Early childhood education and care practitioners’ beliefs and perceptions about preschool children’s risky play

by

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Abstract

Risk and challenge in children’s play have steadily declined over the last 30 years due to adult fears about injuries and litigation, among other factors. This societal trend is important to remedy because not only do children miss out on the numerous crucial benefits in every domain that play, and specifically risk and challenge in play, provides, but research suggests it also can lead to a host of other problems like childhood obesity, more injuries as children create their own risk and challenge in inappropriate ways, and childhood psychopathology. Data on children in care demonstrate a large number of children enrolled in pre-kindergarten programs today, therefore it is important to understand young children’s risky play in the education context and the role that early childhood practitioners play in either supporting or hindering that play.

The present study used an original survey derived from the literature to examine early childhood practitioners’ beliefs and perceptions about preschool children’s risky play, practitioner’s risky play practices, and the factors that influence those beliefs and practices. The results showed that practitioners generally had more positive than negative beliefs about risky play, but only rarely or occasionally allowed risky play to occur in their classrooms or centers. A variety of both global and situational factors influenced practitioners’ decisions to allow risky play or not. Participants’ beliefs and practices were positively correlated, and beliefs and practices were both negatively correlated with influences. Numbers of years of experience in the field and education level were not found to be significant predictors of participants’ risky play beliefs and practices. These results have implications for professional development trainings as well as teacher education programs.
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Dedication

To my grandmother, Patty Yokum, whose love, support, and complete confidence in me has helped through every accomplishment and new stage in my life, and helped me to be the person I am today. I know you would be immeasurably proud of me for this particular accomplishment. I miss you every day.
Chapter 1 - Introduction

Introduction

From birth children use their bodies to learn about the world (Carlson, 2011), and most of this early learning occurs in the context of play. Despite the vast amount of research that documents the crucial benefits of play for young children, free play has steadily declined over the last 30 years (Ball, Gill, & Spiegal, 2012). The age at which children are allowed to play without adult supervision has increased and children are more likely to be involved in adult-directed and indoor activities (Bundy, Luckett, Tranter, Naughton, Wyver, Ragen, et al., 2009). In addition to the general decline of free play, risk and challenge in children’s play has also steadily declined due to adult fears about injuries and litigation (Bundy et al., 2009; Sandseter, 2012). This trend of declining childhood play and risk and challenge in play has been seen in the United States as well as many other Western countries including the United Kingdom, Australia, Norway, and New Zealand (Ball et al., 2012; Bundy et al., 2009; Little, 2010; Little & Eager, 2010; Little & Wyver, 2008; Sandseter & Kennair, 2011; Stephenson, 2003). While some countries have begun taking steps to remedy this “culture of fear” (Little & Eager, 2010, p. 498) by modifying playground regulations for public playgrounds and schools, the United States has taken no such steps.

This societal trend of reducing children’s play time and reducing the possibility for children to take risks in play is an important problem that needs to be addressed because not only do children miss out on the numerous crucial benefits that play provides, but sedentary behaviors are positively related to childhood obesity (Bundy et al., 2009), more injuries as children create their own risk and challenge in inappropriate ways (Stephenson, 2003), and in extreme cases childhood psychopathology (Gray, 2011; Sandseter & Kennair, 2011).
According to the National Center for Education Statistics (U.S. Department of Education, National Center for Education Statistics, 2016), the total percent of children aged three to five years old enrolled in pre-primary programs increased from 37.5 percent in 1970 to 64.2 percent in 2015. With such a large number of children enrolled in preschool programs across the United States, early childhood teachers are in a particular position to either support or hinder children’s play and risk-taking opportunities. Before these issues can be resolved, we first need to understand what early childhood teachers believe about risky play and how risky play is practiced and facilitated, or not, in early childhood programs.

**Defining Risky Play**

Play is an essential part of children’s learning and development. Free play is enjoyed by children and done simply for the sake of doing it, not for the purpose of meeting any certain goal (Pellegrini, 2009; Smith & Vollstedt, 1985). According to Smith (2005), there are three main types of free play in which children engage: physical activity/motor play, object play, and pretend play. Risky play, a type of physical activity/motor play, is defined in the literature as “thrilling and exciting forms of play that involve a risk of physical injury” (Sandseter, 2009, p. 4). Risky play most typically occurs during children's outdoor free play (Sandseter, 2007). It may occur within many contexts, including free play, outdoor play, social play, and nature play, and falls within and encompasses other types of play such as physical activity play and big body play. When these terms are used throughout this paper it is to be understood that they encompass risky play as well.

Sandseter (2007) identified six types of risky play children engage in: great heights, high speeds, dangerous tools, dangerous elements, rough-and-tumble play, and disappearing or getting lost. When discussing risky play it is important to first note the difference between a ‘risk’ and a
‘hazard.’ A hazard is something that is “inherently dangerous” (National Quality Standard Professional Learning Program, p. 3) such as chemicals, loose boards, weak structures, electricity, or sharp edges that could seriously injure a child and should be addressed immediately. Ball et al. (2012) characterized a hazard as something that does not provide any developmental benefits, and that children might have difficulty assessing for themselves. On the other hand, a ‘risk’ according to the Health and Safety Executive (2006) is characterized by the probability or chance of an injury occurring. It differs from a hazard in that risks are “possible to negotiate” and “may be appropriate for particular situations and children” (National Quality Standard Professional Learning Program, p. 3). Risks, opposed to hazards, include things like climbing structures, equipment with moving parts, height changes, natural loose materials, and varying natural terrains (Ball et al., 2012; Sandseter 2012).

Rough-and-tumble (R&T) play is a specific type of play that falls under Sandseter’s (2007) six types of risky play and has been studied extensively over the last few decades. Pellegrini and Smith (1998) defined R&T play as “vigorous behaviors such as wrestling, grappling, kicking, and tumbling that would appear to be aggressive except for the playful context” (p. 579). Logue and Harvey (2009) further conceptualized R&T play to include superhero play, play fighting (including wrestling), chase games, and protect/rescue games. R&T play is characteristic of children’s play across all cultures and is the most common type of play observed in non-human animals, suggesting that, like risky play, R&T play has an evolutionary purpose (Colwell & Lindsey, 2005).
Theoretical Framework

The purpose of this study is to gain a better understanding of how early childhood practitioners perceive preschool children’s risky play in the school context, and how those perceptions relate to children’s risky play practices in the school context.

Henricks (2014) put forth a theory of play as “self-realization.” He argued the primary purpose of play in humans is to develop self-understanding and self-realization. When humans play, “they realize themselves through activity in the world” (p. 203). He argued that by engaging in play behaviors humans seek out challenging, stimulating, novel, and exciting experiences that elevate arousal, while working to monitor and control that arousal. He described play as a balancing act, moving between being in and out of control. By engaging in these types of experiences humans expand their capabilities, find out what they can do, learn self-control, and learn how to master skills. Henricks’ (2014) theory provides a framework for examining risky play in early childhood settings. Risky play is challenging, stimulating, novel, and exciting, as Henricks (2014) described. It elevates children’s arousal and helps develop self control and self-regulation. The evolutionary purpose of risky play is to teach new skills, as Henricks (2014) described.

Henricks (2014) argued that play takes place in a variety of settings: cultural, social, psychological, physical, and environmental. The literature on risky play describes factors from each of these settings that influence children’s engagement in risky play. In relation to the topic of this paper, culture influences how adults perceive and facilitate children’s risky play and how adults set up the environment to facilitate risky play. According to Henricks (2014), we participate in a world “largely external to us, one that obeys its own (multiple) logics and necessities,” and “other people and groups have ideas about what should happen” (p. 204). In
school settings early childhood practitioners are in a position to set limits for and support or hinder children’s engagement in risky play. In this way, risky play takes place within the cultural context that influences the early childhood practitioners, which includes the environment the practitioners have provided.
Chapter 2 - Literature Review

Cultural Influences on Risky Play

According to Madge and Barker (2007), risk is socially constructed and varies within and across cultures. According to research, Norwegian, Swedish, Danish, and Italian preschool teachers tend to have fewer concerns about children’s risk-taking than do American teachers (New, Mardell, & Robinson, 2005). In addition, research on playground safety requirements in Australia (Little, 2006; Wyver, Tranter, Naughton, Little, Sandseter, & Bundy, 2010), New Zealand (Chalmers, 2003; Greenfield, 2003), Britain (Ball, 2002) and the United States (Caesar, 2001; Sawyers, 1994; Wardle, 1997) indicates that safety regulations are stricter in these countries than in Scandinavian countries, where the benefits of mastering risks are more widely acknowledged and encouraged (New et al., 2005). Guldberg (2009) stated that “the Norwegians have a special love for outdoor pursuits and are reluctant to restrict children’s freedom to roam outdoors without adults watching them to the same extent that other nations do” (p. 60). In addition, according to Sandseter (2012) taking risks in play is seen as an important part of the early childhood curriculum in Norway and is emphasized in kindergarten curriculum documents. Sandseter (2012) also argued that countries such as Australia and the United Kingdom have cultures of litigation and health and safety regulations that make risky play practices less prevalent in those regions.

The United Kingdom, Australia, Norway, and New Zealand all reported increases in restrictions on children’s play freedom and play environments over the last few decades that were intended to keep children safe and prevent injuries and accidents (Ball et al., 2012; Bundy et al., 2009; Little, 2010; Little & Eager, 2010; Little & Wyver, 2008; Sandseter & Kennair, 2011; Stephenson, 2003). Only some countries have begun taking concrete measures to remedy
this, however. According to Barry (2018, March 10) schools and public playgrounds in Britain have begun taking steps to add risks such as tools, fire, and higher and more challenging climbing structures in order to expose children to some risk. In addition, Australia and Canada recently updated playground equipment standards to allow for more challenge and risk (Ditchburn, 2017; Gyramati, 2016), while no such changes have been made in the United States.

**Evolutionary Benefits of Risky Play**

Risk-taking in play is a natural and frequently-occurring part of children’s free play (Stephenson, 2003), and children engage in it because it is enjoyable (Sandseter 2007; Sandseter 2009). Research also illustrates that risky play has evolutionary benefits. One important evolutionary benefit of risky play is it allows children to experience and rehearse how to handle real-life risky situations with minimized consequences under adult supervision (Sandseter & Kennair, 2011). According to Apter (2007), this benefit is important to survival later in life when adults engage in risky behaviors without the benefit of supervision and protection. Furthermore, according to LaFreniere (2011) one of the primary functions of play is to teach young mammals to regulate their fear and anger. He argued that social play provides opportunities to learn affective perspective taking and emotion management. Play deprivation research conducted on young rats and monkeys supports this view. Play deprivation studies with rats and monkeys resulted in severe negative social and emotional effects on the animals later in life (Harlow, 1969; Hol, Van den Berg, Van Ree, & Spruijt, 1999; Van den Berg, Hol, Van Ree, Spruijt, Everts, & Koolhaas, 1999). Once reintroduced to typically-reared young rats and monkeys the play-deprived ones generally exhibited either extreme fear or extreme aggression when unfamiliar peers attempted to engage them in play. These consequences of play-deprivation support the theory that play provides opportunities for emotional development, for
young children as well as other mammals. While engaged in risky play specifically, young children,

dose themselves with manageable quantities of fear and practice keeping their heads and behaving adaptively while experiencing that fear. They learn that they can manage their fear, overcome it, and come out alive. In rough and tumble play they may also experience anger, as one player may accidentally hurt another. But to continue playing, to continue the fun, they must overcome that anger. If they lash out, the play is over. Thus, according to the emotion regulation theory, play is, among other things, the way that young mammals learn to control their fear and anger so they can encounter real-life dangers, and interact in close quarters with others, without succumbing to negative emotions (Gray, 2014, “The Evolutionary Value of Risky Play,” para. 4).

**Developmental Benefits and Outcomes of Risky Play**

When children take risks in play, they learn valuable lessons they cannot get from other types of play. Risks are characterized by their capacity to “engage and challenge children, and support their growth, learning, and development” (Ball et al., 2012, p. 29). By engaging in risky play children learn how to judge their own limits and capabilities, assess risks and dangers independently, handle and recover from injuries, regulate fear and anger, and navigate an adult world that is full of risks and unpredictability (Ball, 2002; Bundy et al., 2009; Edgington, 2007; Gill, 2007; Heppell, 2013; Little, 2010; Little & Eager, 2010; Sandseter & Kennair, 2011; Stephenson, 2003). Risky play fosters creativity, problem solving, persistence, independence, self-confidence, and body awareness (Gleave, 2008; Knight, 2012; Sandseter, 2010), and helps to develop perceptual-motor skills, spatial-orientation skills, and social skills such as conflict resolution (Sandseter, 2010; Sandseter & Kennair, 2011). When children sustain or witness
minor injuries such as scrapes and cuts from risky play activities, they learn about cause and effect and that their actions and choices have direct consequences (Bundy et al., 2009). Additionally, Australian early childhood teachers reported that when children were engaged with materials that were deemed “risky” by teachers, the children were more likely to get back up and keep playing after falls rather than crying, suggesting that increased resiliency is a further outcome of engagement in risky play (Bundy et al., 2009).

R&T play produces the same positive outcomes for children as free play and risky play do. According to Colwell and Lindsey (2005) it is also essential to one specific area of development: social competence. R&T play helps enhance children’s social competencies such as affiliation with peers, social signaling, as well as good managing and dominance skills within the peer group (Humphreys & Smith, 1987; Pellegrini & Smith, 1998).

**Child Predictors of Risky Play**

The literature cites some factors that influence the degree to which a child will engage in risky play. Children with overprotective parents, a parenting style characterized by excessive warmth, high demandingness, and low autonomy granting, tend to engage in risky play less than children who do not have overprotective parents (Cevher-Kalburan & Ivrendi, 2016; Sandseter & Kennair, 2011). Sandseter and Kennair (2011) speculated this might be because overprotective parenting can result in anxiety in children, which prevents them from engaging in risky play. Research demonstrates that boys tend to take more risks in play (Ginsburg & Miller, 1982; MacDonald, 1995; Morrongiello & Rennie, 1998; Smith, 1998) and engage in more “intense challenging physical play” (Sandseter & Kennair, 2011, p. 272) and R&T play than girls (Pellegrini & Smith, 1998; Smith, 2005). In addition, boys tend to engage in R&T play more often than girls (Storli & Sandseter, 2015; Smith, 2005). One explanation for this finding might
be that when communicating with children both mothers and fathers use language that supports
risky play for boys more so than girls (Morrongiello & Dawber, 1999).

**Consequences of Discouraging Risky Play**

Over the past 30 years children’s lives have become “much more restricted and
controlled” (Ball et al., 2012, p.8), due to various cultural, social, and economic factors,
including a decrease in the amount of play environments available to children, an increase in
time spent at school and a decrease in play time available during school, and adult fears about
stranger-danger, a child getting lost, accidents, or injuries (Gray, 2011; Little, 2010; Little &
Eager, 2010; Little & Wyver, 2008; Sandseter & Kennair, 2011; Stephenson, 2003). According
to Bundy et al. (2009), these changes to children’s play are related to adults’ positive intentions
of protecting children from physical injury and harm. The potential dangers of restricting
physically active play, however, are often overlooked.

Children who are not allowed opportunities to engage in risky physical activity play
might become afraid to use their bodies in active ways or be at a greater risk for becoming
overweight. Stephenson (2003) asserted that if children feel that a playground is boring or
insufficiently challenging they will find ways to increase the challenge in ways that might
inadvertently increase their exposure to risk, such as using equipment in unintended and
dangerous ways.

A more serious and long-term consequence of depriving children of risky play
opportunities is an increase in child psychopathology (Gray, 2011; Sandseter & Kennair, 2001).
In a series of studies (Rutledge, Newsom, Archer, Trumbetta, & Gottesman, 2003; Twenge,
2000; Twenge, Gentile, DeWall, Ma, Lacefield, & Schurtz, 2010) researchers examined results
from the Minnesota Multiphasic Personality Inventory (MMPI) and an adapted version for
adolescents (MMPI-A) that assessed psychological problems and disorders such as anxiety, depression, feelings of helplessness, and narcissism on participants aged 10 years through late adolescence. The results of these studies all demonstrated an increase in anxiety and depression scores for children and college students from approximately 1950 to the early 1990s, after controlling for variables such as economic conditions and turbulent events such as wars. Gray (2011) argued that the decline in children’s play opportunities observed in the last few decades is correlated with this rise in psychopathology in children and adolescents.

Beliefs, Perceptions, and Practices Concerning Risky Play

There is currently little research on the beliefs and perceptions of risky play held by early childhood education and care practitioners (e.g., early childhood teachers, child care providers, administrators); the majority of this research focuses on parents and guardians of young children. Because adults are the primary mediators of young children’s experiences, it is essential for adults to maintain a positive perspective while evaluating risk in children’s play. That evaluation is affected by the adult’s beliefs about and perceptions of risk (Backett-Milbern & Harden, 2004).

While most adults can recall engaging in risky play like running, wrestling, climbing trees, and roughhousing as children, this type of play is valued less today for a variety of reasons, such as a more intense focus on academics in schools (Carlson 2011). According to Carlson (2011), almost all adults admit to stopping or banning risky play, for one or more of the following reasons: fear of fighting, fear of escalation, fear of agitation, and fear of injury. In addition, research shows that adults tend to underestimate children’s ability to assess their own capabilities when engaging in risky play (Ball et al., 2012; Cevher-Kalburan & Ivrendi, 2016).
Parents’ Risky Play Beliefs, Perceptions, and Practices

The literature on parents and risky play cites many factors that influence parents’ beliefs about risky play, and how those beliefs translate into parents’ practice and approach to children’s risky play. These factors include: concerns about safety and injury prevention (Ball et al., 2012; Jenkins, 2006); social pressures about what’s appropriate for children’s play and what constitutes a “good” parent (Allin, West, & Curry, 2014; Jenkins, 2006; Valentine, 1997); parent and child’s gender (Kindleberger-Hagan & Kuebli, 2007; Morrongiello & Lasenby-Lessard, 2007); individual parent characteristics such as parenting style and education level (Cevher-Kalburan & Ivrendi, 2016); and number of children (Cevher-Kalburan & Ivrendi, 2016).

The literature surrounding the role of parent and child’s gender on parents’ beliefs and practices concerning risky play has found that typically both mothers and fathers tend to be more tolerant of and less concerned about sons’ risky play than daughters’ risky play. Father’s perceptions about the amount of risk their children are taking tends to be more accurate than mothers, and fathers tend to be more tolerant of risky play in general than mothers (Cevher-Kalburan & Ivrendi, 2016; Kindleberger-Hagan & Kuebli, 2007; Morrongiello & Hogg, 2004; Morrongiello & Lasenby-Lessard, 2007).

Cevher-Kalburan and Ivrendi (2016) examined how Turkish parenting styles and parent demographic variables influenced parents’ thoughts, beliefs, and practices about children’s risky play. To measure parenting style the researchers utilized the Parent Attitude Scale, developed by Demir and Sendil (2008), which is a scale used determine parents’ attitudes towards children aged 2 to 6 and includes items that consist of 4 parenting dimensions: democratic (authoritative), authoritarian, overprotective (characterized by excessive warmth, high demandingness, and low autonomy granting), and permissive. They found that overprotective parents had more negative
thoughts about risk play, while authoritative and permissive parents had more positive thoughts about risky play. Further, parents’ risky play practices tended to decrease as parents’ education levels increased. The researchers hypothesized this was because children whose parents have lower education levels tend to engage in more unsupervised play than children whose parents have higher education levels. The researchers also examined the influence of parents’ number of children on their beliefs and practices about risky play, and found that parents with more than one child tended to have more positive thoughts about risky play than parents with only one child.

**Practitioners’ Risky Play Beliefs, Perceptions, and Practices**

The literature on early childhood care and education practitioners’ (from here on out referred to as “ECE practitioners”) beliefs and perceptions concerning children’s risky play is limited, especially in the United States. According to current research, the primary concerns ECE practitioners have with allowing children to engage in risky play is fear of litigation and fear of being seen as a bad early childhood practitioner (Ball et al., 2012; Bundy et al., 2009). According to Carlson (2011), ECE practitioners, especially females, are likely to stop risky play all together in order to protect children.

Bundy et al. (2009) explored Australian ECE practitioners’ perceptions of the benefits and consequences of increasing the levels of risk on a playground through the introduction of new and varied loose parts. While injuries to children did not increase due to the introduction of loose parts, ECE practitioners reported feeling more concern about the increased possibility of injuries. ECE practitioners reported intervening to manage children’s risk by asking children to stop a certain activity if deemed too dangerous, reducing the number of children engaged in a given activity, removing materials if deemed too dangerous, or scaffolding the children’s own
risk assessment. They also reported managing their own anxieties about the risks rather than the risks themselves, meaning they felt nervous at times about a risky behavior children were engaging in but still allowed the children to continue the play.

Sandseter (2012) explored Norwegian kindergarten teachers’ perceptions and practices about risky play and found that the ECE practitioners both allowed and encouraged children’s risky play, exhibited a positive attitude towards it, and believed that risky play is important to children’s development. Participants in the study described risky play instances on their playgrounds such as climbing rock walls and jumping down, climbing and play fighting on top of a playhouse, exploring away from adults, and playing with knives and saws. The ECE practitioners also discussed consciously stretching the limits of what they feel comfortable with as adults in order to give children opportunities to experience more challenges in risky play. This mirrors Bundy et al.’s (2009) finding about teachers managing their own anxieties.

In addition, the literature specifically on R&T play also illustrates this negative stigma against R&T play in classrooms of all age groups. ECE practitioners tend to stop R&T play, especially play fighting and weapon play, more frequently than any other type of play (Logue & Harvey, 2009; Storli & Sandseter, 2015). This can be due to a variety of reasons: fear of children fighting, fear of the play escalating, fear of children becoming agitated or “riled up,” and fear of children sustaining injuries (Carlson, 2011). Tannock (2008) found that while ECE practitioners understood the value in children’s R&T play, they expressed fear of children getting injured and a lack of knowledge of how to effectively manage and facilitate R&T play. This type of play is often misinterpreted as aggression, and many adults worry this type of play supports the development of aggressive behaviors (Carlson, 2011; Flanders, Leo, Paquette, Pihl, & Séguin, 2009). ECE practitioners reported a belief that one-third of play-fighting leads to real fighting.
when in reality, play-fighting leads to real fighting in about one percent of play episodes (Paquette, Carbonneau, Dubeau, Bigras, & Tremblay, 2003).

According to Carlson (2011), the difference between R&T play and actual fighting lies in children’s intentions and the context of their play. Adults can manage this type of play by watching closely for children’s cues. In R&T play children do not intend to hurt their playmates; they use physical interactions to involve other children in their play theme. According to Fry (2005), R&T play differs from aggression in several key ways: threat is absent, smiles and play faces are evident, roles reverse, and children of different sizes and dominance levels play together. In contrast, real fighting is about control, and children often use a closed fist versus an open palm to “hit” (Carlson, 2011). In addition, children display several signs that they are enjoying R&T play: smiles, laughter, voluntarily joining the activity, and returning to the activity to continue play (Carlson, 2011). Adults can watch for children’s playful facial cues and laughter during play (Bjorklund & Pellegrini, 2000; Fry, 2005; Humphreys & Smith, 1987; Tannock, 2008). These findings could also be applied to the facilitation of preschool children’s risky play. One study conducted in the United States specifically examined ECE practitioners’ perceptions of R&T play (DiCarlo, Baumgartner, Ota, & Jenkins, 2015). Participants scored videotapes of children’s play for instances of aggression. The results showed that practitioners with higher levels of education and practitioners with more experience in the early childhood field reported less instances of aggression than practitioners with less education and practitioners with less experience in the early childhood field, suggesting that education and experience support more accurate assessments of aggressive play. The same could be true for assessments of risk in early childhood settings.
The purpose of this study was to determine what ECE practitioners in the state of Kansas believe about preschool children’s risky play and how they perceive preschool children’s risky play. In addition, this investigation examined what factors influence those beliefs and perceptions and what factors influence their risky play practices. This study had four research questions:

*RQ 1:* What do ECE practitioners believe about the benefits of risky play for preschool children?

*RQ 2:* To what extent do ECE practitioners report permitting risky play to occur in their classrooms or center?

*RQ 3:* What do ECE practitioners report as the major influences on their risky play beliefs and practices?

*RQ 4:* What is the relationship between ECE practitioners’ risky play beliefs, risky play practices, and the factors that influence those beliefs and practices?

In addition, this study had one hypothesis:

*H 1:* ECE practitioners with higher levels of education and more years of experience will report more positive beliefs about the benefits of risky play, but will report permitting risky play less in their classrooms and center.
Chapter 3 - Methodology

Participants

Participants were recruited from early childhood centers in the state of Kansas using Kansas Child Care Training Opportunities’ (KCCTO) email list of early childhood care providers who had enrolled in one or more KCCTO trainings in the previous twelve months. The email was initially sent to one thousand providers, and of those one thousand 56 providers responded. The email was then distributed to another one thousand early childhood providers, and of those one thousand 17 providers responded, making the total response rate 3.7%. Of the 73 total responses, only 41 participants completed the survey in its entirety. The results below are based off of the total number of participants who answered each question.

The majority of participants who responded to the survey were female (98.6%, n=69), with one male. The mean age of participants who responded to the survey was 38 years, with a range from 16-65 years. The majority of participants who responded were Caucasian (81.4%, n=57), 5.7% were African American (n=4), 4.3% were Asian American (n=3), 2.9% were Native American (n=2), 2.9% reported their race as biracial (n=2), and 2.9% of participants reported their race as “Other” (n=2). The majority of participants who responded reported their ethnicity as non-Hispanic (90.0%, n=63), 4.3% of participants reported their ethnicity as Hispanic, Latino, or Spanish origin (n=3), and the remaining 5.7% reported “Prefer Not to Answer” (n=4).

The majority of participants who responded were early childhood lead teachers (27.1%, n=19), center directors or assistant directors (27.1%, n=19), and assistant teachers (12.9%, n=9). The remaining participants included teachers, floaters, office and kitchen staff, family child care providers, and support services. One participant reported their position as “Other.”
Participants worked at a variety of center types. Of those who responded, more participants reported working in a full-day classroom than a half-day classroom (71.6% and 11.0%, respectively). About a third of participants reported working in a preschool (34.3%, n=23). More participants reported working at a for-profit center than a not-for-profit center (20.9% and 14.9%, respectively), and more participants reported working for a private center than a public center (11.9% and 3%, respectively). A small number of participants reported working for a Head Start (7.5%). More participants reported working for a non-accredited center (43.3%, n=29) than an accredited center (14.9%, n=10). The remaining participants reported “Not sure” regarding their center’s accreditation. Of the participants who reported their center was accredited, three listed the National Association for the Education of Young Children as the accrediting agency, one listed the National Association for Family Child Care, and six reported they were “Not sure” who their center’s accrediting agency was, although they knew the center was accredited.

Participants were asked about their familiarity with risky play, R&T play, and/or big body play. Of those who responded, 21.3% of participants (n=13) reported having previously attended a workshop, training, conference session, or webinar regarding the topic, and 29.5% (n=18) reported having previously read a book on the topic.

Of those who responded, 52.1% of participants (n=38) reported that their center had a written policy on safety of outdoor play, children’s risky play, R&T play, or play safety, and 31.5% of participants (n=23) reported that their center did not have a written policy on safety of outdoor play, children’s risky play, R&T play, or play safety.
Procedure

Quantitative and qualitative data were collected using an original questionnaire that assessed participants’ beliefs and perceptions about the benefits of risky play, risky play practices, and influences on participants’ beliefs, perceptions, and practices. The survey also included demographic questions. Questions were informed by findings in the literature on risky play and R&T play. Qualtrics, a comprehensive online survey tool, was used to distribute the survey. Data from the survey were analyzed using the Statistical Package for Social Sciences (IBM Corp.) software. Institutional Review Board Approval, #9333, was received in June 2018.

Measures

Beliefs and Perceptions

Participants’ beliefs and perceptions about the benefits of risky play for preschool children were measured using a Beliefs and Perceptions scale that included a set of 12 statements that asked participants to rate the degree to which they agreed with the statements. Examples of the types of statements in this section included:

- *It is important to development for children to take physical risks when they play;*
- *Bumps, bruises, scrapes, and other injuries should be avoided at all costs when children are playing;*
- *Rough-and-tumble play almost always leads to real fighting; and*
- *Engaging in risky play can help children learn to assess risks and dangers for themselves* (see Appendix A)

The Likert-type rating scale for these items ranged from 1 to 5 (1 = strongly disagree, 2 = somewhat disagree, 3 = agree, 4 = somewhat agree, and 5 = strongly agree). An average total score for beliefs, with lower scores indicating more negative beliefs about risky play and higher
scores indicating more positive beliefs about risky play, was obtained for this scale by dividing the sum by the number of items in the scale. The following negative items were re-coded:

*Rough-and-tumble play almost always leads to real fighting,* *When children engage in very physically active play they have difficulty calming down after,* *Children can’t learn anything by rough-housing, play fighting, superhero play, or chase games,* and *Engaging in risky play will not help children meet any Kansas Early Learning Standards.* Cronbach’s alpha for the 12-item scale was .89.

**Practices and Interventions**

Participants’ risky play practices and interventions were measured using two scales. For the first scale, *Risky Play Practices,* participants rated a set of 11 statements about children’s risky play practices by how often the participant permitted children to engage in the risky play practice mentioned. Examples of the types of statements in this scale include:

* I allow children in my care to climb to heights that sometimes make me feel uncomfortable;
* I allow children in my care to wrestle on the playground;
* I allow children in my care to use real tools (hammers, nails, screws, pliers, etc.) in my classroom; and
* I allow children in my care to bike freely at high speeds (see Appendix A)

This Likert-type rating scale ranged from 1 to 5 (1 = never, 2 = rarely, 3 = occasionally, 4 = often, and 5 = regularly). An average total score for practices, with a higher score indicating more risky play permitted and a lower score indicating less risky play permitted, were obtained for this scale by dividing the sum by the number of items in the scale. Each item was also
examined individually to determine which types of risky play are permitted more than others. Cronbach’s alpha for the 11-item scale was .83.

The second scale, *Risky Play Interventions*, asked participants to rate how often they used a set of 11 listed interventions when children engage in risky play. This scale was a modified version from Logue and Harvey’s (2010) study on preschool teachers’ views of active play. An “Other” option was available as well for participants to fill in any other interventions. Responses to this scale all included a variation of engaging children in conversations about the type of play that was occurring. Examples of the types of interventions listed in this scale included:

- *Immediately stop the play without explanation*;
- *Redirect play to a safe area*;
- *Modify the environment to prevent risky play*; and
- *Monitor the play by staying in close proximity to children* (see Appendix A)

The Likert-type rating scale for these items ranged from 1 to 5 (1 = never, 2 = rarely, 3 = occasionally, 4 = often, and 5 = regularly). Chronbach’s alpha for the total 12-item scale was .76.

**Influences**

Factors that influence participants’ beliefs and perceptions about risky play and their risky play practices were measured using two scales. The first scale, *Global Influences*, asked participants to rate a set of 11 statements on the degree to which the statements influenced participants’ decision-making about whether or not to allow children’s risky play in general. Cronbach’s alpha for the 11-item Global Influences scale was .89. This scale was further divided into 3 subscales: *Personal Influences, Child Influences*, and *Outside Influences*. Chronbach’s alphas for the *Personal, Child*, and *Outside* subscales were .36, .82, and .89, respectively.

Examples of the types of questions in this statement included:
• *I am afraid children might get injured* (Child);

• *I am concerned about getting in trouble with my administration or supervisors for allowing the type of play* (Outside);

• *I am concerned about parents’ reactions to any injuries the child might receive from the type of play* (Outside); and

• *I’m afraid someone will see me as a bad teacher for allowing this type of play* (Personal) (see Appendix A)

The second scale, *Situational Influences*, asked participants to rate the degree to which a set of 5 factors influenced participants’ decision-making about stopping children’s risky play in specific situations. An “Other” option was available as well for participants to fill in any other influences they might think of. Chronbach’s alpha for the 6-item *Situational Influences* scale was .75. Examples of the types of factors listed in this statement include:

• *The ages of children involved in the play activity;* and

• *The number of children engaged in the play activity* (see Appendix A)

A Likert-type rating scale was used for both scales and ranged from 1 to 5 (1 = no influence, 3 = some influence, 5 = a great deal of influence, with 2 and 4 being in between on a sliding scale).

**Risky Play Photos and Videos**

Participants were asked to view a set of 10 photos and videos that depicted children engaging in risky play. The photos and videos covered four of Sandseter’s (2007) six types of risky play (great heights, high speeds, dangerous tools, and R&T play). The remaining two types of risky play, dangerous elements and disappearing or getting lost, were not included because they are less likely to occur in early childhood school settings. In addition, photos and videos of
children engaging in play that is “thrilling and exciting” and might “involve a risk of physical injury” (Sandseter, 2009, p. 4), which is the definition of risky play used for this study, but that do not necessarily fall into one of the four categories were also included. Participants provided short response answers that were analyzed qualitatively.

For each question and video participants were first asked to describe their initial reactions, thoughts, and feelings upon seeing the photo or watching the video. Next, participants were asked whether not they would allow this type of play to occur. Finally, participants were asked to explain why they would allow this type of play or why they would not allow this type of play.

**Data Analysis**

All five scales were used to answer the study’s first three research questions. Descriptive statistics were run to report the mean, standard deviation, and range for the total score of each of the above scales, as well as the individual items for each scale. In addition, themes from the qualitative data were examined that address the first three research questions. Participant’s responses were coded for the following themes: risks and benefits associated with the play occurring in the photo or video, justification for allowing (or not) the type of play depicted in the photo or video, interventions used in the play situation, R&T play misconceptions, and global and situational influences. In addition to those themes, additional themes were pulled from the short responses. Responses such as “Most of our classes only have one teacher and it would be hard to supervise this kind of activity properly” were coded as a limitation to risky play that was out of the participant’s control. Responses such as “I would watch them very closely” were coded as close adult supervision as a stipulation. Responses such as “I really don’t like this because that is not how the toy is supposed to be used” were coded as using the toy or equipment in ways
in was not intended. Responses such as “at a park if I saw a child doing this, I would let it go - that is different” were coded as allowing the play in settings other than school. Responses such as “No, because that isn’t what the equipment is designed for and he can hurt someone below” were coded as the risk of injury to other children being hurt. Responses such as “I would need to train my teachers” was coded as wanting to train staff in proper facilitation of the type of play.

Participant responses for each photo or video were coded individually, and then all photos and videos were analyzed together for overarching themes. In order to ensure reliability in coding, the primary researcher first coded the participants’ responses to determine themes and categories, then a second coder reviewed the codes and disagreements were solved by discussion.

To answer the fourth research question, correlational analysis was conducted between the variables of risky play beliefs, risky play practices, and influences. Correlations were also conducted to determine the relationships between participants beliefs and perceptions about the benefits of risky play and risky play practices and the following demographic variables: participants’ age, number of years worked in the early childhood field, and education level. Two multiple linear regression equations were run. The first predicted the outcome variable beliefs and perceptions of the benefits of risky play using the predictor variables level of education and years of experience. The second predicted the outcome variable reported risky play practices using the same two predictor variables.
Chapter 4 - Results

Research Question 1

The first research question, *What do ECE practitioners believe about the benefits of risky play for preschool children?*, examined participants’ beliefs and perceptions regarding the benefits of preschool children’s risky play, and was answered using the 12-item *Beliefs and Perceptions* scale and the short-response answers regarding the set of risky play photos and videos. The results (Table 1), indicated that, in general, participants had more positive than negative beliefs about the benefits of risky play ($M=3.571$, $SD=.692$, $min=1.50$, $max=4.83$).

<table>
<thead>
<tr>
<th>Beliefs and Perceptions Item</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engaging in risky play can help children learn their own limits and capabilities.</td>
<td>3.85</td>
<td>.940</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Engaging in risky play can help children develop creativity and problem-solving skills.</td>
<td>3.83</td>
<td>.986</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Engaging in risky play can help children learn to assess risks and dangers for themselves.</td>
<td>3.63</td>
<td>.996</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Engaging in risky play can help children’s physical development, social development, and the development of emotion regulation.</td>
<td>3.61</td>
<td>1.156</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>It is important to development for children to take physical risks when they play.</td>
<td>3.50</td>
<td>1.112</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Engaging in rough-and-tumble play, wrestling, and play fighting can help children learn to resolve conflict.</td>
<td>3.43</td>
<td>1.191</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Rough-and-tumble play helps children develop self-regulation.</td>
<td>3.37</td>
<td>.917</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The benefits associated with engaging in risky play outweigh the possibility that children might get hurt.</td>
<td>2.81</td>
<td>1.029</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Rough-and-tumble play almost always leads to real fighting.</td>
<td>2.59</td>
<td>1.037</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>When children engage in very physically active play they have difficulty calming down after.</td>
<td>2.54</td>
<td>1.023</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Engaging in risk-taking during play will not help children meet any Kansas Early Learning Standards.</td>
<td>2.17</td>
<td>1.112</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Children can’t learn anything by roughhousing, play fighting, superhero play, or chase games.</td>
<td>1.89</td>
<td>.965</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

n=54, Scale- 1=Strongly disagree, 2=Disagree, 3=Agree, 4=Somewhat agree, 5=Strongly agree

One item on the *Beliefs and Perceptions* scale had a particularly low average score, below 2.00, indicating participants “strongly disagreed” or “somewhat disagreed” with the
statement. The item “Children can’t learn anything by roughhousing, play fighting, superhero play, or chase games,” (negative belief) received the lowest average mean.

There were seven items on the *Beliefs and Perceptions* scale that had relatively high average scores, between 3.00 and 4.00, indicating participants “agree” or “somewhat agree” with the statement: “Rough-and-tumble play helps children develop self-regulation” (positive belief); “Engaging in rough-and-tumble play, wrestling, and play fighting can help children learn to resolve conflict” (positive belief); “It is important to development for children to take physical risks when they play” (positive belief); “Engaging in risky play can help children’s physical development, social development, and the development of emotion regulation” (positive belief); “Engaging in risky play can help children learn to assess risks and dangers for themselves” (positive belief); “Engaging in risky play can help children develop creativity and problem-solving skills” (positive belief); and “Engaging in risky play can help children learn their own limits and capabilities” (positive belief).

In the short-response answers to the photo and video questions many participants discussed developmental benefits children were learning in the photo or video in specific domains. Physical developmental benefits, such as gross and fine motor control, balance, and body awareness, were mentioned more often than any other type of development. In addition, themes emerged from the qualitative data for each specific risky play type regarding developmental benefits. For the photo of a child standing upright on top of the monkey bar structure while children hung and played on the bars beneath him (see Appendix A), although multiple participants mentioned the balance required of the boy to stand upright, only one participant discussed the developmental benefits gained from the activity. One participant said, “*Yes [I would allow it], they are growing their large motor muscles and learning balance.*”
For the photo of a child standing on top of a self-constructed bridge made out of wooden hollow blocks and wooden block planks inside the classroom, very few participants commented on the developmental benefits he was gaining. Participants who did discuss the developmental benefits mostly discussed gross motor skills including balance and body awareness. Participants also discussed how the play was teaching about heights, engineering skills, trial and error, and architecture.

For the photo of children working at a workbench using real pliers, hammers, and screws with blocks of wood and nails, most participants talked about the practical skill of tool use. For example, one participant wrote: “Everyone needs to know how to use tools,” and another participant mentioned “real life experience” as a benefit working with real tools provided. Many participants wrote about fine and gross motor development. In addition, math, problem-solving, bilateral control, self-help skills, confidence, hand-eye coordination, and creativity were all other developmental benefits mentioned for this type of risky play.

For the video of two children engaging in play wrestling outside in the grass, several participants mentioned body awareness as a developmental benefit. In addition, participants discussed how the children were learning to understand limits, listening skills, and movement control. One participant said the children were, “developing body awareness, ability to grade movements, and needed proprioception to help their nervous systems develop appropriately.”

For the photo of two children standing up on the seat of their swings and holding the chains to swing, participants primarily commented on the gross motor development occurring as a result of the play: vestibular input, strengthening, balance, core muscle development, and arm strength.

For the video of a group of several children engaging in play on a medium-height double slide, climbing up each side of the slide and using a piece of cut watering hose to pull one
another up the slide, many participants commented on the teamwork and cooperation skills displayed. Some additional developmental benefits mentioned were large motor skills, imagination and creativity, problem solving, communication, and the children learning about their own abilities. For example, one participant said, “They are learning a lot back [about] their abilities and how to work as a team; Yes [I would allow it] because they are lea[r]ning so much about being a team and about their own abilities at the same time.”

For the video of a child sitting astride a toy truck and riding it down a steep grassy hill on the playground, stopping just short of a set of glass doors to the school building, few participants discussed any developmental benefits associated with the play. Those that did discuss the developmental benefits mentioned learning about cause and effect, body control, body awareness, social skills, and motor skills. One participant said,

*My own sons do an activity like this at home. The boy was able to adjust his balance halfway down the hill to keep from wiping out. The girl was brainstorm[ing] ways to keep the rider safe from potential crashes and was actually willing to sacrifice her own body to keep him from hitting the door. I wonder if there is a decline they could use that didn't end at the door. It'd be fun to measure how far they can roll before "having to force a stop I would but we have NO outdoor space or bikes. I'd have to come up with alternative vehicle. We have a side walk out side, maybe we could create inclines/declines and use brainstormed items and weights to see what rolls. Great stem [STEM] activity.*

**Research Question 2**

The second research question, *To what extent do ECE practitioners report permitting risky play to occur in their classrooms or center?*, examined the extent to which participants
reported permitting risky play to occur in their classrooms or center, and was answered using the 11-item Risky Play Practices scale, the 12-item Risky Play Interventions scale, and the short-response answers regarding the set of risky play photos and videos. The average total Risky Play Practices score across all participants was 2.44 (SD=.777, min=1.00, max=4.25), indicating that in general participants “Rarely” or “Occasionally” allowed the given types of risky play to occur in their classrooms. Results are shown in Table 2.

Table 2. Risky Play Practices

<table>
<thead>
<tr>
<th>Risky Play Practices Item</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>I allow children in my care to build block structures taller than they are.*</td>
<td>3.73</td>
<td>1.345</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to engage in superhero play.*</td>
<td>3.67</td>
<td>1.200</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to reach speeds during play that sometimes make me uncomfortable.**</td>
<td>2.43</td>
<td>1.085</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to climb up the slide itself instead of using the ladder.**</td>
<td>2.43</td>
<td>1.346</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to use equipment in ways it might not have been originally intended for (e.g., standing instead of sitting on swings).**</td>
<td>2.21</td>
<td>1.071</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to engage in physical contact play with one another (pulling, rolling around together, etc.).***</td>
<td>2.17</td>
<td>1.046</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>I allow children in my care to use real tools (hammers, nails, screws, pliers, etc.) in my classroom.**</td>
<td>2.10</td>
<td>1.144</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to engage in pretend fighting.*</td>
<td>1.98</td>
<td>.960</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to bike freely at high speeds.*</td>
<td>1.98</td>
<td>1.196</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I allow children in my care to climb on top of large block structures they’ve built indoors.**</td>
<td>1.81</td>
<td>.994</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>I allow children in my care to climb to heights that sometimes make me feel uncomfortable.***</td>
<td>1.68</td>
<td>.960</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

*n=52, **n=42, ***n=41, Scale- 1=Never, 2=Rarely, 3=Occasionally, 4=Often, 5=Regularly
Four Risky Play Practices items had relatively low average scores, under 2.00, indicating that participants “Never” or “Rarely” allowed that type of play to occur: climbing to heights that make the participant feel uncomfortable, climbing on top of block structures they’ve built indoors, biking freely at high speeds, and pretend fighting. The item “I allow children in my care to climb to heights that sometimes make me feel uncomfortable” received the lowest average score. This item was displayed along with the short response answer photo of a child standing upright on top of the monkey bar structure while children hung and played on the bars beneath him. Of those participants who completed this short-response question, 17% (n=7) reported they would allow the specific play situation in the photo to occur.

A common problem participants had with this depiction of play was not only the risk of injury to the child standing on top of the monkey bars, but also the risk that his fall could injure other children as well (“The child is at a dangerous height and is also in a position of injuring other children” (monkey bar photo); “Everything but the child standing on top of the monkey bars, if he falls he is likely to hurt himself and others” (monkey bar photo); “I would not allow this type of play to occur. This is too dangerous and he’s putting other children’s lives at risk” (monkey bar photo).

The item “I allow children in my care to climb on top of large block structures they’ve built indoors” received the second lowest average score. This item was displayed with the short response answer photo of a child standing on top of a self-constructed bridge made out of wooden hollow blocks and wooden block planks inside the classroom. Of those participants who completed this short response question, 43% (n=18) reported they would allow the specific play situation in the photo to occur. Of the 18 participants who reported they would allow this play to occur, many described close adult supervision as a stipulation. Two participants reported they
would allow the play to occur only after modifying the environment around the structure to make the play safer: “I'm bothered by things on the floor that child could potentially land on; Yes [I would allow it] but with floor cleared” (block bridge photo); “I would allow it with closer supervision and less other clutter in the room” (block bridge photo).” Two participants described changing the structure itself to make the play safer: “The top level could use railings if it is to be climbed on. [I would not allow it,] not without railings” (block bridge photo); “If they want to climb on something like that; I would lower the "steps" to 1. I would also be sure to have soft landing material next to it” (block bridge photo).

Five Risky Play Practices items had an average score between 2.0 and 3.0, indicating that participants “Rarely” or “Occasionally” allowed that type of play to occur: using real tools, physical contact play, using equipment in ways it was not originally intended, climbing up the slide instead of using the ladder, and reaching speeds that make the participant uncomfortable. The item “I allow children in my care to use real tools (hammers, nails, screws, pliers, etc.) in my classroom,” was displayed with the short response answer photo of children working at a workbench using real pliers, hammers, and screws with blocks of wood and nails. A majority of participants described close adult supervision throughout the activity as a stipulation for allowing this type of play to occur. In addition, several participants reported the use of safety goggles by all children engaged in the activity as a stipulation. Two participants reported they would allow the play only if they were able to train their teachers first in how to properly supervise the play.

The item “I allow children in my care to engage in physical contact play with one another (pulling, rolling around together, etc.),” was displayed with the short response answer video of two children engaging in play wrestling outside in the grass. Many participants who reported allowing the play to occur explained they would observe and monitor the play closely in order to
intervene if necessary. The item “I allow children in my care to use equipment in ways it might not have been originally intended for (e.g., standing instead of sitting on swings),” was displayed with the short response answer photo of two children standing up on the seat of their swings and holding the chains to swing. Two participants reported they would allow this type of play only with certain stipulations: “Yes I would allow this, so long as the child is old enough to hold on and no one is walking in front of or behind the swings;”; “If supervised closely and it is explained that this type of swinging is only allowed when directed.”

The item “I allow children in my care to reach speeds during play that sometimes make me uncomfortable,” was displayed with the short response answer video of a child sitting astride a toy truck and riding it down a steep grassy hill on the playground, stopping just short of a set of glass doors to the school building. Many participants who reported they would not allow it to occur mentioned that the truck was not intended to be used that way. Some participants who said they would allow this play to occur also discussed ways they would modify the play in order to prevent injury. For example: “I would be hesitant to allow it, but after taking this survey I think I would try to come up with a way to reduce the risk of injury if he didn’t stop the first time”; and “yes but i would find a way to keep the child from connecting with the doors.”

The remaining two Risky Play Practices items had an average score between 3.00 and 4.00, indicating that participants “Occasionally” or “Often” allowed that type of play to occur: superhero play and children building block structures taller than they are. Neither of these items were displayed with a photo or video.

A common theme that emerged from the short response photo and video questions across all participants and all types of risky play situations was adult presence and supervision. Participants described supervision as either a stipulation for allowing the play to occur or
mentioned supervision in some way. For example, some participants provided comments such as, “Where’s the teacher (slide video),” and, “Who’s watching these kids (monkey bar photo)?” One participant explained they would not allow the play to occur because: “most of our classes only have one teacher and it would be hard to supervise this kind of activity properly (real tools photo).” Another participant explained they would allow it but that, “An adult should be in closer proximity (block bridge photo).” In addition, participants described wanting to be in close proximity in order to provide assistance to the children if needed: “Yes! I would be standing near enough that the child can use me if they lose their balance, but it looks secure and is wide enough that both feet fit (block bridge photo),”; “This would be ok if it is directed and an adult is close by to assist (block bridge photo).”

Another second theme that emerged from the short-response answers regarding participants’ risky play practices was participants explained they would allow the play to occur with their own children or with children in other settings, but not at their center: “No. This is too much of a liability at a facility. If I were at my house with my children then I would be more that happy to let my children to do this (monkey bar photo)”; “no even if an adult were present at preschool but probably my own child if I were there with him (monkey bar photo)”; “no that is a safety hazard and just dangerous. at a park if I saw a child doing this, I would let it go-thats is different (monkey bar photo)” “No. Too risky. However if my own child, yes (monkey bar photo)” “depending on the exact situation maybe, definitely with my own child (toy truck video).” An additional theme that emerged from the data was participants’ explaining they would not allow a certain type of play to occur because the play equipment was being used in a way it was not intended, such as standing on top of the monkey bars, standing on the swings, climbing up the slide, or riding on a toy truck down the hill.
The *Risky Play Interventions* scale indicated that participants use a variety of interventions when children engage in risky play, some that facilitate risky play and some that hinder it. Results are displayed in Table 3.

**Table 3. Risky Play Interventions**

<table>
<thead>
<tr>
<th>Risky Play Interventions Item</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor the play by staying in close proximity to children.</td>
<td>4.48</td>
<td>.779</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Have a conversation with children about how to modify play to keep children safe.</td>
<td>4.04</td>
<td>.839</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Redirect play to a safe area.</td>
<td>3.92</td>
<td>.947</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Stop the play, and have a conversation with children about safety and why the play needed to be stopped.</td>
<td>3.90</td>
<td>.955</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Redirect play to a different, less risky activity.</td>
<td>3.73</td>
<td>.931</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Modify the environment to prevent risky play.</td>
<td>3.33</td>
<td>1.098</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Modify the environment to make it safer to risky play.</td>
<td>3.33</td>
<td>1.115</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Talk to parents.</td>
<td>3.21</td>
<td>1.091</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Give a warning, then a consequence.</td>
<td>3.17</td>
<td>1.200</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Observe play uninterrupted until someone is hurt.</td>
<td>2.12</td>
<td>1.114</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Immediately stop the play without explanation.</td>
<td>1.87</td>
<td>.929</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Engage children in discussion about the play.</td>
<td>1.33</td>
<td>.879</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

n= 52, Scale- 1=Never, 2=Rarely, 3=Occasionally, 4=Often, 5=Never

Three items in the *Risky Play Interventions* scale had particularly low average scores, below 3.00, indicating that participants “Never” or “Rarely” used the interventions: engaging children in discussion about the play and immediately stopping the play without explanation. The item “Engage children in discussion about the play” was created from the “Other” option listed in the *Risky Play Interventions* scale. This option had a space to fill in the blank with any other interventions participants used that were not listed in the scale. Participants were instructed to
leave the space blank and rate the item as “Never” if there were no other interventions they used.

Four participants entered “Other” interventions they used, and all four interventions involved some sort of discussion with children to help facilitate the risky play.

Seven items in the Risky Play Interventions scale had an average score between 4.00 and 3.00, indicating that participants “Occasionally” or “Often” used the interventions: give a warning then a consequence, talk to parents, modify the environment to make it safer for risky play, modify the environment to prevent risky play, redirect play to a different activity, stop the play and have a conversation with children about why, and redirect play to a safe area. Two items on the Risky Play Interventions scale had an average score above 4.00, indicating that participants Often or Regularly used the interventions: have a conversation about how to modify the play to keep children safe and monitor the play by staying in close proximity.

Results from the short-response answers regarding the set of risky play photos and videos revealed three primary interventions that participants used. The most common intervention used across all participants and all types of risky play was “Monitor the play by staying in close proximity to children.” Many participants described wanting to be close to children in order to prevent injuries that might occur: “Great climbing structure but would prefer be near and ready for anything to happen”; “Yes [I would allow it]! I would be standing near enough that the child can use me if they lose their balance, but it looks secure and is wide enough that both feet fit.” One participant described using body cues to monitor the play: “I think this type of play is acceptable as long as it's being closely monitored. Watching facial reactions and their hands at all times will help gauge if you need to redirect their play.”

The intervention “Immediately stop play without explanation” was the next most frequent intervention described by participants who reported they would not allow the type of play to
occur, and was used most often for the photo of a child standing on top of a self-constructed bridge made out of wooden hollow blocks and wooden block planks inside the classroom and for the photo of a child standing upright on top of the monkey bar structure while children hung and played on the bars beneath him.

The third most frequent intervention used was “Redirect play to a different, less risky activity.” For example, for the photo of a child standing on top of a self-constructed bridge made out of wooden hollow blocks and wooden block planks inside the classroom, one participant said, “I would have him sit down or crawl around” rather than stand up and walk on the bridge. In response to the video of two children engaging in play wrestling outside in the grass one participant said, “We will find an alternative activity involving the 2 children - but helping them solve the conflict if there was one. I would re-direct regardless.”

Research Question 3

The third research question, *What do ECE practitioners report as the major influences on their risky play beliefs and practices?*, examined factors that influence participants’ beliefs and perceptions about risky play and their risky play practices, and was answered using the 11-item *Global Influences* scale, the 6-item *Situational Influences* scale, and the short-response answers regarding the set of risky play photos and videos.

The average total *Global Influences* score across all participants was 3.216 (SD=.874, min=1.09, max=5.00). Results are displayed in Table 4. Two items on the *Global Influences* scale had an average score of under 3.00, indicating that those items had little to no influence on participants’ decision-making about allowing children’s risky play: “I am unsure of how to facilitate or safely manage the play,” and “I am afraid of the play getting out of hand and riling the children up.”
### Table 4. Global Influences

<table>
<thead>
<tr>
<th>Global Influences</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am concerned about parents’ reactions to any injuries the child might receive from the type of play.</td>
<td>3.98</td>
<td>1.08</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am afraid children might get injured.</td>
<td>3.88</td>
<td>1.06</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>I am concerned about lawsuits.</td>
<td>3.60</td>
<td>1.42</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>My anxiety level rises when children engage in an activity in which they might get hurt.</td>
<td>3.44</td>
<td>0.98</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>The type of play is against school policy.</td>
<td>3.23</td>
<td>1.45</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am concerned about getting in trouble with my administration or supervisors for allowing the type of play.</td>
<td>3.15</td>
<td>1.35</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am concerned the play might turn in to real fighting.</td>
<td>3.08</td>
<td>1.25</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am concerned about getting in trouble with my center’s licensing agency.</td>
<td>3.04</td>
<td>1.56</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am afraid someone will see me as a bad teacher for allowing this type of play.</td>
<td>3.02</td>
<td>1.31</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am afraid of the play getting out of hand and riling the children up.</td>
<td>2.83</td>
<td>1.29</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>I am unsure of how to facilitate or safely manage the play.</td>
<td>2.13</td>
<td>1.10</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

n=48, Scale- 1=No influence, 2, 3=Some influence, 4, 5=A great deal of influence

Six items on the *Global Influences* scale had an average score between 3.00 and 3.5, indicating that those items had some influence on participants’ decision-making about allowing children’s risky play: “I am afraid someone will see me as a bad teacher for allowing this type of play”; “I am concerned about getting in trouble with my center’s licensing agency”; “I am concerned the play might turn in to real fighting”; “I am concerned about getting in trouble with my administration or supervisors for allowing the type of play”; “The type of play is against school policy”; and “My anxiety level rises when children engage in an activity in which they might get hurt.” In the short-response answer questions regarding the video of two children wrestling in the grass, three participants specifically said they would not allow the play because
it could easily turn into a real fight. Three participants who said they would allow this type of play to occur described monitoring or observing it so they could intervene if it became aggressive. One participant equivocated the play wrestling to fighting: “I would stop it at a facility. They are fighting even if it is playing.”

Analysis of the short-response answer questions revealed the item “The type of play is against school policy” was a factor that influenced decision-making across all participants and all types of play. Five participants said they personally would allow the type of play to occur if it weren’t against their center’s policy. For example, one participant said, “I’m technically not allowed to let them but I have never understood why not. It teaches them limits” (standing on swings photo). Many participants went into more specific detail about their center’s policies: “At our center we would not let the children use these tools we put adult scissors away from the children and the children and only use safety scissors I am sure we would not be able to give them real hammers and nails” (real tools photo); “No. Our daycare is very specific about toy use and this is not allowed” (riding toy truck on hill video); “Probably not, our kids are not allowed to climb up a slide or have other toys or things on the equipment like the hose or whatever they are pulling on” (climbing up slide video); “My center does not allow children to climb up slides” (climbing up slide video); “Our daycare rules specifically say no wrestling” (wrestling video).

In the short-response answer questions, many participants expressed their feelings of anxiousness, fear, nerves or being uncomfortable with the play that was occurring in the photos and videos, which aligned with the item “My anxiety level rises when children engage in an activity in which they might get hurt.” For example, one participant said, “Made me a little nervous, as the truck looked like it would tip and he was headed straight into a window” (riding
a toy truck down the hill video). Another participant said, “It makes me uncomfortable to see kids wrestling when an injury could occur very easily” (wrestling video).

Three items on the Global Influences scale had an average score between 3.5 and 4.00, indicating those items had some influence or a lot of influence on participants’ decision-making about allowing children’s risky play: “I am concerned about lawsuits”; “I am afraid children might get injured”; and “I am concerned about parents reactions to any injuries the child might receive from the type of play.” In the short-response answer questions regarding photos and videos of children engaged in risky play three participants mentioned liabilities and lawsuits: “Not in a facility because there are too many liabilities with just using blocks and that is too high for no railing or adult to not be there” (block bridge photo); “I would like to but the threat of a freaked out parent and potential lawsuit would outweigh the allowance” (monkey bar photo); “No. This is too much of a liability at a facility” (monkey bar photo).

The item “I am afraid children might get injured,” was the most-mentioned global influence in the short-response answer photo and video questions across all participants and all types of risky play: “Probably not because of the risk of injury”; “No this is more dangerous play and children can get major head injuries from concrete and have concussions and etc.”; “No. I have a bad feeling about the rope and someone letting go and cracking open their head”; “It makes me uncomfortable to see kids wrestling when an injury could occur very easily”; “No because they can easily get hurt, and it is very dangerous”; “I would not because too many kids run in front of the swings and would knock them down and they can be hurt”; “No. Risk of injury is too high.” Six participants discussed parent or caregiver reactions in their short-response answers to the photo and video questions, for example: “no they could slam into things and people and get hurt and parents don’t like it when they get scrapes” (riding toy truck down the
hill video); “No, I don’t feel that full on wrestling is appropriate nor would parents approve” (wrestling video); “I would like to but the threat of a freaked out parent and potential lawsuit would outweigh the allowance” (monkey bar photo); “I’m hoping the child in the orange shirt doesn’t fall, not sure I would send this picture to his parents…” (monkey bar photo).

The average total Situational Influences score across all participants was 3.410 (SD=.776, min=1.67, max=4.83). Results are displayed in Table 5. As with the Risky Play Interventions scale, an “Other” option was listed in the Situational Influences scale. This option had a space to fill in the blank with any other factors that influence participants’ decision-making about allowing children’s risky play in specific situations. Participants were instructed to leave the space blank and rate the item as “Never” if there were no other factors that influenced them. Four participants entered “Other” factors that influence their decision-making. Three of the four listed “Other” factors fit into pre-existing Situational Influences items, and the remaining one was “availability of appropriate resources to allow safe risky behavior.” Though this participant was the only one to add this influence into the “Other” option in the survey, other participants mentioned additional limitations of the center that prevent them from allowing the risky play: one participant said they only have one teacher per classroom which makes proper supervision of risky play challenging, one person described having a slide that is too tall to allow children to climb up it, and two participants said their center does not have swings to allow children to stand up on them.
Table 5. Situational Influences

<table>
<thead>
<tr>
<th>Situational Influences</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of children engaged in the play activity.</td>
<td>4.23</td>
<td>.831</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>The ages of children engaged in the play activity.</td>
<td>4.08</td>
<td>.986</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Individual characteristics of the children involved in the play activity, such as temperament, personality, ability level, regulation abilities, etc.</td>
<td>4.08</td>
<td>1.088</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Relationships/friendships between the children involved in the play activity.</td>
<td>3.63</td>
<td>1.248</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Whether the playgroup includes only boys, only girls, or is mixed gender.</td>
<td>2.94</td>
<td>1.508</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Two items on the Situational Influences scale had an average score between 2.5 and 4.00, indicating that those items had some or a lot of influence on participants’ decision-making about allowing children’s risky play. The item “Whether the playgroup includes only boys, only girls, or is mixed gender,” had the lowest average mean. In the short-response answer photo and video questions, the children’s gender was mentioned by participants three times: “I would keep watching and say something to the boy if the girl became uncomfortable” (wrestling video); “No I would stop it immediately if I see it. Girls and [boys]. It's shouldn't be touching like that” (wrestling video); “Boy being a boy” (block bridge photo). The item “Relationships/friendships between the children involved in the play activity,” had the second lowest mean. Three items on the Situational Influences scale had a mean above 4.00, indicating those items had a lot or a great deal of influence on participants’ decision-making about allowing children’s risky play: “Individual characteristics of the children involved in the play activity, such as temperament, personality, ability level, regulation abilities, etc.”; “The ages of children engaged in the play activity”; and “The number of children engaged in the play activity.”
In the short-response answer photo and video questions participants noted the child’s development and capabilities in certain domains as a factor that would influence their decision. One participant described wanting to know more about the children in general before deciding whether or not to allow the play: “I don't know these kids so it's hard to know if they are playing or something else; it would depend on the children involved and why they were playing this way” (wrestling video). Two participants explained that their decisions would rely not only on the individual characteristics of the children involved in the play activity, but also parents of the children as well as other children who might be observing the play: “It would depend on the personalities of the parents/caregivers of not just these two kids but other kids who might be observing. It would also depend on the function of the behavior” (wrestling video); “probably not would depend on the parents of all the children in my care” (standing on swings photo).

Analysis of the short-response answer photo and video questions revealed children’s age and number of children involved in the play activity to be crucial factors in decision-making, across all participants and all types of risky play. Some participants who referenced children’s age in their short responses simply said the children needed to be old enough: “No I have to many little kids” (real tools photo); “the kids should be older than this” (real tools photo); “No, these children are too young for these tools” (real tools photo). One participant specifically discussed age as it relates to children’s developmental-readiness to engage in the type of play: “It depends on their age. I think it would be okay for older kids when their balance gets better but, i don't think I would let younger children engage in this play” (standing on swings photo). One participant explained they would not allow children to stand on the swings not because the children engaging in the play were too young, but because it would encourage younger children
in the group to engage as well: “No. We are a mixed age group and it is not appropriate for everyone to stand on the swings” (standing on swings photo).

Participants who mentioned the number of children involved in the play activity either mentioned specifically that they would prefer it occur with a small number of children (e.g., “The girl needs safety glasses and this should be a one on one activity” (real tools photo); “If it was well monitored with 1 or 2 kids at a time” (real tools photo)), or generally referenced the size of the group (e.g., “Too crowded for such a activity” (climbing up the slide video)). Age and number of children were often mentioned together as well: “in a small group with older preschoolers, not toddlers. it is fun” (riding a toy truck down a hill video); “It would depend on how many I had in care and their ages. If I had all this age group I would, with very close supervision allow this” (block bridge photo).

Research Question 4

The fourth research question, What is the relationship between ECE practitioners’ risky play beliefs, risky play practices, and the factors that influence those beliefs and practices?, examined the relationship between participants’ beliefs and perceptions about risky play, their risky play practices, and the factors that influence those beliefs and practices, and was answered using the 12-item Beliefs and Perceptions scale, the 11-item Risky Play Practices scale, the 11-item Global Influences scale, and the 6-item Situational Influences scale. Two sets of correlations were run: 1) between the Beliefs and Perceptions scale, the Risky Play Practices scale, and the Global Influences scale, and 2) between the Beliefs and Perceptions scale, the Risky Play Practices scale, and the Situational Influences scale.

The first set of correlations, between the Beliefs and Perceptions scale, the Risky Play Practices scale, and the Global Influences scale (factors that influence participants’ decision-
making about whether or not to allow children’s risky play in general), revealed a strong positive correlation between beliefs and practices ($r=.771$, $p<.000$), a medium negative correlation between beliefs and global influences ($r=-.573$, $p<.000$), and a medium negative correlation between practices and global influences ($r=-.517$, $p<.000$).

The second set of correlations, run between the Beliefs and Perceptions scale, the Risky Play Practices scale, and the Situational Influences scale (factors that influence participants’ decision-making about stopping children’s risky play in specific situations), revealed a weak negative correlation between beliefs and situational influences ($r=-.260$) that was not statistically significant ($p=.075$) and a weak negative correlation between practices and situational influences ($r=-.288$, $p=.047$).

**Hypothesis 1**

To test the hypothesis, *ECE practitioners with higher levels of education and more years of experience will report more positive beliefs about the benefits of risky play, but will report permitting risky play less in their classrooms and center*, two standard multiple regression analyses were run. The first multiple regression was conducted to evaluate how well number of years worked in the field and highest level of education predicted beliefs and perceptions about risky play. A significant regression was not found $F(2,51) = 1.732$, $p=.187$. The second multiple regression was conducted to evaluate how well number of years worked in the field and highest level of education predicted risky play practices. A significant regression was not found $F(2,49) = 2.953$, $p=.062$. 
Chapter 5 - Discussion

The purpose of this research was to explore early childhood practitioners’ beliefs and perceptions about the benefits of preschool children’s risky play, the extent early childhood practitioners’ allow risky play to occur in their classrooms, and what factors influence their beliefs, perceptions, and practices regarding risky play. In addition, this research explored the relationship between practitioners’ risky play beliefs, practices, and the factors that influence their beliefs and practices, as well as the extent to which the number of years worked in the early childhood field and level of education predicted practitioners’ beliefs and practices.

Beliefs and Perceptions about the Benefits of Risky Play

Results from the first research question, “What do ECE practitioners believe about the benefits of risky play for preschool children?,” indicated that in general participants had more positive than negative beliefs about risky play and that participants have a greater understanding of the physical benefits of risky play than any other type of benefit.

There were some inconsistencies between results from the qualitative and quantitative data in terms of the benefits of risky play. While the qualitative data from the short-response answers based on photos and videos of children engaged in different types of risky play illustrated that participants recognized the physical benefits of risky play more than any other benefits, on the Beliefs and Perceptions Scale the item relating to physical benefits had the fourth highest average score while the item with the highest average score was, “Engaging in risky play can help children learn their own limits and capabilities,” which was only mentioned by a couple of participants in regards to the video of a group of several children engaging in play on a medium-height double slide, climbing up each side of the slide and using a piece of cut watering hose to pull one another up the slide.
The literature demonstrates that most adults hold misconceptions about R&T play: this type of play is often misinterpreted as aggression, many adults worry this type of play supports the development of aggressive behaviors (Carlson, 2011; Flanders, Leo, Paquette, Pihl, & Séguin, 2009), and ECE practitioners believe one-third of play-fighting leads to real fighting when in reality play-fighting leads to real fighting in about one percent of play episodes (Paquette, Carbonneau, Dubeau, Bigras, & Tremblay, 2003). Survey results from the current study cannot conclusively say whether or not participants demonstrated this belief because the wording of the survey question differs significantly. The current study used the phrase “Rough-and-tumble play almost always leads to real fighting,” and almost always cannot be quantified as accurately as the term “one-third” of play-fighting that is used in the literature. The average score for the item “Rough-and-tumble play almost always leads to real fighting,” indicated that participants “somewhat disagreed” or “agreed” with the item, leaving 14 participants (25.9%) who reported “somewhat agree” or “strongly agreed” with the item. Further research on this topic could explore this finding more in depth by using questions that better quantify how often R&T play turns into real fighting.

In addition, although participants reported “rarely” allowing children to engage in pretend fighting, other forms of R&T play such as physical contact play and superhero play were reported as being allowed more often. However, as described in the Results, short-response answers from the qualitative data illustrated that some participants were concerned about the play turning into real fighting.

Risky Play Practices and Interventions

Results from the second research question, “To what extent do ECE practitioners report permitting risky play to occur in their classrooms or center?” indicated that in general
participants rarely or occasionally allow a variety of types of risky play to occur in their classrooms or center. According to the literature early childhood education practitioners tend to stop R&T play more than any other type of play (Logue & Harvey, 2009; Storli & Sandseter, 2015), but the results from this study demonstrated that physical contact play (pulling, rolling around together, etc.) pretend fighting, and superhero play, all considered R&T play in the literature, did not have the lowest average scores on the Risky Play Practices scale. Engaging in superhero play in fact had the second highest average score, indicating that participants allow it to occur often. The types of risky play with the lowest average score, indicating that participants rarely or never allow them to occur, were heights and biking at high speed. Logue and Harvey’s (2009) study and Storli and Sandseter’s (2015) study both used a similar methodology for measuring teachers’ reported allowance of R&T play as the current study, asking participants on a scale of 1-5 how often they allow the type of R&T play to occur. However, in both Logue and Harvey’s (2009) study and Storli and Sandseter’s (2015) study, pretend fighting was reported as being allowed the least of all types of R&T play, and the current study revealed the same finding.

Interestingly, although biking at high speeds was rarely or never allowed, the item “I allow children in my care to reach speeds during play that sometimes make me uncomfortable,” had the second highest average score. This finding indicated that participants allowed it to occur occasionally.

Logue and Harvey (2009) explored preschools teachers’ views of active play, and the current study used a modified version of the researchers’ interventions scale for R&T play. Overall, the current study found similar results on the types of interventions used. Redirecting play to a safe area and having conversations with children about safety were two of the highest interventions in both Logue and Harvey’s (2009) and the current study, and observe play
uninterrupted until someone gets hurt and talk to parents were two of the lowest interventions used in both studies. One significant difference between the results for this scale however was for the item “Immediately stop play without explanation” (“Immediately stop it” in Logue and Harvey’s (2009) study). In the current study this item received the second to lowest average score, indicating most participants never or rarely used it. In Logue and Harvey’s (2009) study, the item “Immediately stop it,” was one of the most-used interventions. This could be due to several reasons. First, Logue and Harvey’s (2009) scale was used solely for R&T play, whereas the current study asked about interventions for all types of risky play. Second, the wording of the two items might have caused the discrepancy: perhaps the addition of “without explanation” used in this study, which is more specific, made the intervention seem harsher and therefore less participants reported using it. Third, in the 10 years since Logue and Harvey’s (2009) study was published there has been much more research on rough-and-tumble play and play in general which might have influenced participants’ responses.

The literature on the role of parent and child’s gender on parents’ beliefs and practices concerning risky play has found that typically both mothers and fathers tend to be more tolerant of and less concerned about sons’ risky play than daughters’ risky play. Results from this study suggest that perhaps this finding could be true for early childhood practitioners as well as parents. The photos and videos used in the survey depicted an even amount of children of both genders engaging in different types of risky play. For the photo of a child standing on top of a self-constructed bridge made out of wooden hollow blocks and wooden block planks inside the classroom, one participant commented, “Boy being a boy,” suggesting that she felt that type of play is normal and acceptable for boys to engage in. It would be interesting to explore participants’ reactions had the child featured in the photo been a girl.
Further, in the video of two children engaging in play wrestling outside in the grass, one child was a boy and one was a girl. In the short-response answers for this video two participants mentioned the children’s gender. The first participant said, “No I would stop it immediately if I see it. Girls and [boys] shouldn't be touching like that.” It is important to note that in the video both children had their arms wrapped around the other’s waist similar to if they were hugging, and their hands never touched any body part other than the waist/stomach, shoulders, and arms. It is interesting to note that this participants’ responses to items on the Beliefs and Perceptions scale concerning this type of play were primarily positive: her response to “Rough-and-tumble play almost always leads to real fighting” was “strongly disagree,” her response to “Rough-and-tumble play helps children develop self-regulation” was “agree,” and her response to “Engaging in rough-and-tumble play, wrestling, and play fighting can help children learn to resolve conflict” was “agree.” This participant’s responses all together suggest the primary concern she had for the play depicted in the video was the fact the children were different genders, rather than a concern for the nature of the play itself. Despite her clear concern for the children’s genders, however, this participant reported “no influence” on the Situational Influences scale for the item “Whether the play group includes only boys, only girls, or is mixed gender,” indicating that perhaps self-report measures are not entirely accurate representations of participants’ beliefs. The second participant who mentioned gender in her response to this video said, “I would keep watching and say something to the boy if the girl became uncomfortable.” This response indicates a gender bias, suggesting that the boy is the primary initiator of the play and that the girl is the only child who might become uncomfortable with the play.
Influences on Risky Play Beliefs and Practices

Results from the third research question, “What do ECE practitioners report as the major influences on their risky play beliefs and practices?” looked at both global and situational influences on participants’ risky play beliefs and practices. According to the risky play literature the primary concerns ECE practitioners have with allowing children to engage in risky play is fear of litigation and fear of being seen as a bad early childhood practitioner (Ball et al., 2012; Bundy et al., 2009). The results from this study produced slightly different results. The two highest global influences participants’ reported were concern about parents’ reactions to injuries children might receive from risky play and their own personal fear that children might get injured. In contrast, the item “I am concerned about lawsuits,” was the third highest global influence and the item “I am afraid someone will see me as a bad teacher for allowing this type of play,” was the third lowest.

Additionally, Tannock (2008) found that while ECE practitioners understood the value in children’s R&T play, they expressed fear of children getting injured and a lack of knowledge of how to effectively manage and facilitate R&T play. The results of this study were similar to Tannock’s (2008) finding in that teachers were concerned about children getting injured, but very different in that the item “I am unsure of how to facilitate or safely manage the play,” had the lowest average score, indicating that factor has no influence of little influence on participants’ decision-making about allowing risky play.

Results from the current study, from both the survey data as well as short-response answer questions, revealed the number of children engaged in the play activity as the factor that most influences whether or not participants allow risky play to occur in specific situations. The situational factors with the next two highest average scores were the ages of children involved in
the play activity and individual characteristics of the children involved in the play activity (like temperament, personality, ability level, regulation abilities, etc.). These results have implications for professional development and training opportunities regarding facilitation of risky play.

**Relationships Between Beliefs, Practices, and Influences**

Results from the fourth research question demonstrated that participants’ risky play beliefs and practices were positively correlated, indicating that the more positive beliefs ECE practitioners had about risky play the more they were likely to allow it to occur in their classrooms or center. A moderate negative correlation was found between beliefs and global influences, indicating that the more positive beliefs ECE practitioners had about risk play the less influence global factors had on their decisions to allow risky play. A moderate negative correlation was found between practices and global influences, indicating that the more likely participants were to allow risky play to occur in their classrooms or center the less influence global factors had on their decisions to allow risky play.

Results demonstrated a weak negative correlation between beliefs and situational influences that was not statistically significant, but that did indicate a trend ($p=.075$). This means that perhaps with a larger sample size this correlation might have been significant, indicating possibly that the more positive beliefs ECE practitioners had about risk play the less influence situational factors had on their decisions to allow risky play. In addition, there was a weak negative correlation found between practices and situational influences, indicating no significant link between risky play practices and the factors that influence ECE practitioners in specific situations. These findings were expected; if ECE practitioners report more positive beliefs about risky play it would follow that they would also allow it to occur more often, and if ECE
practitioners report allowing risky play to occur more often it would follow that there are different factors influencing their decision.

**Hypothesis**

Results from the multiple regression analyses indicated years in the field and highest level of education did not significantly predict either risky play beliefs and perceptions or risky play practices. However, the regression conducted to evaluate how well number of years worked in the field and highest level of education predicted risky play practices revealed a trend in the data (p=.062), indicating that if the sample size had been larger perhaps this number would have been significant. A 2016 study by Cevher-Kalburan and Ivrendi found that parents’ risky play practices tended to decrease as parents’ education levels increased, and the results of the current study indicate that perhaps this finding might hold true for ECE practitioners as well as parents.

This finding has implications for teacher education programs and trainings. If amount of education does not influence teachers’ beliefs or practices concerning risky play, then perhaps teacher education programs and trainings should rethink how to teach best practices in play facilitation concerning risky play.

**Additional Discussion**

According to the literature, teachers often reported managing their own anxieties about children’s risky play rather than the play itself--they consciously stretch the limits of what they are comfortable with as adults in order to give children opportunities to experience more challenges in risky play (Bundy et al., 2009; Sandseter 2012). This finding was also demonstrated in the current study. In the short-response answers, two participants described something similar: “Yikes! Honestly, just don't want the blocks to break, but after my initial reaction I think he is fine up there and its important for him to have new perspectives...” and
“This photo gives me a little anxiety. I think there should be a limit to risky play. I would allow children to swing on their stomachs but, I don't know if I would allow them to stand. Though, I did stand on swings when I was their age and nothing happened. I feel like falling, getting hurt, and possibly breaking bones is just part of being a child.” Though both participants expressed initial feelings of discomfort/anxiety/fear, their responses demonstrate their understanding that even though it makes them uncomfortable, the children would benefit from engaging in the play.

**Limitations and Directions for Future Research**

The current study had several important limitations. First is the small sample size. Second, the sample included only ECE practitioners from the state of Kansas, so the sample might not be generalizable to other populations. Third, the sample included primarily females with only one male. Further exploration of risky play beliefs and perceptions, practices, and influences with a higher sample of male ECE practitioners’ could reveal important gender differences.

The next two limitations are related to the distribution method used in the current study. Because the survey was sent to everyone who had enrolled in a Kansas Child Care Training (KCCTO) course in the previous 12 months, the sample included practitioners who were not necessarily working directly with children in the classroom, such as office and kitchen staff. In addition, because of this distribution method the low response for this survey could be linked to high-turnover in the field, because individuals in the KCCTO database who were new to the field upon enrollment in courses might have left the field by the time the survey was distributed to them.

Further research would benefit from more exploration of the influence of child’s gender on ECE practitioners’ risky play practices. Although one participant reported that child’s gender
had “no influence” on her decisions to allow risky play, her qualitative data expressed the opposite so more research in this area using measures besides self-report would be beneficial. In addition, because of the disparities between participants’ self-reported beliefs and perceptions and practices on the survey scales and their descriptions of their practices in the short-response answer questions, future research would benefit from observations of participants’ risky play practices rather than the use of photos and videos and self-report.
References


Appendix A - Risky Play Survey

Demographics
1. What is your age?
2. What is your gender?
   a. Response options: Male, Female, Transgender, Other ______
3. What is your race?
   a. Response options: African American/Black, Caucasian, Asian American, Native Hawaiian or other Pacific Islander, Native American, Biracial/Multiracial, Other ______
4. What is your ethnicity?
   a. Response options: Hispanic, Latino, or Spanish origin, Non-Hispanic, Latino, or Spanish origin, Prefer not to answer
5. What is your current professional position?
   a. Response options: Director, Assistant Director, Lead Teacher, Teacher, Assistant Teacher, Floater
6. How many years have you worked in the early childhood field?
   a. Response options: Less than 1 year, 1-2 years, 3-5 years, 6-10 years, 11-20 years, 21 years or more
7. What’s the highest level of education you have completed?
   a. Response options: Did not complete high school or obtain GED, High school/GED, Vo-Tech, Some college but no degree completed, 2-year college degree (Associate’s degree), 4-year college degree (Bachelor’s degree), Graduate degree (M.S., M.A., Ph.D)
8. What was your major for your (Associate’s/Bachelor’s) degree?
   a. Response options: Early childhood education, Other field of education (Elementary, Secondary, etc.), Child development, Other related field (Social Work, Human Development, Psychology, etc.), Other non-related field
9. Do you currently have your Child Development Certificate (CDA)?
   a. Response options: Yes, No, Currently working on it
10. What zip code is your center located in?
11. What type of center do you work at? Check all that apply.
   a. Response options: Half-day, Full-day, Head Start/Early Head Start, Preschool, Public school, Private school, Non-profit, For profit
12. Is your center nationally accredited?
   a. Response options: Yes, No, Not sure
13. What is the name of the accrediting agency?
14. What is the age (in months) of the youngest child in your care?
15. What is the age (in months) of the oldest child in your care?
16. What is the licensing capacity for your classroom/facility?

Risky Play Trainings
1. Have you ever attended a workshop, training, or webinar regarding risky play, rough-and-tumble play, big body play, etc.?
   a. Response options: Yes, No
2. Have you ever read an article or book about risky play, rough-and-tumble play, big body play, etc.?
   a. Response options: Yes, No
3. Does your center have a written policy on safety of outdoor play, children’s risky play, rough-and-tumble play, or play safety?
   a. Response options: Yes, No
4. Please describe your center’s policy on outdoor play/risk-taking in play/rough-and-tumble play/play safety.

Scale 1 – Beliefs and Perceptions About the Benefits of Risky Play

For the purposes of this survey "risky play" and "risk-taking in play" include play such as climbing high, high speeds, using dangerous tools, rough-and-tumble play, play fighting, wrestling, and superhero play.

Rate on a scale of 1 to 5 the degree to which you agree with the following statements:

(1=strongly disagree, 2=somewhat disagree, 3=agree, 4=somewhat agree, 5=strongly agree)

1. It is important to development for children to take physical risks when they play.
2. Rough-and-tumble play almost always leads to real fighting.
3. When children engage in very physically active play they have difficulty calming down after.
5. Children can’t learn anything by roughhousing, play fighting, superhero play, or chase games.
7. Engaging in risky play can help children’s physical development, social development, and the development of emotion regulation.
8. Engaging in risky play can help children learn to assess risks and dangers for themselves.
9. Engaging in risky play can help children learn their own limits and capabilities.
10. Engaging in risky play can help develop creativity and problem solving skills in children.
11. Engaging in rough-and-tumble play, wrestling, and play fighting can help children learn to resolve conflict.
12. The benefits associated with engaging in risky play outweigh the possibility that children might get hurt.

Scale 2 – Risky Play Practices

Please rate the following by how often you permit children to engage in the following risky play practices:

(1=Never, 2=Rarely, 3=Occasionally, 4=Often, 5=Regularly)

1. I allow children in my care to climb to heights that sometimes make me feel uncomfortable.
2. I allow children in my care to wrestle on the playground.
3. I allow children in my care to climb up the slide itself instead of using the ladder.
4. I allow children in my care to engage in pretend fighting.
5. I allow children in my care to use real tools (hammers, nails, screws, pliers, etc.) in my classroom.
6. I allow children in my care to bike freely at high speeds.
7. I allow children in my care to engage in superhero play.
8. I allow children in my care to build block structures taller than they are.
9. I allow children in my care to climb on top of large block structures they’ve built indoors.
10. I allow children in my care to engage in physical contact play with one another (pulling, rolling around together, etc.).

Scale 3 – Risky Play Interventions
Please rate how often you use the following interventions when children engage in risky play:

(1=Never, 2=Rarely, 3=Occasionally, 4=Often, 5=Regularly)

1. Immediately stop the play without explanation.
2. Redirect play to a safe area.
3. Talk to parents.
4. Stop the play, and have a conversation with children about safety and why the play needed to be stopped.
5. Have a conversation with children about how to modify play to keep children safe.
6. Modify the environment to prevent risky play.
7. Modify the environment to make it safer for risky play.
8. Redirect play to a different, less risky activity.
9. Observe play uninterrupted until someone is hurt.
10. Give a warning, then a consequence.
11. Monitor the play by staying in close proximity to children.
12. Other: ___________________________

(modified from Logue & Harvey, 2010)

Scale 4 – Global Influences
Rate the following statements on a scale of 1 to 5 based on the degree to which each affects your decision-making about allowing children's risky play.

I am sometimes uncomfortable allowing children to take physical risks when playing because:

(1= No influence, 2, 3=Some influence, 4, 5=A great deal of influence)

1. I am afraid children might get injured.
2. My anxiety level rises when children engage in an activity in which they might get hurt.
3. I am concerned about getting in trouble with my administration or supervisors for allowing the type of play.
4. The type of play is against school policy.
5. I am concerned about parents’ reactions to any injuries the child might receive from the type of play.
6. I am concerned about lawsuits.
7. I am unsure how to facilitate or manage the play safely.
8. I am afraid of the play getting out of hand and riling the children up.
9. I am concerned the play might turn into real fighting.
10. I’m concerned about getting in trouble with my center’s licensing agency.
11. I’m afraid someone will see me as a bad teacher for allowing this type of play.

Scale 5 – Situational Influences
Rate the following factors on a scale of 1 to 5 based on the degree to which each affects your decision-making about stopping children's risky play in specific risky play instances:

(1= No influence, 2, 3=Some influence, 4, 5=A great deal of influence)

1. The ages of children involved in the play activity.
2. The number of children engaged in the play activity.
3. Whether the playgroup includes only boys, only girls, or is mixed gender.
4. Individual characteristics of the children involved in the play activity, such as temperament, personality, ability level, regulation abilities, etc.
5. Relationships/friendships between the children involved in the play activity.
6. Other: _________________________

Photo and Video Short-Response Answers
Describe your initial reactions, thoughts, and feelings upon seeing this photo.
Would you allow this type of play? Why or why not?