# The Benefits of Children's Outdoor Play in Naturalized Play Environments

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Abstract: This study explored preschool teachers' beliefs about the benefits of young children's outdoor play and play in naturalized play environments. Three face-to-face in-depth, semistructured individual interviews were administered. For data analysis, Charmaz's (2006) constructivist grounded theory was employed using two steps of coding, initial and focused. These teachers' beliefs about the benefits of children's outdoor play in natural environments emerged in three major themes: (1) environmental, physical, and emotional freedom, (2) learning and development through outdoor play, and (3) burning off energy. The links between the findings and the existing literature, implications for practice, and recommendations for further research are discussed.

*Keywords:* outdoor play; preschool teachers; teacher beliefs; children and nature; playgrounds

Play is beneficial for young children's development in many different areas including cognitive, social, language, and literacy, and is a valuable avenue through which young children learn (Copple & Breadekamp, 2009). Outdoor play provides children with important opportunities to develop and learn. In this section, the benefits of outdoor play for different developmental areas, such as physical, social, and emotional development are discussed.

# OUTDOOR PLAY AND CHILDREN'S HEALTH AND PHYSICAL DEVELOPMENT

Outdoor play provides children with vital opportunities to develop gross motor (Green et al., 2012) and fine motor skills (Thomas & Harding, 2011). During outdoor play, young children typically engage in active physical play, such as gross locomotor play and rough-and-tumble play (Pellegrini & Smith, 1998). Fjortoft (2001) examined the effect of outdoor natural environments on children's physical fitness and found that kindergarteners aged from five to seven who experienced playing in natural outdoor environments on a regular basis displayed a higher level of motor fitness, including coordination, balance, and strength than those who were in the control group.

Over several decades, the child obesity rate in the United States has drastically increased to epidemic proportions (Frost et al., 2008). To reduce the rate of childhood obesity in the United States, the U.S. Department of Health and Human Services (2008; 2023) suggested that children need to engage in moderate-to-vigorous physical activity for 60 minutes or more daily. Kimbro et al. (2011) investigated the relationship between outdoor play and a child's obesity and found that children's lack of outdoor play is significantly related to their obesity rate. The decrease of outdoor

play has been connected to multiple health-related issues, such as myopia (Rose et al., 2008) and vitamin D deficiency that could be associated with cardiovascular disease, depression, and diabetes (Malik et al., 2006; Misra et al., 2008).

# **OUTDOOR PLAY AND CHILDREN'S SOCIAL DEVELOPMENT**

Many studies have emphasized the significant importance of children's play for their social development. Various types of play behaviors can provide children with opportunities to experience others' viewpoints and enable them to adjust their behaviors with others (Erikson, 1963; Piaget, 1962; Rubin & Howe, 1986; Sutton-Smith, 1997; Vygotsky, 1978). Natural outdoor play environments can promote a child's social interaction with peers (Moore, 1986; Bixler et al., 2002). Moore and Wong (1997) conducted a longitudinal study at an elementary schoolyard in Berkeley, California, that transformed part of its asphalt into natural spaces, such as meadows, ponds, streams, trees, and flowers. The project demonstrated that children presented more appropriate and positive social relationships when involved in creative play in the naturalized areas than in the original asphalt environment. More specifically, the occurrences of aggression were decreased while imaginative play and creative social interactions were more frequently observed after the schoolyard had been transformed to a more nature-oriented environment. The authors concluded that nature is a social resource and reduces children's antisocial behavior. Herrington and Studmann (1998) conducted a research project on the outdoor play spaces that provide traditional equipment-oriented outdoor play spaces, and the study implemented a landscape-based intervention and installed new outdoor play spaces. The findings demonstrated that the installation of various types of plants and other natural features became an essential space for children's socialization and fantasy play.

# **OUTDOOR PLAY AND CHILDREN'S EMOTIONAL DEVELOPMENT**

Studies suggest that connecting with natural environments, during early and particularly middle childhood, is vital for a child's emotional responsiveness and receptivity (Kellert, 2002). He addresses that children's experiences of the natural world can provide opportunities to experience various types of emotions including wonder, joy, surprise, and satisfaction; however, they would also experience some negative forms of emotions, such as anxiety, fear, and challenge. Spending time in nature and interacting with nature supports emotional benefits, such as reducing stress (Kaplan, 1973; Wells & Evans, 2003). However, Kellert (2002) suggests that it can promote emotional dysfunction if contact with nature in reality and imagination are not well balanced. When children are unable to frequently interact with natural environments in a positive way; they may encounter emotionally and psychologically unhealthy states, such as suffering from depression or anxiety (Wilson, 2012). Louv (2005) suggests that children be encouraged to have positive contact with nature on a regular basis in order to promote their physical, emotional, and psychological well-being.

#### **TEACHER BELIEFS ABOUT PLAY**

Researchers suggest that teachers' beliefs greatly impact various aspects of their practices including their conceptions of goals, planning, decision-making, interactions, reflection (Fang, 1996; Pajares, 1992; Vartuli, 1999), teaching style, materials, and activities in the classroom (Cruickshank, 1990). A study by Izumi-Taylor et al. (2010) examined similarities and differences in early childhood teachers' beliefs about play in three different nations: Sweden, Japan, and the United States. Forty teachers from each country were asked to complete a questionnaire with five

questions concerning their beliefs about children's play. Six themes were found from the study regarding teachers' beliefs about play: (1) a process of learning, (2) a source of possibilities, (3) empowerment, (4) creativity, (5) children's work, and (6) fun activities (p.4). Moon and Reifel (2008) examined how teachers describe their beliefs about play in relation to young children's literacy learning in Pre-K classrooms with students with diverse language backgrounds. The teachers in the study perceived that play is an essential tool for young children to learn through active, hands-on experiences, such as being engaged in word games, dramatic play, block play, and acting out the characters of the stories for developing language skills.

As discussed above, studies have highlighted the importance of outdoor play and children's exposure to natural environments, and research suggests that teachers' own beliefs are strongly related to their classroom practices (Cruickshank, 1990; Fang, 1996; Pajares, 1992; Stipek & Byler, 1997; Vartuli, 1999). However, the evidence is still limited, and there is a lack of knowledge about today's preschool teachers' beliefs about the value of young children's outdoor play. With the awareness of the importance of outdoor play, this study is designed to gain an understanding of teachers' beliefs about the benefits of young children's outdoor play and play in naturalized play environments. The major research question that guides this study is: How do these teachers describe their beliefs about the value of outdoor play and children's play in a more naturalized outdoor play environment?

In this study, an operational definition of outdoor play is free, unstructured play that occurs in an outdoor setting, more specifically on the playground at a preschool with environments that provide a range of natural or synthetic items for children to use for their play. Naturalized outdoor play environments refer to physical outdoor settings where children can play and interact within natural environments. These environments provide open, spacious spaces that enable children to freely run and move and include natural features and materials, such as gardens, water features, and trees. Naturalized play materials in this study refer to natural items that children select in the outdoor environments to play with. Examples of natural materials are two-fold. First, the *natural fixed elements/materials* are natural components that are immovable due to their permanent placement on the ground, such as trees, gardens, vegetation, and large rocks. *Natural loose elements/materials* are manipulative, transferrable, and portable natural features, such as leaves, flowers, pine corns, sticks, sand, dirt, and water.

# Method

#### **PARTICIPANTS**

Due to the specific nature of the study, eight preschool teachers who have experienced playground reconstructions were recruited to participate. Initially, four teachers agreed to participate in this study but two of them had to withdraw at a later stage due to their personal situations. Eventually, two teachers completed all interviews and member-checking processes. Amy is African American and holds an Associate of Science degree in early childhood education. She has been teaching in preschool for three years. Catherine is African American and holds a Bachelor of Science degree in family, youth, and community sciences. She has been teaching in preschool for two years and the preschool where she works is the only school at which she has taught as a full-time preschool teacher. The participating teachers' names are pseudonyms.

#### **RESEARCH SETTING**

The context for the study was a university-based child development center. The children at the center range from ages 6 weeks to five years. When this study was conducted, the center was in the process of reconstructing its playground from a traditional to a more naturalized outdoor play environment. The classes are provided with outdoor play three times per day, usually scheduled for 30 minutes in the morning, 45 minutes in the afternoon, and about an hour at the end of the day in school. The new naturalized playground included a large grassy area and was spacious enough for young children to freely run and move in varying directions. Manufactured shades were included, and several chairs and tables were located under the big shade trees. The playground included three mini gardens, bird feeders, and water features to promote connecting young children to nature. Chunks of logs were available and located adjacent to the garden areas. Other natural features on the playground included sand, dirt, sticks, leaves, mulches, and so on. The playground provided different textures of surfaces throughout the play spaces, and naturalized fixed equipment was available, such as wooden play structures and teepees.

#### **DATA COLLECTION**

Following Institutional Review Board approval, the teachers were asked via email and in person to participate in the study. The participating teachers signed an informed consent form that described the purpose of the study, the interview procedures, confidentiality, and their rights. The teachers were asked to participate in three sets of individual in-depth semi-structured interviews and member checking. Interview schedules were set via email communications or in person according to participants' convenience, and interviews were conducted either at their work site or at mutually agreed locations. The participants were compensated with a grocery company gift card in the amount of \$25.

For the first interview, participating teachers responded to the set of guiding questions that the researcher generated based on the research questions, to gain as much relevant information as possible within the time allotted for the interview; however, the questions did not limit the interviews and every interview maintained flexibility to provide participants an opportunity to freely express their thoughts and experiences. Part of the guiding questions were as follows: (1) How do you value outdoor play as part of the children's day? (2) Do you believe there are relationships between children's outdoor play and their learning? (3) What are your beliefs about the differences between the previous playground and the new playground? Have you noticed differences in children's play in new environments? (4) How do you value these naturalized play environments for children's play? (5) What do you believe are the roles of the naturalized play materials and environments as children engage in play? Probing occurred when necessary, depending on the participating teachers' responses to questions. General prompts included, "Could you describe more about it?" or "Could you provide some examples of it?"

The first interview was conducted to gain an understanding of preschool teachers' beliefs about outdoor play and to describe their experiences with the newly installed playground at their work site. The first interview lasted approximately 65 to 90 minutes. The audio-recorded interviews were immediately transcribed and analyzed for preliminary findings, to develop the second interview guide. The second interview was conducted after the researcher investigated the first interviews for preliminary analysis. The second interview lasted approximately 40-50 minutes. The final interview was used to discuss and clarify the preliminary findings of the data, in order to avoid misrepresentation of participants' beliefs and to validate the accuracy of preliminary findings. The final interview lasted about 30-35 minutes. All interviews were audio-recorded and transcribed.

# **DATA ANALYSIS**

For the data analysis, Charmaz's (2006) constructivist grounded theory was used to examine participating teachers' in-depth individual interviews. The data analysis process was guided by two steps of coding: initial and focused. The initial coding began with breaking the data into micro-level discrete parts of meaning by going through word-by-word, line-by-line, or incident-to-incident (Charmaz, 2006). The focused coding sought frequent codes and significant codes represented in the initial coding process; selected codes are then grouped and synthesized (Charmaz, 2006). Memo writing was used as the crucial transitional step between collecting data and writing a draft of papers (Charmaz, 2006). Member checking was employed to clarify the findings of the study to avoid misrepresentation of participants' beliefs and to validate the accuracy of findings.

#### FINDINGS

# **ENVIRONMENTAL, PHYSICAL, AND EMOTIONAL FREEDOM**

The participating teachers in this study believe that outdoor play provides children freedom. Freedom explained in this study is based on teachers' perceptions and experiences from their work site and is subdivided into environmental, physical, and emotional freedom.

### **ENVIRONMENTAL FREEDOM**

Environmental freedom indicates free access to the open, spacious space for children to be able to freely run and explore outside. Teachers expressed that children can freely express themselves outside when the space is more open and larger. Amy explained that the playground she and her students use had areas of free space for young children to run and be active. She stated, "...kids need to run. Outdoor is made for the children to run freely within a wide space. It gives them the opportunity to express themselves however they want to." Similarly, Catherine expressed that children are freed outside, and they can play in their own spaces according to their personal preference and can explore anything they want.

According to Catherine's outdoor play experiences on the playground after the renovation, children are freed on the open grassy field area, and she believes that the open field areas promote children's creativity by supporting them to develop the types of play they want and use their imagination as engaging in the play they create. Catherine said,

I think just having a free, open field, in a sense, where they [children] can just do whatever... And it helps them just be as creative as possible. They sometimes say, "Oh, it's snowing." And they lay down and want to make the snow angels... they will get really creative with the things that they do [in the open field].

Amy also has had positive experiences on the newly renovated playground and felt that the flat surfaces such as the open grassy areas are suitable for any types of physical games or outdoor activities. In addition, she pointed out that other play spaces, such as the sand play area creates an environment in which children can freely explore and be more creative.

# **PHYSICAL FREEDOM**

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Physical freedom refers to children's unrestricted opportunities to use their active physical body movements, such as running, jumping, hopping, and riding that are generally prohibited in classroom settings. The teachers think that being outside helps a child develop their sense of space and their body and learn how to interact with the outdoor environments. Catherine stated,

Being outside is kind of like the only time where they kind of get to do what they want to do... It's like you get to roam free and if you want to get on the bike, get on the bike. If you want to climb, you can climb.

In addition, the participating teachers believe that outdoor play accelerates young children's active physical play and encourages them, issuing a challenge to their physical limits because they often like to take risks while they play outdoors. Amy explained that children can observe how others play and learn from peers, and they want to imitate their peers who present higher physical abilities when playing outdoors. According to Amy's experiences, children's physical "risktaking" often occurs by "seeing from other kids because some kids are more athletic than others. They can do different things. The kids learn from each other" and she further explained that her students are challenged by seeing other peers and think, "Oh, if my friend can kick the ball, maybe I can kick the ball", and attempt to athletically challenge themselves. In other words, children can learn by seeing others play outside and are able to understand that everyone has different levels of being athletic. Amy perceived that children can learn how to play differently and engage in different types of physical activity from each other, and they challenge themselves because they want to try what their peers do. Catherine also supports the idea that children often engage in risktaking outdoors by saying that children like to challenge things that are considered unsafe such as climbing trees. Children are not afraid of taking risks involved in challenging new physical activities.

The participating teachers support this physical freedom by allowing their students to freely explore outdoors through active movement and express themselves in a way they would like to. Amy said, "I just want them to play, like if I can get them to run around and move and just be active." To provide children opportunities to freely enjoy the outdoor spaces by physically interacting with outdoor environments, Catherine expressed that she minimizes intervening in her students' different types of physical activities. She said, "You [children] can do whatever you [they] kind of want." She thinks that being outside is where children can freely run, yell, spin, jump, and ride unlike being indoors where they are usually expected to sit still and be inactive as compared to the physical freedom they have outdoors.

#### **EMOTIONAL FREEDOM**

Emotional freedom indicates children's expressions and explorations without adults' predominant directions, judgments, and restrictions outside and experiencing outdoors with comfort, calmness, relaxation, and free choice. The participating teachers expressed that the children in their class seem to genuinely love the calm and peaceful atmosphere outside. Amy supports her students' emotional freedom by letting them be freed when going outside. She stresses that outdoor play is children's free time, and they have the freedom to choose what to play, where to play, and with whom to play. In other words, children are encouraged to freely engage in their own play or explore any activities of their interests without teachers' directions and with minimal restriction/limitations. Amy stated,

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...kids roam free, and I walk around... This is their free time. This is the time that they can do whatever it is that they want to do. That's pretty much the schedule. If it's not anything implemented in the lesson plan to go out, I just let them go. Then, we just play, according to what the kids want to do.

Amy argued that children need to freely play outside according to their interests, and it is completely child-driven time. She does not often intervene in her students' play unless she is invited by them, because she wants her students to engage in self-oriented play based on their own choices they made. Catherine also stated, "...we want to give them [children] the freedom to have fun..." and "They [children] get to have that free will to make whatever choices they want to make, as long as they're safe and they're not hurting themselves or somebody else." She emphasized that outdoor play is the only time when children can freely choose what they would like to do; thus, having freedom during outdoor play and being able to make their own choices are crucial in helping her students feel comfortable and freely enjoy outdoor play without having emotional or psychological pressures on them.

Outdoor play provides children an opportunity to take a rest and relax. Amy said that the open grassy area is particularly a popular place for young children to relax. She was describing one picture of her and her students taken on the open grassy field and said,

She's [the girl in Amy's class] pointing up to the sky. I am over here, hanging out with the girls, putting on the shades. It's just a chill time where we're talking and... we were just sitting there and just having a girl time and just relaxing time.

Amy further explained that spending time on the grass is a relaxing time for both her and her students, and they can lie down on the grass, look up at the sky, talk about the weather, hear birds singing, read books, chat with one another, and so on. She mentioned, "...it's a completely free space, free time for the kids to do whatever they need to get their minds cleared." Likewise, Catherine often was able to observe her students come and stay in the areas under the trees to rest and relax. When they are tired or feel too hot due to the heat in the middle of sweltering days, they spontaneously come and rest under the trees and enjoy the breeze and calm and peaceful atmosphere.

Another important aspect of children having emotional freedom during outdoor play is that children naturally present positive emotions when playing outdoors. Catherine observed that her students tend to relieve their negative emotions when going outside. She further explained that those who were having unpleasant days and presenting negative emotions have a tendency to show more positive emotions than when they are indoors. She stated, "It [outdoor play] is really important I feel when they [children] are outside it's like they get to just let out all of that... frustration out."

# LEARNING AND DEVELOPMENT THROUGH OUTDOOR PLAY

The preschool teachers in this study indicated that outdoor play can help children learn new concepts and facilitate children's development in various domains, such as physical, social, and emotional development.

# **PHYSICAL DEVELOPMENT**

These preschool teachers believe that outdoor play facilitates children's physical development and supports their physical fitness. Catherine perceived that the major role of outdoor

play is supporting children's gross motor and fine motor development. Likewise, Amy also thinks that the biggest benefit of outdoor play is facilitating children's gross motor skills. She said, "The biggest thing about outdoor play is gross motor. Gross motor or another domain, physical development, which pretty much ties into each other." Catherine emphasized that children can also develop their fine motor skills by digging in the dirt, building blocks, or picking up things that are available on the playground.

During outdoor play, both teachers expect their students to engage in active physical activity, and they expect their students to engage in active movement with various materials that can promote their gross and fine motor skills, and hand and eye coordination while they play. Catherine stressed that young children practice balance and coordination skills while they play outdoors and that is a skill set that one cannot really master if it is not practiced. To help this, she often encourages her students to be active outdoors by verbally facilitating them to challenge themselves in active physical movement including jumping, running, flipping, stretching, and riding because she believes that young children need to run and move to develop their physical abilities.

In addition, Amy believes that outdoor play supports young children's health and wellness by providing them with opportunities to engage in physical activity and exercise daily. She further stressed that outdoor play may help lessen the obesity issue. She mentioned,

Outdoor play is very big on health and wellness and kids get their daily exercise to stay fit. As you know now, a lot of kids are becoming more and more obese... It's great when it comes down to the health part and kids are getting their physical activity. It keeps them active. They need it, they do.

Catherine also pointed out that young children need active physical movement, and it helps children not only develop gross and fine motor skills but helps them stay fit. She thinks that gross motor skills using large muscles and physical fitness develop together during outdoor play.

#### Social development

The teachers in this study perceived that developing social and emotional skills from early ages is very important because those skills influence children's future lives. These teachers believed that outdoor play time is the time when young children often experience interacting with others and practice their social skills. Amy argued,

There are many people who have not developed social and emotional skills. That really affects them later in life... a lot of kids miss out on how to express themselves, so by the time, when they get into middle school, they don't know how to act... So, it's very important to develop from early ages.

According to Catherine's experiences of outdoor play with her students, she realized that many incidents that enable children to learn and practice their social and emotional skills occur during outdoor play. During outdoor play, children are supposed to share play materials, wait for their turns, and be gentle to the environment and their peers. Catherine believed that practicing these skills outside is vital to learning how to properly play with their peers. To support children in developing these skills, she carefully observes her students during outdoor play and teaches them how to appropriately interact with others. She stated, "We teach them how to take turns, how to use gentle touches, how to also wait for our turn if someone else has a toy or a ball or something that we want." Amy also believes that outdoor play provides teachers an opportunity to find teachable moments to help children learn their social and emotional skills. She has taken the moments as valuable time for communicating with her students about how to be social during outdoor play and play with others in an appropriate manner. In Amy's viewpoint, communication is key to developing social skills, and she pointed out that a lot of social interactions occur during dramatic play outdoors because children actively communicate with one another when developing their dramatic play. She also thinks that some specific areas on the playground particularly accelerate her students' social engagement. For example, she has observed that her students often sit under the trees where natural shade is available, and "they start to have whatever types of conversations that they like to talk about and be socialize..." Amy thinks that young children like to find their own secret-like places with their peers and be socialized in their own places, such as in a cave-type area, on the little connected puzzle pieces, under teepees, or in hidden spaces under play structures where "the kids can go in and just hang out. Just a little mini hangout spot."

Catherine also perceived that children's use of their own language and communication are vital to be socialized; therefore, she always encourages her students to talk to each other during outdoor play. She stated, "We encourage them and prompt them [children] to have a conversation about it [what they are doing], to work on the language and the communication development and the social aspect of it." Catherine frequently encourages her students to play with their peers to help them develop social and verbal skills. She indicates that there are some children who are quiet and play by themselves or wander around. In these situations, she encourages them to find peers to play with and asks, "Why don't you go play with them?" to help them be more socially involved. In addition, when she sees some children who are by themselves and verbalizing with their friends, she encourages them to engage in social interactions by saying, "You can come play with these kids," "Let's go see what they're doing," and so on.

# Emotional development

The preschool teachers in this study perceived that outdoor play time provides crucial moments for helping their students develop their emotional skills. These teachers strive to find moments to implement their own strategies for promoting their students' emotional development. Amy strongly believes that children need to learn how to regulate their emotions and be able to stay calm or be able to verbally express their feelings are important skills to work on during outdoor play. She has found that using the "calm down chant" strategy is effective in teaching her students how to feel their emotions, express their feelings, and also help them understand that having emotions including negative emotions is nothing strange or wrong. This is natural and anyone can feel different types of emotions. In her words, the "calm down chant" strategy is illustrated as, "... if you get upset, you tell yourself ... You put your hands on your tummy. You say, "stop." You say how you feel, and then take a belly breath to teach yourself to calm down..." She has learned that the strategy helps her students understand that having their own emotions, such as being sad or upset is okay; however, they understand that they need to remain calm to help themselves regulate their emotions and not react with aggression. Although this strategy is used both indoors and outside, Amy emphasized that in many cases, the situations in which she implements this emotion regulation strategy frequently occur outside, because the children often fall, such as bump into each other, have issues in turn-taking, waiting, and sharing.

Catherine's beliefs also support the idea that playing outdoors offers ample opportunities for teachers to help their students work on emotional development. She said, "... when we came outside it's definitely when we had to really use it [emotional support strategies] ... because

outside is where it all happens, they push each other down, they hit each other with things." Catherine explained that applying what they have learned with regard to developing emotional skills in real situations is very effective because it allows them to think in authentic experience and discuss the actual situations which she thinks is more beneficial than learning on the carpet inside. Once she finds the related situations outside, she actively communicates with her students about the situations and lets them tell their feelings using emotional words and sometimes she teaches suitable words that they can use because sometimes "they know that they're angry, but they don't know how to say I'm angry, so they hit people or knock things over or have tantrums." Catherine mentioned that she asks questions, such as "If your friend is crying right now, how do you think they feel?" Then she discusses how to make a good choice while they play with their peers during outdoor play.

# **BURNING OFF ENERGY**

The teachers in this study perceived that children need to burn off their surplus energy and stated that outdoor play is extremely important for young children to use their energy by engaging in active physical movements. Catherine said,

... it [outdoor play] gets out all of that resting energy that they have inside. To take a three-year-old and have them sit at the desk or sit on the floor... It's like torture for them, I believe. They need to be outside moving, running, and being active.

Catherine has noticed that her students tend to be calm and less active in the morning; however, they become very energetic by the afternoon. They often have a hard time sitting still in the classroom and start to present inappropriate behaviors. She stressed that outdoor play helps her students be more active and burn off their energy. She stated,

When we go outside in the afternoon, they [my students] are screaming and they're running and they're like all in the trees and they're standing on the picnic tables and all of the energy is out now and they're fully awake...

Amy also argued that young children need to burn off their energy, and outdoor play does help them to do so. As a teacher, she has started to realize that children tend to be involved in more behavioral issues later if she has them sit down during outdoor play and does not provide time to get all of their energy out. Without giving her students an opportunity to freely engage in outdoor play, she has seen that her students would be "not really listening" once they come back inside. She further mentioned that young children's lack of outdoor play influences their indoor learning and behaviors negatively. She said, "I never really saw that before until it started happening, and then that's when I was like wow... they still need to get all that energy out." Likewise, Catherine mentioned that young children are unable to focus and sit still for a long time inside, and they need to actively move and refresh themselves. She accentuated that both adults and children need to spend their time outside. She said,

We used to have so many issues like sitting on the carpet, just having them sit for 10 minutes. They were all over the place, and we would just have to... let them go outside and like run a lap and they come back in. They really need to go outside, like children, and adults as well. People just need to be outside.

#### DISCUSSION

The findings of this study suggest that teachers' beliefs about the value of outdoor play included promoting environmental, physical, and emotional freedom, burning off energy, and facilitating learning and development in various domains including physical, social, and emotional development. Izumi-Taylor et al. (2010) studied teachers' beliefs about play, and the first out of six themes they found is 'a process of learning.' The authors emphasize that the majority of participating teachers from three different countries in their study perceived play as a process of learning and development. The participating teachers in the present study perceived that every outdoor play opportunity and interaction with nature are learning moments and that outdoor play and learning go hand in hand, especially through various firsthand experiences. A more recent study conducted by McClintic and Petty (2015) focused on preschool educators' beliefs about outdoor play practices in their playground environments. The teachers in their study strongly believed that children's outdoor play is essential for learning and development, although the teachers failed to express in-depth knowledge and inspiration to enhance physical outdoor environments at their work site.

Outdoor play supports children's physical development and is especially crucial in developing their gross motor skills (Green et al., 2012) because young children often engage in active physical play such as gross locomotor play (Pellegrini & Smith, 1998) during outdoor play. Davies (1996) examined how preschool teachers value outdoor play and what the main purposes of outdoor play are in their practices; it was reported that the majority of preschool teachers in his study believed the major role of outdoor play is supporting children's physical development. Teachers' beliefs expressed in this study align with these previous findings. For example, the findings of this study indicate that the participating teachers perceived that the major benefit of outdoor play is promoting children's physical development including gross motor skills through physical activity, such as running, hopping, and jumping. In addition, the findings of this study align with previous evidence that outdoor play also supports young children's fine motor development (Thomas & Harding, 2011) through activities such as digging the dirt, building blocks, or picking up things that are available on the playground. Teachers in this study also believed that play structures provide young children with opportunities to develop their different types of physical abilities.

The teachers in this study believed that outdoor play supports young children's physical fitness because open, spacious outdoor environments can provide young children with ample opportunities to engage in physical activity. The participating teachers further perceived that young children practice balance and coordination skills during outdoor play. This finding aligns with previous research examining the effect of outdoor environments on children's physical fitness, which revealed that kindergarteners aged from five to seven who experienced playing in natural outdoor environments on a regular basis displayed a higher level of motor fitness, including coordination, balance, and strength than those who were in the control group (Fjortoft, 2001).

According to Moore and Wong's (1997) observation, the newly developed natural spaces promoted children's social interactions, and the natural areas allowed children to have freedom in addition to providing opportunities for different kinds of play with frequent occurrence of spontaneous social play. Hartle (1994) found that children's communication skills and perspectivetaking skills were greater during outdoor play. Similarly, Wilson (2012) asserts that young children can develop their communication skills during outdoor play, which are crucial abilities for a child's social development. In addition, the findings of Davies's (1996) show that 50% of preschool teachers in their study viewed the primary role of outdoor play settings as beneficial for children's social development. Their findings and suggestions were supported by the findings of this study. The teachers in this study believed that outdoor play provides young children with a lot of opportunities to interact with others including teachers and peers and can practice their social skills.

One participating teacher described "being social" as "interacting with their friends by communicating with them," and she believed that communication skills are key for young children's social development. The participating teachers in this study view outdoor play provides a great opportunity for developing social skills because social interactions frequently occur during outdoor play, and children often use their own language and communication that are essential to be socialized. The teachers often encourage their students to play with their peers or invite a student who plays alone or wanders around the playground to help them engage in cooperative play and develop social and verbal skills. Fairly unrestricted outdoor playground environments allow greater freedom in the choices of interacting with peers (Boulton & Smith, 1993), and selectivity is more likely connected to developing positive social behaviors when teachers are supportive in this type of learning experience (Pettit & Harrist, 1993).

# LIMITATIONS

The findings drawn from this study might be different if there were more participants so that larger data could be obtained for the analysis. Alternatively, it is possible that the findings may be still similar but the stronger relationships among the codes, categories, and themes would be found through larger data. In addition, even though study participants may all have been gathered from the same contexts, drawing the same findings may not occur due to individuals' uniqueness and their individual experiences and thoughts about outdoor play.

# **IMPLICATIONS FOR PRACTICES**

From the findings of this study and previous literature on children's outdoor play, it is well documented that outdoor play is a vital context for providing young children with opportunities to have freedom, learn, and develop different skills including physical, social, and emotional. The research shows the benefits of outdoor play and also shows that teachers recognize these benefits.

Teachers' beliefs from this study and previous research show that teachers believe that outdoor play environments influence children's outdoor play and their learning and development. This implies that providing a well-developed, attractive outdoor environment is essential; thus, it is recommended that teachers, school directors, and administrators consider assessing their playground environments and the support they provide for outdoor play. Evaluating outdoor play spaces using self-assessment tools can make a self-evaluation process more feasible to identify what areas to improve in order to provide children with high-quality outdoor play experiences. In addition, the findings of this study suggest that teachers value natural environments for preschoolers' learning and development in various domains. Providing natural environments and implementing loose parts including transferrable natural materials in outdoor play spaces are suggested.

# **FUTURE RESEARCH**

Recently, many childcare centers in the United States have installed more naturalized playgrounds in place of traditional, man-made playgrounds. Replicating this study method with a

larger number of participants from different schools, populations, and regions would provide richer data and enable comparison of results. In addition, conducting similar studies with additional populations, such as parents and school administrators would provide more extended information. These data would allow comparison of the views of various stakeholders and could also be used to help develop collaborative relationships to better support outdoor play for young children's learning, development, and well-being.

# CONCLUSION

This study was designed to explore preschool teachers' beliefs about young children's outdoor play in naturalized play environments, through the individuals' own voices. The findings of this study throughout the process of data analysis using Charmaz's (2006) constructivist grounded theory, provide valuable information regarding the benefits of children's outdoor play on a more naturalized playground through the teachers' authentic experiences. The preschool teachers in this study perceived that children's outdoor play on a more naturalized playground promotes their freedom, burning off energy, and learning and development. These findings support and expand previous research on the benefits of outdoor play stating that "Outdoor play of any kind helps prevent obesity and related diseases, nurtures physical fitness, and improves development, learning, and overall well-being" (Frost, 2010, p. 261).

Also, this study may raise an awareness of the importance of understanding early childhood teachers' beliefs about outdoor play and play in naturalized environments. This is important, because teachers' beliefs may influence their practices and the quality of outdoor play they provide for young children. Therefore, it is worthwhile to explore teachers' beliefs, expressed in their own voices, to understand their perceptions and experiences and to better support children's outdoor play and exposure to nature in early childhood education settings.

#### REFERENCES

- Bixler, R. D., Floyd, M. E., & Hammitt, W. E. (2002). Environmental socialization: Quantitative tests of the childhood play hypothesis. *Environment and Behavior*, 34(6), 795–818. https://doi.org/10.1177%2F001391602237248
- Boulton, M. J., & Smith, P. K. (1993). Ethnic, gender partner, and activity preferences in mixedrace schools in the UK: Playground observations. In C. Hart (Ed.), *Children on playgrounds* (pp. 210-238). State University of New York Press.
- Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative analysis. Sage.
- Copple, C., & Bredekamp, S. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age eight*. National Association for the Education of Young Children.
- Cruickshank, D. R. (1990). *Research that informs teachers and teacher educators*. Phi Delta Kappa Educational Foundation.
- Davies, M. M. (1996). Outdoors: An important context for young children's development. *Early Child Development and Care, 115,* 37–49. <u>https://doi.org/10.1080/0300443961150104</u>
- Erikson, E. (1963). *Childhood and society* (2<sup>nd</sup> ed.). Norton.
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research*, 38 (1), 47–65. <u>https://doi.org/10.1080/0013188960380104</u>

- Fjortoft, I. (2001). The Natural environment as a playground for children: The impact of outdoor play activities in pre-primary school children. *Early Childhood Education Journal*, 29(2), 111–117.
- Frost, J. L., Wortham, S. C., & Reifel, R. S. (2008). *Play and child development*. Pearson/Merrill Prentice Hall.
- Frost, J. L. (2010). A history of children's play and play environments: Toward a contemporary child-saving movement. Routledge.
- Green, G., Riley, C., & Hargrove, B. (2012). Physical activity and childhood obesity: Strategies and solutions for schools and parents. *Education*, 132(4), 915–920.
- Hartle, L. (1994). Outdoor play: A window on social-cognitive development. *Dimensions of Early Childhood, 23, 27–3.*
- Herrington, S., & Studtmann, K. (1998). Landscape Interventions: New directions for the design of children's outdoor play environments. *Landscape and Urban Planning*, 42(2-4), 191-205. <u>https://doi.org/10.1016/S0169-2046(98)00087-5</u>
- Izumi-Taylor, S., Samuelsson, I. P., & Rogers, C. S. (2010). Perspectives of play in three nations: A comparative study in Japan, the United States, and Sweden. *Early Childhood Research & Practice*, *12*(1), n1.
- Kaplan, R. (1973). Some psychological benefits of gardening. *Environment and Behavior*, 5(2), 145–152. <u>https://doi.org/10.1177%2F001391657300500202</u>
- Kellert, S. R. (2002). Experiencing nature: Affective, cognitive, and evaluative development in children. In P. H. Kahn, Jr. & S. R. Keller (Eds.), *Children and nature: Psychological, sociocultural, and evolutionary investigations* (pp.117–152). The MIT Press.
- Kimbro, R. T., Brooks-Gunn, J., & McLanahan, S. (2011). Young children in urban areas: Links among neighborhood characteristics, weight status, outdoor play, and television watching. *Social Science & Medicine*, 72(5), 668–676.
- Louv, R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*. Algonquin Press.
- Malik, V. S., Schulze, M. B., & Hu, F. B. (2006). Intake of sugar-sweetened beverages and weight gain: A systematic review. *The American Journal of Clinical Nutrition*, 84(2), 274–288.
- McClintic, S., & Petty, K. (2015). Exploring early childhood teachers' beliefs and practices about preschool outdoor play: A qualitative study. *Journal of Early Childhood Teacher Education*, 36(1), 24–43. <u>https://doi.org/10.1080/10901027.2014.997844</u>
- Misra, M., Pacaud, D., Petryk, A., Collett-Solberg, P. F., & Kappy, M. (2008). Vitamin D deficiency in children and its management: Review of current knowledge and recommendations. *Pediatrics*, *122*(2), 398–417.
- Moon, K., & Reifel, S. (2008). Play and literacy learning in a diverse language pre-kindergarten classroom. *Contemporary Issues in Early Childhood*, 9(1), 49–65. https://doi.org/10.2304/ciec.2008.9.1.49
- Moore, R. (1986). Childhood's domain: Place and play in child development. Croom Helm.
- Moore, R. & Wong, H. (1997). *Natural learning: Rediscovering nature's way of teaching*. MIG Communications.
- Pajares, M. (1992). Educators' beliefs and educational research. *Review of Educational Research*, 38(1), 307–332. <u>https://doi.org/10.3102/00346543062003307</u>
- Pellegrini, A. D., & Smith, P. K. (1998). Physical activity play: The nature and function of a neglected aspect of play. *Child Development*, 69(3), 577–598.

- Pettit, G., & Harrist, A. (1993). Children's aggressive and socially unskilled playground behavior with peers: Origins in early family relations. In C. Hart (Ed.), *Children on playgrounds* (pp. 240–270). State University of New York Press.
- Piaget, J. (1962). Play, dreams, and imitation in childhood. W.W. Norton and Company.
- Rose, K. A., Morgan, I. G., Jenny, I., Kifley, A., Son, H., Smith, W., & Mitchell, P. (2008). Outdoor activity reduces the prevalence of myopia in children. *Ophthalmology*, 115(8), 1279–1285.
- Rubin, K. H., & Howe, J. N. (1986). Play and social cognition. In G. Fein & M. Rivkin (Eds.), *The young child at play* (pp. 113–126). National Association for the Education of Young Children (NAEYC).
- Stipek, D. J., & Byler, P. (1997). Early childhood education teachers: Do they practice what they preach? *Early Childhood Research Quarterly*, 12(3), 305–325. https://doi.org/10.1016/S0885-2006(97)90005-3
- Sutton-Smith, B. (1997). The ambiguity of play. Harvard University Press.
- Thomas, F., & Harding, S. (2011). The role of play: Play outdoors as the medium and mechanism for well-being, learning and development. In J. White (Ed.), *Outdoor provision in the early years* (pp. 12–22). Sage.
- U.S. Department of Health and Human Services. (2008). 2008 Physical activity guidelines for Americans. <u>https://health.gov/sites/default/files/2019-09/paguide.pdf</u>
- U.S. Department of Health and Human Services. (2023). *Physical activity guidelines for Americans* (2<sup>nd</sup> ed.). <u>https://health.gov/sites/default/files/2019-09/Physical\_Activity\_Guidelines\_2nd\_edition.pdf</u>
- Vartuli, S. (1999). How early childhood educator beliefs vary across grade level. *Early Childhood Research Quarterly*, 14(4), 489–514. https://doi.org/10.1016/S0885-2006(99)00026-5
- Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes*. Harvard university press.
- Wells, N. M., & Evans, G. W. (2003). Nearby nature: A buffer of life stress among rural children. *Environment* and *Behavior*, 35(3), 311-330. https://doi.org/10.1177%2F0013916503035003001
- Wilson, R. (2012). *Nature and young children: Encouraging creative play and learning in natural environments*. Routledge.