back again. You know, and that might have been a whole family activity, which would have been quite stressful so."*
Its success is dependent on all who are involved. (p26)	*"…and at one stage he was his child was like 100 metres *small laugh* behind him. And he was on his phone texting somebody…"*
PET E: WIDER, SYSTEMIC IMPLICATIONS	
Subordinate theme 1: Ripple effect	
Planting seeds of hope for the children (p20)	*"…when we're working with some of the children as well, especially vulnerable students, you know, we're thinking what is the impact we're having on here? And if it's nothing else, especially with looked after children, it's actually a small moment of positivity…"*
Small moments have large impacts (p20)	*"…but they went from that to producing some of those small, I would say it's small, tiny moments…"*
The sessions shifted perspectives (p21)	*"…you can't build up those same relationships we can build…"*
These early opportunities forge future paths for CYP (p24)	*"…in some way, it would be really helping keeping that judicial system they can, you know, you can keep them out of trouble […] …get them in gaining employment…"*
Multidirectional benefits for home, school and child through their equal collaboration in the outdoor environment (p38)	*"…a lot of the success that we got from that… [tut] um. We we showed them that obviously school has changed. They were expecting their experiences to be more negative than they were. So we were onto a win win."*
Promoting the collaboration of the systems around a child like this leads to greater impact (p38)	*"…if we're going to make make changes to children's behaviour or behaviour modification, it's going to be a whole school and whole home approach isn't it…"*

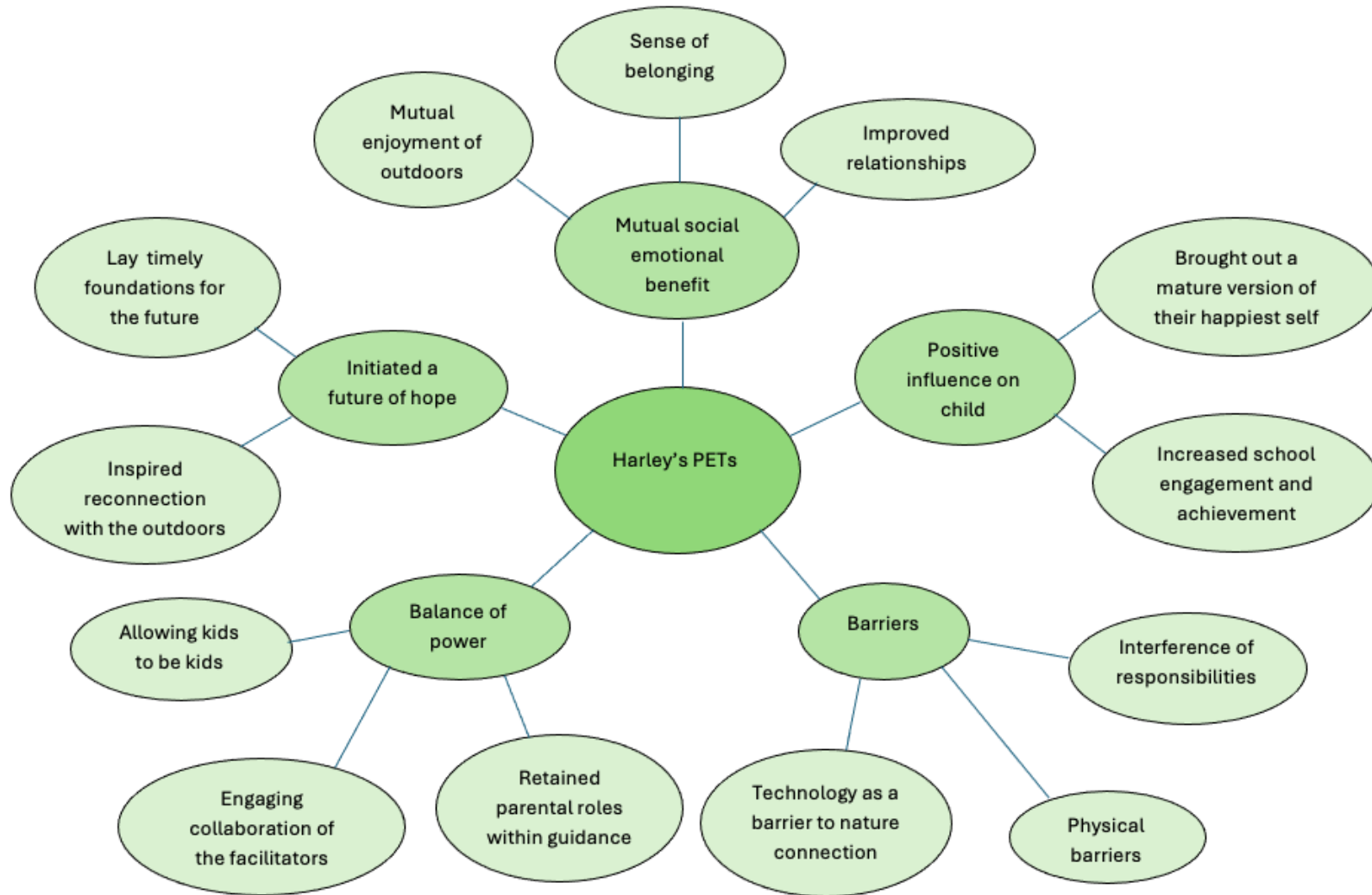|	
Simultaneously builds relationships between home and school (p38)	*"…a lot of the success that we got from that… [tut] um. We we showed them that obviously school has changed. They were expecting their experiences to be more negative than they were…"*
Social skills were developed and transferred into wider systems (p39)	*"…Certainly interpersonal relationships within school, if nothing else, we formed a little club as well. So these children actually grew quite close together as well."*
Created a group identity, nurturing their sense of belonging which they carried into their school experience (p39)	*"…we gave them an identity… And that was, you know, not something that we discussed before, but. These children definitely had a group identity."*
Subordinate theme 2: Potential for future development	
Was an important first step to facilitate future developments (p15)	*"… I can't really assess the long term… effect of that. But it was, at least w-, it was a start…"*
Outdoor learning can support CYP to make better life choices, reducing strain on wider systems (p24)	*"…you feel the outdoors and those experience help to veer away from that path perhaps."*
Is a flexible approach that can be integrated with other techniques for greater targeting of needs (p28)	*"…then we do the outdoor side of it as well, so just to make it a bit more structured, to make it a bit longer?"*
Sessions have inspired wider picture thinking (p28)	*"…I'd like to erm I'm play trained as well so you know I'd like to integrate the two together maybe, thinking about professionally. That's where. That's where I'd like to go."*
Belief that the benefits can be generalised to wider adult-child relationships, e.g. school staff, through a similar approach (p29)	*"…I think it'd be really good if we could.. not spread the word about maybe cascade the skills down to the school staff?…"*
A perception that greater professional collaboration would make the sessions more focused and so more impactful (p29)	*"…I mean, having a professional help from [his wife] being social worker, maybe you know that social work side of it, therapeutic intervention, I think it could be really, really, really pokey…"*
Scope for this approach to be supported by wider services with a more informed and targeted focus (p36)	*"…it would be great to be able to work with, you know, other professionals, particularly, maybe even with the educational psychology department…"*

The intervention would be more impactful with a greater evidence base informing it (p37)	*"…if they, the Ed Psych had been working with that parent child in school as well and you know, and and had more of an insight into there as well…"*
The need to adopt systemic, multi-agency approach for greater impact (p40)	*"Yeah that's it, the keyword there is the systemic approach."*
Subordinate theme 3: Systemic barriers	
Perceived need for quantifying outcomes (p3)	*"…we did that before and after so it was a proper.. proper test…"*
Element of sacrifice required in promoting outdoor work due to funding cuts (p21)	*"…I'm probably getting 50% of the money I would be getting as a classroom teacher…"*
Equitable opportunities in the outdoors being held back by funding (p22)	*"…So obviously about funding, but but it would be nice if we could level up, that's where I'd start."*
Inequity and disadvantage limits life experiences, limiting resilience and opportunities for core skill development (p22)	*"…other children don't get that. They don't get that vast array of different experiences. So in my mind it's… the disadvantage…"*
A need for greater scope for this work within the school curriculum (p29)	*"…I really wish there was more scope to do that within the curriculum…"*
Schools are so focused on outcomes and learning that they are neglecting the building blocks of safety and relationships that this approach could provide (p29)	*"…if pupils felt a bit more safe or a bit more secure, and the the teacher had more time to get to know the children as well…"*
Outdoor education is misunderstood (p34)	*"…It's really why should we fund outdoor education? And we're constantly having to fight for it and say so…"*
A pressure for the benefits of outdoor work to be proven within the systemic homeostatic state of it being undervalued (p34)	*"…I've been working in the industry for nearly 30 or 30 years and it I feel like I've been. It's like a circular argument. And it's not changed."*
Outdoor education is systemically positioned on the periphery, not prioritised for funding, with little power (p35)	*"…so many outdoors residential outdoor centres and services that have collapsed and services that have collapsed in the last two years…"*
The weather and time of year reduced parental engagement (p25)	*"…some of the parents just didn't come. Just didn't attend. The weather didn't help. The weather was awful."*

Appendix M: Participants' PETs

Facilitators' PETs

Francis' PETs

- The cautious emotional impact of the biological bond
- Nature's freedom from expectation
- Overcoming dissonance
- Nature facilitated connection
- Delicate dynamics of parent/carer involvement
- Nature's refocusing abilities towards authenticity
- Shifted perspectives
- Unveiled future possibilities
- Actively reaping nature's benefits
- Skilful approach of the facilitators
- Hope amongst hurdles
- Effective utilisation of knowledge
- Restrictive systemic perspectives
- Lasting benefits for all
- Improved shared understanding of needs
- Nurtured group vulnerability and a supportive network

- Rewarding, hands-on teamwork
- Importance of 1:1 time
- Learning about the local environment
- Children thrive outdoors
- Fun sharing new experiences
- Shared, focused experiences
- Outdoor appreciation
- Sam's PETs
- Navigating risks
- Balancing opportunities
- Developing relationships
- Built bridges with wider community
- Drive for good practice as a carer
- Restricting effect of technology
- Maintenance of good relationships
- Sharing of understanding

Supported parental trust and reassurance surrounding risks

Enhanced child's school social experience

Helpful facilitation through school

Elicited excitement and novelty

Inspiring outdoor context

Inspired new family engagement outdoors

Laurie's PETs

Created cherished shared experiences

Beneficial co-participation

Empowered child's independence and leadership

Relaxed and inclusive approach

Ellis' PETs

- Rebuilding bridges with child
  - Shared, new experiences
  - 1:1 problem solving valued most
  - Normalised his role as parent
- Barriers
  - Fear of illness from time of year
  - Distraction from unpredictable legal and social factors in personal life
  - Challenging interpersonal dynamics
- Tentative relationships
  - Respected facilitators' support
  - Improved relationship with school
  - Tension surrounding roles and judgement
- Freedom of the outdoors
  - Supported child's ADHD
  - Unjudgmental space

Built community and shared pride

1:1 memory-building

Equitable opportunities

Novel, new experiences

Effective facilitation through school

Strengthened relationships over time

Inclusive and engaging outdoor program

Promotes future thinking

Alex's PETs

Individual growth for all

Shared learning through new experiences

Personal parental development

Social emotional development of child
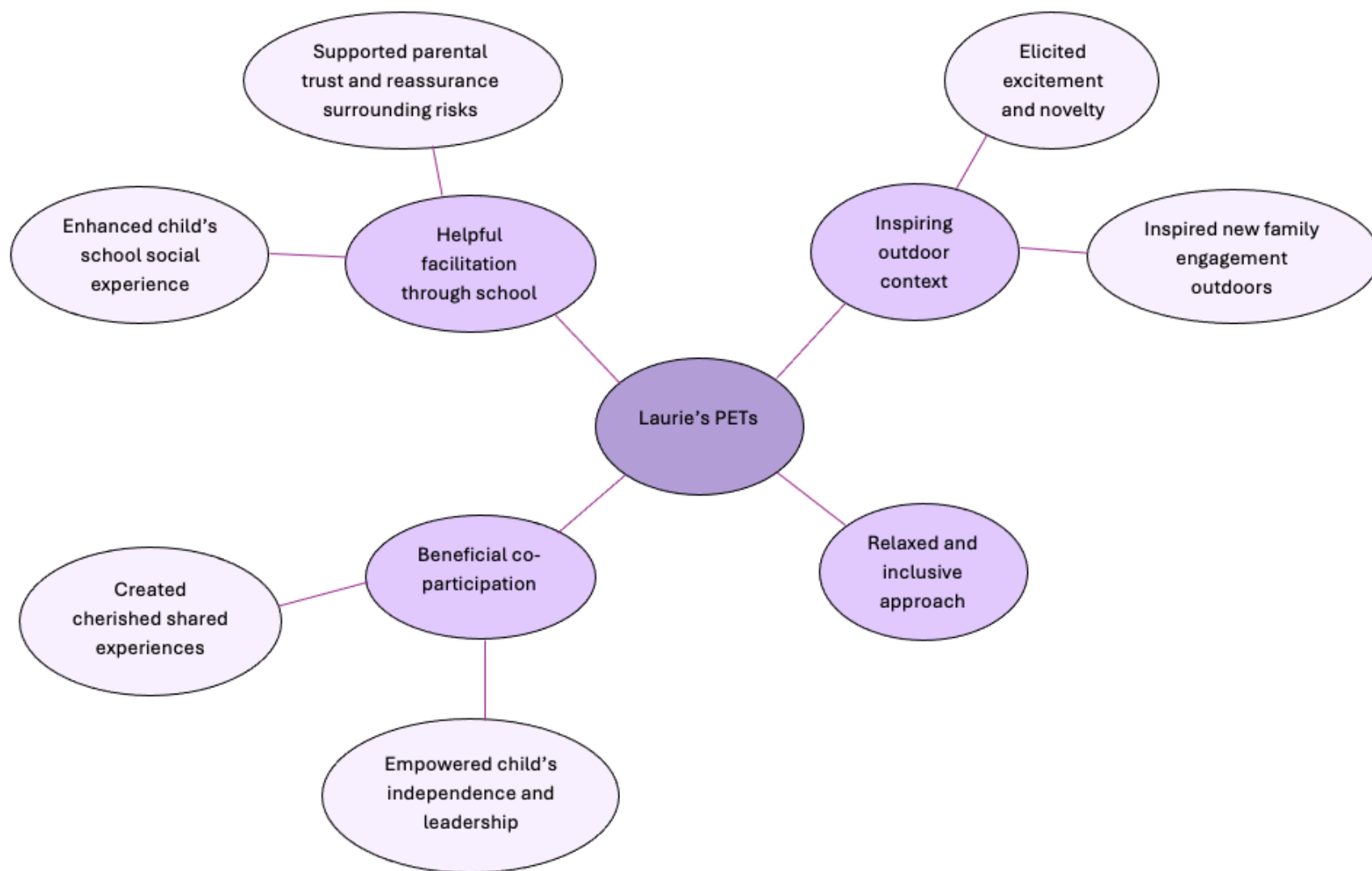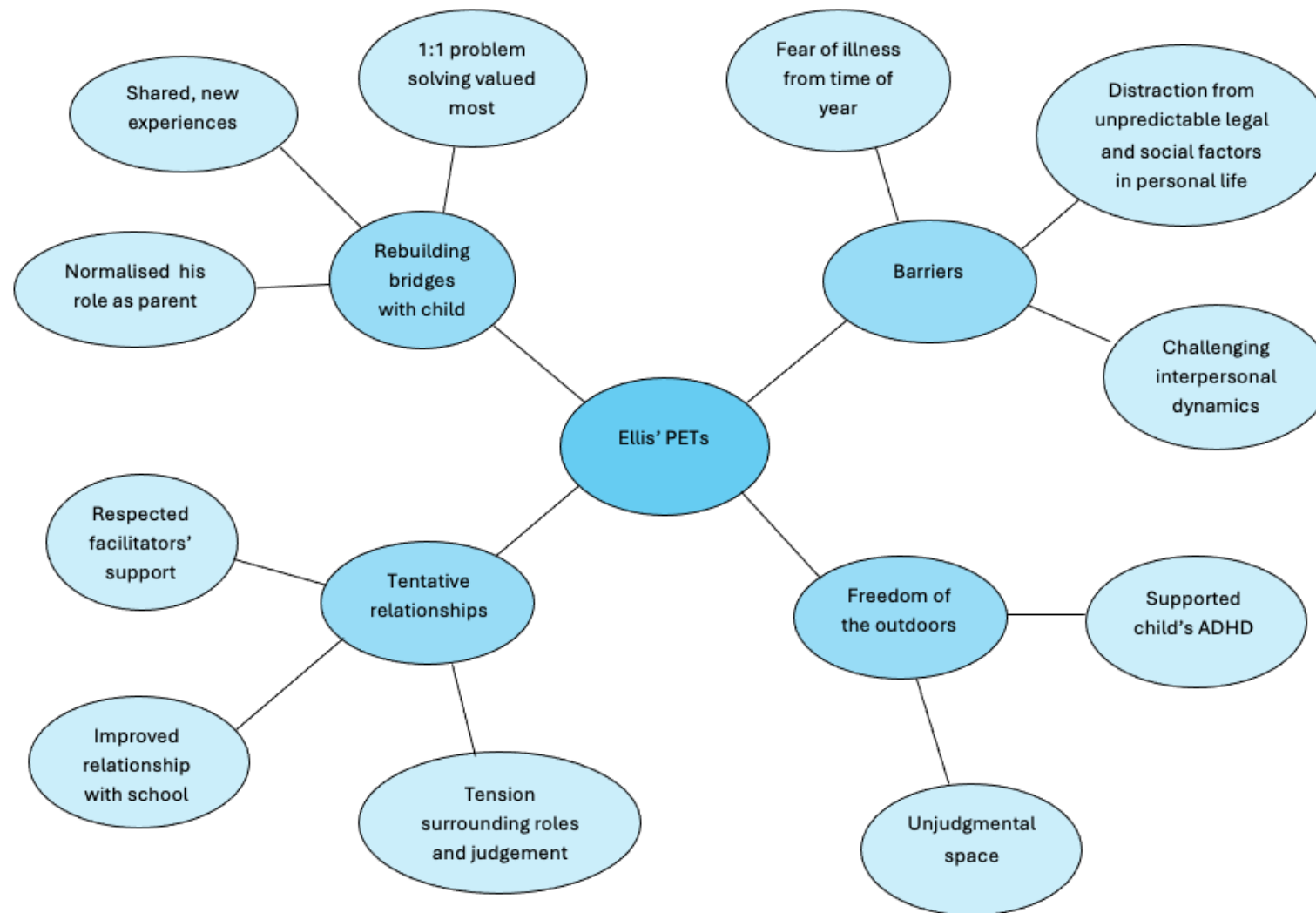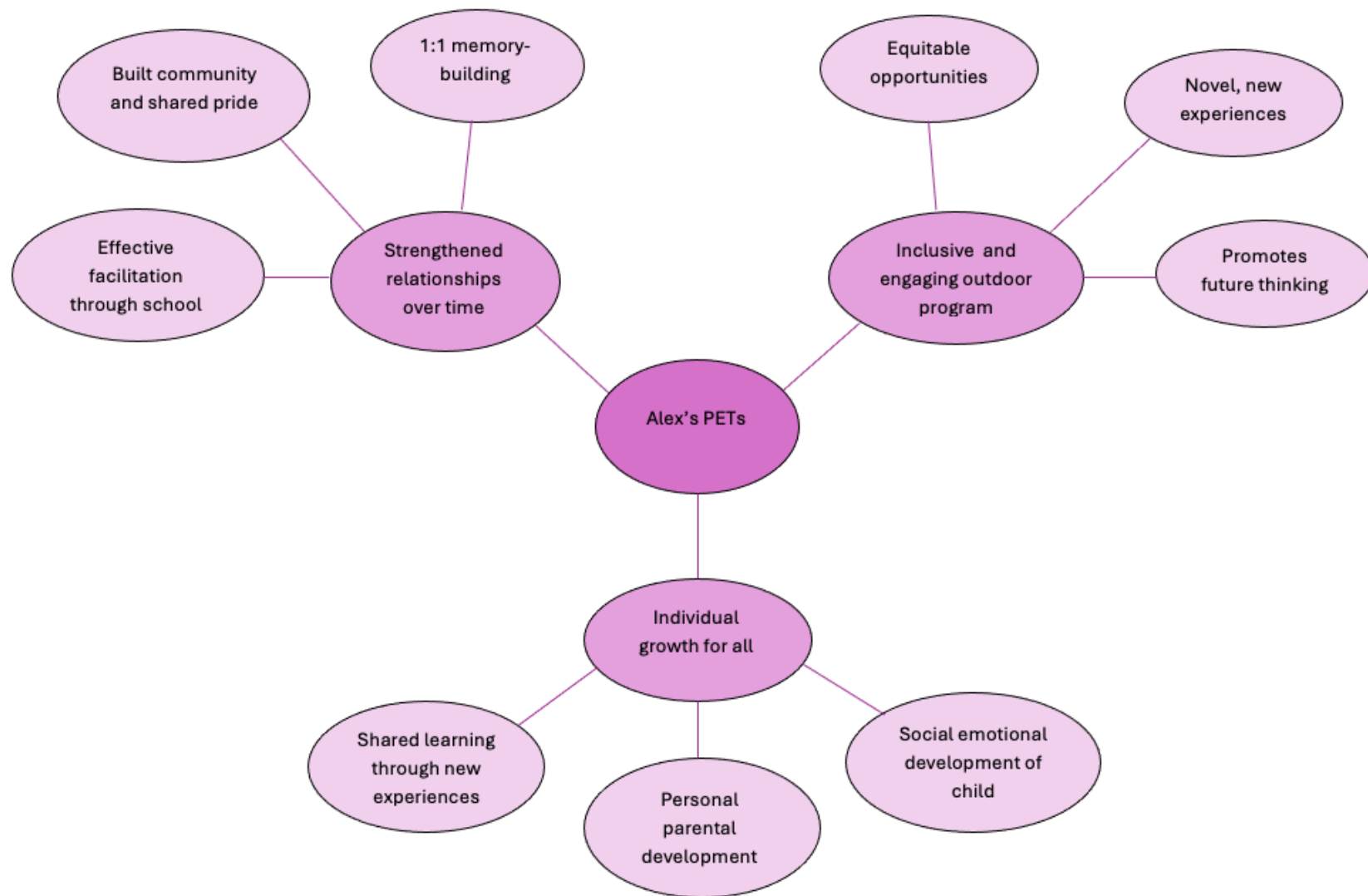
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Appendix N: Matrix representation of the connecting themes for the facilitators' and PCs' data at an individual level.

Please note, each row presents the data relating to a different participant to enable an understand of how each participants' data contributes and interlinks within the connecting themes. The participants' pseudonyms have not been stated alongside their data in the interest of preserving their anonymity.

		Connecting theme			
		Strengthening the microsystem	**Safe community**	**Risk versus freedom**	**Seeds of hope**
Participant group	Facilitators	Nature created space from distraction conductive to instant connection, expanding to wider adult-child relationships (e.g. teachers) and home-school relationships. The power of experiential learning and modelling, emphasising the importance of curiosity and joint attention; a shift from internal focus to shared focus. The shared memories deepened connection. Strong working relationship between facilitators with mutual trust, respect and separate areas of expertise, enabling innovative thinking, adaptation, creativity, perseverance and belief in the process. You reap what you sow in enabling the benefits to have impact through the framing and intention given to the space. Success dependent on the attitudes of all those involved.	Emotional safety and security nurtured by mutual, non-judgemental outdoor environment. Adopted a sensitive, collaborative approach, empowering without judgement, and accommodating needs with clear communication and managed expectations. Created group identity, nurturing sense of belonging.	Allowing nature the freedom to have impact, even in the mundane. Facilitators provide safety and structure. Created emotional safety in the context of perceived reduced physical safety; paradoxical, the reverse of school. Risk of it not being successful through the dynamic shift of involving parents and carers too. Ensuring they are engaged is a priority for success and longevity of impact. Need them to feel safe first and have clear expectations, especially when they are coming from more delicate situations. Benefits of exposure to safe risk and growth through challenge, shifting perceptions. Giving children the freedom to problem-solve independently and push outside of their comfort zone. Highlights strengths whilst building resilience, lateral thinking, executive functioning skills, shared achievement, self-esteem, problem-solving and independence.	Requires lateral thinking to promote lateral thinking. Helps to provide equitable life opportunities, especially as an antidote to the exacerbating impacts of the COVID-19 pandemic. Upskilling the PCs and challenging perspectives. Social skills and group identity built transferred to facilitate the children's relationships with peers and staff in school, supporting their wellbeing and sense of belonging in school. Children learnt social, emotional and executive functioning skills that would support their resilience and ability to cope at school. Could be refined and informed by an evidence-base and wider services through a multi-agency approach to make it more impactful and targeted, e.g. including EPs. However, part of the success came from

Equalising power dynamics through mutual support through shared, new experiences. Clarity aids collaboration. Upskilled the PCs; strengthening the systems around the child. True impact stems from home and school collaboration. Parent/carer perspectives can transfer to their children, making their involvement important.		Freedom and inclusivity of nature supported adults' and children's needs, including e.g. ADHD. It lends itself to adaptive approaches. The weather and time of year directly posed a risk to engagement.	the flexibility and willingness to adapt and trial. Outdoor opportunities can support CYP to make better life choices through the skills gained, reducing strain on wider systems. Ability to plant seeds of hope for them early to forge better paths for them. Just a small moment can have big impact. Is a flexible approach that can be integrated with other techniques and wider adult-child relationships, e.g. school staff, inspiring wider thinking. Was an important first step to facilitate future developments. Systems surrounding outdoor education in a homeostatic state of undervaluing it, restricting the reach and impact it can have through financial constraints. Positioned on the periphery of priority and power. School curriculum and priorities need to shift back towards building safety and relationships, with greater scope for this nature of work.
Dynamic nature of the outdoors facilitated shared attention and child-led curiosity, enabling deeper connection and conversation. Elicited spontaneous moments of connection and greater modelling.	Nature connectedness facilitated group cohesion and greater relaxation and stress-relief for her too; a mindful impact. Multiple sessions enabled greater familiarity, comfortability and openness between group members.	Outdoors is a dynamic space allowing freedom and permission for authenticity and safe risks away from systemic expectations, structures, rules and hierarchies. They can construct the space as they like and need to lead with flexibility, spontaneity and willingness to adapt with it. Mirroring the pace of nature	Those positioned in schools with understanding of the children's needs, relationships with families and an understanding of developmental psychology are well placed to facilitate.

Home and school life are interrelated and impact experiences in each other. This broke down barriers between the two, strengthening collaboration. Aided understanding through seeing interactions in a mutual environment; school shows the behaviours and home helps to understand why, but what about the space inbetween?

Helpful contribution of understanding of psychology of learning and child development, and understanding of needs.

Fun competition demonstrated the greater collaboration, shared achievement, ownership and pride between the PCs and their children.

Friendly, respectful competition developed in the context of group support. Group connection built resilience when things did not go well, with group empathy and connection as an inadvertent outcome of the environment created.

There appeared to be greater empathy, openness, trust, quicker rapport-building and reduced shame through the relatability of the PCs' contexts, aiding a dynamic of understanding and belonging.

Importance of tailoring sessions to specific needs, making them intentionally relevant, to aid investment and connection.

rather than resisting it. This safe, non-judgemental, mutual environment cognitively freed most PCs to focus on their connections with their children. [though Adam found it a distraction and not a safe place]

Vulnerability of the PCs in unknown territory. Fear of judgement into their decision-making, especially those with a biological relationship. Requires trust, sensitivity and bringing them along the journey and fostering direct relationships with them from the start. Biological relations approached risk with greater hesitation and emotion and needed greater permission and trust. But the outdoors provides a mutual space, reducing blame, shame, pressure and responsibility associated with places of e.g. home and school.

Risk of the influence of the different agendas of the PCs on their and their child's attendance and co-operation. Involving PCs is greater risk for greater gain. A fragile system that has elicited vulnerability requires consistency, however still needs to allow accessibility and feasibility with involving parents and carers.

Activities and facilitators' narratives shifted parent/carer perspectives towards greater freedom and less risk-averse behaviour, through safe boundary-setting,

The ability of such interventions to create equitable opportunities, though this can also skew the motive for involvement.

Facilitated greater openness, honesty, trust, respect and collaboration between home and school going forwards. Actions speak louder than words when it comes to trust, especially when previous experiences of professionals may not have been positive. Facilitator felt more like a supportive friend going forward. Also aided understanding of need from seeing the child in a different context.

Shifted PCs' perspectives around time spent with child, the importance of slowing the pace, making space and the contribution of the outdoors away from distraction.

Unveiled and highlighted strengths and abilities in the CYP and their PCs.

The need for wider systems to be on board to navigate future opportunities around logistical and financial constraints. Demonstrating success from within the system is more likely to facilitate this. Impact comes from the pace, space and place provided, not the costliness of the activities involved, aiding its accessibility, especially in financially-strained systems. It also doesn't require rural countryside, just an outdoor space with natural surroundings. However, the system is

			reframing of barriers and greater appreciation for the value of small moments.	perpetuating and exacerbating issues, disabling preventative, proactive practice with direct impact on children. Lack of appreciation and value towards this form of work, not appreciating the resource versus reward ratio. A need to prove its impact to be acknowledged.
PCs	Strengthened their relationship. Mutual enjoyment of the outdoors was impactful, with them increasingly noticing and connecting with nature with greater anticipation each week. The sessions developed a more personal meaning for them as the weeks passed, inspiring interests in the child through the novelty of the activities and provoking fun and laughter. Triggered great appreciation of each other and a new perspective on their relationship. They now have daily affection and better communication. The intervention has contributed more than they initially realised with longer-term benefits. It has improved relationships with other family members too through it having inspired outdoor experiences together. Facilitators retained parental independence, autonomy and control within a right amount of	Promoted sense of group belonging through making connections with other parents and carers despite individual differences, reducing their sense of isolation as a parent/carer. This was supported by a sense of relatedness with the other families there and the shared experience, which promoted team-working and group problem-solving.	Interference of personal responsibility limited attendance. Physical barriers such as the weather and physical ability also risked their engagement. Giving their child the freedom to be a child through the unstructured environment eliciting child-like, authentic behaviours. Also gave the PCs the freedom to take risks, teaching them to sit back and let go. The parent/carer experienced personal gain from reconnecting with nature, enjoying its freedom from limits and expectation. School and the indoors is too restrictive.	Would do again and recommend to others. The experience increased their child's school engagement and achievement, refocusing their outlook and increasing their enjoyment of school. It also brought out a more mature and happy side of their child, showing greater respect, consideration, understanding and empathy for others and a return of their sense of humour. It enabled the parent/carer to learn new strengths about their child. Lay a foundation for a future of hope; an experience that's going to keep on giving. It was the first step in the journey and has formed lasting memories that have been vital for future connection. Patience is needed to see the full effects. They are now excited about the future and it has inspired reconnection with the outdoors through changed routines.

		guidance; a balance of power. Encouraged the child to take control. The facilitator connected with the school became a familiar face for their child at school. It also supported the pre-built home and school relationship, with the staff feeling more like friends to the parent/carer following the sessions. Technology is a barrier to these rich experiences in childhood, though nature is a remedy from technology.			
		Maintained their good relationship and created lasting memories. They had mutual fun sharing in novel experiences through rewarding and empowering, hands-on teamwork. Nothing compares to 1:1 time together. Their co-participation was important for the child who had missed out on such experiences in their past. Enforced good parent/carer practice, tying in with therapeutic parenting approaches they had learnt before. Enabled sharing of understanding and experiences, enabling better parent/carer and child familiarity and the sharing of skills. A rewarding journey.	Enabled them to build connections with a wider community of parents and carers, creating a sense of connection. This gave their child opportunities to play with children their age, which are otherwise limited. They benefitted from sharing the experience with other families in similar situations and bonding as a group, acknowledging that everyone got something slightly different from it.	PCs have to weigh up the risks of technology and the online world versus the outdoors. Fear of making the wrong decisions. PCs often know more about risks than benefits, giving their children less freedom. However, this intervention helped them to navigate these risks, providing a rare opportunity for them to do something outside that felt safe; to have fun with no pressure. Interference of personal responsibility limited attendance. Risked feelings of vulnerability around judgement of the parent/carer's ability.	Would do again and recommend to others. Believe the wider relationships built contributed to their child's improvements at school. Helped their child to learn new skills and grow in confidence. The experience has motivated them to spend more 1:1 time with their child.

Gained greater appreciation for the local outdoor environment through learning about it. Children thrive outdoors. Social media and technology restricts children's experiences outside, causing frustration.			
Helped to rebuild bridges with their child, bringing them closer and stabilising their relationship. Normalised their role as a parent/carer. The shared, novel experiences were enjoyable and they valued 1:1 problem solving the most. Was an opportunity they do not get at home. Improved their home and school relationship, providing healing from a fractious history. Helped them to shift perspectives of each other and increase respect and understanding, making the parent/carer feel more comfortable to approach them.	Group work was their least favourite part as they wanted to focus on one-to-one time with their child. Highlighted to them the importance of considering group dynamics and personal circumstances.	Enjoyed less-structured, paired activities where they had the freedom to work together. Their child came to life during these moments. The flexibility and variety also supported their child's ADHD, giving them the freedom to move around. Attendance was limited by the parent/carer's fear of the risk of the bad weather's effect on family health, especially through being an only parent. This also risked the home-school relationship through their differing agendas. However, this did not effect the impact of the overall experience. Tension surrounding how much freedom and autonomy they felt they had as a parent/carer within the sessions and how they were being perceived. This was influenced by their perceptions of feeling watched and judged and invited through pity, following negative experiences with social services, making them feel patronised. However, they feel greater appreciation for the experience now through hindsight.	Would do again with both children and would recommend to others. Inspired thinking as to how this could grow in the future, such as the school involving PCs with gardening club where they are likely to get a shared sense of achievement through building something that will last that they can remember and revisit. This creates a talking point around its progress the permanence of what they have created, rather than temporary activities.

| | | | Feared the risk of other PCs bringing up elements of their past too, and so felt on guard.

Risk from unpredictable personal factors caused the parent/carer distraction during the sessions due to its location and their lack of control in the situation. They felt a fear of embarrassment which their child also picked up on.
However, being outdoors helped them to feel greater freedom from judgement and is an environment that they enjoy spending time in. They believe it would not have worked indoors. | |
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| | | Built their relationship with quality 1:1 time where they experienced shared learning through new, fun experiences. Valued being equally involved and created shared memories, which is an opportunity they do not often have in normal life. They particularly enjoyed the hands-on elements and the connection with nature which enabled experiential learning in a way that indoors does not. Being told about the environment also helped to spark their imaginations, supporting engagement.

Teamwork with child taught the parent/carer to be more patient and share more. They appreciated a mix of group and paired work. | The niche, shared experience built a sense of community and shared pride, watching each other conquer fears and allowing the children to take charge. They appreciated the opportunity to connect with different PCs and learn about them.

It was important that the same people were involved each week and there was the right number of people involved. The small group also helped their child to feel more confident socially, which increased over the sessions as their child felt more safe. This smaller group also supported their child's needs through being less overwhelming and elicited a willingness in their child to challenge themselves, developing their resilience and flexible thinking. | The weather and time of year made engagement less appealing but the activities distracted from the bad weather.

Interference of personal responsibility limited attendance.

Appreciated the freedom to experience activities such as the ropes course which they likely would not have accessed otherwise but became a particular highlight of the intervention.

The freedom of the outdoors supported the parent/carer's ADHD, along with the flexibility and variety of playful activities which provided different sensory inputs, stimulating her interesting and supporting their imagination and understanding. | The experience contributed to their child's social and emotional growth and promoted their independence, resilience and flexible thinking through problem-solving and teamwork with other children.

Promoted future thinking for the parent/carer, encouraging them to have more patience and engage in more team-building activities with their children.

It is important to expand this experience to other caregivers and family members too and would recommend it to every parent/carer, especially those who don't have time for 1:1 connection with their children otherwise. It could also be broadened to PCs joining other school events too. It should be prioritised for funding. |

Appreciated the facilitation of the intervention through school. It gave their child greater social confidence when he returned to school and more secure relationships with the staff and children involved. The parent/carer also appreciated the greater familiarity with school staff. The pre-built relationships and authority of the school-based facilitator supported the success of the sessions, alongside how well they worked with the other facilitator to make the sessions engaging. They enjoyed how it occurred over several weeks, as this build anticipation. Technology gets in the way of hands-on, outdoor experiences.				
Was helpful in building and maintaining their good relationship. Both the parent/carer and child appreciated sharing the experience and it created cherished memories for them both. Their child also enjoyed it when another caregiver had to attend instead, strengthening their relationship too. The outdoors elicited excitement and novelty each week which could not be found indoors. Their child's	Appreciated the equal team-working with other families which matched the pace of those involved so that everyone felt included. It was more relaxed and inclusive than expected.	Interference of personal circumstances limited attendance.	The facilitation through school enhanced their child's school social experience and network and made their child more excited to come to school. They could talk about it with their friends afterwards. Their child grew in independence and leadership throughout the sessions, enhancing their teamwork, communication and problem-solving skills.

| | | excitement spread to them as they enjoyed working on their own together.

They appreciated the rare opportunity to bring together home and school, which was enhanced by their child's pre-built relationship with the school-based facilitator. It also enhanced the parent/carer's trust and reassurance in the school's support. | | | The experience inspired new family engagement with the outdoors and less engagement with technology.

It shifted the parent/carer's view of their own enjoyment of the outdoors. |

Note. The orange and red font indicates point of divergence, with red indicating greater divergence than orange.