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To cite this article: Tanya Ward, Sophie Goldingay & Judi Parson (2017): Evaluating a supported nature play programme, parents' perspectives, Early Child Development and Care, DOI: [10.1080/03004430.2017.1317764](https://doi.org/10.1080/03004430.2017.1317764)

To link to this article: <http://dx.doi.org/10.1080/03004430.2017.1317764>



Published online: 26 Apr 2017.



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# Evaluating a supported nature play programme, parents' perspectives

Tanya Ward, Sophie Goldingay and Judi Parson

School of Health and Social Development, Deakin University, Geelong, Victoria, Australia

## ABSTRACT

Concern has been raised recently in relation to excessive use of digital technology and the detrimental effect this has on familial relationships, well-being and development, and on people's connection with nature. This article provides a timely response to this concern by presenting the findings of a qualitative evaluation of a supported nature play programme according to the parents' perceptions. Semi-structured interviews were conducted with six participants and analysed using experiential thematic analysis. Analysis provided three major themes: enhancing interpersonal relationships; connections to nature and fostering emotional wellness. According to these participants, relational, well-being and developmental benefits continued both within and beyond the programme context. It is argued that supported nature play programmes, which include a therapy dog, have the potential to enhance interpersonal, nature and animal connections while simultaneously providing families with opportunities to strengthen their development and well-being.

## ARTICLE HISTORY

Received 9 March 2017  
Accepted 6 April 2017

## KEYWORDS

Nature play; children & families; relationships; mindfulness; therapy dog

## Introduction

There is currently widespread concern amongst health professionals and scholars that people are now spending less time in nature and this disconnect from the natural environment can adversely impact their physical and mental health (Elkind, 2007; Louv, 2008, 2011; Plotkin, 2008). Several authors have highlighted the negative impact on interpersonal relationships and the mental and physical health of young children and families who engage in too much screen time and not enough time in nature (Louv, 2008, 2009, 2011; Plotkin, 2008; Steiner-Adair & Barker, 2013). A considerable number of Australian state governments have also recognized the need for families to remove themselves from screen time and engage in nature play more often for child developmental and health benefits (DET, 2016; DHHS, 2016; Nature play Canberra, 2016; Nature Play Queensland, 2016; Nature Play South Australia, 2016; Nature Play Western Australia 2016a, 2016b; Zotti, 2014). As a result, several 'Nature Play' initiatives have been launched across several Australian states (Nature play Canberra, 2016; Nature Play Queensland, 2016; Nature Play South Australia, 2016; Nature Play Western Australia 2016a, 2016b). This paper demonstrates how a supported nature play programme in regional Victoria provided families with enriched connections with nature and with each other, where the benefits continued beyond the programme context.

## Play benefits for adults and children

Numerous studies have documented the benefits of play for both children and adults (Brown, 2016; Crowley, 2014; Davies, 2011; Eberle, 2014). Play researchers have defined play as a voluntary, intrinsically motivated, purposeless and pleasurable experience; a learning medium; an essential feature and function of human development and a biological drive within children and adults that is integral to their health and well-being across their life course (Brown, 2016; Eberle, 2014). This biological drive is seen in abundance in young children. Play can facilitate opportunities for children to control anxiety and develop problem-solving, social, cognitive, emotional, physical and mindfulness skills (Brown, 2016; Crowley, 2014; Davies, 2011; Eberle, 2014; Topham & Vanfleet, 2011; Zigler & Bishop-Josef, 2006).

In addition, several authors have outlined the positive influence that play has on adults' social, physical and emotional health. (Brown & Vaughan, 2009; Elkind, 2007; Tonkin & Whitaker, 2016). Although the demands and distractions of adult life can limit opportunities for playful interactions, adults also engage in playful activities which range from art and sport-based activities to humorous engagement with others and playful interactions with children. Play has been identified as a lifespan activity that can also facilitate engagement with others and support ongoing cognitive development and well-being (Göncü & Perone, 2005; Tonkin & Whitaker, 2016).

## Play – bringing parents and children together

In addition to facilitating opportunities for parents/caregivers to enhance their well-being, play can help parents/caregivers to engage with and understand their child's thoughts, feelings, needs and experiences (Scharfe, 2011; Sutton-Smith, 1994; Topham & Vanfleet, 2011). Several authors outline how enjoyable playful interactions between parents and children can help parents to fully engage with their children, help children to feel loved and are essential for strengthening parent-child bonds and familial relationships (Davies, 2011; Elkind, 2007; Ginsberg, 2007; Roopnarine & Davidson, 2015; Shi, 2003). Urie Bronfenbrenner's (2005) Bioecological Theory of Human Development describes how children can become agents of their own development by experiencing enduring playful and more complex interactions within their familial and social environments. Involving parents and children together in playful arts activities/programmes can help each to develop mindfulness, self-esteem and emotional expression; and positively impact children's development and strengthen parent-child relationships (Coholic, 2010, 2011; Hansen, 2008; Harris, 2011)

## Nature play

Nature provides abundant opportunities for parents and children to engage in playful activities together and to enhance their well-being and development. An Australian qualitative, formative evaluation on the community-owned and Forest School-inspired Bush Kinder pilot programme demonstrated that supported nature play positively impacted children and volunteer parents by providing them with a fun and peaceful experience and increasing their connections in nature (Elliott & Chancellor, 2014). Other studies have demonstrated reduced Attention Deficit Hyperactivity Disorder (ADHD) symptoms in children who engage in outdoor activities (Kuo & Taylor, 2004) and during child-centred nature-based play therapy (Swank & Shin, 2015; Swank, Shin, Cabrita, Cheung, & Rivers, 2015). 'Forest Schools' nature and play-based programmes have also demonstrated positive impacts on children's resilience, confidence, social, physical and communication skills (Elliott & Chancellor, 2014; Fjørtoft, 2001; O'Brien & Murray, 2007). O'Brien and Murray's (2007) study demonstrated how children's participation had raised parental

awareness of the benefits of spending time in nature and increased familial outings outside of the programme.

## Nature connections

There is a substantial body of evidence that demonstrates how spending time in and connecting with nature contributes to physical and emotional wellness across cultures (Gomes, 2013; Kingsley, Townsend, Henderson-Wilson, & Bolam, 2013; Louv, 2008; McCurdy, Winterbottom, Mehta, & Roberts, 2010; Plotkin, 2008; Sharley, 2012). For many Indigenous Australians, nature is central to well-being, spirituality and sense of belonging (Bland, Renouf, & Tullgren, 2009; Kingsley et al., 2013). Kingsley et al.'s (2013) qualitative study of Indigenous perspectives demonstrates how Western society can learn from Indigenous Australian's connection to nature and their holistic models of well-being. This is congruent with Sharley (2012), who draws upon Maori indigenous perspectives to highlight the importance of an individual's spiritual connection with the land for healthy development and identity. Sharley, along with Jack (2010), describes how children need to experience place attachment, which includes positive experiences within their physical environment and interpersonal connections in order to develop their identity, sense of belonging and well-being. Sandberg's (2003) Swedish study echoed these findings by demonstrating how the majority of adult play memories featured natural environments, suggesting that place was an important aspect of shaping their identities.

Nature connectedness has also been positively associated with stress reduction. McCurdy et al. (2010) study demonstrated how nature connectedness reduced parents' and children's stress. It has also been linked with mindfulness which can simultaneously influence physiological and psychological well-being including strengthening self-awareness, emotional regulation, responsiveness, relationships and well-being (Erwin & Robinson, 2016; Garvis & Pendergast, 2014; Howell, Dopko, Passmore, & Buro, 2011; Siegel, 2007a, 2007b; Snyder, Shapiro, & Treleaven, 2012). Mindfulness is a state of awareness that evolves from focusing and tuning into the present moment without judgement (Garvis & Pendergast, 2014; Kidsmatter, 2016; Snyder et al., 2012). Mindfulness practice can strengthen self-awareness, emotional regulation and responsiveness which can assist with relationships and well-being (Erwin & Robinson, 2016; Garvis & Pendergast, 2014; Siegel, 2007a, 2007b; Snyder et al., 2012; Van der Oord, Bögels, & Peijnenburg, 2012). The Australian Government Department of Education, Employment and Workplace Relations have embedded nature connectedness including mindfulness into the Early Years Learning Framework for Australia (DEEWR, 2009).

## Supported play programmes

Although not focused on nature play, research studies of parents' perceptions of supported play programmes have demonstrated positive outcomes in relation to increased social connectedness and support, reduced isolation, increased parental confidence (Jackson, 2013), increased social and emotional development (Terrett, White, & Spreckley, 2012; Weis, 2006) and more positive parent-child and familial relationships (Mackenzie & Hamlett, 2005; Weis, 2006). Supported play programmes are also now being conducted within school settings, with recent studies in Australia demonstrating positive results in relation to enhancing developmental skills (Knaus, Warren, & Blaxell, 2016) and increasing family and peer connections and sense of belonging (Knaus & Warren, 2015; McLean, Edwards, Colliver, & Schaper, 2014).

While it is clear that there is strong evidence to support nature play programmes' efficacy for improving well-being for school-aged children, there is little documented in the literature about supported nature play programmes designed for both adults and children together which explore the benefits for both adults and children. Also the use of therapy animals is well supported (Fine, 2010; Gee, 2011; Odendaal, 2000; Pavlides, 2008; Prothmann & Fine, 2011; Tedeschi, Fitchett, & Molitor, 2005; Tedeschi, Garrity, & Garrity, 2009); however, there are few studies which have explored

incorporating a therapy dog into a nature play setting for both adults and children which has also explored the benefits for all participants.

### Supported nature play programme in a school setting

The Bluebird Foundation in regional Victoria developed the Tiny Taters supported play programme which has incorporated nature-play sessions, including a therapy dog, for adults and their young children from birth to five years of age. It seeks to support parent/caregiver and child development including familial mental and physical health and well-being through encouragement of nature play; positive parent, caregiver, family, community, nature and animal connections within a school setting. The Bluebird Foundation provides quality, affordable and creative play-based programmes for all families. In 2014, they developed a holistic community development programme in collaboration with a regional primary school in Victoria. This programme was designed to 'develop strong and creative family connections and support mental and physical health and well-being amongst families and the community' (Bluebird Foundation, 2016). Tiny Taters is part of this programme and provides supported play group sessions in music and in nature (including a therapy dog) within a primary school setting. The programme is free, making it accessible to all families. However, it had not been formally evaluated.

### Evaluation aim

The aim of this study, on which this paper reports, was to conduct a formative process evaluation on this supported play programme to obtain in-depth parental/caregiver perceptions of the programme's influence on their child's and their own relationships, including the relationship between themselves and their child within the programme setting.

The research questions were:

- (1) How do the parents/caregivers perceive the programme's influence on their relationships with their children?
- (2) How do the parents/caregivers perceive the programme's influence on their own and their children's relationships with programme peers, facilitators and the school community?
- (3) How do the parents/caregivers perceive the programme's influence on their own and their children's relationships/connections with nature?

### Theoretical framework

A contextualist framework guided this study, as it aligned with the research aim and questions which sought to obtain a rich understanding of participant relationships within the programme context from unique and multiple perspectives (Tebes as cited in Braun & Clarke, 2013; Jaeger & Rosnow, 1988; Madill, Jordan, & Shirley, 2000). Contextualism acknowledges that participant perceptions are socially constructed and the researcher's interpretation of these perceptions is shaped somewhat by the researcher's position and theoretical assumptions rendering them local, situated and provisional (Tebes as cited in Braun & Clarke, 2013; Jaeger & Rosnow, 1988; Madill et al., 2000). It also considers the participant perceptions to be a true account of how they perceived the programme within the current context (Tebes as cited in Braun & Clarke, 2013; Jaeger & Rosnow, 1988; Madill et al., 2000).

In addition to a Contextualist framework, assumptions underpinning the study aligned with Bronfenbrenner's Bioecological Theory of Human Development (2005), Child and Family-Centred practices, and Anti-oppressive and Strengths-Based Practice Theories. Thus, the focus of the study was on participants' strengths, adopting a dynamic and interconnected approach to their relationships

with family and community, and involved collaborating with them to enable them to define what they experienced as useful and beneficial as a result of the programme.

## Methodological approach

A qualitative approach was used to ensure that an understanding of the participants' unique perceptions of the programme's influence on their relationships was gained (Alston & Bowles, 2012). Semi-structured interviews helped to elicit in-depth qualitative methodology and to help elicit in-depth and detailed verbal data on participant perceptions (Alston & Bowles, 2012). Interviews were conducted via telephone due to the student researcher's and participants' locality which helped to remove visual distractions. This also enabled participants to talk freely in their choice of location (Alston & Bowles, 2012; Braun & Clarke, 2013). As the aim was to obtain participant perceptions, purposive sampling, a type of non-probability sampling, was used for this study to ensure that current and/or past programme participants were recruited (Alston & Bowles, 2012). Participants were caregivers of the child/children attending the nature play sessions and were current and/or past participants of the nature play programme. Participants were between 32 and 38 years of age and all identified as mothers of the children in the programme under their care. There were 4 female and 7 male children and their ages ranged from 2½ weeks to 5 years of age. All participants identified as white Australian.

Member checking, the process by which participants are given an opportunity to check and verify preliminary findings, was used to ensure reliability (Royce et al., 2010). Each participant was given an opportunity to review and edit his/her own transcripts. Four participants chose not to review their interview transcripts and two participants reviewed their transcripts and made no changes.

## Data analysis

To complement the qualitative semi-structured interviews, Experiential Thematic Analysis as outlined in Braun and Clarke (2013) was used to analyse the interview transcripts. Each line was analysed to obtain participants' unique experiences and perceptions of the programme. Complete coding was utilized to ensure identification and coding of all data relevant to the research aim and questions (Braun & Clarke, 2013). Codes also reflected the semantic content of the data to ensure that the participant's perceptions and voice were acknowledged (Braun & Clarke, 2013).

All recurring themes and key features identified in the data were signposted with memos and colour coded with a corresponding code that reflected the chosen data (Alston & Bowles, 2012). The codes were then documented in the header section of the interview transcript using Microsoft Word. These codes and corresponding data were later transferred to a major theme file where they were linked to overarching and sub-themes with the use of mind maps and careful analysis. This process involved continually checking the interview transcripts and scanning for similarities and differences amongst the data to ensure that the coding and themes continually reflected the participant's perceptions and experience of the nature sessions and were relevant to the research aim and questions.

## Results

The findings of this evaluation demonstrated how the nature sessions provided these families with ongoing enriched connections with nature and with each other while simultaneously providing them with opportunities to enhance their development and well-being. The findings are reflected in three major categories, which are: enhancing interpersonal relationships, connections to nature and fostering emotional wellness.

## Enhancing interpersonal relationships

Parents and children were encouraged and supported to learn new play skills together which had a positive relational effect on family members both within and outside of the programme context. Relationships were also enhanced across several social systems.

Participants described the positive influence the nature sessions had on their relationships with their children:

They have learnt from it and they have taken things from the nature play ... and I've seen them ... replicate it and do it at home or when we're out, ... it gives us a little bit more ... ideas on what to do outside ... that I haven't thought of ... then from there that's been really beneficial for the whole family. (Hayley)

In the sessions, it's great to ... really connect with them at that time ... and they ... love it, ... we can debrief about it later and bring things up later in the day ... so maybe just more connected really, maybe it's made our relationship better that way because we do more of it, so it's like that slowing down and outside, I think it's been really beneficial for the kids and I, ... we're spending a lot more time together looking at things. (Hayley)

We take our time to come home ... after nature play as we walk ... home ... and it's just really good, she likes to point things out so we get to share a lot more together ... than what we were doing, having that special time put aside for it. (Sara)

Participants described the positive influence on sibling relationships at home beyond the programme:

He'll come home and show ... his older sister, so ... he feels good about what he's done and he wants to share. (Hayley)

... I think sibling wise it's ... definitely increased, ... all they have is nature and then themselves, ... their making games ... between themselves within the nature and getting each other's help to build forts ... whereas if they're at home or at the play centre ... they sort of run off and do their own thing. (Esta)

Parent and child relationships with the facilitators were enhanced. Participants described how they valued the facilitators' roles and the interactions between them and the group:

They're very ... welcoming, ... kind, good souls, easy to ... get along with, friendly, they're great around the kids, ... trustworthy with children ... , some of them are mums and they just get it, very supportive, ... inclusive of our little family. (Rachel)

I have a lot of respect for ... the facilitators ... it's ... nice to see the way that they interact and get down and take time for children. (Sara)

Through facilitator role modelling of child-led play and calm behaviour, parents explained how they learnt how to enable their children to take the lead in their own play experiences.

The kids feel like they're in control, ... we're not over organising and controlling the experience, ... us adults, the instructors are really calm ... and very easy going but still very ... willing to play with the ideas of the kids and let ... the kids still control the idea, ... I think its instructor led but it feels like its child-led. (Esta)

Participants acknowledged and valued their development of peer connections:

We talk about all the things that parents talk about, ... a lot of my friends don't have children so it's nice to now have some ... social connections with people who have children the same age. (Sara)

Participants acknowledged their children's interactions with their peers which appeared dependent on the child's developmental age:

They're only 1 and 3 so they're kind of, that parallel play stage but they ... enjoy it, like our 3 year old, he seems to ... have a friend every week that he likes to play with, they seem to be on the same level and so that's been good for him, I suppose we ... know a few other local children from going along, we do have a friend who goes along. (Emily)

One participant, whose child was diagnosed with a neurodevelopmental condition after attending the nature sessions, was appreciative of her child's adult connections within the group.

He relates really well to adults, ... telling them stories, ... so all the adults were really, really nice and they just listened to him. (Esta)

This comment highlights the programme's capacity for collaboration and inclusion and is reflective of an anti-oppressive practice.

The school community provided some participants with a sense of inclusion and belonging which demonstrates anti-oppressive practice including ecological systems perspectives.

That school seems to be very ... welcoming and inclusive, kind, friendly ... we felt like we were part of ... that school community. (Rachel)

We've made some friends with a couple of the other parents that have got some kids in the school already ... , also there's two kids that will then follow through to school with [child's name]. (Sara)

These participant comments highlight the nature sessions' positive influence on parent and child relationships across varying social systems, both within and outside of the programme context. The nature sessions also appeared to foster a sense of belonging and inclusion amongst families.

## Connections to nature

The nature sessions instilled awareness in all participants about the value of spending time in nature together with their children. This awareness remained after participation in the sessions and subsequently influenced future play beyond the programme which is reflected in Annie and Emily's experiences.

It provides that incentive and encouragement to be outside regardless of the weather and ... to be interacting intentionally with nature ... , I think that it probably has broader reaching ... across the rest of our lives, ... the nature movement is big at the moment and we are participating in that ... fully as a family and the nature of the play session ... is ... a really strong influence ... for us in that direction. (Annie)

It's made me more aware of how urban we are and perhaps that we need ... a bit more interaction with nature, ... it's ... more of an awareness of how beneficial it is for them to get dirty and climb trees and just to try and make sure we do have a bit of that every week, just with me and my children ... , that kind of ... nature play together. (Emily)

Parental awareness of the benefits of spending more time together in nature and increased familial interactions in nature is indicative of the nature sessions' influence on enhancing familial relationships outside of the programme and capacity to potentially impact children across their life course.

Esta described how nature and the therapy dog helped her child, with an undiagnosed neurodevelopmental condition at the time, manage socially within the group.

The dog ... and the nature sort of became his friends versus requiring friends from ... the group which is helpful for him as well cause he doesn't make friends very well. (Esta)

These participant comments highlight the social and emotional benefits to parents and children of including a therapy dog in the nature sessions. Parents and children were able to develop a trusting relationship with the dog while simultaneously enhancing their well-being.

The therapy dog's presence in the nature sessions was highly regarded by all participants. Parents valued the gentle nature of the therapy dog which appeared to instil a sense of calm, trust, enjoyment and connection amongst parents and their children. The following participants highlight this experience.

She's a really beautiful gentle dog ... , the first session I was wary because ... you don't know what the dogs like ... but she's really calm and chilled out so kids do go up to her, they will pat her ... , I've seen her learn to be

gentle with the dog ... she calms down around her, they can kind of interrelate, ... the dog's just another person or creature there as a part of it, so yeah it's benefitted the kids definitely. (Hayley)

The kids really enjoy ... having the dog and it ... just added an ... additional component that made it more special and more fun for the kids to go, ... it doesn't add any stress and it's actually just calming to have ... this unconditional animal that's with you. (Esta)

## Fostering emotional wellness

### *Mindful connection*

Four participants described how they and their children learnt from the facilitators how to mindfully connect with nature during the nature sessions. They also continued this practice outside of the sessions which is highlighted in the following participant comments.

If we're just enjoying a walk down the street ... I try to point out to her what we are ... looking at ... I'm a bit more in tune with what we're observing as we are going on our walks, ... being in a program like that makes you ... appreciate things or nature or the environment or other people, other families, other children ... , it does help you to realize that the little things are important. (Rachel)

It's actually made my daughter slow down a little bit, she's starting to notice more things rather than run through places, she's ... spending the time pointing things out to other children and ... that's been really good ... she's more willing to stop and listen as well, ... I find she's listening better. (Sara)

Ben and I interact a bit more about the things that we see and find and discover on those walks perhaps than we did before. (Annie)

Facilitator modelling of mindful connection in nature helped parents and children to learn how to mindfully connect in nature themselves, both within and outside of the programme. It also improved important skills such as listening.

One participant also valued the non-judgemental support provided by the facilitators in relation to her child with an undiagnosed neurodevelopmental condition.

The facilitators they ... didn't react to behaviours, ... there was no judgement ... so it was just so nice not to have to worry about others being disrupted by some of the things that he was doing, ... and I think that's what sort of gave you the platform to be ... more relaxed and less on edge and taking in the experience a bit more, ... it was a great program, I'd really highly recommend it for any family, I don't have to walk around and watch them every minute, I can just sort of relax ... and enjoy the group. (Esta)

This sense of parental freedom and well-being enabled parents to enjoy the group as a whole including the social aspects.

### *Learning parenting skills*

Esta also felt that the programme facilitators provided a parental modelling experience that had a positive impact on herself, her parenting practice and her children.

The instructors, they're so calm and peaceful with kids that it is a really good demonstration of how ... to keep ... your own kids ... calm and peaceful as well ... so it's just a good demonstration of a way of parenting, ... it's ... doing something that we enjoy so it's a demonstration of how you can make that experience on your own as well, ... he can make things really, really challenging so just trying to bring back that peace and that tranquility that they instil, I think it's really helpful to be reminded of that. (Esta)

Esta's comments indicate that facilitator role modelling in the nature sessions is an integral aspect of the programme and influential in enhancing familial relationships and well-being.

### *Calming effect*

Participation in the nature sessions helped to facilitate a sense of calm and well-being for four participants and their children. This experience is reflected in Esta's and Hayley's comments.

When I'm trying to get them into the car ... they're all sort of riled up and when you get them back into the car their more relaxed and calm ... and we can have some quiet time when we got back to the house which is nice. (Esta)

Relaxes you, ... maybe it brings you more in touch with ... nature, animals ... it's just more calming. (Hayley)

Hayley articulated how her experience and sense of well-being gained from participation in the nature sessions and subsequent family time in nature had a positive overarching effect on her child. She also again highlighted how this positively impacted all family members.

Being outdoors regularly ... and more often is calming for me and makes me feel ... healthier, happier, ... that's been really beneficial for the whole family. (Hayley)

## Discussion

While this present study was small and hence not reflective of the wider population, it does provide a rich and detailed account of these parents' perceptions. Overall, the results of this study highlight the programme's emphasis on collaborating with families and providing them with ongoing enriched connections with nature and with each other which also positively influenced their well-being and development. These benefits occurred both within and beyond the programme context and demonstrated how nurturing adults within the programme and school context (microsystem) positively influenced families' relational development and well-being (see for example, Bronfenbrenner, 2005).

Participants' sense of belonging and inclusion were enhanced through the development of peer connections within the programme and school community. These findings are consistent with other supported play programmes within school settings which demonstrated similar findings (Knaus & Warren, 2015; McLean et al., 2014) and can add to this body of knowledge from a supported nature play perspective.

The nature sessions also provided opportunities for parents to engage and connect with their children and enjoy their interactions during and beyond the nature sessions. This was initiated through increased parental awareness of the value of spending time together in nature with their children which resulted in more quality and enjoyable time together with their children outside of the nature sessions. Time in nature had a calming effect and parents and children were more motivated to engage in it after the programme.

Other studies have demonstrated similar findings. Weis's (2006) Australian quantitative and qualitative case study on parent perceptions of the community development 'Parent-Child Mother Goose' (PCMG) supported, music, play-based programme for parents and young children demonstrated increased, enjoyable, parent-child dyad music-play interactions and increased family functioning outside of the programme context. Mackenzie and Hamlett's (2005) qualitative programme evaluation on parent perceptions of another community development, supported music, play-based programme for parents and young children 'Music Together' demonstrated an increase in familial connection and enjoyable music-play interactions within families outside of the programme. However, these findings were not based on nature play programmes and did not focus on familial relationships with nature. Elliott and Chancellor's (2014) Australian formative qualitative evaluation did focus on a Bush Kinder pilot programme and described how children played creatively with natural objects beyond the programme and parents displayed greater interest in exploring activities in nature like the current study. However, it did not identify increased familial interactions in nature or how the programme positively influenced family members who did not participate in the programme like the current study. The current study therefore adds to the literature on nature play because it was in a school setting and covered familial, parent-child and nature interactions.

The way in which the programme helped to develop the skill of mindfulness in parents and children provided opportunities for both groups to strengthen their emotional regulation skills which enabled them to enhance their relationships. Shahmoon-Shanok and Carlton Stevenson's (2015) case studies echoed the current study's findings by demonstrating how educators and mental

health practitioners used mindfulness practice themselves to provide a calm state in which parents learnt how to regulate their emotions through mindfulness practice which generated a peaceful state in their children.

The nature sessions' inclusion of the therapy dog also helped to elicit a calming response and overall sense of well-being amongst parents and children. This is consistent with numerous studies which have also demonstrated how dogs can have a calming and joyful effect on adults and children (Fine, 2010; Gee, 2011; Odendaal, 2000; Pavlides, 2008; Tedeschi et al., 2005, 2009). In addition to increased well-being, the current study also demonstrated how dogs can evoke feelings of trust and safety which are both essential relational skills. Similar findings have also been demonstrated in other studies (Kotrschal & Ortbauer, 2003; Prothmann & Fine, 2011).

Although other studies have demonstrated enhanced social connections through human and animal interactions (Anderson & Olson, 2006; Tedeschi et al., 2009), it is not known whether the dog alone helped to improve social interactions within the group in the current study. However, one parent, whose child was diagnosed with a neurodevelopmental condition, valued the way in which her child considered nature and the therapy dog as friends. This enabled her child to manage socially within the group when peer interactions were usually challenging. Few of the available studies on animal assisted programmes or nature play have evaluated the use of therapy dogs within a supported nature play programme with a non-clinical sample of parents and young children, suggesting that this study can contribute to the current body of knowledge pertaining to nature play.

Overall, these findings demonstrate and put into practice Bronfenbrenner's theory of how nurturing relationships between a child's immediate environment, for instance, the facilitators and parents, can positively influence and enhance parents and children's relationships and well-being (Bronfenbrenner, 2005). The way in which parents were encouraged to use their existing relational strengths including their capacity to regulate their emotions enabled them to enhance their own parent-child and familial relationships, demonstrating strengths-based practice (Egan & Papadopoulos, 2016).

The programme's emphasis on strengthening relationships across various social systems including human-animal and human-nature connections and inclusion of children from birth to five years of age provides an alternative to supported playgroups that target specific age categories such as parent-toddler groups (Barros, Kitson, & Midgley, 2008; Jackson, 2013; Navridi, Navridis, & Midgley, 2012) and educational/therapeutic interventions that focus solely on caregiver and child relationships (Vu, Hustedt, Pinder, & Han, 2015).

## Limitations

The qualitative methodology used within this study was efficient in recruiting participants due to the limited timeframe of the study; however, it did not allow for representation of the wider population. This research has not been used to make generalizations of the wider population because of its small size, focus on obtaining in-depth parental perceptions and Contextualist epistemology (Royce, Thyer & Padgett, 2010). The conclusions are therefore seen as true only for these participants of this study.

## Future research

Further qualitative studies involving fathers, grandparents, kinship members and foster parents might provide beneficial viewpoints. Children's perceptions of the influence of the programme on their relationships might also generate valuable data. A programme evaluation focused on parents' perceptions of the influence of the nature sessions on their children's social, cognitive and emotional development might provide more detailed data on the programme's effectiveness in enhancing development in these areas. Research conducted on participants' relationships from non-Western cultures might also provide greater depth of information. For instance, indigenous caregivers might provide valuable data on the programme's influence on their children's kinship relationships and spiritual connection with nature (Yeo, 2003).

The facilitators were also an integral part of the programme's influence on familial relationships, development and well-being. Therefore, a study that explores the facilitator's role might help to extend on Jackson's (2013) qualitative study of the facilitators role in supported playgroups from a nature-play perspective in a school setting to help inform future programme delivery. A longitudinal programme evaluation might help to gauge the programme's influence on relationships over time and an experimental design would provide more objective data (Royce et al., 2010).

## Conclusion

This study has demonstrated that this supported nature play programme was not only fun for these parents and children. It also has the capacity to enrich families with ongoing connections with nature and with each other while simultaneously providing them with opportunities to enhance their development and well-being. This study can therefore contribute to existing literature on supported play programmes for families with young children because of its unique emphasis on building families' capacities to enhance their own interpersonal, human–nature and human–animal relationships; well-being and development within and beyond the programme context.

## Acknowledgements

We acknowledge the facilitators for providing this opportunity to evaluate their programme, the participants for generously donating their time and Deakin University's writing grant.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Notes on contributors

**Tanya Ward** is a social work Honours graduate from Deakin University with research interest in nature-assisted parent–child play.

**Sophie Goldingay** is a senior lecturer at Deakin University. Her research interests include social skill development for neurodiverse adolescents and equity in higher education.

**Judi Parson** is a paediatric qualified Registered Nurse, Play Therapist, Lecturer in Mental Health – Child Play Therapy at Deakin University.

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