"She's Only Two": Parents and Educators as Gatekeepers of Children's Opportunities for Nature-Based Risky Play

47

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Contents

Abstract

Exploration of the natural world begins in infancy and is a vital part of a childhood that includes rich nature-based experiences. Children need opportunities to take age-appropriate risks in natural outdoor settings. The social ecology model suggests that children's experiences are influenced by a variety of contexts in their environment. As such, adults often act as gatekeepers of children's nature-based risky play opportunities, either promoting or restricting such experiences, within cultural and regulatory contexts. Therefore, a greater understanding of

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early childhood educators' and parents' attitudes and practices in relation to nature-based risky play for children is needed. Even though there are a variety of possible dangers inherent in the exploration of nature, it is natural that children are drawn to these experiences regardless of the safety concerns of modern parents. This Chapter takes an ecological systems and cross-cultural approach to discuss the role that nature-based risky play has in children's exploration of the natural world, its importance in quality early childhood education (ECE), and its benefits. The authors draw on studies of parents and early childhood educators from Australia and the United States to explore perspectives and practices related to the provision of opportunities for children to engage in nature-based risky play. Beyond the typical discussion of implications for research and practice, further insights are given for parents and educators alike on the ways in which outdoor risky play can be promoted, with a focus on connecting children with the natural environment.

Keywords
Outdoor play · Early childhood · Risky play · Teacher beliefs · Parent beliefs · Nature play · Ecological systems

Introduction

Most young children naturally seek out and enjoy challenging outdoor, nature-based play experiences (Stephenson, 2003). Opportunities to engage in outdoor, nature-based risky play from a very early age are beneficial for children's development of a variety of skills, developmental abilities, ecological literacy, thinking and identity (Little & Wyver, 2008), including but not limited to confidence, self-esteem, concentration, problem-solving, creativity, and resilience (Faber Taylor & Kuo, 2009; Brussoni et al., 2015). Studies link nature-based outdoor play to developmental milestones such as positive motor development (Fjørtoft, 2001, 2004) and decreased risk of developing myopia (Sherwin et al., 2012). Importantly, risky play may serve an evolutionary function, whereby children learn to regulate their fear and adapt to the current environment. This time exploring the natural world uninhibited assists children in developing ecological literacy, which can protect them from ecological risk factors (Sandseter & Kennair, 2011). Ecological literacy is important as it involves understanding the interconnections between natural and human systems and consideration of how human actions can impact the natural world (Stone & Barlow, 2005).

Through their exploration of natural outdoor environments and materials, children's risky play can also support their skills and attitudes of environmental citizenship (Blanchet-Cohen & Elliot, 2011) through increased positive attitudes toward the natural world. However, opportunities to engage in nature-based risky play are often influenced by various factors in the child's life, including but not limited to, parental beliefs and practices, early education environments and pedagogical practices, cultural beliefs, and regulatory factors. Individual characteristics of the child interact

with these factors to create unique situations for each child in relation to nature-based risky play.

Risky play is defined here as an outdoor, nature-based thrilling, and exciting activity that includes some risk of injury; such as balancing, climbing, sliding, and hanging upside down (Tovey, 2010). Often, risky play provides children with opportunities to challenge themselves, test limits, explore boundaries, and learn to make decisions about injury and risk (Little & Wyver, 2008; Sandseter, 2007). There is no doubt that in today's increasingly regulated and controlled society, safety concerns have led to reduced opportunities for children to engage in risk-taking play outdoors (Tovey, 2010). Although children's risk of injury may be reduced by limiting the risks they can take, there may be long-term negative effects associated with lack of risky play opportunities, such as diminished psychological well-being (Tranter, 2005) and other detrimental effects associated with inactivity (Little & Wyver, 2008). In fact, in Minority western cultures, children today spend more time watching television and being indoors than they spend being active in outdoor environments (McCurdy, Winterbottom, Mehta, & Roberts, 2010).

There is growing recognition of the value of children's interactions with the natural environment (Warden, 2010). The recent movement of nature kindergartens and forest schools in some Nordic and European countries supports this notion of the importance of providing rich opportunities for children to connect with and explore the natural environment (Lysklett, Emilsen, & Hagen, 2003; Nilsen, 2008). In such early childhood environments, nature serves as a pedagogical environment, rich with natural resources to support children's learning (MacQuarrie, Nugent, & Warden, 2017). Early childhood connections with nature – in this case through forest schools – have been shown to increase environmental attitudes (Turtle, Convery, & Convery, 2015). Attitudes toward conservation of the natural world may depend on deepening connections between children and the outdoor environment (Gill, 2014).

Research has found that there are a variety of factors which influence children's opportunities to experience outdoor risky play (Lester & Russell, 2008). The social ecology model (Bronfenbrenner, 1979, 2001, 2005) can be applied to this topic as a framework for analyzing the ways in which different systems interact to promote or limit these opportunities for children. Indeed, children's opportunities for nature-based risky play occur in a variety of contexts, including ECE environments, at home, in the community, and within cultural, political, and environmental contexts. The outdoor natural settings that children have access to are important environmental contexts that can support children's deepening connection to nature. These different "systems" and the adults and natural barriers within them can act as filters for children's available opportunities to engage in nature-based risky play. Although research indicates that it is important for young children to develop independence, learn to manage risks, and explore the natural world, adults' desires to keep children safe can impede opportunities to develop these skills particularly within natural settings (Lester & Russell, 2008; McFarland & Laird, 2017). Therefore, it is important to examine contextual influences in relation to providing children with nature-based risky play opportunities.

When exploring the connections between sociocultural theory and the natural world, connections between these spheres can be difficult to illustrate, as research exploring the psychological links between humans and the natural world began more recently in the latter part of the twentieth century. From the commonly referenced biophilia hypothesis (Wilson, 1984) to modern psychological studies of connections with nature (Schultz, 2002; Nisbet, Zelenski, & Murphy, 2009), a plethora of research shows our inclination to explore the natural world stems from a long and deep relationship with our environment. However, although humans remain inherently connected to the natural environment, particular sociocultural factors can impede or promote opportunities for children to directly engage with nature. For example, a child who lives in an inner-city apartment complex may not have regular access to green space, or children in certain early childhood education settings may not have access to extended outdoor free play due to health and safety regulations. Such restrictions on children's exploration of nature may in turn impact their future development and possibly even later conservation behaviors and actions (Muhar et al., 2018, see Fig. 3, p. 10).

Although some research on children's outdoor, nature-based risky play do exist (Cevher-Kalburan & Ivrendi, 2016; Little, Wyver & Gibson, 2011), this chapter builds on this research in several ways. First, by examining the issue using the framework of the social ecology model, we review the literature and present new research in the context of children's contextual systems in relation to nature-based risky play. Secondly, we discuss new research findings focused on children under 3 years of age. This is important as most studies in this area have focused on older children. The findings related to children under 3 years are significant as the early years are a period of rapid development in brain growth and cognition. Finally, we review literature and include new research from a sample of early childhood educators and parents in two countries (the United States and Australia) in both rural and metropolitan areas. Though examining two different countries' findings in relation to facilitators and barriers to children's opportunities for risky outdoor play, we acknowledge that much of the research has come from a middle-class, Minority Western view. Implications of this minority world view will be discussed.

Children's Play

It is common in the early childhood sector to use the phrase "learning through play." The Early Years Learning Framework (EYLF), which is Australia's national early childhood curriculum framework, describes play-based learning as "a context for learning through which children organize and make sense of their social worlds, as they actively engage with people, objects and representations" (Department of Education, Employment Workplace Relations [DEEWR], 2009, p. 46). But what exactly constitutes play? Although there is no one definition, there are a number of generally agreed-upon characteristics of play (Barblett, 2010). Play is a pleasurable activity but can sometimes include frustrations, challenges, and fears. Play also often includes "pretend" elements and requires some sort of action, whether it be physical,

verbal, or mental engagement with materials, people, ideas, or the environment. Play is freely chosen, process-oriented, and rewarding to the player (Shipley, 2008). Play is a necessary and healthy part of childhood.

Characteristics of Risky Play

There is some variation in the literature in relation to what constitutes "risky play." Most literature suggests that risky play is a natural part of children's play and that children actively seek out opportunities to challenge themselves (Sandseter, 2007; Stephenson, 2003). There is also agreement that risky play typically involves some sense of thrill and excitement for the child (Tovey, 2010). Children report that risky play evokes positive emotions, such as fun, enjoyment, pride, and self-confidence (Coster & Gleeve, 2008). Risky play also involves some chance that injury can occur and some sense of fear (Stephenson, 2003). At times, the outcome of risky play is not positive. If the child is unable to manage the risk, unpleasant emotions, such as fear and anxiety, can be experienced. Children report that the risky play is both fun and scary at the same time (Coster & Gleeve, 2008). Most of the time, in early childhood education settings, risky play takes place in the outdoor setting during unstructured, free play time (Sandseter, 2011). The development of forest schools in Minority western view countries is relatively new but provides greater opportunities than any other school setting to engage children in outdoor, nature-based risky play (Maynard, 2007; Waters & Begley, 2007). Risky play is commonplace in forest schools and often considered a positive aspect of the children's interaction with the natural environment.

It is important to distinguish between a *risk* and a *hazard*. A *risk* is something that can be negotiated and something that may be appropriate for particular situations and children; however, a *hazard* is something that is inherently dangerous and needs to be fixed or removed (Curtis, 2010). A "safe" risk means that the potential benefits outweigh the risk of possible harm and the consequences of the risk are likely to be minor (Kennedy, 2009). Risky play has many distinct classifications (Sandseter, 2007) including, *great heights, high speed, dangerous tools, dangerous elements, rough-and-tumble, and disappear/get lost*. This last risky play category has developed over time to become a major fear of many Minority western world parents (McFarland & Laird, 2017).

Benefits of Risky Play

There is copious evidence that risky play offers benefits for children in a variety of ways (Brussoni et al., 2015; Tremblay et al., 2015). Importantly, risky play allows children opportunities to develop decision-making skills about what risks they are capable of taking. In doing so, children learn to assess risks in particular situations, extend their personal limits, and learn important life skills (Tovey, 2010). For example, a child may decide that they want to climb to the top of a tree in the

park. The child then needs to work out how to go about doing this in a way that minimizes the chance of getting hurt. On the first attempt, the child might try to hoist themselves up by clutching a branch with their hands and hook their legs around the branch. However, the child might tumble to the ground when they realize the branch is too high to get enough momentum to hoist the rest of their body onto the branch. In this case, the child has to problem solve and may realize that if they move a large rock near the tree and stands on it, they would get enough height to be able to hoist up. In particular play situations that involve risk taking, children may sometimes succeed and sometimes fail. These failures can be learning opportunities in that they allow children to work out different ways of doing things in future situations (Tovey, 2010). As a result of this trial and error, emotional development is supported in that children's sense of motivation to accomplish goals and master new challenges is further developed (Stephenson, 2003). These failure experiences can be quite positive for children over the long term. Risky play can also lead children to experience positive emotions, such as feelings of fun, excitement, pride, and achievement (Coster & Gleeve, 2008), thereby increasing overall wellbeing. O'Brien (2009) reported increases in student self-esteem and confidence as a result of their forest school experience. These educators also noted social skills were improved along with their motivation and concentration, including the inspirational moments that come from new experiences in the natural world.

Social skills also develop from risky play as children build resilience and social competence when interacting with others (Kennedy, 2009). In engaging in risky play with others, children learn to express their opinions and make decisions. In group situations, children engage in give-and-take as they negotiate and confront risks. Additionally, the large and fine motor movements that children practice in risky play contribute to the development of balance, coordination, and body awareness. Children who have limited opportunities to engage in risky play may not be confident in their own physical abilities, have poor balance, and develop a fear of movement (Greenland, 2010).

A recent review of studies related to the benefits of risky play concluded that risky play impacts positively on various physical and social health indicators and behaviors in children (Brussoni et al., 2015). In one experimental study, children aged 4–6 years were exposed to a 14-week risky play intervention in their classroom setting, including within the classroom itself, and in a gym. The intervention was linked to improved risk detection and competence, increased self-esteem, and decreased conflict sensitivity, in relation to their pre-intervention performance, and when compared to a control group (Lavrysen et al., 2015). Other research has found evidence that risk taking in early childhood is related to positive outcomes in adolescence. Thus, experience with taking risks during childhood could help develop risk management strategies. This could in turn impact adolescents' ability to negotiate decisions about substance use, relationships, and sexual behavior (Gill, 2007; Ungar, 2007).

Nature-based risky play clearly provides many benefits for children (Fig. 1). However, there are certainly individual differences in how children experience these opportunities. For example, there is some evidence that boys and girls perceive

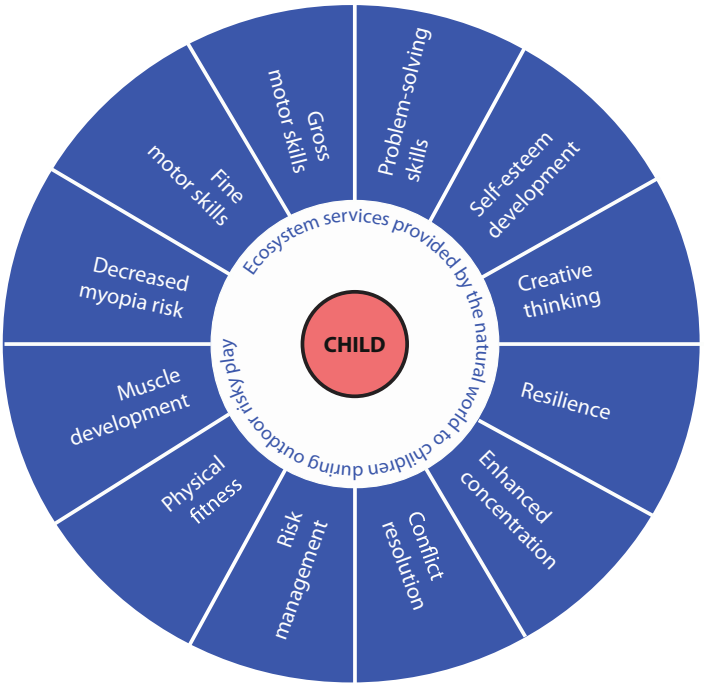

Fig. 1 Ecosystem services provided by the nature-based risky play interaction

opportunities of risky play differently – boys are more likely to assume they will not be injured, compared to girls (Morrongiello, Midgett, & Stanton, 2000; Morrongiello & Rennie, 1998). Also, different children will perceive and interpret their environments differently in relation to what they can do there and what types of play they can engage in (Sandseter, 2011). Children with particular behavioral disorders or disabilities may be less aware of how to manage certain risks in the outdoor environment (Kern & Wakeford, 2007).

Importantly, children's ages and developmental stages and their associated physical and decision-making skills need to be considered (Kennedy, 2009). Adults who care for children must be aware of general child development and have age-appropriate expectations of what children can and cannot do. However, an ages and stages approach should not be the only determining factor in the provision of opportunities for risk tasking. Thus, the assumption that a child cannot do something because he or she is too young can be restrictive. For example, it is sometimes assumed that babies and toddlers are "too young" to take risks (McFarland & Laird, 2017). However, there are endless possibilities for risk-taking opportunities for very young children. What is important is that adults consider a variety of factors related to the specific needs and skills of each individual child. As Rinaldi (2006, p. 94) states, "We need to raise our level of listening, our dialogue and attention toward children, to observe them and to stay close to them, but not to

Fig. 2 Temporal ecosystem interaction and engagement

scrutinize them, spy on them, impede them from maintaining their privacy, and above all not to inhibit their curiosity and joyous outlook on the world."

Children are naturally inclined to explore their immediate environment. Even as infants, children roam as they are able and use tactile and oral connections to explore the world around them. Though modern, some Minority western cultures have chosen to keep children in largely sterile and indoor environments, whereas exploration of soil, grass, and bush are common in many other parts of the world. These outdoor nature-based activities might be limited in scope by children's developmental level but can be designed to scaffold experiences for children based on where they fit (developmentally and spatially) into the ecosystem itself (Fig. 2). Although it is the case that all children, regardless of age and development, interact with elements and organisms in nature, very young children may be well-suited to interact with ground-level plant and animal communities, observing insects and grasses, whereas older children may participate in a more broad interaction with trees of

all heights and various larger plants and animals. As they continue to grow, the scope of children's interaction with nature can become more regional or even global in scope. Older children and teenagers are more likely to engage with a myriad of ecosystems and ecoregions through greater opportunities for travel and exploration.

A Systems Approach

Given the body of research, it is clear that many factors impact on children's access to and opportunities for outdoor risky play (Cevher-Kalburan & Ivrendi, 2016; Little et al., 2011). Two theoretical models which examine the influences of various systems in a child's life can provide useful frameworks to further examine early childhoodnature interactions, as both models consider a range of environmental and biological factors which can interact to influence uniquely and be influenced by individual children. The social ecology model (Bronfenbrenner, 1979, 2001, 2005) and Morrongiello and Lasenby-Lessard's (2007) model of psychological determinants emphasize the ways that multiple systems interact to influence children's risky play opportunities. Children exist as a part of these overarching systems and are influenced just as they themselves influence the natural world (Muhar et al., 2018, see Fig. 1, p. 2).

In order to understand the ecological models that exist in relation to children's risky play, Morrongiello and Lasenby-Lessard's (2007) model is first discussed. An ecological model focusing specifically on children's risky play, Morrongiello and Lasenby-Lessard's (2007) model emphasizes individual, parent/family factors, social/situational factors, and macro-level factors (e.g., neighborhood, economics, and culture) as determinants of children's decision-making in risky situations. In this model, children's opportunities for outdoor risky play are described as occurring in a variety of contexts, including early childhood education environments, at home, and in the community (Little et al., 2011). Therefore, the adults in these contexts act as filters or "gatekeepers" for children's available opportunities to engage in outdoor risky play.

The social ecology model takes a broader view than Morrongiello and Lasenby-Lessard's (2007) model and includes a wider variety of possible influences on the child. This model focuses on the direct and indirect impacts on the child of the "enduring environment in which he (sic) lives" (Bronfenbrenner, 1974, p. 2). This enduring environment, or ecology, consists of five nested systems of interaction: the *microsystem, mesosystem, exosystem, macrosystem,* and *chronosystem.* All of the systems influence and are influenced by the individual child. According to the social ecology model, the child is not a passive recipient of experiences within the systems. Rather, the child helps to construct these settings (Santrock, 2007). At the heart of these nested systems is the individual child and her or his characteristics, such as age, gender, health status, etc. (Fig. 3).

Although there is a strong human emphasis in the social ecology model, this model can also be used to examine interactions with ecological systems. In doing so, children's interactions with the natural world are seen as important factors in the

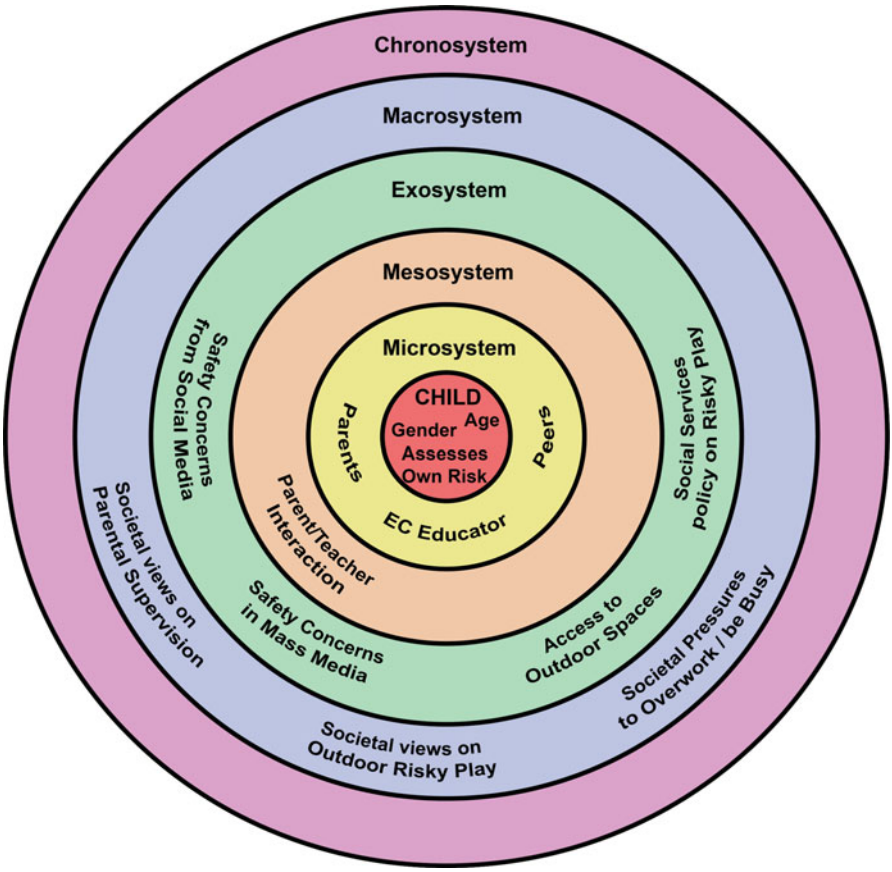

Fig. 3 A systems approach to risky play

development of ecological literacy (Stanger, 2011). Indeed, it is problematic to focus only on "human" systems when examining children's development and in particular, their opportunities for nature-based risky play. According to Stanger (2011), "if we are to use ecosystem-based language, it needs to describe the complex interrelationships that support the long-term integrity of living systems rather than the short-term singularity of human-designed marketing" (p. 167). Stanger (2011) further suggests that the true ecology that sustains and affects humans, including but not limited to, food systems, energy systems, biological systems, nutrient systems, water systems, and atmospheric systems is underrepresented in Bronfenbrenner's traditional social ecology model of human development. Thus, it is important to keep in mind the overrepresentation of the human influence when applying this model to examine children's nature-based risky play.

The *microsystem* includes the settings in which the child is immediately involved, including the interactions and activities within these settings. Bronfenbrenner also

defines the microsystem to include the "particular physical and material characteristics" of a setting (1979, p. 22). Here is where the most direct interactions with social agents occur, such as with parents, peers, and educators. The microsystem is also where the materiality of settings is important; these can include children's exposure to nature elements and/or nature-rich environments. In this chapter, the influences of several microsystems factors, such as parents and early childhood educators, on children's opportunities for risky outdoor play are examined.

The *mesosystem* involves relationships between different microsystems or connections between contexts. Important mesosystems for young children include relationships between the home setting and the early childhood setting or school, home and neighborhood, and early childhood or school and neighborhood. Indeed the early childhood setting and home setting mesosystem is particularly significant to the child's development and wellbeing (Garbarino & Plantz, 1980). Bronfenbrenner (1979) suggests that children's development is enhanced when there is frequent supportive communication between the home and early childhood settings. In relation to children's outdoor risky play, this mesosystem is important as early childhood educators and parents must work together to ensure appropriate opportunities are provided for children.

The *exosystem* includes social settings that have power over children's lives, yet in which the child does not have an active role. Exosystems can include education systems, mass media, social media, and social welfare services, to name a few. The exosystem can have an influence on children's opportunities to engage in outdoor risky play. For example, safety regulations and other regulatory factors and curriculum documents in the educational setting can support or hinder these opportunities.

The *macrosystem* includes the broad ideological and institutional patterns of a particular culture. A macrosystem is "the norms about how development proceeds and the appropriate nature and structure of microsystems, mesosystems, and exosystems" (Garbarino & Plantz, 1980, p. 12). In relation to children's opportunities for risky play, the exosystem is where a child's cultural beliefs and practices become important. Additionally, cultural beliefs of important adults in the child's life can impact the mesosystem. For example, it is possible that early childhood educators and parents will have different cultural views and practices in relation to encouraging children's risky play.

Finally, the *chronosystem* involves the patterning of environmental effects, transitions, and sociohistorical circumstances over the life course (Santrock, 2007). Essentially, the chronosystem is the "time" that passes throughout one's life. Certainly in relation to children's risky play, the chronosystem has an influence as throughout history, general attitudes, opportunities, and practices related to outdoor risky play have changed. In modern society risk taking during play has become increasingly regulated, managed, and controlled. At times, opportunities for risky play have been removed completely (Tovey, 2010). In Minority western countries in particular, there are fewer opportunities than ever before for children to engage in risky play. Today, children spend more time watching television and playing indoors than they do engaging in physically active outdoor play (McCurdy et al., 2010).

It is clear that children in Minority western societies are more sedentary and spend more time indoors than they did in past generations; this limits opportunities to engage meaningfully with nature (Louv, 2005). The reduction in children's direct exploration of nature may also impact opportunities to engage in risky outdoor play. There are various reasons why this is the case. Using the social ecology model as a framework, the impact of multiple systems in a child's life can be examined in relation to children's opportunities to engage with and connect to nature, including opportunities for risky play (see Fig. 3). As discussed, Morrongiello and Lasenby-Lessard's (2007) model can also be used to specifically apply to contextual influences on children's risky play. Given the numerous benefits of outdoor risky play, it is important to understand how these systems work together to support or hinder such opportunities for children.

Facilitators and Barriers from a Systems Perspective

Here, we examine our own (McFarland & Laird, 2017) and others' research focused specifically on the two most important microsystems and how they influence children's opportunities for nature-based risky play: the family and ECE context. In doing this, we also discuss aspects of the exosystem and macrosystem which influence these microsystems. Finally, we address how the family-early childhood education setting mesosytem can work together to support children's nature-based risky play.

Parents/ Carers. One role of the parent is to provide opportunities and time for their children to participate in a broad variety of experiences to prepare children for broader aspects of life as they grow up. Not only do parents determine the extent to which their children get to spend time outdoors in natural settings, parental figures further extend this influence through their allowing for greater opportunities for their children to engage in nature-based risky play. Parents may also act as role models for children, as they model their own engagement with nature. In our research that surveyed a sample of parents from city and rural areas of the United States and Australia, the majority of parents recognized the importance of risky outdoor play and letting their children explore their own boundaries. Risky play was considered an important part of the childhood experience by many of the parents, particularly as it related to their own childhood experiences of gardening and outdoor free play (Laird, McFarland-Piazza, & Allen, 2014). This recognition of the importance of outdoor risky play was evident across all parents, regardless of whether they lived in the city or a rural area and whether they lived in the United States or Australia.

However, despite the recognition that risky outdoor play was beneficial, parents expressed concern as they considered the increased risk of injury and harm to their child through this type of unsupervised experience. Though the parent ultimately has the greatest amount of control over how much outdoor risky play their young child can participate in, the influences from outside the immediate microsystem of parent/child are easily seen though the parents' discussions exploring barriers to providing their children with such opportunities. For example, one parent stated that her

daughter "needs supervision in the front yard because of traffic" and another parent stated, "Our home is not an ideal space. . .we live on a busy street. We have a small fenced backyard, but it has steep terraces and drop offs." Additionally, outdoor risky play for parents seemed to come in a variety of levels, from high-risk play such as allowing children to play beyond the yard unsupervised to very low-risk play, such as playing with a parent close by on the ground.

Parents did not want to be seen as "helicoptering" their children. The phrase "helicopter parent" refers to a parent who is overprotective to an excess. This concern seemed much more deeply rooted in their own insecurities as a parent, and the perception others might have of them, than it was about any detriment to the children caused by the act of helicopter parenting itself. Research has also found that parents socialize boys and girls differently in relation to risky play (Morrongiello & Dawber, 1999, 2000). This is a microsystem factor, which can be influenced by exosystem (mass media-fear tactics) and macrosystem (norms of the culture). This means that boys possibly receive more experience at risk taking at a younger age thanks to the encouragement they receive to take greater risks or even just to play outside in general (Little, 2010).

Exosystem factors play a large role in parental attitudes toward children's risky play. Popular media can often present the world as an unsafe place, thus influencing parents' attitudes and parenting practices. For example, parents are often too concerned about traffic, the threat of kidnapping, wild animals, and other perceived dangers to allow their children to play and explore freely in the natural environment. This inflated level of fear created by popular media may influence parents to restrict their children to playing in their back yards or local parks, which may fail to offer appropriate nature-based risky play opportunities (Brussoni, Olsen, Pike & Sleet, 2012; Little & Wyver, 2008; Little et al., 2011). Other exosystem factors that can play a role in parental attitudes toward children's risky play include their own neighbors, neighborhoods, and social services. In recent years, US neighbors have called police officers to check on children seen in their own yards playing unsupervised (see Roy, 2014), which can lead to an investigation by local child services departments for neglect. This fear of punishment from child protective services departments or police departments can be shocking for privileged parents but could even have more dire consequences for families that already struggle under systems that disproportionately disadvantage certain populations. The survey indicated that access to safe outdoor spaces in which to explore was a concern of the respondents in trying to provide nature-based risky play opportunities for their children. In acknowledging our primary research experience and focus here comes from our middle-class and minority world view, we can identify that these exosystem factors might be further influenced through attitudes across the broader culture. Thinking about society's expectations for parents concerning their child's participation in outdoor risky play, macrosystem influences may vary greatly.

Since its release in 2005, Richard Louv's book, *The Last Child in the Woods*, has greatly influenced many middle-class minority world parents through its reflection on a simpler time when children roamed the woods unimpeded in nature-based

outdoor risky play. This unimpeded nature-based outdoor risky play described by Louv (2005) is often the type of early play experienced and recalled by adults. In our study, many parents discussed their early outdoor play experience, consisting largely of unsupervised and unimpeded exploration of the outdoors (Laird et al., 2014). This look back toward an ideal risky play type, based in a largely middle-class context, means that parents might find other types of nature-based risky play unacceptable or not "real" or "authentic" outdoor experiences (Dickinson, 2013). Children from low-income households might undertake risky behaviors through engaging in play outdoors in open spaces or vacant lots nearby. Children from urban areas might explore a local manicured park as their only possible access to a natural-type outdoor setting. However, these spaces may not be considered as "authentic" as the wooded setting of a forest school or the rolling hills of an open grassland. These cultural biases on what constitutes "authentic" nature-based risky play have created an oversight in the literature based on the experiences most likely to have occurred in the middle class Minority western parents who are more likely to be involved in research studies. Our own research goes some way to address cultural biases by including participants in urban and rural areas in both Australia and the United States.

There was a certain level of privilege in our sample groups, both urban and rural in both Australia and the United States. One response that seemed to have a strong macrosystem level embedded cultural view from the parents was that their child, no matter how young, was too young to be participating in outdoor risky play. Parents would say, "she's only two," or "he's only five," noting that they should not be left on their own unsupervised at any moment. This idea seemed pervasive across the two countries and urban and rural parents. Certainly anyone who has spent time outside of this privileged ideal of constant parental supervision knows that many children in other countries or socioeconomic groups are allowed to explore on their own around their own yards, neighborhoods, local areas, and/or perhaps even villages or towns from quite young ages, either from necessity or due to cultural differences in child rearing practices. This idea that there is a certain age when it becomes acceptable for children to participate in outdoor risky play may be a concept based in the Minority western, middle class culture of our participating parents. Another consistent macrosystem level cultural view observed from the parents was the concept of temporal restrictions on outdoor risky play. The parents reported positive views on children engaging in outdoor risky play but then note their largest barrier is too little available time to spend engaging in that way. Barriers cited included homework and after preschool activities, along with arrival at home after dark in the evenings. Certainly, the concept of "busy-ness" is relatively constrained to Minority western, middle class cultures as well.

Early Childhood Educators. Early childhood educators are no doubt, important influences in children's lives. Increasingly, young children are spending more time in ECE settings. For example, in Australia, the majority of children between the ages of 3 and 5 years attend some form of ECE programme. Rates of children under the age of 3 in formal ECE are also increasing in Australia (Baxter, 2015). In the United States (Child Trends, 2016) and England (Department for Education, 2016), the rates of attendance in ECE

settings are similar to that of Australia. The rates of children under 3 attending formal ECE settings in Nordic countries, such as Denmark, the Netherlands, Iceland, and Norway, are well above 50%. In some European countries, such as France, Spain, Belgium, and Italy, the average enrolment rate of children between 3 and 5 years in formal preschool education is around 100% (Organisation for Economic Co-operation and Development [OECD], 2014). Clearly, for many children around the world, the early childhood setting is a microsystem that will play an important role in their lives.

In relation to nature-based risky play, Greenfield (2003) argues that ECE settings play an important role in providing young children with opportunities to safely to take a variety of risks and extend their skills and capabilities safely. Environments such as this can empower children to construct their own learning and develop confidence and resourcefulness (DEEWR, 2009). The national curriculum documents of various countries provide early childhood educators with an overarching framework for curriculum and pedagogy. The curriculum documents represent an *exosystem* influence on children's opportunities for risky play.

Directly related to risk taking, the Australian Early Years Learning Framework (EYLF) states that children can reach the outcome "Children have a strong sense of identity" by taking considered risk in their decision-making and learning to cope with the unexpected (DEEWR, 2009). Other early childhood curriculum frameworks, while not specifically referencing risky play, discuss the importance of the development of physical skills, managing their environment and asking for help when needed. For example, England's Early Years Foundation Stage Framework (EYFS) states that ECE settings should provide "opportunities for young children to be active and interactive; and to develop their co-ordination, control, and movement" (p. 8) and that children should be encouraged to "investigate and experience things, and 'have a go'" (Department for Education, 2017, p. 10). Certainly in Nordic countries, the value of children's experiences in rich, natural outdoor environment and engagement in risky play is advocated by educators and parents alike (Aasen, Grindheim, & Waters, 2009). This wide acceptance of the value of such experiences is well supported by the Framework Plan for the Content and Task of Kindergartens (Norwegian Ministry of Education and Research, 2011), which states that "(staff must) facilitate and provide inspiration for safe and challenging physical games and activities for everyone, regardless of gender and physical, psychological and social circumstances..." (pp. 35–36).

Despite the exosystem influence of national curriculum documents and their support for children being engaged in physically active and exploratory play, opportunities for this type of play vary as this is controlled by early childhood educators and determined by teacher beliefs (Little et al., 2011). For example, when educators' personal attitudes about risky play are more positive and when they enjoy being outdoors themselves, they are more likely to support children's risky play (Stephenson, 2003). Similarly, Sandseter (2007) found that when educators have a more positive view about the benefits of risky play, they are not likely to prevent risky play on grounds of possible injury alone. Additionally, Waters and Begley (2007) found that educators at a forest school, where there is a heavy focus on outdoor play, were

more likely to support children's risky play compared to educators at a traditional preschool.

Of course, even if early childhood educators hold positive beliefs about the importance of outdoor risky play, they need to balance children's safety with such play. Educators must apply mandated safety regulations to their work with children, which is another exosystem influence. For example, in Australia, ECE settings are mandated by the National Quality Standards (NQS), which is intended to maintain quality and consistency across settings (Australian Children's Education and Care Quality Authority [ACECQA], 2012). Related to provisions for outdoor risky play, Quality area 2 of the NQS "Children's Health and Safety" mandates that "Each child is protected" (Standard 2.3) and that "Every reasonable precaution is taken to protect children from harm and any hazard likely to cause injury" (Element 2.3.2) (ACECQA, 2012). Clearly, in light of safety regulations, a risk-benefit analysis needs to be undertaken where the possibility of children's injuries is weighed against the potential benefits of children's outdoor risky play (Sandseter, 2011).

Evidence suggests that due to the growing culture of litigation, early childhood educators are increasingly concerned about being held liable for injuries to children in their care (New, Mardell, & Robinson, 2005). early childhood educators do indeed have legitimate concerns over injuries and want to avoid taking the blame for accidents (Tovey, 2011). However, in an attempt to avoid injuries and liability, early childhood educators may often put restrictions on children's play based on their own perception of what is risky or dangerous, rather than assessing individual children's capabilities of managing risks (Sandseter, 2011). As such, early childhood educators may at times enforce controls on children's outdoor activities that they perceive as risky. These restrictions, in turn, may lead to children feeling disempowered (Stan & Humberstone, 2011). It is sometimes assumed that by removing all risks, children will be safer in their environment. However, this assumption fails to acknowledge that risk taking is a positive feature of children's play, learning, and development (Tovey, 2011). Sandseter (2010) suggests that this safety-obsessed society could result in children who are less physically fit and skilled and who have less ability in managing risks. Additionally, reduced opportunities for children to engage in outdoor risky play may result in an impoverished relationship with nature, as risky play provides opportunities for children to interact in meaningful ways with nature.

The mesosystem of the early childhood setting is also impacted by *macrosystem* influences related to cultural attitudes and norms around outdoor play in general. Waller, Sandseter, and Ärlemalm-Hagsér (2010) note that even between world Minority western countries, there is great variability in the culture of childrearing and what types of care are considered normal or acceptable. For example, the rise of forest schools in some Nordic countries may have emerged trhrough Nordic cultural preference for outdoor recreation and emphasis on social engagement in the ECE environment versus the more academic emphasis of more English speaking countries (Waller et al., 2010). The forest school approach facilitates student learning through immersion in the outdoor environment and even focuses on child-led experiences (Maynard, 2007; O'Brien, 2009; Turtle et al., 2015), with these experiences being increasingly important as a part of the early childhood experience (Knight, 2009, 2011). As early

childhood educators and education centers take notice of the increasing movement to get children connecting with the natural world, these cultural influences will result in more intentional outdoor learning in environments such as forest schools, increasing the possibilities of outdoor, nature-based risky play for children.

The preceding discussion has illustrated some of the challenges facing early childhood educators in managing children's opportunities for outdoor risky play. Using the social ecology model (Bronfenbrenner, 1974), we have identified a complex interplay between children's *individual* characteristics (age, developmental abilities), *microsystem* (the home, ECE setting and educator and parent beliefs), *exosystem* (national curriculum documents and mandated safety regulations), and *macrosystem* influences (cultural perspectives). Clearly, early childhood educators have a role to play in the provision of outdoor risky play for children. Importantly, however, so do parents. Educators and parents must therefore work together within cultural and regulatory systems in order to ensure appropriate opportunities for risky play are provided for children.

Implications for Childhoodnature and Early Childhood Education

There is clearly great value in children's interactions and explorations with the natural environment (Warden, 2010). Therefore, it is important to provide rich opportunities for children to explore nature in meaningful ways (Gill, 2014; Lysklett et al., 2003; Nilsen, 2008), as there are a range of physical, social, and emotional benefits (MacQuarrie et al., 2017). One way to promote and enhance children's connection to nature is to allow opportunities to engage in risky outdoor play. Through outdoor risky play, children are able to interact with nature in a hands-on way, where they not only develop their physical, social, and cognitive abilities but also an appreciation of nature.

In order to make risky outdoor play available to children in ECE settings, it is necessary to create a well-supervised and supportive environment where the benefits of risky play can be balanced by decreasing the risk of injury. In doing so, early childhood educators must recognize the benefits of risky play and use their own professional judgment to create opportunities that are appropriate for the children and families at the setting. Risky play opportunities must also be set up in a way that is age appropriate (Richardson, 2013). However, accidents do happen even in the most well-planned and supervised setting, and it is important for educators, as well as children, to learn to deal with them (Richardson, 2013). As Warden (2011, p. 13) suggests, "The adult role is to remove hazards that the children do not see, not the risks within the day." Little and Eager (2010) found that allowing children to have input into the design of playgrounds or risk-taking opportunities can encourage them to take more appropriate risks. When only low-risk opportunities were provided to the children in their play time, children were more likely to use play equipment incorrectly, increasing their risk of injury.

Importantly, potential barriers that could restrict children's opportunities for outdoor risky play, both in ECE and in relation to educating parents,

need to be addressed. Firstly, some further education may be necessary on the part of ECE training institutions to provide up-to-date information to future early childhood educators on the importance of nature-based risky play for young children and the ways that children can explore taking risks in the outdoor environment. early childhood educators also have the opportunity to influence the parent perceptions of outdoor risky play through positive talk or reports on risk-taking accomplishments of their children each week. For example, when sharing children's portfolios and documentation with parents, emphasis can be placed on the various skills children acquire through outdoor risky play. Resources and newsletters can also be distributed to families about the benefits of outdoor risky play (Wilkinson, 2015). ECE centers might consider offering parenting seminars or workshops focused on topics important to the centers, including the importance of managed risks in the development of young children. Obviously from the plethora of sources noted here, there are many ECE professionals and researchers who are promoting the importance of risky play, but this information is not reaching parents or the public in a way that is influencing their behavior. Parents need to understand that some injury may result from any activity within the early childhood setting, including activities that are not necessarily considered risky. Some parents noted a lack of time or being too busy as a barrier for their child to participate in outdoor risky play; however, these parents may already be benefitting by their children participating in an ECE center that allows children to take appropriate risk, as many of our center educators noted was valued. Some of the other barriers parents note are more difficult to address, including access, safety, and age because these influences lie at the exosystem and macrosystem level of Bronfenbrenner's social ecology model and are not as easily changed.

An understanding of developmentally appropriate risk for parents is necessary for children to receive the appropriate opportunities for outdoor risky play outside of the ECE center environment. Inclusion of nature enrichment experiences and risk accomplishments in weekly reports to parents, just as they would report for other accomplishments like learning new words or skills, could contribute to a more positive view of risk by parents and carers. Practice for the parents may help in overcoming their fear response, perhaps even with a coach on the playground or outdoor environment that could help parents understand the age-appropriate risks involved in various activities. Many parents may not know that very young children are likely to gain positive experiences from activities as simple as playing in sand, experiencing different textures of different plants or grass types, or playing near structures they may need to crawl over. Parents of young children may not be aware of how developmentally capable children are and may need clarification on how to promote particular age-appropriate developmental skills related to outdoor risky play, for example, independent climbing up a rope structure. Parental understanding of the capabilities of young children is needed to counteract the exosystem bombardment of mass media messages of safety concerns for children. The importance of the mesosystem connections between ECE professionals and parents here cannot be underestimated. This interaction has the potential to influence the child/parent relationship and ultimately help to create

more opportunities for children to engage in outdoor risky play, thus, building children's meaningful connections to nature.

Conclusion

The benefits of childhood risky play in nature are plentiful and natural. The exploration of potential barriers to and methods for encouraging risky play by children allows for a deeper understanding of the childhoodnature relationship. Through a systems approach, using the social ecology model as a guide, we reviewed the importance of an integrated approach across system dynamics in order to create more opportunities for outdoor and nature-based risky play in early childhood. Many of the barriers to children having access to outdoor risky play opportunities lie at the macrosystem and exosystem levels of this model. Such issues are more difficult to tackle with individual parents or ECE centers on a microsystem level. However, ECE centers and professionals have a great deal of opportunity to engage with parents at the mesosystem level, influencing the lives of the children through engaging their parents in meaningful discussion and even illustration of the importance of appropriate risk, especially in the form of outdoor risky play.

The interactions of early childhood educators and parents could play a vital role in overcoming the macrosystem and exosystem barriers to the provision of outdoor risky play opportunities by parents in the home environment. Parents may not fully understand the importance of outdoor risky play and therefore do not make it a priority for their children during out of school and work hours. Focusing on the views of parents that the outdoor environment is unsafe or that their children are too young to engage in outdoor risky play, early childhood educators could provide educational opportunities for parents to overcome these limiting views. Inclusion of nature enrichment experiences and risk accomplishments in weekly reports to parents, just as they would report for other accomplishments like learning new words or skills, could go a long way in providing a positive view of risk by parents and carers. ECE centers could also provide parental professional development as they often do for other parenting issues that engage parents in learning about early childhood development and the risks appropriate for each age group, as well as how to assess needs based on their own child's ability level.

Some parents also reported access as a barrier to providing opportunities for their children to engage outdoors; this issue has been relaxed recently through the movements to get children outside. Hopefully these infrastructure projects will continue, and access will no longer be a barrier for parents or children.

Though the cross-cultural variances observed in the literature are interesting, overall Many minority western countries tend to be very risk averse. Little literature exists on outdoor risky play outside of the Minority western view countries. Opportunities for children to take risks, and thus enhance their development, need to be provided purposely by adults, as children face very few risks daily in these countries. The Scandinavian countries seem to be more advanced in their prioritizing of providing outdoor risky play opportunities, particularly through their focus on

outdoor recreation and forest schools. The growing popularity of the forest school movement in many English speaking countries seems to be increasing the focus on the positive impacts of outdoor risky play in these countries as well.

Given the plentiful benefits of outdoor risky play, particularly in risk averse Minority western countries, offering these opportunities is increasingly important in ECE settings. Though they may be hesitant, ECE professionals and educators who understand and promote outdoor risky play need to engage more with the socio-ecological exosystem and macrosystem level factors that are influencing parents' hesitancy to provide outdoor risky play opportunities for their children. Writing more mass media articles or appearing on social media as a proponent of outdoor risky play is a possible way to influence these spheres that ultimately will influence parents. As the media and cultural systems begin to emphasize the importance and acceptability of outdoor risky play for young children, greater opportunities to engage in risk will advance early childhood development.

Cross-References

- ▶ Challenging Taken-for-Granted Ideas in Early Childhood Education: A Critique of Bronfenbrenner's Ecological Systems Theory in the Age of Post-humanism
- ▶ Everyday, Local, Nearby, Healthy Childhoodnature Settings as Sites for Promoting Children's Health and Well-Being
- ▶ Toward a Pedagogy for Nature-Based Play in Early Childhood Educational Settings
- ▶ Wild Pedagogies: Six Touchstones for Childhoodnature Theory and Practice

Glossary

Minority world cultures Cultures of European origin, previously referred to as Western cultures

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