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# The Challenges of Supporting Young Children's Outdoor Play in Early Childhood Education and Care Settings

## Abstract

This study explored preschool teachers' beliefs about the challenges they have experienced when supporting young children's outdoor play. Through Charmaz's (2006) constructivist grounded theory data analysis process, two types of challenges for providing outdoor play were specified including: (1) natural environmental challenges, such as insect bites, allergies, and severe weather issues and (2) physical environmental challenges that include lack of play materials/environments and playground maintenance. The participant teachers perceive that these challenges are related to their preparation and planning for outdoor play including the provision of outdoor play, allotted play time, and a number of outdoor learning activities.

## Keywords

outdoor play, challenges of outdoor play, playgrounds, early childhood teachers, teacher beliefs

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## **The Challenges of Supporting Children's Outdoor Play**

Children's outdoor play is important for developing their abilities in all domains including physical, cognitive, language, social, and emotional development (Cheng & Johnson, 2010; Frost et al., 2012; Sobel, 1996; White, 2014; Whitebread et al., 2017). UNICEF's (1989) United Nations Convention on the Rights of the Child (UNCRC) stipulates children's right to play in Article 31 by defining that children have the right to relax and play and to participate in a range of cultural, artistic, and recreational activities. Despite the awareness of children's right to play and research showing the benefits of outdoor play, children's time spent outdoors has decreased (Larson et al., 2011). Over recent decades, young children's "screen time" has increased as they engage more frequently in sitting in front of computers and playing electronic games (Fjortoft, 2001; Levin, 2013; Rivkin, 2000). Children in the U.S. engage in unstructured play in outdoor settings only for about seven minutes daily (Hofferth & Sandberg, 2001; Juster, 2004) while they spend approximately 7 hours per day using electronic devices (Rideout et al., 2010). The increase of children's screen time is obvious in early ages as well. For example, preschoolers are exposed to screen more than 32 hours weekly (McDonough, 2009).

Some studies have shown that adults' concerns regarding children's safety, such as fear of traffic, unsupervised outdoor activities, and risky outdoor play, have limited children's time spent outdoors (Brussoni et al., 2012; 2015; Ginsburg, 2007; Little & Wyver, 2008). In addition, studies have shown that the sudden pandemic and COVID-19-related public health protocols, such as school closures and restricted use of community playgrounds and parks, reduced children's opportunities to engage in outdoor play (Joshi & Stone, 2021; Pelletier et al., 2021) and physical activities (Moore et al., 2021). The findings of Moore et al.'s (2020) study indicate that children's physical activities and their time spent outdoors drastically declined while their screen time was dramatically increased during the pandemic. This pattern was apparent worldwide (Kharel et al., 2022; Szpunar et al., 2021). It is noteworthy that children today have spent the lowest time playing outdoors (Larson et al., 2011) compared with previous generations.

Also, perceived outdoor environmental dangers have caused a decrease of the use of the outdoor spaces in early childhood education and care (Kernan & Devine, 2010). The major perceived challenges accrued by early childhood educators when supporting outdoor play in school settings are bad weather (Bilton, 2020; Lavafe et al., 2021; Sandseter et al., 2020; Vega-Perona et al., 2022), health and safety concerns (Ebbeck et al., 2019; Ernst & Tornabeni, 2012; Ernst, 2014; Maynard & Waters, 2007), poor environments/spaces (Kalpogianni, 2019; Sandseter et al., 2020), and insufficient resource/staff (Ebbeck et al., 2019; Kalpogianni, 2019).

For example, Kalpogianni's (2019) survey study ( $n=662$ ) investigated preschool teachers' perspectives and practices to gain an understanding of the factors that support or hinder children's outdoor play in childcare centers. The results show that lack of appropriate spaces and health and safety concerns are the main factors that limit children's outdoor play in early childhood education and care settings. The findings by Ebbeck et al. (2019) point out that health and safety concern was the most frequently cited challenging factor perceived by early childhood educators ( $n=432$ ) in Singapore when providing outdoor play for young children. Sandseter et al. (2020) also examined the factors that early childhood education and care (ECEC) practitioners ( $n=32$ ) perceive as barriers of children's outdoor risky play on school playgrounds using multiple choice questionnaires. Their findings indicate that 'weather conditions' and 'poor play facilities' are the main barriers experienced by the ECEC practitioners. The findings of studies conducted by Maynard and Waters (2007), Bilton (2020), and Vega-Perona et al. (2022) also show that extreme weather conditions are one of the barriers perceived by early childhood educators when promoting outdoor play. In addition, Ernst (2014) examined predictors of barriers in using the natural environments for educational purposes by employing a self-developed questionnaire. The findings indicate that the participating preschool teachers ( $n=46$ ) perceived severe weather, safety issues, lack of time and accessibility to the outdoor settings as major difficulties.

As discussed above, studies have highlighted the decreases of children's outdoor play and challenges of supporting outdoor play in early childhood education and care settings; however, there is still lack of information to gain in-depth understanding about preschool teachers' perspectives and experiences regarding challenges of providing outdoor play at school. With the awareness of the importance of promoting children's outdoor play and the recent decrease in children's time spent outdoors, this study is designed to explore teachers' beliefs about the challenges when supporting young children's outdoor play in preschool. The major research question that guides this study is: How do these teachers describe their beliefs about the challenges of supporting outdoor play for young children?

Teachers' beliefs influence their teaching strategies and their provision of materials and activities (Cruickshank, 1990). Beliefs about the challenge of supporting children's outdoor play may influence teachers' practice regarding the use of outdoor space, provision of outdoor play materials/environments, interactions, facilitations, and outdoor play time. Thus, exploring preschool teachers' perceived challenges when supporting outdoor play is needed in the field of early childhood education.

## Methods

A constructivist approach was used as the theoretical base as this study focused on individuals' understanding and knowledge constructed by their personal experiences and thoughts. As constructivism is concerned with the individual mind and experiences, the researcher explored how individual early childhood teachers describe their own thoughts and experiences in current events to which they were exposed in their work site.

This study was conducted at one university-based child development center that was in the process of reconstructing their playground to better support children's outdoor play. The school provides children three outdoor play times daily of two hours or more in average. The key features of the playground environment before playground renovations included multiple manufactured anchored play equipment, a large area paved with concrete, and play materials including blocks, balls, and wheeled toys. After the initial playground renovation, the concrete parts on the playground were removed, and open grassy areas and a bike path were installed. Natural shade was available for resting with several chairs and tables placed under the trees. Natural features on the playground included a mini garden, trees, sand, dirt, sticks, leaves, and mulch. At this stage, there was no fixed play structure, and typical play materials provided for outdoor play were balls, hula hoops, blocks, and riding toys. The entire playground was enclosed by chain link fences.

Due to the specific purpose of this study to explore the challenges of supporting young children's outdoor play, the preschool teachers who have experienced both man-made and naturalized playgrounds were recruited to participate. Two teachers, Naomi and Haley, completed all three rounds of in-depth individual interviews and member-checking processes. Both teachers were teaching classes ages of three- to four-year-old children and experiencing the playground renovations. Naomi holds an Associate Degree in early childhood education and has been teaching full-time in preschool for three years. Haley holds a Bachelor of Science degree in family, youth, and community. She has been teaching in preschool as a full-time lead teacher for two years. Informed consent was gathered from the participant teachers prior to data collection. The names of the participants are pseudonyms.

The three sets of semi-structured individual in-depth teacher interviews lasted an average of 75 minutes, 45 minutes, and 30 minutes. The interviews were audio recorded and transcribed. Charmaz's (2006) constructivist grounded theory using initial and focused coding was employed to examine the qualitative data. Memo writing was utilized as the essential transitional step between collecting data and developing a draft of the paper and also used to link the coding and the initial outline of the analysis (Charmaz, 2000).

## Findings

### Natural Environmental Challenges: Extreme Weather and Safety Concerns

The preschool teachers in this study elucidated several challenges that influence their planning and preparation for outdoor play, and some of them are caused by natural environmental issues, such as insects, allergies, heat, rain, and stormy weather. The teachers felt that the weather-related issues, such as too much heat and strong sunlight in the afternoon have influenced their planning on the duration of outdoor play. In addition, they think that strong sunlight and heat sometimes limit their students' play since they feel too hot and only want to play under the trees or rest in the shaded areas. Naomi stated,

Another difficulty is the sun... because it's summer time... Sometimes when the kids want to sit in the grassy area, they can't, because a big portion of that is full of sun and it burns. It gets really hot. That's one of our obstacles that we have to deal with... the kids gravitate towards the trees because that's where the most shade is.

Naomi indicated that the problem of excessive heat and sunlight can be partially resolved by providing more shaded areas with picnic tables and chairs that are purposively made for resting. She stressed that having only natural shaded areas that trees create is insufficient for many students to sit together for resting. Haley pointed out that a severe weather issue could prevent her students from playing outdoors or limit the duration of outdoor play. She believes that teachers need to pay careful attention to weather and are responsible for making a wise decision to promote safety regarding possible severe weather. She mentioned,

Weather, if it's raining then we can't go out, if it's thundering and lightening, or if it's just way too hot, we have to cut the time in half because it's just not safe for them. So, I think that although being outside in the outdoor atmosphere is so important and beneficial to them [young children], it also can be detrimental...

The preschool teachers in this study stated disadvantages in being outdoors as bug bites, allergies, and exposure to dangerous creatures or poisonous plants. Haley expressed that bug bites are on the top list of her least favorite things to experience outdoors. She further stated that she always has a certain level of fear due to the unsafety and uncertainty of being outdoors because her top prioritized role as a teacher during outdoor play is keeping children safe. Naomi illustrated this type of environmental safety concern as following:

A disadvantage [of being outdoors] is different types of poisonous plants, bugs... if they happen to bite you, they might be poisonous. Allergies, some kids have allergies to the insects, as well as you know, the pollen...

### **Physical Environmental Limitations**

There are several physical environmental limitations that the preschool teachers in this study viewed as challenges in preparing and planning for outdoor play. These include maintaining play materials and equipment, the need for a particular facility (e.g. sunlight covering), lack of variety in play materials and equipment available, an issue that teachers cannot control due to the school's limited budget.

**Maintenance.** The teachers in this study perceived that maintaining the playground and play materials is sometimes challenging. For example, Naomi has noticed that her students like to dig in the dirt and create holes on the playground, and many young children have fallen into the holes. She and her colleagues tried to cover the holes by pouring more mulch; however, they constantly lose mulch on the playground for various reasons, and the holes were more distinctive especially after the rain. She viewed this as one of the maintenance issues she considers as unsafe, which limits promoting more positive outdoor play environments. She provided another example of a physical environmental challenge: losing many play materials during outdoor play. She stated,

Our fence, in my opinion, is not quite as high as it could be... it gets low on one side of the playground and the kids are up higher... it's closer to the kids' eye level, so a lot of the toys get thrown over. And so, we lose a lot of our toys due to the fact... That's one of our obstacles that we have to deal with.

She thinks that this type of physical facility issue cannot be solved by herself, and what she generally does to minimize this issue is to constantly teach her students how to use play materials appropriately and remind them not to throw the toys over the fence. She expressed difficulty in maintaining the amount of play materials they have for outdoor play.

**Lack of play materials/structures.** Haley indicated that having no play structure on the playground and a lack of available outdoor play materials influenced her preparation and planning for outdoor play. She has realized that some of her students tend to get bored, although many others still enjoy and have fun during outdoor play. She always strives to keep them engaged by switching play materials; however, there is limitation in rotating play materials because it is impossible to change play materials all the time due to the limited availability.

She hoped that there could be play structures that encourage young children's active movement and facilitate different types of play. She stated,

As far as the playground goes, I dislike that there's not much for them to do yet... We try to switch up, and we take them over here sometimes where there's a play structure. There's a slide, there's a climbing wall, and there's a ramp. There're different things for them to do.

Like Haley, Naomi also viewed not having adequate play structures as a negative aspect of the playground. Naomi said, "I understand the fact that it does take time because they have to raise money and it's an expensive play structure that they [administrators] want to do [purchase]" To ease this issue, insufficient play materials and play equipment availability, Naomi and her colleagues try to provide her students new, different experiences as often as they could. She described one of the recent situations she planned during outdoor play as following:

One of the teachers here plays the flute so she brought out her flute and we sat around and listened to her play songs and then they brought out little shakers so they could make music with her. It gets kind of boring if we're just doing the same things over and over, so we try to switch it up to give them better things to do, new experiences.

With regard to minimizing this physical environmental challenge, Haley stated, "We [my co-teacher and I] sometimes switch things [play materials] from playground if we see that [the needs]." She further explained, "Since we don't have our play structures yet, sometimes we'll bring the seesaws over from over here or we'll bring over the blocks ... switch things up... so they [children] can have more things to do." Both teachers were making active efforts to overcome the barrier to better support their students' outdoor play experiences by promoting outdoor musical play using musical instruments, bringing indoor play materials outdoors, and switching play materials from other playgrounds (e.g. the playground for toddlers) or classrooms in the school, if appropriate. The participant teachers thought that this matter is more related to the school administrators' decision and allotted funding, and they were unable to take a visible action or preparation to improve the scarcity of outdoor play structures or equipment.

**Limited physical facility.** The teachers perceived the lack of shaded area on the playground as a serious obstruction and stressed the urgent need of providing sufficient shaded areas where their students can sit and rest. Naomi



emphasized that not having enough shaded area on the playground has influenced her planning and preparation for outdoor play and activities. She argued that strong sunlight has been the main natural environmental challenge for supporting outdoor play, and she insisted that providing sufficient resting and shaded areas is an urgent matter. She mentioned that providing multiple picnic tables and chairs in the shade would be an ideal environment for resting. She stated,

I think that they [administrators] said that they're going to get a cover over where we have our picnic table now... This [providing sunlight covering and picnic tables under it for resting in shades] has to be done... I think that would've been one of the important things to do now, instead of later.

Haley also stated that providing areas shaded from sunlight is an urgent need, and she would plan more outdoor activities or increase the length of outdoor play if the issue was solved. Naomi stressed that this type of physical environmental challenge has affected her outdoor activities planning and timing for outdoor play. She remarked, "If I want to bring my class out and read books outside, I don't really have any place for them to sit, because the sun is just so bad [too strong]. It's not really accommodating..." Also, Haley mentioned, "If there were more shade, I will like to have more outdoor... like reading, doing different art projects that include us being outside."

Naomi stated that the students usually sit "in the sand and the mulch" and she thought it is somewhat unsafe because "the wood chips sometimes stick them in their skin." She added that sometimes this type of environmental challenge makes her students not want to play outside for a large block of time because they get tired due to heat and too much sunlight. She said,

Sometimes they'll come to me and say, "Can we go inside now?" or, "I don't want to play anymore," or you start noticing they're sitting or they're just like not wanting to play. And it is either they are tired or... the sun has drained them, it's time to go inside and let them rest.

The teachers also perceived that the outdoor environments and playground are not sufficiently supportive for those with physical disabilities. Naomi pointed out that the insufficiently accommodating outdoor play facility and environments for students with disabilities could preclude them from exploring outdoors and/or engaging in outdoor play. She stated,

Physical barriers also include for those with disabilities... the kids who are unable to walk or play as much... [as other kids without disabilities] ... and being hurt. They have disabilities and have to

use wheelchairs... that's also another thing that we have to concern about as well.”

The participant teachers equally valued outdoor play and indoor learning and viewed that being outdoors or engaging in outdoor play is still learning time for young children. However, these teachers expressed that the observed obstructions limit their provision of outdoor play.

## Discussion

The findings of this study suggest that the participant teachers' beliefs about the challenges of outdoor play included natural environmental challenges and the physical environmental limitations. The teachers perceive that these challenges are related to their preparation and planning for outdoor play including the provision of play materials, allotted outdoor play time, and number of outdoor activities provided for young children.

**Weather conditions.** The teachers in this study viewed various weather conditions, such as extreme heat, heavy rain, and thunderstorms as spontaneously occurring natural environmental barriers that they faced when planning for outdoor play. The teachers indicated that weather issues could prevent her students from playing outdoors or diminish outdoors play duration to stay safe. This finding is well aligned with previous studies that show weather conditions including severe weather including heavy rain are one of the most common barriers that early childhood educators and practitioners identify in providing outdoor play at school (Bilton, 2020; Brockman et al., 2011; Maynard & Waters, 2007; Sandseter et al., 2020; Vega-Perona et al., 2022). The results of the recent study conducted by Lavafe et al. (2021) also indicate that teachers reported 'bad weather' as one of the barriers for providing children's active physical activity (PA) outdoors.

Some teachers in the previous studies pointed out that poor weather is a superficial factor when providing outdoor play in educational settings, and they are more worried about parents' concerns regarding their children's clothes getting dirty in the rain or not having appropriate gear for every child to use in wet weather (Maynard & Waters, 2007). Bilton (2020) stressed that it is possible that the barrier is not about the weather itself but is more about lacking in resources such as having inappropriate clothes or not having adults' interest in taking their students outside in the type of weather conditions.

**Health and safety concerns.** The teachers in this study described safety issues such as insect bites and allergies as natural environmental barriers that they experience when supporting children's outdoor play at school. The teachers further illustrated that they have a fear of unsafety and uncertainty (e.g.,

poisonous plants, bug bites, allergies, etc.) when being outdoors. Teachers viewed their top priority during outdoor play to keep their students safe, in line with findings of previous literature that safety concerns are one of the most frequently expressed factors by teachers as a challenge of supporting children's play in outdoor environments (Maynard & Waters, 2007; Kalpogianni, 2019).

**Lack of resources and poor environments.** The teachers in this study articulated that physical environmental challenges, such as lack of play materials, equipment, and facility as perceived challenges when supporting children's outdoor play. This is in line with recent research finding showing that poor outdoor play facilities/environments are one of the most cited barriers perceived by early childhood teachers when providing outdoor play on preschool playgrounds (Sandseter et al., 2020). The results also support previous studies indicating that lack of play environments is one of the critical factors for limiting children's outdoor play in both New Zealand and the United States (Clements, 2004; Witten et al., 2013).

The teachers in this study stated that the lack of outdoor play environments and insufficient resources (e.g., staff for supervision, outdoor play materials) are closely related to the school's limited budget. Adequate funding is needed to provide better outdoor play spaces and to maintain the outdoor play environments in an appropriate manner (Bilton, 2020; Maynard & Waters, 2007). It is recommended that early childhood teachers, administrators and directors, and teacher educators have an opportunity to reflect on whether they view outdoor play environments as equally important as indoor learning environments; at times, outdoor play spaces are not prioritized 'considered immaterial to children's development' (Bilton, 2010, p. 75).

### **Conclusion and Implications**

This study was designed to explore preschool teachers' beliefs about young children's outdoor play in naturalized play environments through the individuals' own voices. As discussed, the teachers perceived that various factors including the specified natural and physical environmental limitations influence their decision-making in their planning and preparation for providing outdoor play. The challenges mostly restrict the length of outdoor play, the number of outdoor activities teachers conduct outside, and rich outdoor play experiences for young children. For the school directors and in-service teachers including the teachers in this study, focusing on overcoming barriers or finding ways of minimizing the various barriers is more encouraged than focusing only on the ways of removing barriers. It may allow them opportunities to facilitate immediate actions by reforming or co-constructing ways of supporting outdoor play and increasing the use of outdoors as learning and play environments to provide high-quality outdoor

play and learning experiences for young children. For early childhood teacher educators, it is important to note that developing professional development workshops that discuss ideas of minimizing the barriers and providing 1981-1997. *Advances in Life Course Research*, 6, 193-229. applicable strategies is needed rather than providing professional development opportunities that mainly demonstrate the importance of outdoor play and the use of natural environments.

For future research, conducting systematic observations along with in-depth teacher interviews could examine how preschool teachers' beliefs regarding the challenges of supporting children's outdoor play are represented in their actual practices. It is necessary to explore how early childhood educators gain knowledge and understanding to develop their personal theories of outdoor play, and then how they translate their own beliefs into practices. This knowledge can be used to help teacher educators understand the value of early childhood teachers' experiences, teacher knowledge, and understanding of the importance of children's outdoor play and experienced challenges of supporting outdoor play in school that may impact on their current or later practices.

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