

## Who is John the Snail and When Can We Meet Him?: Parent Perspectives on Children's Engagement in a Forest Nature Program

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### Abstract

**This study explores parent perspectives on how time spent in** nature and natural settings, including their own experiences with the natural world, might influence their child's play, learning and holistic development and connections in and to the natural world. Through a survey and focus group, parents identified benefits of participation in a forest nature program including increased time outdoors, play confidence, risk-taking opportunities, improved health, wellness and the developing seeds of environmental stewardship and reciprocity. Parents reported that benefits far outweighed risks related to weather, insects and injuries. The study's findings strongly support The Ontario Ministry of Education's pedagogical guidelines for the early years and national and global recommendations that advocate for active play in nature and outdoors, with its risks, as essential for healthy child development. The research contributes to the expanding literature and efforts on how best to collectively support and advocate for accessible land-based programs in the early years.

### Keywords

forest nature program, early childhood, parents, families, preschoolers, risky play

### Article History

Received 15 July 2018

Received in revised form 16 July 2019

Accepted 16 December 2019

Available online 11 June 2020

## INTRODUCTION

### The geography of play and learning

Two 150-year old crack willow trees surrounded by 250 acres of Carolinian forest, one of Canada's most biologically diverse ecosystems (Humber Arboretum, n.d.) are the heart of The Willows, a forest nature program for children aged 2.5 to 4 years at the Child Development Centre at Humber College in Toronto. The Willows is located within the traditional and treaty lands of the Mississaugas of the Credit. Known as Adoobiigok, the "Place of the Black Alders" in Michi Saagiig language, the region is uniquely situated along Humber River watershed, which historically provided an integral connection for Anishinaabe, Haudenosaunee, and Wendat peoples between the Ontario Lakeshore and the Lake Simcoe/ Georgian Bay regions. Now home to people of numerous nations, Adoobiigok continues to provide a vital source of interconnection for all. (Humber College, n.d.). The lands

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### Author Note

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\***Original Research Articles** are papers that report on original empirical research with a focus on teaching and learning. Papers may be qualitative or quantitative and include an Abstract, Introduction, Method, Results, Discussion, and Reference section, as well as any tables and/or figures.

(see Figure 1a) afford opportunities for children to walk with the land, climb trees, watch herons, see baby robins and learn their Ojibwe name, opichi (L. Short, personal communication, March 13, 2018), feed chickadees, follow squirrels, investigate insects and watch turtles sunning themselves on logs. On hands and knees, children track the slow movements of “John” the snail (see Figure 1b) on the forest trail, embrace weather and feel rain-soaked moss, wonder about what is happening inside the willow tree, offer sticks for the tree to eat and are drawn to investigate the inside of the same storied tree cracked wide-open during a summer wind storm.



Figure 1. a) Castro-Zimanyi, G. (2018) [painting]. The Adventure map. Adapted from the Humber Arboretum trail map, b) John the Snail

Launched in 2016, *The Willows* is a collaborative initiative of the Early Childhood Education (ECE) department within the Faculty of Health Sciences and Wellness (FHSW), the Humber Arboretum and Centre for Urban Ecology, and the Humber Child Development Centre (CDC), with support from the Indigenous Education & Engagement (IEE) department at Humber (Zimanyi & Beard, 2016).

Building on institutional health and wellness and Indigenous mandates (Humber College, 2016; 2018), and inspired by Forest School Canada’s mission to have every child playing and learning in natural and wild spaces (Forest School Canada, 2014), *The Willows* provides provides multiple learning opportunities. As shown in Figure 2, children are exposed to regular and repeated access to the same natural setting; land-based,

emergent and inquiry-based learning; physical activity, age-appropriate risk-taking through opportunities for challenge and adventure and increased strategies for mental health and wellness; developing social, emotional, language, communication and storytelling skills; increased knowledge about local forests, ponds, the Humber river, creatures, animals, and biodiversity; traditional Indigenous teachings (the Four Directions teachings), engagement with the elements and natural life cycles; way-finding and mapping; and use of simple tools.

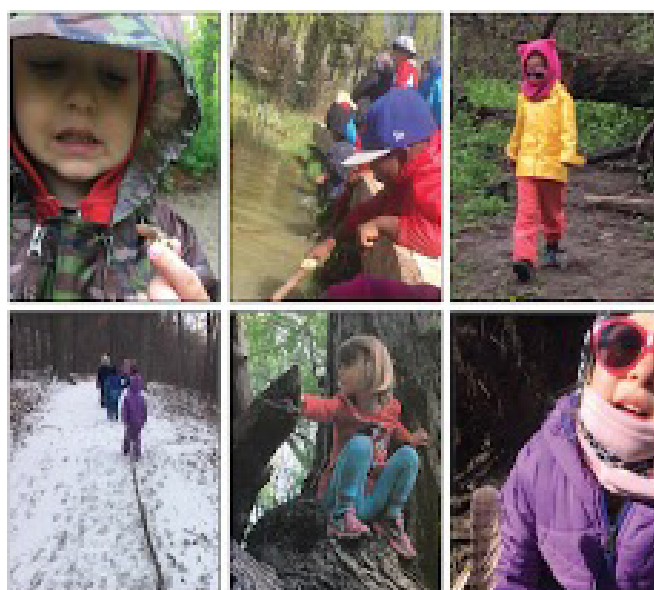


Figure 2. Building relationships in all seasons.

### Greening play and learning: national and global movements

The implementation of *The Willows* forest nature program is in response to an increasing body of cross-disciplinary research (Chawla, 2015; Ebbeling, Pawlak & Ludwig, 2002; Elliot, 2014; Elliot & Krusekopf, 2017; Gill, 2014; Harwood & Collier, 2017; Nature Canada, n.d.; Louv, R., 2008; Sobel, 2008; Strife & Downey, 2009; Torkar & Rejc, 2017; Tremblay et al., 2015) that suggests young children’s regular and repeated “access to active play in nature and outdoors - with its risk - is essential for healthy child development” (Tremblay et al., 2015, p.6476). Increased physical activity through play time contributes to overall physical and mental health

and wellbeing (World Health Organization, 2019), better sleep and mood (ParticipACTION, 2018), resiliency and self confidence (Brussoni et al., 2015) and social emotional development (Tremblay et al., 2015).

Nature Canada's, *Screen Time vs Green Time: The Health Impacts of Too Much Screen Time* (n.d.) highlights, "Time in nature reduces stress, improves immune function and exposure to nature is correlated with improved well-being and a stronger sense of belonging [...] Spending time in nature is good for our mind, body and spirit, and will help evoke a child's natural curiosity, sense of wonder, and a lifelong love of nature."

Additionally, nature programs nurture and deepen connections and relationships with land and place, animals, plants, rivers, weather, and each other (Common Worlds Research Collective, 2015), knowledge of biodiversity (Anderson, Comay & Chiarotto, 2017) and support the development of environmental stewardship (Forest School Canada, 2014).

### **Lost experiences, lost words**

Despite extensive and growing evidence on the benefits of active outdoor play and learning in nature, there is an "increasing and significant global decline in the quality and quantity of children's daily direct sensory experience of the natural world" (Henstra, 2016, p.2). Expanding urbanization, loss of ecosystems (Henstra, 2016) and inequitable access to nature and green spaces (Strife & Downey, 2009) contribute to the decline in children's connections to the natural world.

The lack of emphasis on the natural world in early learning and education (Henstra, 2016) is linked to a broader separation of nature and culture (Taylor, 2013) and the dominance of Euro-Western pedagogies and practice over Indigenous worldviews "that place humans as part of nature, in reciprocal relationship with other animals, plants, rocks, water, and ecosystems" (James, Dragon-Smith & Lahey, 2019, para. 4). The words 'willow,' 'acorn,' 'heron,' 'violet,' 'dandelion,' 'wren' (Macfarlane & Morris, 2018)—part of seasonal adventures in the Humber Arboretum—are among more than 50 nature-related words

the Oxford Junior Dictionary has removed since 2007, claiming they are not being used, in place of words like 'broadband,' 'attachment' and 'voicemail.' This represents "a moment in lexicographic analysis which speaks of a much bigger moment in culture, where childhood is becoming virtualized, interiorized...and nature is slipping from childhood, as it is slipping from all our lives and our landscapes" (Macfarlane, 2018).

Risky or more adventurous outdoor play provides opportunities for challenge, testing limits, exploring boundaries and learning about injury risk (Brussoni, 2015; Sandseter, 2007) and is linked to better children's health and development (Gray et al., 2015). However, parental fears of child safety (Tremblay et al., 2015), injury prevention initiatives (Brussoni et al., 2015) and regulations and standards designed for child safety may hinder risky play, despite policies that promote playful learning in early childhood (Bertrand & McCuaig, 2018)..

In addition, gaps in formal education and professional development for early learning teachers highlight the need for pre and in-service training on outdoor play that includes the integration of theory, pedagogy and practice (Dietze & Kashin, 2019; Lawson Foundation, 2019).

### **Engaging families**

The call to Canadian society to promote more active, self-directed and unstructured play outdoors (Canadian Public Health Association, 2019) and in nature echoes a growing Canadian and global movement to connect children, families and communities to the natural world (Child and Nature Alliance, n.d; Henstra, 2016; World Health Organization, 2010). In the Canadian *Position Statement on Active Outdoor Play*, Tremblay et al. (2015) recommend multidisciplinary "multi-pronged actions for parents, educators, media and governments to increase children's opportunities for self-directed play outdoors in all settings—at home, at school, in childcare, the community and nature" (p. 6476). Nature Canada (2018) similarly recommends families take children outside, join nature clubs, explore trails or simply collect nature items, while Pacini-Ketchabaw and Khattar (2018) suggest

inviting families to experience the outdoors, slow down, explore and be curious with their children. Dietze and Kashin (2019) propose more research is needed that “examines how leaders of early learning environments position outdoor play in their policies, practices, staff professional development, family orientation, and family education” (para.11).

While there is limited research on parents’ experiences with forest nature programs, Dumolon-Lauziere (2016) and Bohling, Saarela, and Miller (2012) explored and identified influences, motivations and barriers parents face and how to improve nature exposure programming, access to programs and increase awareness about the broad-based benefits of nature programs.

Dumolon-Lauziere (2016) used a case study approach to understand what motivated or deterred parents to enrol their children in a forest school program and what benefits parents perceived their child would receive when exposed to nature through this program. Participants completed a survey with both closed- and open-ended questions. The survey revealed that children’s outdoor play was predominantly in backyards and nearby parks followed by some time in forest settings.

Parents’ own childhood experiences and engagement in the outdoors (often more rural than their own children) influenced the amount of time their own children played outdoors. 40% of parents expressed their children did not spend enough time in nature, in part due to lack of time to spend in nature as part of family time. Other factors include a lack of access to outdoor programs and few daycares and schools offering nature-based play and learning (Dumolon-Lauziere, 2016).

Parents expressed their children’s comfort level outdoors as a benefit (which could extend to parents feeling more at ease with their children’s outdoor play), as well as participation in unstructured play, increased relationship to nature and knowledge of outdoor skills and environmental education. Safety was mentioned as a concern in terms of trusting educators to understand risk and varying levels of ability to manage risk.

Bohling, Saarela, and Miller’s (2012) case study explored parents’ understanding and support of their children’s learning in a nature-based program and outdoor settings at home. Through parent-documented observations (mini nature notes), nature stories (year-end summaries), visual documentation as well as parent focus group interviews, parents reported a broad range of health and learning benefits. They also praised the simplicity and low-cost aspect of the outdoor environment and experiences, and that the benefits were much more significant than the possible risks or inconvenience of going outside.

In addition, the study examined ways program components (curriculum, environment, relationships with staff, workshops and direct engagement in the program) supported parents’ understanding of their children’s learning outdoors.

### **Purpose of the study**

Although the work of Dumolon-Lauziere (2016) and Bohling, Saarela and Miller (2012) provides a starting point, there remains very little research on the benefits and limitations of forest schools, particularly in a Canadian context. Moreover, this research tends to focus on the benefits to children, but children can’t benefit from these programs if they aren’t enrolled, and a child’s enrollment is dependent on the parent’s decision. Therefore, the research aims of the current study were to: 1) better understand parent perspectives on how time spent in nature and natural settings, including their own experiences with the natural world, might influence their child’s play, learning and holistic development and connections in and to the natural world; and 2) contribute to the literature and advocacy efforts on how best to support and advocate for responsive, inclusive land-based programs in the early years.

### **Research Questions**

The research explored three questions:

- 1) What were parents’ own childhood experiences playing outside and in nature?
- 2) What benefits do parents recognize when they expose their children to nature through the forest nature program at the Humber Child Development Centre?

- 3) What are the barriers that may prevent parents from exposing their children to nature?

## METHOD

In order better understand parent perspectives on how time spent in nature and natural settings, including their own experiences with the natural world, might influence their child's learning experience, a mixed method was employed. Parents were provided with a questionnaire including both closed and open-ended questions, and participated in a semi-structured focus group (see Appendix A).

Prior to the collection of data and the focus group, this study received approval from the institution's Research Ethics Board (REB).

## Participants

32 families whose children participate in the forest nature program (2 preschool rooms of 16 children each, ages 2.5 to 3.9 years old) were invited to be part of the study. Parents received the information letter, informed consent forms, and questionnaires on paper from the Early Childhood Educators (ECEs) in each classroom.

12 families completed the questionnaire and 15 parents participated in the study.

## Materials

The questionnaire, adapted from Dumolon-Lauziere (2016), consisted of four closed-ended questions (see Appendix A) related to benefits, concerns, amount of time spent playing outdoors, and whether parents felt their child spent enough time in nature. Three open-ended questions (see Appendix A) explored what experiences (before the age of 8 years) parents had with the natural world; to what extent parents felt that nature experiences they had as a child influenced their interest in having their child participate in the forest nature program; and what challenges or barriers, if any, parents encountered when looking for environmental education or nature experiences for their child. The same questions were posed during the focus groups, and researchers encouraged parents to expand on the responses they had given.

## Procedure

### Questionnaires

Parents completed the questionnaires on their own schedules. The ECEs in the centre, who were not researchers in the study, collected the completed consent forms and questionnaires and forwarded these to the researchers. Names were not included on questionnaires, but families could voluntarily indicate their interest and willingness in taking part in the focus group. The questionnaire data were summarized using descriptive statistics.

### Semi-structured focus group

The families in the focus group session participated in a child-led informal walk in the Humber Arboretum forest. Parents observed and engaged in what their children experience in the forest nature program, such as climbing trees, looking for animal footprints and identifying plants. Upon arrival to *The Willows*, families gathered under the canopy of trees for an Indigenous land acknowledgement (see Figure 3a), followed by dinner and a researcher-led



Figure 3. a) Acknowledging Indigenous land and giving thanks to the forest by offering ceremonial tobacco, b) Focus Group: Parents sharing stories.

semi-structured focus group, which lasted approximately 40 minutes (see Figure 3b). During the focus group, children played with Early Childhood Educators. Parents were asked to expand on the questions provided in the original questionnaire. All communication was recorded on a voice recording device, transcribed using TranscribeMe and stored on a password-protected memory stick. The resulting transcript was analyzed using a qualitative content analysis, and themes were identified in relation to the questionnaire data. As a token of thanks, families received a nature kit consisting of a storybook about trees, seeds for planting and a magnifying glass for exploring.

## RESULTS

Twelve families (38% of those who were invited to participate) answered the invitation to participate in the study, filled out the questionnaire and joined the focus group.

Results are summarized below, according to parent reports on their children’s time spent outdoors, parent recollections of their childhood play outdoors and to what extent this may influence their own children’s outdoor play as well as benefits and concerns related to outdoor play. Themes that emerged from the focus group, including representative quotations, are embedded in relation to these topics.

### Time spent outdoors/in nature

In responding to the survey’s closed-ended questions related to the amount of time children spend in nature (outside of child care hours), 23% of parents revealed they did not feel their children spent enough time in nature, 23% indicated their children spent enough time in nature while the rest of the parents (54%) neither agreed nor disagreed. The majority of parents reported that children spent their outdoor time either in a backyard, nearby park and/or forest (see Figure 4).

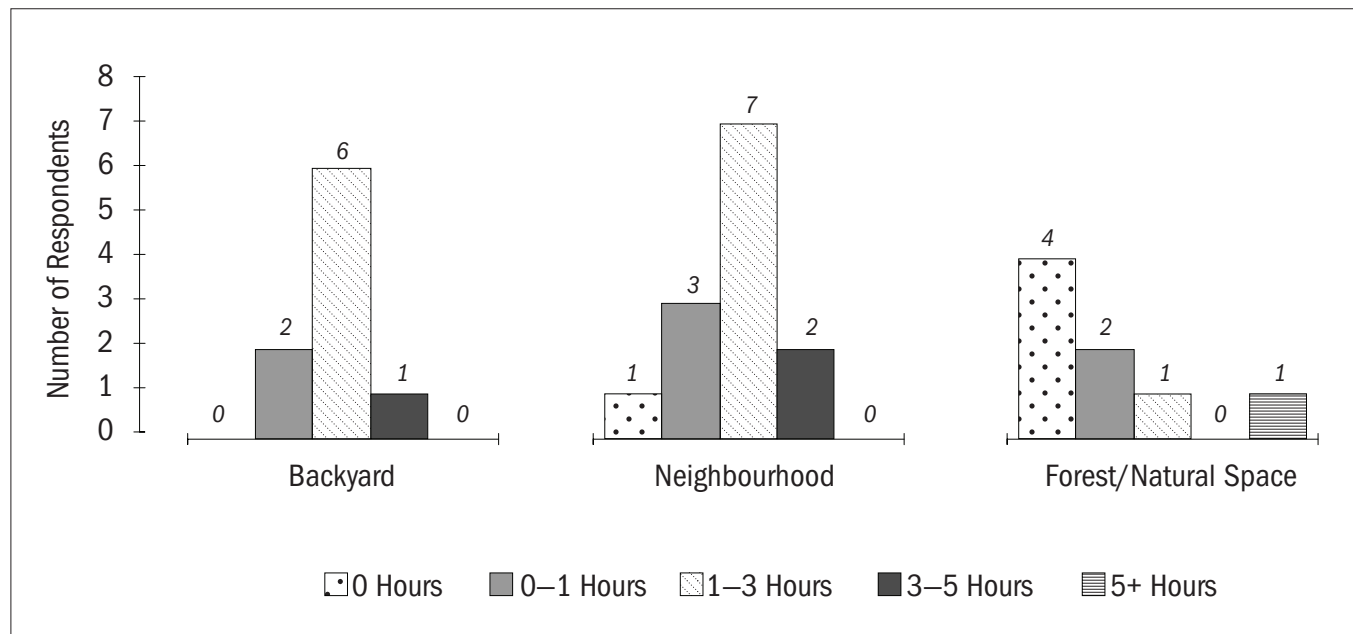


Figure 4. Number of hours children play outside per week in different outdoor environments (during non-child care hours). See Appendix B for full description.

When parents were asked to recall their early childhood play outdoors/in nature, the majority reported that their own experiences with the natural world were often through play-time:

“I would spend hours playing outside.”

“I played outside but only on the streets and backyard.”

“I was constantly playing outside and spending time up north outside at a cottage.”

“During summer childhood, we went to my grandparents cottage in the country and played outside all day, gardened, went to swim in the pond, walked in the forest, picked berries and mushrooms. I would model things from clay I dug out of the ditch and would study insects I found everywhere. I went to camps too during all seasons including winter. Going to forests was always my favourite.”

### **Influence of early childhood outdoor play**

Several parents noted that their own experiences with nature significantly influenced their interest in having their child be a part of *The Willows*:

“To a great extent, since childhood, my best memories were of spending time in nature, interacting with its elements, touching dirt, smelling leaves, walking through the forests and that is something I want my kids to experience.”

“There’s more to life than TV/Video games. I had the privilege of growing up in an accessible and safe community and feel every family/child should have that somewhere.”

“We had a lot of fields and places where we could... even in our backyard we had the older trees, mature trees and stuff like that, but I never felt that my parents were as paranoid as I am... right now I am just “watch this, watch that, watch your head” like I am always telling them to watch out and I recognize it and so I am trying not to, but it’s hard and I don’t know, but my parents weren’t like that.”

### **Benefits of nature play**

As depicted in Figure 5, the results of the survey (further elaborated during the focus group) revealed that the majority of parents see increased physical activity as a direct benefit of the forest nature program. Parents also unanimously agreed *The Willows* increases opportunities to play and learn in a natural environment, learn about forest, ponds and creatures. Parents identified compassion and care for other living creatures and a number of other benefits, including: increased understanding of being connected to nature and the need to protect the environment; the importance of being aware of the effect humans have on natural environments; learning about plants and different landscapes; practicing problem-solving skills and risk-taking; observing cause and effect relationships; and developing a respect for nature. These were echoed in the benefits identified by the thematic analysis of the focus group transcripts. Parents felt that the Willows program benefitted their children in a variety of ways: In terms of their health and abilities (confidence, risk-taking and problem-solving; inquiry-based learning and storytelling; wellness), as well as their interest and interactions with the world around them (developing a sense of environmental stewardship and reciprocity; an increased interest in spending time outside).

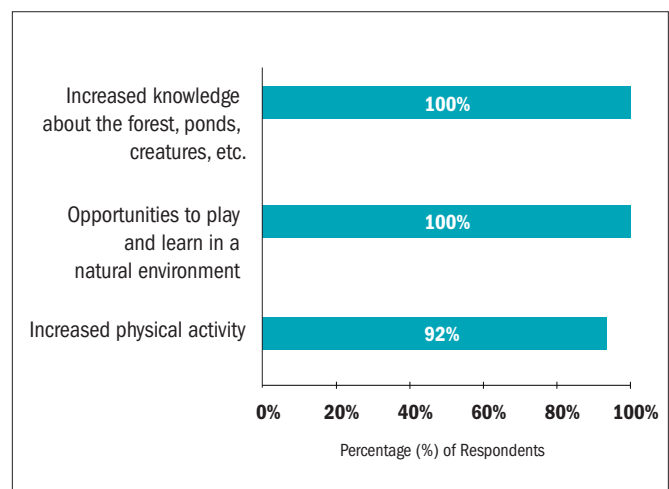


Figure 5. Perceived benefits of participation in *The Willows*. See Appendix B for full description.

## **Confidence, risk-taking and problem-solving**

Several parents mentioned their children's increased confidence, risk-taking and problem-solving, also witnessed during the walk to the forest:

"He has more confidence out here than in like a park where there's like the jungle gyms. But here he has more confidence like climbing on trees and jumping over rocks and stuff. Where if I take him to like a park with a jungle gym he's a lot more cautious especially around other kids and that kind of like setting. But out here he's been more confident in like leading the way more confident climbing and jumping. It is interesting to see that."

"I feel like E feels more comfortable being in nature, very similar to C's experience: on the jungle gym she is a little bit more hesitant, but if she sees big rocks or anything, she's like, 'I want to climb those and I want to jump across that, she can recognize all kinds of birds, well the few, chickadees for sure, she always talks about that when she comes home. I love it when she brings me home sticks and the little seeds that she finds, it's very exciting."

"It's a great way to see how they learn and solve different problems because this environment is changing all the time. So they have to adapt and they also get to choose what they want to do as opposed to guided in a very specific way. They're free to choose whatever activity they want to do or modifying, with this stick or that thing."

"He knows where to go."

## **Inquiry-based learning and story-telling**

More than one-third of parents observed that nature experiences nurtured inquiry-based learning and story-telling:

"I just noticed that my daughter is immediately very excited and her eyes light up and she just wants to run and lead the way. I also see that she's naturally curious, like she picked up some plant or some flower, she wants to know what it is or what is this bug doing. So, it is a very natural way of learning

because I don't have to try and engage her with something she just naturally wants to know."

"She'll be the first to look at [a] snail."

"She can recognize all kinds of birds, chickadees for sure. I love it when she brings me home sticks and the little seeds that she finds, it's very exciting."

"She tells stories - she saw a frog and then the frog was in her play."

"She enjoys it and she has a freedom to decide what she wants to do, and how she's going to do it."

## **Health and wellness**

Several parents remarked that being out in nature is a mood changer:

"The main thing I noticed on my kids is just like a calming affect for both me and them. I find when I'm inside and I just have four walls to look at all the time, I start to feel like I'm going crazy after a while. So, like getting outside is a total change of mind frame and it's calming for all of us."

"She's very strong and agile and she loves to climb and explore...she'll be the first one to look at snail or look at anything that's in our yard. She's probably the happiest of the three...she has a different kind of energy especially on the days when she goes to the arboretum. She's in a good mood, she has more patience. She also sleeps better on those days. Overall I find that she's been asking to go outside more."

"I really like that he gets fresh air every day in this environment. Many daycares don't offer this. It's a really great experience."

## **Environmental stewardship and reciprocity**

One-third of parents shared that the program creates opportunities for relationships with the land, creatures and each other, relationships that encourage not only to take, but also to give back:

"For me, it's another way to explore or teach children about what is going on around them. We are indoor persons and we don't usually go out, and coming here I see the way he interacts with others too."



“My kids, being in the Humber daycare, they are learning more about the nature, how to care about the nature and that’s a nice thing that we didn’t learn, we regret we did not learn. We learned from our experience, but here you are teaching them very well. That is the first thing we should teach our kids, how to protect your environment because in the future it will be good for the coming generations.”

“I just want our kids not to just learn about nature but be able to enjoy it throughout their lifetime. So if there is a component about the impact that humans have on nature and how fragile our ecosystems are... about instilling a responsibility, maybe in a way to protect this...to know how nice it is because then they kind of know the value of it.

“We have a bunch of dandelions on our front lawn. She said we can’t pick them, the bees need them, they need to suck the nectar out of them. She says, don’t step on them, don’t look at them, leave them where they are!”

### Increased interest in spending time outside

Finally, parents described how their children encouraged them to go to the arboretum:

“Even in the weekend she is saying to me, can we go to the arboretum, she don’t want to go anywhere else, she want to come and she want to show me all the stuff which she figured out during the weekdays.”

R will literally pull me at times after I pick him up to go for a walk here and I encourage that. I’ll ask him all the time and he’s so excited to go. I like that it’s sort of like an untamed nature rather than parks in the city where it’s really difficult to find like this sort of environment in the city like you go to High Park but it’s literally walking on pavement and concrete.

One parent who participated in the focus group and is also a recent Humber graduate, stopped in the middle of the trail on the way into the forest site and exclaimed “This [emphasis added] is where they come every [emphasis added] day?” (IF, personal communication, May 23, 2018). She requested more documentation of

experiences, opportunities to engage with other families in the Arboretum while also committing to visiting the Arboretum more often and bringing others with her:

“Next week, we have to come out. I will discuss with my friends too and come to this place. I have never been to this place! I love it, I want this to be often, once every 3 months that parents come together.. because we are learning with them too.”

### Concerns related to outdoor play

#### **Bugs, weather and injuries**

While bugs, weather and the potential for injuries were identified from the survey (see Figure 6), discussion at the focus group focused more on benefits. One family mentioned the presence of ticks as a concern during the focus group (having heard about it in the national news), however, it was not an impediment to participation in the program.

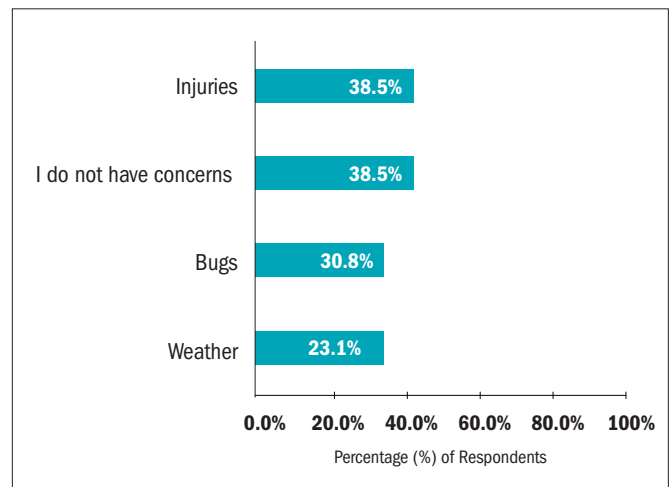


Figure 6. Parent concerns related to their child’s participation in the forest nature program. See Appendix B for full description.

#### **Accessibility to and prioritizing nature**

Several parents highlighted the challenges of busy lives and the logistics of getting out into nature-based programs:

“The commitments to jobs and other family commitments...we don’t make enough time for nature.”

“Having multiple young children and one with special needs makes it difficult to go outside in winter or even go on a hike or to a nature centre because I have to make sure they are safe and not running off; sometimes there is a cost; sometimes you have to travel; too much of a crowd; living in a high-rise building there is no private backyard.”

Others expressed a concern that daily opportunities to play and learn in nature would not be available once their children entered formal schooling. When asked about environmental education or nature experiences available in the Greater Toronto Area (GTA), families were either unaware of places to go outside of the Arboretum or found it challenging to find accessible/nearby green spaces/forest in the GTA that were open for the public to explore.

## DISCUSSION

### Early influences matter

While there are few studies that explore motivations of families to have their children participate in forest nature programs, this study supports Dumulon-Lauziere's (2016) findings that parents' own early childhood experiences in nature may influence an interest in having their children participate in and benefit from a forest nature program. In the present study, a majority of parents reported having spent time in nature in their childhood. While, we can't say if that's true of parents of children not enrolled in the forest program, this could be a question for further research. Are parents who spent a lot of time outdoors as children more likely to enroll their children in forest nature program than those who did not spend a lot of time outside?

The role of nature play and exploration in early childhood, including with an adult (often a family member) who values nature play is reinforced in the literature as a powerful influencer for later interest in being in nature, as well as environmental action and stewardship (Chawla, 2006; Chawla & Derr, 2012; Cheng & Monroe, 2012).

Interestingly, Dietze and Kashin (2019) cite that the early childhood experiences of Early Childhood Educators (ECE) are more influential in their current program and

practice than global and national outdoor play movements mentioned earlier. This suggests that early experience in nature is not only related to parents' decisions to enroll their children in nature schools, but also the decisions of the ECE's in those schools.

### Parents want more green time

In this study, families expressed a desire for accessible, daily nature-based programs that nurture their children's curiosity, inquiry, holistic well-being and development and promote a respect for and stewardship of the environment. Nearly 1 in 4 of participants felt that their children did not get enough time outside. Parents of preschool children with younger siblings (infant and toddler age) expressed a desire to see the forest nature program expand beyond the preschool classrooms. Moreover, when discussing their concerns about having their children play outdoors, the focus was more on the reasons they couldn't be in nature, rather than on issues that may arise while in nature.

Parent requests (during the focus group) for more engagement in and documentation of outdoor experiences is consistent with Bohling, Saarela and Miller's (2012) case study on supporting parent engagement in their children's outdoor learning, by regularly sharing documentation of children's experiences with parents as well as facilitating parents' direct involvement in the nature program. Dietze and Kashin's (2019) research outlines that in addition to the influence of early nature experiences on ECE practice, attitudes of colleagues towards outdoor play, access to play spaces and materials and, importantly, a growing recognition of the need to support families in understanding the benefits of and access to daily outdoor experiences are important factors in influencing parental support and demand, “as consumers and advocates” (p. 13) for outdoor and nature play.

### Where are all the trees?

In a discussion with a parent of a child who moved on to Junior Kindergarten following two years in the forest nature program at Humber, she recounted that during one of the first days of outdoor play time on the school playground, her daughter asked the teacher,

“where are all the trees?” (B. McDonald, personal communication, November 18, 2018). There was not a single tree to be found on the outdoor play space. This artificial environment paled in comparison to the diverse living landscape of trees in the Humber Arboretum, which provide affordances for connecting to place and nature (Laaksoharju & Rappe, 2017) and pedagogical engagement (Zimanyi, 2018).

Based on the present results, it seems that parents who have had positive experiences in and with nature during their early childhood years aim to offer similar experiences for their own children, whether through formal or informal recreational settings. Given busy lives and schedules, nature time is deemed as a necessary part of a regular care or school day. Children also want more green time. One concern that was raised, however, was a lack of early learning and school programs that offer forest nature programs or outdoor time in natural or naturalized settings.

### **Reframing risk**

While risks such as injuries, weather and bugs were acknowledged by a minority of parents as concerns, the families—whose children had participated in the forest nature program for between 10 months and 2 years—saw the benefits outweighing any potential risks. The parents seemed to understand the principle that hazards are addressed by staff, while risk and challenges in play are recognized, embraced and managed by children and staff (Canadian Public Health Association, n.d.; Coe, 2017). Surprisingly, almost one-third of parents mentioned typical city playgrounds as riskier than a forest setting, citing more opportunities for their children to confidently scaffold and master problem-solving skills in natural settings. This is consistent with the notion put forth by Ball, Gill, and Spiegel (2013) that “Most parents are well aware that their children need to learn how to deal with many types of challenging situations as they grow up” (p. 13). They also anecdotally noted that their children appeared more confident in the forest than on ‘jungle gyms’ and other artificial play environments.

An increasing body of research and resources supports these findings (Outdoor Play Canada, n.d.; OutsidePlay, n.d.). Natural and unstructured outdoor spaces offer a variety of landscaping, surfaces and unstructured play opportunities. These encourage children to practice problem solving and self-regulation, develop a sense of trust and well-being and engage in thrilling and exciting forms play (Brussoni, Olsen, Pike & Sleet, 2012; CPHA, 2019; Coe, 2017; Sobel, 2017) with “graduated levels of challenge” (Chawla, 2006, p.68).

Children want to engage in risky play, deliberately participating in games and activities where they get a chance to “get lost”, and engage with heights and/or speed (Brussoni et al, 2012). Hanscom (2016), a pediatric occupational therapist, says that given time and opportunities for unstructured play in natural environments, children will naturally choose experiences that their bodies need: jumping, rolling down hills, hanging upside down, digging, spinning and climbing.

### **Pushing the boundaries: transforming pedagogy and practice**

Given the perceived value by parents and benefits discussed in this and other research (Brussoni et al., 2015; Dumolon-Lauziere, 2016; Gill, 2014; ParticipACTION, 2018; Tremblay et al., 2015; World Health Organization, 2019) and in conjunction with parents’ observation that programs like this are difficult to find and access, it is evident that programs and pedagogies that integrate nature should be expanded.

Addressing recommendations from national position statements and calls to action regarding increasing opportunities for unstructured and active outdoor play including in natural settings, is critical to a rethinking of early care and learning and training programs (Dietze & Kashin, 2018) that largely promote play that is indoors and in traditional outdoor play spaces, weather permitting (Tremblay, Boivin, Peters & Brussoni, 2019). Having opportunities to play and learn in natural outdoor spaces can contribute to efforts to revive land-based learning

and grow the seeds of environmental reciprocity (Zimanyi, 2018; Zimanyi & Short, 2018).

While knowing about and accessing natural spaces is an important factor in supporting outdoor and nature play, having access does not necessarily equate to daily and repeated use (Zimanyi & Beard, 2016). Supporting the efforts of early learning programs to innovate their practice (considering programming, routines, staff-child ratios, budgets etc.) while pushing the boundaries of legislative and provincial curriculum frameworks, quality standards and public health guidelines requires collective and collaborative work with children, families, early childhood educators, post-secondary institutions, policy makers and champions through program, policy, research and networks (Brussoni in Tremblay, Boivin, Peters & Brussoni, 2019).

### **Limitations and Further Research**

While the sample size of this study is relatively small (n=12), it represents 38% of the families whose children are engaged in *The Willows*. Increasing the sample size and exploring the short and longer-term impact on families who begin at the CDC with infants and leave the program for Kindergarten would be an interesting area for further research. It would also be interesting to investigate how and in what ways parents with children in this program differ from those who do not choose to enroll their children in nature forest schools.

One surprising finding from this and other related studies is that parents do not perceive risk to safety as a major concern with forest schools, and even find them to provide safer spaces for risk taking and exploration. A comparative analysis of different types of risk and injuries across indoor and outdoor spaces (playgrounds and natural settings) could provide objective data for policy makers, quality assurance and insurance providers and may help to influence liability laws in the early childhood sector.

Research on Indigenizing outdoor play and forest nature programs that focus on local conditions and influences including Indigenous perspectives and ways of knowing, being and doing (Andersen, Comay & Chiarotto,

Christiansen, 2017; James, Dragon-Smith & Lahey, 2019) could contribute to shaping a transformative shift from child-centered to earth-centered pedagogy and practice (Zimanyi, 2018).

Finally, a further area of research could explore to what extent the dynamic nature of green spaces “can accommodate children’s diverse interests, varied competency and risk tolerance” (Tremblay, Boivin, Peters & Brussoni, 2019, para. 8).

### **CONCLUSION**

The current study aimed to better understand parent perspectives on how time spent in nature and natural settings, including their own experiences with the natural world, might influence their child’s play, learning and holistic development and connections in and to the natural world. In addition, it aimed to contribute to the expanding literature and advocacy efforts on how best to support and advocate for responsive, inclusive land-based programs in the early years.

Findings from the study and focus group highlighted that parents want their children to be exposed and participate in forest nature programs during their children’s early years.

Being in and learning about place through relationships, questioning, naming and caring for nature then calls for daily opportunities to explore.

Direct experiences in nature or naturalized settings in the presence of enthusiastic adults influences the play, learning and holistic development of young children and their connections in and to the natural world. Continued collective efforts to support and advocate for land-based programs in the early years is key to enabling a transformative shift in pedagogy and practice.

A child comes to the edge of deep water with a mind prepared for wonder... ready to explore and learn....hands-on experience at the critical time, not systematic knowledge is what counts in the making of a naturalist...better to spend long stretches of time just searching and dreaming (Wilson, 1994, pp. 11-12).

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## APPENDIX A

### Closed-ended questions from the “Questionnaire for parents of children participating in the Forest and Nature Program”

#### Question 1:

What benefits do you anticipate to see from your child’s participation in the Humber Forest and Nature Program?

(Check all that apply)

- opportunities to play and learn in a natural environment
- increased physical activity
- increased knowledge about the forest, ponds, creatures, animals, seasons, weather, natural life cycles
- Other – please indicate in the space provided

#### Question 2:

What, if any, concerns do you have with your child interacting with nature through the Forest Nature Program?

(Check all that apply)

- I do not have any concerns
- weather
- bugs
- injuries
- Other – please indicate in the space provided

#### Question 3:

To what extent do you agree with this statement: “My child spends enough time in nature.”

- Strongly Agree     Agree     Neither Agree nor Disagree     Disagree     Strongly Disagree

#### Question 4:

Please indicate the amount of hours your child plays in each environment (outside of daycare hours). If your child plays in different environments, please fill out the ‘other’ box.

Hours per Week	0 Hours	0 – 1 Hour	1 - 3 Hours	3 - 5 hours	More than 5 hours
<i>Backyard play</i>					
<i>Playing in neighbourhood park(s)</i>					
<i>Playing in a forest</i>					
<i>Other</i>					



## **Open-ended questions from the “Questionnaire for parents of children participating in the Forest and Nature Program”**

### **Question 1:**

When you were a child (before the age of 8) what experiences did you have with the natural world (e.g. playing outside, camp, etc.)?

### **Question 2:**

To what extent do you feel that the nature experiences you had or did not have as a child influences your interest in having your child participate in the Forest and Nature Program?

### **Question 3:**

In general, what challenges or barriers, if any, have you encountered when looking for environmental education or nature experiences for your child?

## APPENDIX B

### Full Descriptions Figures 4, 5, and 6.

#### **Figure 4:**

In backyard settings, the majority (75%) of the children play for 1-3 hours per week, while 17% of the children play for 0-1 hours, and 8% play for 3-5 hours.

In neighbourhood settings, most of the children (88%) play for 1-3 hours per week. 37% of the children play for 0-1 hours, while 25% play for 3-5 hours. Only 8% do not play outdoors in the neighbourhood.

When it comes to playing in forests or other natural settings, 50% of the children spent 0 hours per week. 25% of children play for 0-1 hours, while 8% play for 1-3 hours, another 8% play for 5+ hours.

#### **Figure 5:**

100% of respondents claimed their children increased knowledge about the forest, ponds, creatures, animals, seasons, weather, and natural life cycles. 100% of respondents claimed the program offered opportunities to play and learn in natural environment. 92% of respondents claimed their children experienced increased physical activity.

#### **Figure 6:**

38.5% of parents were concerned about Injuries, 30.8% were concerned about bugs, while another 23.1% were concerned over weather. Parents who had no concerns made up 38.5%.