# RISKY PLAY IN OUTDOOR EARLY CHILDHOOD SETTINGS: TEACHER ATTITUDES AND VIEWS

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
THE DEPARTMENT OF ELEMENTARY AND EARLY CHILDHOOD EDUCATION, EARLY CHILDHOOD EDUCATION

SEPTEMBER 2022

Approval of the thesis:

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## ABSTRACT

RISKY PLAY IN OUTDOOR EARLY CHILDHOOD SETTINGS: TEACHER ATTITUDES AND VIEWS

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September 2022, 172 pages

The present study had the dual aims of examining (a) early childhood teachers' risky play attitudes in relation to the various factors (e.g., *preschool type, number of children in the class, presence of teachers' aides, teaching experience, children's age groups, and daily outdoor time*, and (b) teachers' views about children's risky play. Explanatory sequential mixed-methods research was conducted using both quantitative and qualitative methods. The participants were in-service early childhood teachers working in private and public preschools in the nine main districts of Ankara. First, 484 teachers were administered using the Demographic Information Form and Scale for the Attitudes Towards Risky Play at Early Childhood-Teacher Form. Second, semi-structured interviews were conducted with 21 teachers who agreed to participate in the second part of the study. Quantitative data were initially collected and analyzed using SPSS 28 software, while qualitative data were analyzed using MAXQDA 2020 software. The results of the study revealed significant differences in the variables of preschool type, presence of teachers' aides, and daily outdoor time. In addition, this study showed that teachers viewed risky play as an important part of child development, but that they had both facilitators and barriers to permit. The negative

aspects of risky play and teacher concerns arising from the views of parents and administrators were also reported. Given these findings, this study provided valuable insights into the reasons for influencing teachers' attitudes and views, and issues such as the need for teacher training, and collaboration with parents, administrators, and policymakers are recommended.

**Keywords**: risky play, early childhood teachers, attitude, views, early childhood

# ÖZ


OKUL ÖNCESİ DIŞ MEKANLARINDA RİSKLİ OYUN: ÖĞRETMEN TUTUM VE GÖRÜŞLERİ

TURGUT KURT, Rabia
Yüksek Lisans, Temel Eğitim, Okul Öncesi Eğitimi Bölümü
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Eylül 2022, 172 sayfa

Bu çalışmanın amacı, okul öncesi öğretmenlerinin riskli oyunlara yönelik tutumlarının çeşitli faktörlere (*kurum türü, sınıftaki çocuk sayısı, yardımcı öğretmenin varlığı, deneyim yılı, çocukların yaş grupları*) göre incelenmesi ve öğretmenlerin riskli oyunlarına ilişkin görüşlerinin araştırılmasıdır. Bu araştırmada, nitel ve nicel verilerin birlikte kullanıldığı karma araştırma modellerinden açımlayıcı ardışık karma desen kullanılmıştır. Bu araştırmanın örneklemini Ankara ilinin dokuz ana ilçesinde devlet kurumlarında ve özel kurumlarda çalışan okul öncesi öğretmeleri oluşturmaktadır. Nicel bölümde 484 okul öncesi öğretmenine Demografik Bilgi Formu ve Erken Çocuklukta Riskli Oyuna Yönelik Tutum Ölçeği-Öğretmen Formu uygulanmıştır. Nitel bölümde ise, 21 okul öncesi öğretmeni ile yarı yapılandırılmış görüşmeler yapılmıştır. Çalışmanın ilk bölümünde nicel veriler toplanmıştır ve SPSS 28 yazılımı kullanılarak analiz edilmiştir. Nitel veriler ise MAXQDA 2020 yazılımını kullanarak analiz edilmiştir. Çalışmanın sonuçları, okul türü, yardımcı öğretmenin varlığı ve günlük açık havada geçirilen zamanın okul öncesi öğretmenlerinin riskli oyun tutumlarında anlamlı farklılık yarattığını göstermiştir. Buna ek olarak, bu çalışma öğretmenlerin riskli oyunu çocukların gelişiminin önemli bir parçası olarak gördüklerini, ancak izin verme sürecinde hem destekleyici hem de engelleyici faktörler

olduğunu göstermiştir. Riskli oyunun olumsuz yönleri ve öğretmenlerin aile ve okul yönetici görüşlerinden kaynaklanan riskli oyun kaygıları da belirtilmiştir. Bu bulgular göz önüne alındığında, bu çalışma, öğretmenlerin riskli oyun tutum etkileyen faktörlere ve görüşlerine ilişkin bilgiler sağlamıştır. Çalışma, öğretmen eğitimi ihtiyacı ve aileler, okul yöneticileri ve politika yapıcılarla iş birliği yapılması gibi konularda öneriler sunmaktadır.

**Anahtar Kelimeler**: riskli oyun, okul öncesi öğretmenleri, tutum, görüş, okul öncesi

*To all children*

## ACKNOWLEDGMENTS

I would like to express my endless gratitude to following people who have given me so much of their time, love, and energy.

First and foremost, I would like to express my deepest appreciation to my supervisor Assist. Prof. Dr. Serap Sevimli Çelik for her intellectual guidance, continuous support, and patience. The motivation and enthusiasm she inspired in me was very precious. I could not have undertaken this journey without her constructive comments, warm encouragement, and profound belief in my work.

I would also like to extend my sincere thanks to my defense committee members Assist. Prof. Dr. Volkan Şahin and Assist. Prof. Dr. Burcu Çabuk for their brilliant comments and valuable suggestions. I am especially appreciative of the time and energy they took to read my thesis in detail. Their valuable comments gave me an enormous insight while finalizing my thesis.

I would like to extend my sincere thanks to Assoc. Prof. Dr. Simge Yılmaz Uysal and Assoc. Prof. Dr. Nilgün Cevher Kalburan for their valuable contributions to improve the data collection instruments of my study.

I am also very grateful to the early childhood teachers who participated in the study for giving their times and their great interest to the study.

Furthermore, I'm extremely grateful to, members of Ankara University Department of Preschool Education, Assoc. Prof. Dr. Müge Şen, Prof. Dr. Dilek Acer Çakar, Assoc. Prof. Dr. Ege Akgün, Assist. Prof. Dr. Burcu Çabuk, and Assist. Prof. Dr. Gökçe Karaman Benli for their valuable contributions, constructive advice, and guidance for both my thesis and professional growth.

Very special gratitude goes out to my officemates Tuğba Baş and Nergiz Teke for their clever ideas, editing help, feedback sessions, and emotional support. I am also very grateful to Emel Durmaz who opened both her home and hearth whenever I need, guided me so positively and who always made me feel confident in my abilities. I am also grateful for Kader Karadeniz Akdoğan, I always know that she was there to listen, help and give opinion without hesitation in every time. I feel very lucky to have such cheerful and open-hearted colleagues.

Furthermore, words cannot express my gratitude to Nazmiye Temiz for her never-ending support and encouragement in my life both academically and personally. Even though she is far away from me, I always feel her hearts and minds by my side. Her belief in me has kept my motivation high during this process. I want to thank for all the opinions she gave me in all process of my thesis, this work would not have matured without her support.

The completion of my dissertation would not have been possible without the endless support and nurturing of Gizem Şakar. First and foremost, I feel very lucky for presence of her in my life. I am very grateful for her profound belief in my abilities and limitless support in each step of this long journey of thesis. I am also very grateful to her unconditional support for my personal and professional growth.

I am also very grateful for overcoming the burden of writing thesis with very bighearted person Elif Naz Altaş. She made me feel more energetic, happier with her support and friendship during the whole process of this thesis and also in my life.

Thanks should also go to my sister from another mother Aslıhan Yasun. As always, she supported and nurtured me and never let me down during the whole process of this thesis. I am very grateful to her love, laughs and sisterhood. I know she will always be with me.

Thanks should also go to Melike Kandemir, Ayşenur Mumcuoğlu and Gamze Nur İnönü for their generous advice and help during the process of this thesis.

A big thank you must go to my parents Şerife & Mustafa Turgut, and my brother Emre & İbrahim Turgut and my sister-in-law Ayşegül Turgut. Without their tremendous understanding and encouragement, it would be impossible for me to complete my study. I also want to thank to each member of KURT family for all their understanding, warmth support and encouragement.

Finally, and most importantly, I find it difficult to express my appreciation to my husband Ozan Kurt because it is boundless. I am truly thankful for his unconditional love and immeasurable sacrifice in every single detail of thesis journey. I am grateful to my husband not just because he has given up so much to make my career a priority in our lives, but also for believing in me even when I lost faith in myself. He is my best friend and cheerleader of my life. Words would never say how grateful I am for having him in my life!

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## LIST OF ABBREVIATIONS

| | |
|---|---|
| MoNE | Ministry of National Education |
| SATRPEC | The Scale for Attitudes Towards Risky Play in Early Childhood-Teacher Form |

# CHAPTER 1

## INTRODUCTION

Play has been studied for years in various disciplines (Freud, 1961; Johnson et al., 1999; Parten, 1932; Pellegrini et al., 2007; Piaget, 1929; Smith & Vollstedt, 1985; Vygotsky, 1978). Johnson et al. (1999) describe play as a process-oriented activity which needs to be intrinsically motivating, freely chosen, and enjoyable for the child. In this regard, play provides a context in which young children can establish and maintain relationships with others while promoting self-regulation, conflict resolution, and cooperative skills (Bredekamp, 2017). In addition to fostering social and emotional skills, play also allows children to acquire cognitive skills in terms of divergent thinking, acquisition of knowledge, and problem-solving (Klein et al., 2003). Regarding the physical benefits, children can exercise and strengthen their muscles while playing (Anderson-McNamee & Bailey, 2010). According to Tovey (2007), children can expand their motor skills, test their physical limits, and challenge themselves in play without worrying about consequences. Children can also take risks by testing out their physical limits and engaging in play situations that excite them (Sandseter, 2010). This type of play refers to *risky play*. Stephenson (2003) describes what makes a play risky as trying to do something never done before and feeling out of control due to that action and overcoming the fear. Similarly, Ball (2002) proposes the definition of attempting to do something that has never been done before with the risk of harm or injury. Sandseter (2007) defines risky play as testing physical limits and taking the potential risk of injury, such as climbing on structures. In this regard, in the present study, the term risky play refers to Sandseter's (2007) definition. Regarding the categories of risky play, Sandseter (2007) conducted a qualitative study and focused on how children with three to five years old interact with features of the outdoor environment that might invite physical risk-taking to identify common examples of children's physical risky play. Based on the findings, Sandseter (2007)

identified six categories of risky play: 1) *play with great heights* 2) *play with high-speed* 3) *play with dangerous tools* 4) *play near dangerous elements* 5) *rough-and-tumble play*, and 6) *play where the children can disappear or get lost* (see Table 1). Furthermore, Kleppe et al. (2017) found risky play occur among one to three-year-old children and added two new categories to the existing ones: 7) *play with impact* (e.g., children crashing into something repeatedly just for fun) and 8) *vicarious play* (e.g., children experiencing thrill by watching older children engaging in risk). In the current study, considering children's age group to which it is addressed, the researcher involved the six categories of risky play stated by Sandseter (2007). Even though research on risky play and young children's risk-taking is a relatively new research area, there is a growing body of literature that recognizes the benefits and importance of risky play (Brussoni et al., 2015; Brussoni et al., 2020; Liu & Birkeland, 2022; Mitchell et al., 2006; Sando et al., 2021; Tremblay et al., 2015). Risky play helps children acquire physical skills such as perceptual-motor skills and spatial orientation (Sandseter et al., 2021b; Sandseter & Kennair, 2011). Through risky play, children develop self-esteem, conflict-resolution, and perseverance (Brussoni et al., 2012; Sandseter & Kennair, 2011; Tovey, 2007) and learn essential self-regulation skills (Tremblay et al., 2015). Besides, researchers have recently suggested that engaging in risky play can provide children with opportunities to cope with and manage uncertainty, leading to a reduction in anxiety over time (Dodd & Lester, 2021). Similarly, studies indicate that increasing autonomy and limiting children's risky play opportunities increases anxiety, both in childhood and in adolescence, and adulthood (Affrunti & Ginsburg, 2012; Bayer et al., 2010). In this regard, risky play promotes children's health by increasing physical activity, improving their ability to assess risk and reducing injuries over time (Lavrysen et al., 2017). Similarly, Brussoni et al. (2015) pointed out in their review that risky play has many positive health effects, including increased physical activity and a reduction in sedentary behaviors. In the same vein, recent studies have shown that the health effects of risky play through physical activity exceed the potential physical injuries (Sando et al., 2021). Conversely, the question of whether the risk is dangerous in play has been raised (Brussoni et al., 2015).

Historically, risk has been narrowly defined and has negative connotations which contribute to risk-averse practices and a decrease in opportunities for children to engage in risk in their play (Brussoni et al., 2020; Little et al., 2012; Tremblay et

al., 2015). Usually, *the risk* has a negative association and is mainly considered synonymous with *hazard* (Sandseter, 2012). However, the hazard is not conducive to children's development and children may have difficulty assessing hazards for themselves (Ondeck & Focareta, 2009). In contrast, the risk is defined as a situation in which children can notice and assess the difficulty and can decide how to deal with it (Adams, 2001). In this sense, there are several types of risk, such as *social*, *intellectual*, and *physical* risks that are part of daily life (Adams, 2001). *Social risks* involve learning to cope with challenges and differences, while *intellectual risks* are described as trying new things and facing obstacles (Adams, 2001). In the current study, the term *risk* refers to only physical risks. Moreover, while risky play occurs in a variety of settings, the present study focuses on early childhood outdoor settings as a place where risky play occurs. Outdoor play is defined as the time children spend outdoors in an open and self-directed manner (Little & Wyver, 2008; Tremblay et al., 2015). Regarding physical risks, outdoor risky play provides children with open-ended, unpredictable, and risky opportunities (Liu & Birkeland, 2022). With this in mind, research on risky play suggests that early childhood learning environments have been identified as particularly important contexts in which children can learn about and engage in risk, but the provision of risky play for children in these environments is a complex issue (Brussoni et al., 2020; Little & Wyver, 2008; McFarland & Laird, 2018; Sandseter et al., 2021b; Van Rooijen & Newstead, 2017; Wyver et al., 2010). Particularly, researchers have emphasized that risk-taking opportunities in early childhood settings are largely influenced by adults, particularly early childhood teachers (Hewitt-Taylor & Heaslip, 2012; Little et al., 2012; Sandseter, 2014; Stan & Humberstone, 2011; Storli & Sandseter, 2017; Van Rooijen et al., 2020; Yalçın & Tantekin-Erden, 2018). This idea is further supported by one of the pioneers, Bronfenbrenner (1979), in his Ecological Systems Theory, highlights the power of interactions between adults and children at microsystem level in which activities take place and as the relationships that have the greatest impact on children's development. At the microsystem level, family members, teachers, the school environment, and the place where the child grows up have an important influence on children's development. The microsystem has also implications for early childhood education highlighting the power of interactions and the important role of early childhood teachers. Parallel to Bronfenbrenner's (1979) Ecological Systems Theory, for the current study, teachers' risky play attitudes and views facilitate bidirectional

interaction with children at the microsystem level which influence children's risky play opportunities. Moreover, sociocultural theory developed by Vygotsky (1978) guided the present study to explore teacher's views risky play. Vygotsky (1978) stated that children use their previous knowledge to create new ways of learning and understanding. In this sense, their previous knowledge was constructed by adults particularly parents and teachers. This raises questions about what adults' views on children's risky play. Therefore, the theory guided the present study, to consider teachers current knowledge and view about children's risky play. As Tovey (2007) noted, some teachers restrict children's risk-taking in play, while others provide children with opportunities for risky play in the school setting. Particularly, Stephenson (2003) and Sandseter (2014) argues that children's opportunities for risky play in a preschool setting are influenced by early childhood teachers' perceptions of risk and attitudes toward risky play.

### 1.1. Statement of Problem

The existing literature on risky play focuses particularly on the crucial role of early childhood teachers in children's risky play in many studies (Little et al., 2012; Sandseter, 2012; Sandseter, 2014; Stan & Humberstone, 2011; Van Rooijen et al., 2020; Yalçın & Tantekin-Erden, 2018). Furthermore, positive attitudes of teachers toward children's risky play are associated with providing children with more opportunities to engage in risky play (Güler & Demir, 2016; Little et al., 2012; Van Rooijen et al., 2020). Conversely, Sandseter and Sando (2016) point out that there is a growing focus on safety and increasing restrictions on children's risky play by early childhood teachers, even in a country such as Norway, which is considered one of the less-risk-averse countries in terms of children's play. Therefore, children, especially in early childhood settings, are being protected from many risks through increased injury prevention efforts (Harper, 2017). In this sense, research examining teachers' views of risky play suggests that early childhood teachers not only recognize the importance of risky play, but also see the barriers such as safety concerns and parental and administrative concerns due to the accountability issues (Cheng et al., 2022; Harper & Obee, 2021; LeMasters & Vandermaas-Peeler, 2021; Little et al., 2012; Liu & Birkeland, 2022; Sandseter & Sando, 2016). For this reason, even though risky play holds a key role in enhancing children's healthy development, teachers' attempts to protect children from injuries limit the opportunities for children's risky play

(Lavrysen et al., 2017; Lester & Russell, 2010). However, as Tovey (2007) noted, while some teachers limit children's risk-taking in play, others provide children with risky play opportunities in the school settings. In this context, research showed that teachers' decisions to allow risky play change based on their attitudes and views rather than on the assessment of children's abilities to take and manage risks (Sandseter, 2011). Moreover, Sandseter (2012) asserts that teachers' negative attitudes and views toward risky play directly related to the constraints of children's risk-taking in play. With this in mind, in the school context, as teachers supervise children (Wyver et al., 2010) and decide whether to allow risky play based on their attitudes, which poses a problem, it is necessary to examine the factors that influence their attitudes of risky play. In this regard, Van Rooijen et al. (2020) indicate that there are several factors that influence teachers' attitudes toward risky play. Sandseter (2014) found that the gender of the teachers creates differences in the attitudes toward risky play. For example, the male teachers had greater risk-taking and more permissive attitudes toward risky play than female teachers (Sandseter, 2014). Existing research also shows various factors such as the school type they work with and the number of children they have in their classrooms affect the way they see and allow risky play (Little et al., 2012; Sandseter, 2012; Van Rooijen et al., 2020). However, there are more factors such as the number of children in the classes and presence of teachers' aides which are not studied before to show whether they affect teachers' risky play attitude. In this sense, the purpose of the study, which was designed considering the problem statement, is explained in the next section.

### 1.2. Purpose of the Study

The current study aimed to a) examine early childhood teachers' attitudes toward risky play in relation to various factors which are *preschool type* they are working*, number of children* in their classes*, presence of teachers' aides* in their classes*,* their *teaching experience, age groups of children* in their classes*,* and *daily outdoor time* they allocate children to spent in the school, and b) investigate their views about children's risky play to provide in-depth information.

### 1.3. Research Questions

In line with the purpose, this study seeks to answer the following research questions:

**a.** Do early childhood teachers' risky play attitudes differ in relation to various factors (*preschool type, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children, and daily outdoor times*)?

**a.1.** Do early childhood teachers' *beliefs about the necessity of risky play* differ in relation to various factors?

**a.2.** Do early childhood teachers' *tolerance toward risky behaviors* differs in relation to various factors?

**a.3.** Does early childhood teachers' *sense of anxiety* regarding risky play differ in relation to various factors?

**a.4.** Does early childhood teachers' differentiation of risky behaviors differ in relation to various factors?

**b.** What are the views of the early childhood teachers toward children's risky play?

### 1.4. Significance of the Study

A growing body of literature has shown that risky play is an essential component of early childhood education that builds children's self-confidence and problem-solving skills and leads them to test their physical, emotional, and intellectual limits (Adams, 2001; Ball, 2002; Bundy et al., 2008; Brussoni et al., 2012; Fjørtoft, 2004; Gordon & Esbjoern-Hargens, 2007; Lavrysen et al., 2017; Sandseter & Kennair, 2011; Sando et al., 2021; Tovey, 2007). However, early childhood teachers involve children's play by either encouraging or discouraging them from taking risks (Sandseter & Kennair, 2011; Stan & Humberstone, 2011). Therefore, the role of early childhood teachers is of great importance (Van Rooijen et al., 2020). According to Dupagne and Krendl (1992), teachers shape their teaching practices based on their perceptions, beliefs, and attitudes. Therefore, teachers' attitudes ultimately lead them to either limit or allow children's risky play (Little et al., 2011; Little et al., 2012; Sandseter, 2012; Van Rooijen et al., 2020). In this regard, Sandseter (2012) notes that preschool teachers' risky play attitudes and tolerance are directly related to the constraints they have about children's risky play. In the same vein, research indicate that decreasing tolerance of children's risk-taking in their play leads to restricted play experiences (Greenfield, 2004; Tranter & Pawson, 2001). With these in mind, the significance of the current study is taking an initiation to explore risky play both for *tolerance towards risky behaviors* and three more sub-dimensions which are *beliefs*

*about the necessity of risky play*, *sense of anxiety about risky play*, and *differentiation of risky behaviors*.

In addition, Ostroff (1992) found that investigating teachers' attitudes in relation to various factors, such as educational level, provides insight into teachers' actual practices. In the same vein, existing research shows various factors such as the school type they work with and the number of children they have in their classrooms affect the way they see and allow risky play (Little et al., 2012; Sandseter, 2012; Van Rooijen et al., 2020). For this reason, in the current study, investigating whether the *preschool type, number of children, presence of teachers' aides*, *teaching experience*, *children's age groups*, and *daily outdoor times* affect early childhood teachers' risky play attitude provides an insight to the relevant literature. Importantly, the present study has the potential to be the initial study to examine whether the *preschool type*, *presence of teachers' aides*, and *daily outdoor time* differ teachers' risky play attitudes. Furthermore, there is a body of international studies investigating early childhood teachers' risky play attitudes (Little et al., 2011; Little et al., 2012; McFarland & Laird, 2018; Van Rooijen & Newstead, 2017; Van Rooijen et al., 2020). Conversely, studies on risky play are a new and growing topic in Türkiye (Yalçın & Tantekin-Erden, 2018; Karaca & Uzun, 2020; Yılmaz, 2020). Therefore, studies from different perspectives are considered to be needed in the national context. With this in mind, in the current study, examining early childhood teachers' views on risky play provided researcher an opportunity to examine the quantitative results in more detail and provided new insights such as facilitators and barriers of teachers to allow risky play. Furthermore, as Creswell (2015) and Teddlie and Tashakkori (2009) asserts either quantitative or qualitative methods may not be satisfactory to explain the situations in detail. With this in mind, mixed-methods research is used to integrate both quantitative and qualitative data to better explain the research questions and provide in-depth information about the topic. In addition, to the best of the researcher's knowledge, there is no study which investigated Turkish early childhood teachers' risky play attitudes in relation to various factors. In this regard, the current study contributes to a deeper understanding of the topic nationally, which then hopefully provide researchers with opportunity to undertake cross-cultural studies to better understand facilitators and barriers to children's risky play opportunities.

### 1.5. Definition of Key Terms

**Early Childhood Education:** Early childhood education is a highly diverse field that serves children from birth to age 8 (Bredekamp, 2017). In the present study, the age group of children refers to 36 months to 72 months (MoNE, 2013).

**Early Childhood Teachers:** Early childhood teachers are professionals who make decisions based on specialized knowledge, continue their education throughout their careers, and work to provide the best possible care and education for every child (Bredekamp, 2017). According to the Turkish Ministry of Education report (2013), early childhood teachers are one of the most important determinants that influence the quality of early childhood education and child development.

**Teachers' Attitude:** According to Soibamcha (2016) attitudes are uniquely organized in each person and the organization itself is the product of his own reactions to his own experiences. Ajzen (2005) define attitude as the tendency to respond consistently in favorable and unfavorable ways regarding a given object or individual. In the current study, the researcher relies on this definition to examine teachers' attitudes toward risky play in relation to various factors.

**Hazard:** It is something that does not provide developmental benefits and that a child may have difficulty assessing on his or her own (Ball, 2002).

**Risk:** A situation in which children notice and assess the difficulty and can decide how to deal with it (Adams, 2001).

**Outdoor Play:** The time children spend outdoors in an open and self-directed manner (Tremblay et al., 2015).

**Risky Play:** Sandseter (2007) defines risky play as testing physical limits and taking the potential risk of injury, such as climbing on structures.

**Beliefs about the Necessity of Risky Play:** Teachers' beliefs about the skills children develop by engaging in risky play (Karaca & Uzun, 2020)

**Tolerance toward Risky Behaviors:** In the scope of the quantitative measure used in the present study, this term refers to teachers' allowance of risky behaviors of children in risky play (Karaca & Uzun, 2020)

**Sense of Anxiety about Risky Play:** In the scope of the quantitative measure used in the present study, this term refers to the sense of feeling emotions teachers experience when they allow risky play (Karaca & Uzun, 2020).

**Differentiation of Risky Behaviors:** In the scope of the quantitative measure used in the present study, this term refers to risky behaviors teachers differentiate in children's risky play (Karaca & Uzun, 2020).

**View:** "a way of thinking about or understanding something" (Mayor, 2011, p.1953)

# CHAPTER 2

# LITERATURE REVIEW

The literature review section of this study contains a review of the major literature relevant to the research aims of the study. The aim of the present study was twofold: a) to examine early childhood teachers' attitudes toward risky play in relation to various factors (e.g., *preschool type, number of children in the classes, presence of teachers' aides, teaching experience, children's age groups, and daily outdoor times*) and b) to investigate teachers' views about children's risky play. In this regard, this section has eight subtitles: 1) theoretical background of the study 2) play in the early years 3) outdoor play in the early years 4) definition of risk 5) definition of risky play 6) characteristics and categories of risky play 7) developmental benefits of risky play 8) factors affecting children's risky play.

## 2.1. Theoretical Background of the Study

Bronfenbrenner's Ecological Systems Theory (1979) and Vygotsky's Sociocultural Theory (1978) are considered to guide the research. This part of the study includes how these theories guide the present study.

Firstly, Bronfenbrenner's Ecological Systems Theory (1979) guides the present study to consider the interacting levels of factors that affect early childhood teachers' attitudes and views of risky play, including the *microsystem, and mesosystem, exosystem, macrosystem* and *chronosystem.* Bronfenbrenner introduced Ecological Systems Theory in the 1970s to respond to the limited ways of interaction in the immediate environment of children called as proximal processes (Bronfenbrenner, 1994). Bronfenbrenner (1994) asserts that to understand child development, the entire ecological systems in which growth occurs must be considered. In addition, Bronfenbrenner highlighted the significance of changes in

children's development over time and added a new, fifth, category of chronosystem and revised the title of his model as Bioecological Theory of Human Development (Hayes et al., 2017). Bronfenbrenner (1979) proposed five layers of circles from the innermost level to the outside, which are connected to the others and strongly influence child development. The five main hierarchical levels of social organization proposed by Bronfenbrenner (1979) are as follows: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. The first and the smallest one, is *the microsystem*. In the model, the child is directly at the center of the systems. Bronfenbrenner (1979) defined the microsystem in which activities take place and as the relationships that have the greatest impact on children's development. At the microsystem level, family members, teachers, the school environment, and the place where the child grows up have an important influence on children's development. The microsystem has also implications for early childhood education highlighting the power of interactions and the important role of early childhood teachers. As Tovey (2007) notes, some teachers restrict children's risk-taking in play, while others provide children with risky play opportunities in the school setting. Parallel to Bronfenbrenner's (1979) Ecological Systems Theory, for the current study, teachers' risky play attitudes and views facilitate bidirectional interaction with children at the microsystem level which influence children's risky play opportunities. The second system is *the mesosystem* which comprises the interrelationships between two or more environments such as for a child, the relationships between home, school, and peers. Therefore, the mesosystem is also referred as a system of microsystems (Hayes et al., 2017). It is created or extended whenever the growing child enters into a new environment (Bronfenbrenner, 1979). In the context of the present study, the mesosystem level is related to early childhood teachers' interactions with children's parents. It is important for teachers to convince parents of the benefits of risky play for children's development and learning. In this regard, Ecological Systems Theory (1979) suggests that teachers and parents need to keep good communication with each other and collaborate for the benefit of the child to strengthen the development of ecological systems. Therefore, the theory guided the study to consider how teachers report parents' views of children they worked. In addition, the mesosystem level involves teachers' interactions with school administrators. School administrators play an important role in shaping the structure of the institutions and creating positive relationships as administrators are individuals who interact with both teachers and parents (Kalkan et al., 2020). Therefore, the theory

guided the study to consider how teachers report administrators views with whom they worked. The third system is *the exosystem* which refers to the connections between two or more level. The exosystem consists of social environments in which children do not live, but which nevertheless influence the experiences of children in the immediate environment. These may be formal organizations such as the parents' workplace, friends, their religious institutions, and policy issues. Examples of an exosystem in the case of the current study are policy issues and regulations. In this regard, the Ecological Systems Theory guides the present study to consider the effects of the exosystem, and the current study expanded knowledge on whether the presence of teachers' aides, as a part of policy-related issue, have more positive attitudes toward risky play. The fourth system is *the macrosystem* which consists of things such as cultural values and laws. The macrosystem gives importance to the needs of children and includes the connections between two or more level where the child lives, such as the relationships between home and school, school, and workplace. In the context of the present study, two macro-level factors are linked to influence on children's risk play: weather and seasonal influences. Weather and seasonal influences are themes frequently cited by early childhood teachers as influencing their decision to spent time outdoor in the school (Alat et al., 2012; Ebbeck et al., 2019; Güler & Demir, 2016; Hinchion et al., 2021; Mayrand & Waters, 2007). In this sense, the Ecological Systems Theory guides the present study to consider the effects of the weather and seasonal conditions on teachers' views about outdoor risky play at the macrosystem level. Last, in *the chronosystem***,** the environment is not a static force that influences children in the same way rather it is constantly altering that influence their development. In this sense, there is a growing concern over decline of children's outdoor play time (Lee et al., 2021). In the present study, a decrease in outdoor play time of young children is considered a major event in the chronosystem which affects children's opportunity of risky play. For this reason, the Ecological Systems Theory guides the present study to consider the decline in outdoor play time and investigate whether the time spent outdoor change early childhood teachers' attitudes regarding risky play. Secondly, sociocultural theory developed by Vygotsky (1978) guided the present study to explore teacher's views risky play. Vygotsky (1978) stated that children construct their knowledge through a set of cognitive process. He described play as a leading source of development, noting that play provides children with concrete experiences that allow them to higher levels of thinking (Johnson et al., 1999). He proposed a zone of

proximal development consisting of different tasks between those that the child can master independently and those at the highest level that he can master through play or with help from adults or capable peers (Vygotsky, 1978). In this sense, children practice scaffolding within their zone of proximal development during play which contributes to improving logical thinking and higher levels of functioning (Vygotsky, 1978). Therefore, he proposed that children use their previous knowledge to create new ways of learning and understanding. In this sense, their previous knowledge was constructed by adults particularly parents and teachers. This raises questions about what adults' views on children's risky play. Therefore, the theory guided the present study, to consider teachers current knowledge and view about children's risky play.

### 2.2. Play in the Early Years

Play has been studied for years in various disciplines (Freud, 1961; Hirsh-Pasek & Golinkoff, 2008; Johnson et al., 1999; Parten, 1932; Pellegrini et al., 2007; Piaget, 1929; Smith & Vollstedt, 1985; Vygotsky, 1978). Smith and Vollstedt (1985) examined the characteristics of play in their empirical study. Seventy early childhood teachers participated in the study, and each was asked to independently view and rate 30 minutes of a videotape showing the behavior of children ages three and four in a preschool. Results showed that participants agreed on the five criteria of play, namely: non-literate, positive affect, flexibility, means/ends, and intrinsic motivation. Similarly, Johnson et al. (1999) described play as a process-oriented activity that is inherently motivating, freely chosen, and pleasure-oriented. In the same vein, in a review of evolutionary work on play, Pellegrini et al. (2007) explained play in terms of evolution and development, concluding that play is self-selected, non-stereotyped, and provides a context for children to focus on means rather than ends. In addition, the literature on play has highlighted several attempts to conceptualize play (Freud, 1961; Johnson et al., 1999; Parten, 1932; Pellegrini et al., 2007; Piaget, 1929; Smith & Vollstedt, 1985; Vygotsky, 1978). In this regard, different theories exist in the literature regarding children's active participation in play (Ashiabi, 2007; Bundy et al., 2008; Freud, 1961; Johnson et al., 1999; Piaget, 1929; Vygotsky, 1978).

The four classical theories developed in the 19th and early 20th centuries have been used to explain the goals of play: 1) surplus energy theory, 2) recreation theory, 3) recapitulation theory, and 4) practice theory (Johnson et al., 1999). In the surplus energy theory, German poet Friedrich Schiller and British philosopher Herbert

Spencer defined play as an expenditure of surplus energy without any purpose (Johnson et al., 1999). Similarly, the German poet Moritz Lazarus defined play in recreation theory as the restoration of the energy we expend at work that keeps us occupied in the meantime (Johnson et al., 1999). In recapitulation theory, American psychologist G. Stanley Hall has drawn attention to instinct, claiming that play provides children with opportunities to express their instincts (Johnson et al., 1999). Within the framework of practice theory, philosopher Karl Groos has asserted that play provides children with the opportunity to practice developmental skills (Johnson et al., 1999).

Furthermore, modern theories have attempted to describe the role of play in children's development. Regarding the emotional domain, Sigmund Freud's psychodynamic theory emphasized the role of play in children's emotional development (Johnson et al., 1999). From this perspective, it was argued that play enables children to cope with negative emotions by viewing situations in which they have no control over their lives (Johnson et al., 1999). In addition, play provides children with opportunities to learn how to establish and maintain relationships with others, and it promotes self-regulation, conflict resolution, and cooperation skills (Bredekamp, 2017; Brussoni et al., 2012; Sandseter & Kennair, 2011; Tovey, 2007). It also allows children to express their feelings, experience empathy, and learn to respect others (Bredekamp, 2017). Regarding the cognitive domain, modern theories have been proposed by Piaget (1999), Vygotsky (1978), and Bruner (1972). Based on his views of the contribution of children's cognitive development, Piaget (1929) defined *assimilation* and *accommodation* to explain how children construct their knowledge. He defined assimilation as the effect of children on the objects around them and accommodation as the effect of the objects on the child (Ginsburg & Opper, 2016). He defined the term adaptation as the equilibrium between assimilation and accommodation (Johnson et al., 1999). In this context, he described playing as an imbalanced state in accommodation that dominates assimilation, where the practice of acquired skills occurs (Frost et al., 2012). He stated that these practices contribute to the development of children's mental representation and abstract thinking. This idea was further developed in the sociocultural theories of play developed by Vygotsky (1978). He described play as a leading source of development, noting that play provides children with concrete experiences that allow them to higher levels of thinking (Johnson et al., 1999). In addition, he proposed *a zone of proximal*

*development* consisting of different tasks between those that the child can master independently and those at the highest level that he can master through play or with help from adults or capable peers (Vygotsky, 1978). In this sense, children practice scaffolding within their zone of proximal development during play which contributes to improving logical thinking and higher levels of functioning (Vygotsky, 1978). In addition, Bruner (1972) pointed out that children can make mistakes in play before they face outcomes in real life, which allows them to minimize negative outcomes (Frost et al., 2012). Thus, it provides a context for children to try new approaches without worrying about achieving a goal (Kostelnik et al., 2014). In the same vein, in terms of the cognitive-developmental benefits of play, Diamond (2014) points out that play helps children improve *executive function skills.* Executive function skills define as a set of cognitive processes including working memory and attention control skills (Diamond, 2014). These skills enable children to organize their thinking and behaviors in an intentional and flexible way. More recently, Walker et al. (2020) provided new evidence of the positive effects of play on children's executive functions. With the purpose of investigating the effectiveness of an imaginary play environment, this experimental study was conducted with 227 preschool children in 10 preschools in Brisbane, Australia. As part of the intervention, executive function activities related to working memory, inhibitory control, and attention were embedded into teachers' daily practices and imaginary play was used to create meaningful problem situations. The results of the study suggest that teachers can develop children's executive functions when imaginary play is used to create meaningful problem situations that children solve using executive functions (Walker et al., 2020). Similarly, Lloyd and Howe's (2003) study addresses the relationship between various forms of solitary play, convergent and divergent thinking. In their study, 72 children were observed, and the types and uses of materials were recorded. The results suggest that some solitary play experiences are positively associated with children's convergent and divergent thinking (Lloyd and Howe's, 2003). In terms of the physical domain, the early years are the time when children acquire basic motor skills (Frost et al., 2012). In this regard, play has an important role in gross and fine motor development since it allows children to exercise and strengthen their muscles (Anderson-McNamee & Bailey, 2010; Frost et al., 2012). In this regard, children improve several movement skills through physical activities in their play (Santrock, 2011). *Gross motor* development of children requires mastering locomotor skills, which include balance and movement, as well as upper

body and arm skills (Berk, 2013). *Locomotor skills* are the movements that allow children to move in some way and includes jumping, running, rolling, crawling, climbing up and down, jumping and hopping (Gallahue, 1996). In the later stages of locomotor development in the first years of life, children can also gallop and hop and run. In addition, children move from tricycles to bicycles, and some older preschoolers can roller skate and kick a soccer ball (Gallahue, 1996). In terms of *fine motor* skills, children gain more precision in using their hands and fingers through play (Santrock, 2011). That is, they gain more control over finger movements, which allows them to master handling small materials that require grasping and control (Frost et al., 2012). Regarding *perceptual-motor* skills, children develop their ability to interact with the environment by combining their senses and motor skills (Frost et al., 2012). Perceptual motor skills include 1) body awareness, 2) spatial awareness, 3) directional awareness, and 4) temporal awareness. *Body awareness* means that children know their body parts, what those body parts can do, and how to make their bodies more efficient (Haywood & Getchell, 2020). *Spatial awareness* means knowing how much space the body takes up and how to use the body in space (Haywood & Getchell, 2020). *Directional awareness* requires an understanding of the body's position and direction in space, which also enhances the understanding of objects (McDevitt & Ormrod, 2004). *Temporal awareness* is awareness of the relationship between time and motion. Temporal awareness, therefore, requires an awareness of the pattern and sequence of events (Gallahue, 1996; McDevitt & Ormrod, 2004). Furthermore, play environments with equipment that provide opportunities for upper body movement help increase muscular endurance (Gallahue, 1996; Frost et al., 2012). A broader perspective has been adopted by Tortella et al. (2022) who suggest that motor skills can be developed through both structured and unstructured free play. Although a wide range of motor skills can be enhanced through structured activities, children must also have opportunities for physical activity in the context of spontaneous, unstructured free play (Clements, 2004; Tortella et al., 2022). Young children, in particular, need to be outdoors for all kinds of physical activity when they are playing alone or with friends. They also need time and opportunity to participate in the social, and cognitive elements that are possible in physical play. In this regard, Clements (2004) argues that outdoor play provides children with a setting in which they can improve their physical skills. The benefits of outdoor play are explained in the next section.

## 2.3. Outdoor Play in the Early Years

In context of the present study, outdoor play is defined as the time children spend outdoors in an open and self-directed manner (Little & Wyver, 2008; Tremblay et al., 2015). In this regard, Maynard and Waters (2007) define the outdoors as an open and ever-changing environment where children can discover freedom and contact with nature. In this regard, a large and growing body of literature has investigated the importance of outdoor play for children's social, emotional, cognitive, and physical development (Bilton, 2010; Bundy et al., 2008; Brussoni et al., 2017; Ebbeck et al., 2019; Lundy & Trawick-Smith, 2021; Pellegrini, 2009; Simmonds et al., 2016; Tortella et al., 2022; Truelove et al., 2016). When children play outdoors, they develop resilience, creative thinking, and problem-solving skills, which also provide a foundation for social relationships (Bilton, 2010). This view is supported by Brussoni et al. (2017) who observed 45 children aged 2 to 5, in their mixed methods study, and concluded that outdoor play opportunities provide children with better problem-solving skills, resilience, creativity, and self-regulation. Similarly, Bento and Dias (2017) point out that outdoor play contributes to children's self-confidence by providing them with challenges to overcome in their environment. In addition, outdoor play offers children a context for improving their ability to interact with both peers and the natural elements (Bento & Dias, 2017). Regarding the interaction with *peers*, when children play outdoors, they tend to cooperate rather than cause conflict (Bilton, 2010). Such cooperation leads children to share their experiences and understand each other's feelings and needs, which ultimately improves their empathy (Bento & Dias, 2017). Regarding interaction with the natural elements, research show that the interaction with natural elements provides children contact with microbes that protect them from diseases and increase their immunity (Bento & Dias, 2017; Haahtela, 2017). In terms of the physical domain, outdoor play provides children with the freedom to be outside in enjoyable and active ways, such as running, climbing, and jumping (Ebbeck et al., 2019). This view is supported by an experimental study conducted by Bundy et al. (2008) who demonstrated the benefits of children's active participation in outdoor play. Over 11 weeks, the researchers provided children ages five to seven with materials with no fixed purpose, such as boxes, in an outdoor playground. In their study, accelerometers showed that children became significantly more active, and

interviews with teachers indicated that children became significantly more active, social, and resilient after the intervention. Along the same lines, a systematic review was conducted by Truelove et al. (2016) to examine young children's active play. The results showed that outdoor play helps children strengthen their bones and muscles and improve their motor skills, which contributes to healthy physical development. In addition, Tovey (2007) points out that outdoor play allows children to expand their motor skills by testing and pushing their physical limits without worrying about undesirable consequences. Similarly, Bilton (2010) asserts that while playing outdoor, children have no concern such weather conditions and physical injuries. This view is supported by Brockman et al. (2011), who claimed that children enjoy and value outdoor play because they have less adult control and rules. Another perspective has been adopted by Moore and Lynch (2018) who conducted a qualitative ethnographic study in Ireland to examine children's conceptualization of happiness. In their study, the researchers employed a mosaic approach and collected data through visual, spatial, and language-based methods from children between the ages of 6 and 8. Results showed that the activity that made children happiest was spending time outdoors and playing with equipment such as monkey bars, swings, and trampolines (Moore & Lynch, 2018). In the same vein, Tovey (2007) argues that outdoor play is challenging for children and outdoor play environment offer children uncertainty, unpredictability, and flexibility. Lester and Russell (2010) state that outdoor play allows children to perceive and assess risks that come from experiencing the outdoor environment and testing the limits of their bodies in their play. Therefore, it was concluded that when children play outdoors, they learn how to manage risk (Little et al., 2011). In this context, the scope of risk in this study is defined in the next section.

### 2.4. Definition of Risk

Before explaining the outcomes of risk-taking in outdoor play, a broader definition of the term, *risk*, is considered to be needed. Adams (2001) points out that while the term risk is objective, it cannot be measured or predicted. Likewise, Sandseter (2007) holds the view that it is possible to define objective risk criteria, but it is not possible to measure or estimate risk. In this sense, Adams (2001) defines risk as a situation in which children notice and assess the difficulty and can decide how to deal with it. Besides, Adams (2001) argues that risks are a part of daily life and describes different types of risks, such as *social*, *intellectual*, and *physical risks. Social*

*risks* are about learning to cope with challenges and differences, while *intellectual risks* are about trying new things and facing obstacles (Gill, 2007). In addition, Sandseter (2009b) illustrates physical risks such as climbing rocks or trees and learning to use sharp tools purposefully and safely. Conversely, there is another view that emphasize the negative side of physical risk-taking and describe physical risks as the likelihood of negative consequences (Boyer, 2006). This view is supported by Little and Eager (2010) who point out that the term *risk* often has a negative connotation and is often confused with *hazard*. Similarly, Spiegal et al. (2014) note that the terms *risk* and *hazard* are used interchangeably. This leads to the important problem of distinguishing between risks and hazards in terms of the negative consequences to which children may be exposed (Little & Eager 2010). Ball (2002) describe *hazard* as something that does not provide developmental benefits and that a child may have difficulty assessing on his or her own. To describe the relationship between risk and hazard, Greenfield (2004) points out that *hazard* is something children cannot see, while the *risk* is something children can see and have a choice to take or not. In the same vein, Sandseter and Kennair (2011) separate *hazards*, which are potentially harmful, from *risks*, that are potentially beneficial. In this regard, Lester and Russell (2010) note that elimination of hazards in environment provide children with safety to explore and learn about risk. Gill (2007) asserts that risk in play encourages children to explore their environment, which ultimately promotes their holistic development. Furthermore, primarily during outdoor play, children often participate in challenging and adventurous physical activities, attempt something they have never done before, feel out of control, often because of height or speed, and overcome their fear (Sandseter, 2009b; Stephenson, 2003). Thus, taking risks while playing outdoors allows children to test the limits of their physical, intellectual, and social development (Little & Wyver, 2008). In the context of the current study, the risk is elaborated on the outdoor play context and limited to *physical risks*. In this regard, the next section defines the scope of risk in a play about the relevant literature.

### 2.5. Definition of Risky Play

To date, the exciting type of play refers to risky play has defined in several studies (Ball, 2002; Little & Wyver, 2008; Stephenson, 2003; Sandseter, 2007). Stephenson (2002) conducted a study in New Zealand in a preschool with 25 children aged 0 to 5 years. The study showed that children felt they were losing their control

and managing anxiety when they play at high speed. Thus, Stephenson (2003) describes what makes a play risky as trying to do something never done before and feeling out of control due to that action and overcoming the fear. Similarly, Ball (2002) proposes the definition of attempting to do something that has never been done before with the risk of harm or injury. Waters and Begley (2007) conducted a small exploratory study and documented the risk-taking behaviors of four-year-old children in the natural environment of outdoor play areas at a forest school. They found, in their study, that the natural environment encourages risky play opportunities for children. In this sense, Tovey (2007) identified risky actions such as climbing, jumping, hanging upside down, and sliding. In the same vein, Little and Wyver (2008) adds the definition of risky play to explore challenging possibilities, test limits, and learn about risk. A broader perspective has been taken by Sandseter (2007), who describes risky play as an exciting and thrilling type of play that involves the possibility of physical injury. According to Sandseter (2007), the main indicators of risky play are: 1) the feeling of thrill, 2) the willingness to deal with fear, and 3) the feeling of losing control. As Sandseter (2009b) points out, in this type of play, children are active and challenge their physical abilities. In addition, Sandseter (2009c) points out that the outdoors supports children in their challenging activities and that risky play occurs most often in outdoor free play. Along these lines, both the outdoor and risky elements of this type of play are important in facilitating more active play (Tovey, 2007). Furthermore, Sandseter and Kennair (2011) argues that practicing how to deal with risky situations in real life through risky play is therefore an important issue. In this sense, the next section explains the characteristics and categories of risky play.

### 2.6. Characteristics and Categories of Risky Play

Regarding the characteristics of risky play, Stephenson (2003) conducted an observational study to examine young children's enthusiasm for challenging physical activities and to provide examples of physical risk-taking among 4-year-olds and younger children. Based on the results of the study, he identified three characteristics of risky play: 1) attempting to do something never done before, 2) feeling like losing control because of height or speed, and 3) overcoming fear. Based on these characteristics, Stephenson (2003) indicated that outdoor activities provide more opportunities for risky play because children can combine height and speed on a swing or slide on climbing equipment to increase the level of risk in play. Sandseter (2009b)

built on the work of Stephenson (2003) and conducted a study in two Norwegian preschools where she observed and videotaped children 18 days over five months. The results of her study suggested two categories of risk characteristics in children's play: *environmental characteristics* and *individual characteristics*. These two categories include different risk characteristics that identify risk in play.

Regarding the categories of risky play, Sandseter (2007) conducted a qualitative study and focused on how children interact with features of the outdoor environment that might invite physical risk-taking to identify common examples of children's physical risky play. She collected the data by observing 38 children and conducting semi-structured interviews with eight children and seven staff from two Norwegian preschools. Based on the findings, Sandseter (2007) identified six categories of risky play: 1) *play with great heights* 2) *play with high-speed* 3) *play with dangerous tools* 4) *play near dangerous elements* 5) *rough-and-tumble play*, and 6) *play where the children can disappear or get lost* (see Table 1). Sandseter (2007) identified categories of risky play based on ages three to five. Then, Kleppe et al. (2017) further explored the categories and characteristics of risky play in a qualitative research study. With this in mind, a small observational study was conducted with children from five preschools to examine the occurrence and characteristics of risky play among children under the age of four (Kleppe et al., 2017). The results suggested that the existing definition and characteristics of risky play cited by Sandseter (2007) are appropriate for two- and three-year-old children, but for one-year-olds, the study found discrepancies in definition. Therefore, they suggested that the concept may not be as useful for this age group (Kleppe et al., 2017). For this reason, Kleppe et al. (2017) expanded the categories to eight and presented the final version of categories of risky play. One of the new categories was *playing with impact*. This category involves children's crashing into something repeatedly just for fun. Another new category was *vicarious play*. This category involves children's experiences of excitement of watching other older children. Within the scope of the present study, since the age group of children early childhood teachers work with ranges from 36 to 72 months, only six categories of risky play defined by Sandseter (2007) is regarded. In this sense, the following sections explain the six categories of risk play developed by Sandseter (2007) and their characteristics defined by Sandseter (2009b).

**Table 1**

*Categories of Risky Play and Examples*

| Categories | Examples |
|---|---|
| Play with great heights | Climbing walls, trees, or high tables<br>Jumping from flexible surfaces |
| Play with high-speed | Swinging at high speed<br>Sliding at high speed<br>Cycling at high speed |
| Play with dangerous tool | Using knives<br>Strangling tools: ropes etc. |
| Play near dangerous elements | Deep water<br>Fire pits |
| Rough-and-tumble play | Play fighting<br>Play wrestling |
| Play Where the Children Can Disappear or Get Lost | Discovering forest alone |

*Adapted from Sandseter (2007b)*

### 2.6.1. Play With Great Heights

The first category of risky play defined by Sandseter (2007) is *play with great heights*. This category involves a possibility of injury from falling while climbing or jumping from heights. In her observational study, Sandseter (2007) reported that the most common form of risky play was *climbing*. Her observations showed that children tend to climb everywhere, such as on trees, climbing equipment on the playground, and large rocks. Another risky play observed in this category was *jumping from high places*. Jumping from high places made the children feel out of control and less in control. For this reason, it gives the children excitement and fear in play (Sandseter, 2009b; Stephenson, 2003).

There are five common *environmental* characteristics for the playing with great heights category of risky play (Sandseter, 2009b). The first one is the actual height of the play objects such as trees. The second one is steep of the objects children use in their play. The third one is the difficulty of completing the targeted activity in play such as balancing in a surface. The fourth one is the surface on which children may fall and the last one is supervision of teachers (Ball, 2002; Sandseter, 2009b). There are also five common *individual* characteristics for the playing with great heights category of risky play (Sandseter, 2009b). The first one is the level of height where children want to climb/jump. The second one is the speed of children movements while playing with great heights. The third one is the motor control of children while playing

at great heights. The fourth one is children's focus and the role they choose while playing at great heights. For example, while climbing a rock, the child may see himself or herself as a hero. The last one is the attempt of children to increase challenge while playing at great heights (Sandseter, 2009b).

### 2.6.2. Play With High Speed

The second category of risky play defined by Sandseter (2007) is *playing at high speed*. This category involves children's playing at an uncontrolled speed. Therefore, this high speed brings a possibility of a physical injury (Stephenson, 2003). In her observational study, Sandseter (2007) reported that going down steep hills or sliding down slides are examples of play with high speed. In addition, in her observational study, Sandseter (2007) noted that bicycling at high speed, the risk of colliding with something or someone, or simply sliding and falling is associated with the high-speed category of risky play.

There are three common *environmental* characteristics for the playing at the high-speed category of risky play (Sandseter, 2009b). The first one is the possibility of colliding with something or someone. The second one includes the length of the materials such as swing. The last one is steep of the material such as slides or hills. There are also three common *individual* characteristics for the playing at the high-speed category of risky play (Sandseter, 2009b). The first one is the intentional level of speed children prefer while playing at high speed (Ball, 2002). The second one includes motor control of children while playing. The last one is the way children enhance the challenge in play such as swinging together or sliding backwards (Sandseter, 2009b).

### 2.6.3. Play With Dangerous Tools

The third category of risky play defined by Sandseter (2007) includes *playing with dangerous tools.* This category involves using the tools such as axes and knives that can cause physical harm. In her observational study, Sandseter (2007) allowed children from two different preschools to use tools that were potentially dangerous, such as a knife for whittling, quite freely. The children clearly expressed that they found playing with dangerous tools exciting and some of them even frightening (Sandseter, 2007).

There are three common *environmental* characteristics for the playing with dangerous tools category of risky play (Sandseter, 2009b). The first one is using such tools around other people to keep potential risk of hurting someone. The second one is the type and sharpness of tool. The third one is whether there is a supervision by adults. There are also two common *individual* characteristics for the playing with dangerous tools category of risky play (Sandseter, 2009b). The first one is the ability of motor control of children while using the tools. The second one is the level of emphasis to use the tool in a correct way (Sandseter, 2009b).

### 2.6.4. Play Near Dangerous Elements

The fourth category of risky play defined by Sandseter (2007) is *playing near dangerous elements* such as fire. In her observational study, Sandseter (2007) observed children frequently playing near dangerous elements during her study. In this regard, she noted that children prefer to play on high cliffs, near deep water by the sea, and a burning fireplace.

There are four common *environmental* characteristics for the playing near dangerous elements category of risky play (Sandseter, 2009b). The first one is height of the place and possible falling (Ball, 2002). The second one is steep of the surface. The third one is the possibility of drowning in water and the depth of it. The fourth one involves whether there is a supervision by adults. There are also three common *individual* characteristics for the playing with dangerous tools category of risky play (Sandseter, 2009b). The first one is motor control of children while playing such as balancing on a rock near deep water. The second one is the level of speed while playing near dangerous elements. The third one is level of emphasis on dangerous elements (Sandseter, 2009b).

### 2.6.5. Rough and Tumble Play

The fifth category of risky play defined by Sandseter (2007) is *rough-and-tumble play*. This category involves fighting in play, possibility of hurting each other and playing with sticks and branches. In her observational study, Sandseter (2007) pointed out that this type of play requires a balance between play and fighting.

The only *environmental* risk characteristic identified for rough-and-tumble play category of risky play involves situations such as using a kind of weapon in the play or fencing sticks. In this category, the environmental characteristics is considered

only when the rough and-tumble play was performed in combination with one of the former categories such as playing at great heights or high speed (Sandseter, 2009b). The *individual* characteristics of rough-and-tumble play category is a sense of control in play made by children. That is, children's ability to maintain the fight in the atmosphere of play instead of real fight (Sandseter, 2009b).

### 2.6.6. Play Where the Children Can Disappear or Get Lost

The sixth category of risky play defined by Sandseter (2007) is the *play where the children can disappear or get lost*. This category involves children's experiences in unknown areas and possibility of getting lost. In her observational study, Sandseter (2007) stated that this type of risky play is different from the other categories because children explore the environment without any boundaries and learn to trust themselves.

There are three common *environmental* characteristics for the play where the children can disappear or get lost category of risky play (Sandseter, 2009b). The first one involves whether there is a supervision by adults. The second one is to set boundaries in unknown areas. The third one includes the features of environmental such as small lakes, large forests. There are also two common *individual* characteristics for this category of risky play (Sandseter, 2009b). The first one is the length of the distance of the area. The second one is children's capability to find their direction.

## 2.7. Developmental Benefits of Risky Play

The potential benefits of risky play on children's development have been of particular interest to researchers in recent decades (Adams, 2001; Ball, 2002; Bundy et al., 2008; Brussoni et al., 2012; Fjørtoft, 2004; Gordon & Esbjoern-Hargens, 2007; Lavrysen et al., 2017; Sando et al., 2021; Sandseter & Kennair, 2011; Tovey, 2007). Studies that have examined the effects of risk play particularly show physical, cognitive, and social-emotional development despite the possibility of injury (Ball, 2002; Brussoni et al., 2012; Lavrysen et al., 2017; Little & Eager, 2010; Little & Wyver, 2008; Mitchell et al., 2006). As Sandseter (2007) points out that risky play mostly occurs during outdoor free and unstructured play. In this sense, being free in an outdoor environment provides children with the opportunity to push their boundaries, which has several benefits for children, including perseverance, self-confidence, and problem-solving (Stephenson, 2003; Tovey, 2007). In addition,

Brussoni et al.'s (2015) systematic review of the related literature notes that children's risky play has numerous health benefits, including improved physical health, increased physical activity, and healthy body weight. In their mixed-methods study, Brussoni et al. (2017) examined the effects of the intervention on children's opportunities to spend time in nature and engage in risky play. 45 children aged 2 to 5 years participated in the study. Findings showed that there is as play with natural materials and risky play increases, depressive mood, antisocial behavior, and moderate to vigorous physical activity significantly decrease. Furthermore, Bundy et al. (2008) argue that the real risk occurs for children when there is no risk. In the same vein, Brussoni et al. (2012) state that injury prevention plays an important role in child safety, but too many restrictions on children's outdoor risk play may be hindering their development. The following parts explain the benefits of risky play in each developmental domain: physical, cognitive, and social-emotional.

### 2.7.1. Physical Development

Risky play provides children with the opportunity to improve their gross and fine motor skills (Brussoni et al., 2015) and it increases children's body awareness and their ability to balance and coordinate (Sandseter et al., 2021). This view is supported by recent research conducted by Sando et al. (2021) who examined how risky play is related to children's well-being, engagement, and physical activity. Results from structured video observation of 928 children during free play in eight Norwegian preschools showed that engagement in risky play was positively associated with children's well-being, engagement, and physical activity (Sando et al., 2021). Therefore, they note that to enhance positive outcomes for children's healthy development, it is necessary to provide children with opportunities for risky play in early childhood education settings (Sando et al., 2021). Similarly, in their experimental study, Lavrysen et al. (2017) implemented risk play activities in the intervention group over three months for two groups of children aged four to six years, while two other groups of children participated as a control group. After the intervention sessions, children's risk-taking skills were measured by using teacher and observer reports. Results of their study indicated that risk-taking and risk competence were improved by engaging in risky play (Lavrysen et al., 2017). They also concluded that risky play promotes children's health by improving their ability to assess risk, thereby reducing

injuries in the long term (Lavrysen et al., 2017). Fjørtoft (2004) draws attention to children's muscle strength and coordination skills which are enhanced through experiences such as climbing a tree or rolling down a hill. Likewise, Poulson and Ziviani (2004) state that risky play is an enjoyable and therefore motivating form of exercise that involves cardiovascular activities which enhance a healthy development. Fjørtoft (2004) also argues for the idea that children who do not have the opportunity to engage in risky play may become fearful of using their bodies in active ways or have a greater risk of becoming overweight. On the other hand, Stephenson (2003) states that children who view a playground boring or less challenging can find ways to increase the physical challenge by themselves. For example, children can use equipment in the playground in different ways.

### 2.7.2. Cognitive Development

Bundy et al. (2008) state that minor injuries such as scratches and cuts occurring in risky play enable children to learn about cause and effect and that their actions and decisions have direct consequences. In this regard, a broader perspective has been adopted by Alat et al. (2012) who note that dealing with risky situations in play facilitates adjustment to life in adulthood and teaches important skills such as learning the limits of capabilities and taking responsibility for choices. Moreover, several studies state risk play promote children's improved risk management skills that are important for understanding how to manage risk and avoid injury (Adams, 2001; Ball, 2002; Brussoni et al., 2012; Gill, 2007; Morrongiello & Lasenby-Lessard, 2007; Sandseter, 2007; Sandseter & Kennair, 2011). Research also indicate that while children are making risk assessments in their play, their mental acuity is improved (Bjorklund & Pellegrini, 2000; Lindon, 2011; Sandseter, 2007; Tovey, 2007). In the same vein, risk management is viewed an important outcome that children can learn by facing risks in play (Ünüvar & Kanyılmaz, 2017). These ideas are supported by an experimental study conducted by Lavrysen et al. (2017). Researchers examined how risk perception and competence of children aged between three and eight measured within the school context. An intervention of risky play activities was implemented in three-month period in two classes two other classes were taken as control groups. Based on the findings, it was concluded that young children who received a 14 week of risk play intervention had improved risk assessment and risk-taking skills, self-esteem, and decreased conflict sensitivity compared to control group. Furthermore,

when children engage in risky play, they tend to push boundaries, try new ways of doing things, and make several decisions about their actions. In this regard, making such decisions helps children to enhance their problem-solving skills and creativity, which are considered necessary learning skills for young children (Tovey, 2007).

### 2.7.3. Social-Emotional Development

In the relevant literature, risky play is mostly associated with its effects on resilience, self-regulation, and coping skills (Brussoni et al., 2015; Sandseter & Kennair, 2011). Johnson et al. (2014) indicate that children learn to regulate their own emotions while experiencing many emotions simultaneously in risky situations. Particularly, risky play provides children with the experience of both winning and losing control in a safe environment, which helps them learn to manage risk and gain self-confidence to achieve goals (Gordon & Esbjoern-Hargens, 2007; Tovey, 2007). Therefore, young children's sense of autonomy and decision-making skills are strengthened, as they engage in risk in their play (Stephenson, 2003). According to Apter (2007), risky experiences are important for children to survive without supervision and protection later in life. In the same vein, an important advantage of risk-taking in play is highlighted by Sandseter and Kennair (2011). They note that risky play allows children to experience and practice how to handle risky situations in real life with minimal consequences under adult supervision (Sandseter & Kennair, 2011). Even though much of the current literature on risky play places particular emphasis on developmental benefits, there is growing evidence from studies that children's freedom to play outdoors is increasingly restricted or controlled (Brussoni et al., 2020; Gill, 2007; Little et al., 2012; Soori & Bhopal, 2002; Tremblay et al., 2015). In this sense, the following sections explain the factors affecting children's risky play.

## 2.8. Factors Affecting Children's Risky Play

Risky play provides children with unique opportunities to discover their worlds by experiencing risks and challenging themselves in the play (Ball, 2002; Brussoni et al., 2012; Hinchion et al., 2021; Lavrysen et al., 2017; Little & Eager, 2010; Little & Wyver, 2008; Sandseter, 2012). In this regard, there both facilitators and barriers to providing children risky play opportunities (Mitchell et al., 2006). Research indicates that children there are fewer opportunities for children to engage in outdoor risky play

(Sandseter, 2012; Sandseter & Sando, 2016). In this sense, findings from both national and international studies show that there several factors that influence the extent to which a child engages in risky play (Hinchion et al., 2021; Güler & Demir, 2016; Mayrand & Waters, 2007; Sandseter & Sando, 2016). As Cevher-Kalburan (2014a) suggested the factors are examined under three categories: 1) child related, 2) environmental-related, and 3) adult-related (see Figure 1). In this sense, the following sections explain these factors.




**Figure 1** *Factors Affecting Children's Risky Play*

### 2.8.1. Child-Related Factors

Apter (2007) explains the motivation of children to choose risky situations is to experience thrill and outcome of risk-taking behaviors. This view is supported by Sandseter (2007) who argues that children seek excitement and thrill in their play. In the same vein, studies conducted by Sandseter (2010a, 2010b) with 23 children from four to five years old showed that children prefer to take and manage risks in their play to have pleasant emotions. In this sense, one of the child-related factors that influence children's risk-taking behavior in their play is their age (Cevher-Kalburan, 2014a). Harbaugh et al. (2001) reported that children were more likely than adults to choose risk over certainty. In contrast to Harbaugh et al. (2001), in a multi-perspective review study, Boyer (2006) notes that as children grow, their sense of autonomy increases which lead them to take more risks. Moreover, Hinchion et al. (2021) found that risky play categories arise as children grow and some new categories emerge such as breaking the rules. Furthermore, unlike both views, Morrongiello and Lasenby-Lessard (2007) argues in their experimental study that children's age does not directly influence risk-taking and avoidance behavior. Another child-related factor that

influences children's risk-taking behavior in their play is their gender (Cevher-Kalburan, 2014a). The findings of an empirical study showed that boys show higher levels of risk-taking and are more willing to engage in risky play than girls (Morrongiello & Lasenby-Lessard, 2007). Furthermore, Yılmaz (2020) investigated 60-66-month-old children's preferences for risky play and concluded that both girls and boys are not willing to engage in risky play due to the possible physical injuries. Furthermore, what is risky for one child may not be risky for another, because each child combines a different combination of internal factors such abilities, and knowledge, skills with environmental opportunities (Hocking, 2009). In this sense, the following section explains environmental factors affecting children's risky play opportunities.

### 2.8.2. Environment-Related Factors

Environment related factors refer to those features of the surroundings that affect the opportunities of children to engage in risky play (Cevher-Kalburan, 2014a; Sandseter, 2009b). Sandseter (2009c) divided playgrounds into three categories: 1) playgrounds with traditional equipment, 2) playgrounds with modern design, and 3) playgrounds with natural design. The traditional ones include equipment such as swings, slides, and climbing apparatus. The modern one is designed by architects with original shapes of varying heights and textures. A natural-design playground, on the other hand, refers to natural areas including materials such as woods. The variety of risk experiences offered by the play environment is related to its *affordance* characteristic (Sandseter, 2009c). In her qualitative study, Sandseter (2009c) examined the affordances for risky play in two different preschools in Norway. She both made observations and conducted interviews with children. The findings of the study showed that both play environments afford risky play opportunities of the children. However, it was concluded that the preschool that have natural playground afforded a higher degree of risk play than the other school. Similarly, studies have shown that natural playgrounds provide more risky play opportunities than regular playgrounds (Çetken-Aktaş & Sevimli-Çelik, 2021; Sandseter, 2009c). Çetken-Aktaş and Sevimli-Çelik (2021) examined the opportunities for risky play in six preschool outdoor play areas. Field observations showed that the rough and tumble play was observed more in play areas including natural elements and open spaces (Çetken-Aktaş & Sevimli-Çelik, 2021). Similarly, Fjørtoft (2004) conducted an experimental study and

compared children attending a preschool with a natural playground and a preschool with traditional playground. The findings demonstrated that children who play in natural playgrounds engaged in many different types of plays and developed their motor skills more than children who play in the traditional playground. In the same vein, Sandseter et al. (2012) interviewed Australian (n=17) and Norwegian (n=14) early childhood teachers and their reports showed that the physical environment is one of the most important facilitators in allowing children's risky play. Similarly, McClintic and Petty (2015) conducted a qualitative case study and concluded that the poor physical design of the outdoor environment posed limitations for planning, preparation, and implementation of outdoor play practices. Furthermore, Çetken-Aktaş and Sevimli-Çelik (2021) noted that due to safety concerns, there were a very limited number of opportunities for risky play. In the same vein, Little and Wyver (2008) argue that adults' beliefs about risk-taking in a play are either supportive or restrictive. In this sense, the adult-related factors are explained in the next section.

### 2.8.3. Adult-Related Factors

Sandseter (2014) suggest that adults should encourage children to take appropriate risks and motivate them to manage risks rather than avoid them. Conversely, recent research shows that today's society has highly become risk averse for children's play (Harper & Obee, 2021; Sandseter et al., 2017). Similarly, Sandseter and Sando (2016) note that there is a growing focus on safety and increasing restrictions by adults on children's risky play, even in a country such as Norway, which is considered one of the less-risk-averse countries in terms of children's play. Bundy et al. (2008) point out that adults have a sense of fear and underestimate what children are capable of, so the importance of children's risk and learning is neglected. In this regard, one of the adult-related factors affecting children's risky play is parents (Gill, 2007). In their study, Sandseter et al. (2020) collected data from parents and early childhood teachers through questionnaires from five preschools in Croatia, Estonia, Greece, Norway, and Portugal. The findings of the study showed that the main barriers of parents are traffic, stranger danger, lack of spaces and media alerts. In addition, Aggio et al. (2017) states that children are more active in their independent outdoor play than they supervised by their parents. Therefore, parents hold a key role in children's active outdoor play (Aggio et al. 2017). Furthermore, children, especially in early childhood settings, are being protected from many risks through increased

injury prevention efforts (Harper, 2017; Sandseter, 2007). In the school context, as teachers supervise children and decide whether to engage in risky play, another adult-related factor affecting children's risky play opportunities is early childhood teachers (Sandseter, 2014; Wyver et al., 2010). Particularly, researchers have emphasized that risk-taking opportunities in early childhood settings are largely influenced by early childhood teachers (Hewitt-Taylor & Heaslip, 2012; Little et al., 2012; Sandseter, 2014; Storli & Sandseter, 2017; Stan & Humberstone, 2011; Van Rooijen et al., 2020; Yalçın & Tantekin-Erden, 2018). This idea is further supported by one of the pioneers, Bronfenbrenner (1979), in his, Ecological Systems Theory, highlights the power of interactions among teachers and children in the school environment and the important role of teachers in children's development. In this regard, As Tovey (2007) indicates, some teachers restrict children's risk-taking in play, while others provide children with opportunities for risky play in the school setting. Particularly, Stephenson (2003) and Sandseter (2014) argues that children's opportunities for risky play in a preschool setting are influenced by early childhood teachers' perceptions of risk and attitudes toward risky play. Van Rooijen et al. (2020) suggest that there are several factors that influence teachers' attitudes toward risky play. In this regard, research regarding attitudes and views of early childhood teachers regarding risky play is presented in the next section.

#### 2.8.3.1. Attitudes and Views of Early Childhood Teachers

The aim of the present study was twofold: a) to examine early childhood teachers' attitudes toward risky play in regard to various factors and to examine teachers' views about children's risky play. In line with the purpose of the study, this section includes both the national and international studies in the relevant literature.

According to Soibamcha (2016) attitudes are uniquely organized in each person and the organization itself is the product of his own reactions to his own experiences. Ajzen (2005) define attitude as the tendency to respond consistently in favorable and unfavorable ways regarding a given object or individual. Research showed that teachers' decisions on allowing children's risky play change based on their attitudes and views rather than on the assessment of children's abilities to take and manage risks (Sandseter, 2011; Van Rooijen & Newstead, 2017). Particularly, Van Rooijen and Newstead (2017) presented a systematic model of early childhood teachers' attitudes related to children's risky play (see Figure 2). According to this

model, there are five factors that influence early childhood teachers' attitudes of risky play. The first one is *constructs of children and their impact on professional objectives.* Van Rooijen and Newstead (2017) indicates that vulnerability and resilience are two specific constructs of children that influence early childhood teachers' responses to children to take risks in their play. Therefore, teachers who view children as vulnerable may think of them as in need of protection, while others may think of them as resilient to risk rather than their actual competencies (Van Rooijen & Newstead, 2017). The second one is *professional's personal attitudes to risk.* In this regard, there are several other factors such as their values and previous experiences which influence teachers' approaches to risk. Thus, teachers' attitudes toward risk may affects their practice by limiting or encouraging children's risky play opportunities (Hewitt-Taylor & Heaslip, 2012). The third one is *the professional–parent relationship.* Van Rooijen & Newstead (2017) asserts that teachers' relationship with parents is an important factor which affects teachers' attitudes toward risky play. In this regard, collaboration between teachers and parents could improve teachers' promotion of children's risk-taking. The fourth one is *regulatory factors.* Van Rooijen & Newstead (2017) states that teachers may feel constrained or encouraged in their risk-taking by regulatory factors. For example, height restrictions related with equipment in children's playground might decrease children's opportunity to take risks in their play (Ellis et al., 2021). Furthermore, safety rules for children in the school context may prevent teachers from providing children with risky play opportunities. The fifth factor is *cultural factors.* This factor related with cultural interpretations on safety. In this regard, New et al. (2005) indicates that sociocultural context, particularly outdoor play appreciation, influences teachers' attitudes toward risky play.




**Figure 2** *Factors Influencing Early Childhood Teachers' Risky Play Attitude*

*Adapted from Van Rooijen & Newstead (2017)*

Višnjić-Jevtić et al. (2021) conducted survey research to investigate whether early childhood teachers' risky play attitude differ in regard to their age, qualifications, place where teachers live and teaching experience. The findings showed that there is no significant difference between teachers' years of experience and attitudes toward risky play. However, they found a statistically significant difference between education level and risky play attitude. In addition, qualitative research conducted by Sandseter (2014) to examine whether early childhood teachers' perception of risky play is changed related to age, gender, and personality. The data collected from 116 Norwegian early childhood teachers showed that male teachers had greater risk-taking and more permissive attitudes toward risky play than female teachers (Sandseter, 2014). Furthermore, research examining teachers' perceptions of risky play suggests that early childhood teachers recognize the importance of risky play, but also see barriers such as safety, parental and administrative concerns, accountability, and potential litigation (Little & Eager, 2010; Little et al., 2012; Little & Wyver, 2008; McClintic & Petty, 2015; Sandseter et al., 2021a; Sandseter & Kennair, 2011; Stan & Humberstone, 2011). This view is further supported by a qualitative study that show that teachers value to be outside and children's outdoor play, but they need to keep children safe in the environment which leads them to supervise children's behavior and set up materials for play (Ihmeideh & Al-Qaryouti, 2016). Moreover, Višnjić-Jevtić et al. (2021) argues that teachers' attitudes are affected by institutional limitations, particularly in regard to safety issues. In addition, Little and Wyver (2008) examined risk-taking experiences in children's outdoor play in Western societies such as Australia and noted that one of the factors that lead to decrease risk-taking in play in the preschool context is high-child staff ratio. In her a qualitative study, Little (2012) interviewed seven early childhood teachers to examine their opinions and practices. The findings showed that early childhood teachers have a positive attitude toward risky play and state that they think it is important for children's development and they have their own strategies of considering each child individually to manage risk-taking in play. Furthermore, Little et al. (2012) conducted a qualitative study and collected data through semi-structured interviews with 17 staff from six preschools in Australia and 14 staff from four preschools in Norway. They examined cultural differences in risky play by comparing children's outdoor play experiences and teachers' attitudes toward risk in play in Australian and Norwegian preschools. In this regard, the researchers found that the two countries shared common ideas about the definition and meaning

of risky play, but that there were differences in how these ideas were translated into practice (Little et al., 2012). Moreover, LeMasters and Vandermaas-Peeler (2021) examined attitudes of early childhood teachers in a low socioeconomic level preschool. While collecting the data, teachers in 10 preschools in the United States rated their outdoor environments of school where they are working. The Risk Tolerance for Play Scale developed by Hill and Bundy (2012) was also used to assess the risky play attitudes of 58 teachers. The average score was 29 out of 100. In terms of risk play categories, teachers were most accepting of rough-and-tumble play and least accepting of playing with dangerous tools. In a focus group interview, teachers also expressed their concerns about overly restrictive safety rules in the school environment. Furthermore, Spencer et al. (2021) conducted a study to examine early childhood teachers' views of risky play in the Physical Literacy in the Early Years (PLEY) intervention. PLEY was a mixed methods study designed to evaluate a loose component intervention in early childhood care settings. Qualitative research was conducted to explore the perspectives of early childhood teachers. Data were collected through 15 focus group interviews with early childhood teachers. The findings of the study highlighted those loose parts contributes to positive perceptions of risky play, teachers' risk perceptions are affected by institutions, and teachers view risky play as beneficial to children's development. Culture is another factor that determines teachers' attitudes and views toward risky play. Little et al. (2012) examined the cultural differences between Australian and Norwegian teachers regarding attitudes toward risky play. Teachers from both countries stated that risky play was important for children's development. However, Australian teachers noted that legal regulations and environmental conditions prevented them from allowing children to engage in risky play. In addition, New et al. (2005) found that teachers from Norway, Sweden, Denmark, and Italy were less concerned about children's risk behaviors than American teachers. In the same vein, Sandseter (2012) concluded that Australian and Norwegian teachers have similar understandings of risk-taking in play, but Norwegian teachers reflect these understandings more strongly in their behavior. Furthermore, Liu and Birkeland (2022) conducted a comparative study to compare early childhood teachers' perceptions of risk play in preschools in Norway and China. The study used a model (Adams, 2001) based on teachers' perceptions of individual risk-taking, perceived danger, potential rewards, and accidents in children's risk play. Semi-structured interviews with ten teachers revealed that teachers in the two participating preschool

perceived risk play differently. The results suggest that the early childhood teachers in the Norwegian preschool have theoretical and practical experience with understanding risk play in their cultural background. Guided by the preschool regulations, early childhood teachers in China have learned a little about risky play and are gradually developing their views about it in practice.

In regard to related national studies, Erdem (2018) conducted a qualitative study to examine early childhood teachers' views about outdoor play activities and the characteristics of outdoor spaces in their schools. She collected the data from 54 preschool teachers in Niğde, İstanbul and İzmir in Türkiye. The result of the study showed that early childhood teachers strongly believed in the importance of outdoor activities for children's development and learning. Conversely, they indicated that they used the outdoor areas only once a month or not at all in winter for their daily activities with the children due to certain obstacles. One of the obstacles mentioned by teachers was lack of playgrounds for outdoor play. Other barriers included poor weather conditions, parental concerns about health and safety, and unsafe and risky playgrounds for the children (Erdem, 2018). The findings of the study (Erdem, 2018) is supported by a recent qualitative study conducted by Akpınar & Kandır, 2022. The data collected through interviews with 63 early childhood teachers. The findings showed that teachers expressed their barriers not to spending time outdoor in the school environment as weather conditions, parental attitudes, and physical conditions. Furthermore, it was found in the study that the time children spent outdoors is 30-60 minutes when the air is warm and there is no rain. It was also noted outdoor play activities are directed by teachers and children together (Akpınar & Kandır, 2022). In the same vein, Çetken and Sevimli-Çelik (2018) conducted a study and collected data through open-ended questionnaire from 30 early childhood teachers from six private preschools in Ankara. They concluded that early childhood teachers explained their barriers to their outdoor practices as intensive educational programs, weather conditions and limited outdoor play environment. Moreover, Alat, et al. (2012) investigated the beliefs and practices of early childhood teachers regarding outdoor activities. The data were collected both semi-structured and focus group interviews with 25 early childhood teachers who work in Black Sea region of Türkiye. According to results of the study, teachers were found to have positive attitudes toward outdoor activities, but they were insufficiently involved in outdoor activities due to inadequate physical conditions, inadequate safety measures in school garden, high child-teacher

ratio, and parental concerns. Similarly, Güler and Demir (2016) conducted qualitative research to examine early childhood teachers' opinions and perceptions of children's risky play. They were collected the data through semi-structured interviews with 25 early childhood teachers in six different preschools in Ankara. The results demonstrated that safety concerns are the main obstacle for teachers to allow risky play. In addition, parents' attitudes toward children's risky play and poor physical environments were also cited as barriers to risky play (Güler & Demir, 2016). In addition, Yalçın and Tantekin-Erden (2018) conducted a review study to examine the relevant literature on the risky play. The study also aimed to evaluate risky play in the Turkish context of early childhood education. For this purpose, the studies published between 2003 and 2017 were reviewed and the current situation of risky play was discussed and evaluated. In the literature reviewed, it was found that early childhood settings play a crucial role in encouraging children to engage in risky play. However, regulation needs to balance risk and safety was highlighted.

# CHAPTER 3

# METHOD

The research method part of this study includes the design of the study in accordance with the aims and research questions of the study, the participants and sampling procedures, data collection, data collection instruments, data analysis procedures, validity, and reliability of the study and ethical considerations.

## 3.1. Research Design

As Giddings and Grant (2006) suggested, the methods chosen by researchers must fit the research question. To address this point, mixed-methods research (Creswell & Plano Clark, 2018) was used to collect and analyze the data in the current study. Mixed-methods research involves collecting, analyzing, and integrating both quantitative and qualitative data to better explain the research questions and provide in-depth information about the topic (Creswell, 2015; Creswell & Plano Clark, 2018; Ivankova et al., 2006; Teddlie & Tashakkori, 2009). The strengths and weaknesses of this mixed-methods design have been discussed extensively in the literature (Creswell, 2015; Teddlie & Tashakkori, 2009). In the context of this study, its advantages provide the researcher an opportunity to examine the quantitative results in more detail. In mixed-methods research, there are two main designs: sequential and concurrent (Creswell 2014; Teddlie & Tashakkori, 2009). In the present study, the researcher used the sequential explanatory design. There are two variants of the explanatory design: *the follow-up explanations* and *the participant selection* (Creswell & Plano-Clark, 2018). In the current study, the researcher used the follow-up explanations variant. In this variant, the researcher focuses on the first, quantitative phase and uses the subsequent qualitative phase to explain the quantitative results. For this reason, the mixed-methods sequential explanatory design used in this study consists of two distinct phases: a quantitative phase and a qualitative phase (Creswell & Plano-Clark,

2018). According to Creswell and Plano Clark (2018), the explanatory sequential design begins with a quantitative phase followed by a qualitative phase to explain the quantitative results (see Figure 3).

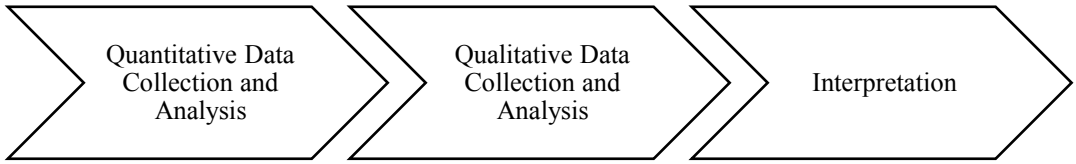



**Figure 3** *Mixed Methods Sequential Explanatory Design*

*Adapted from Creswell and Plano-Clark (2018)*

In the present study, quantitative data were first collected to examine whether early childhood teachers' attitudes toward risky play attitudes differ in relation to the various factors. Following the collection and analysis of quantitative data, semi-structured interviews were conducted with a small subsample of participants to further explore teachers' attitudes toward risky play (Creswell, 2007). After both sets of data were collected and analyzed, the quantitative and qualitative results were mixed and the findings of the study were discussed (Creswell, 2015). The present study is explanatory in nature, that is, it focuses on describing teachers' attitudes related to various factors and their views about children's risky play, rather than proving facts or universal truths (Creswell, 2015).

In line with the design, the present study had two objectives: a) examining early childhood teachers' attitudes toward risky play in relation to various factors (e.g., *preschool type, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children, and daily outdoor time*) and b) examining teachers' views toward children's risky play. In this sense, this study seeks to answer the following research questions:

**a.** Do early childhood teachers' risky play attitudes differ in relation to the various factors (e.g., *preschool type, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children, and daily outdoor times*)?

**a.1.** Do early childhood teachers' *beliefs about the necessity of risky play* differ in relation to various factors?

**a.2.** Do early childhood teachers' *tolerance toward risky behaviors* differ in relation to various factors?

**a.3.** Does early childhood teachers' *sense of anxiety regarding risky play* differ in relation to various factors?

**a.4.** Does early childhood teachers' *differentiation of risky behaviors* differ in relation to various factors?

**b.** What are the views of the early childhood teachers toward children's risky play?

### 3.2. Sampling Procedure and Participants

This section contains the sampling procedures and descriptive information about the early childhood teachers in both the quantitative and qualitative phases of the present study.

#### 3.2.1. Sampling Procedure of Quantitative Phase

In the present study, the target population of the quantitative phase includes all early childhood teachers working in public and private preschools in Türkiye. However, as noted by Fraenkel et al. (2011), the target population that a researcher wishes to generalize is rarely available. Therefore, an accessible population that a researcher can generalize is preferred (Fraenkel et al., 2011). In the present study, early childhood teachers working in the nine main districts of Ankara were included. In this context, the accessible population was determined through convenience sampling (Fraenkel et al., 2011). As a type of non-random sampling, convenience sampling is an appropriate sampling method to collect data from participants who are available for the study (Fraenkel et al., 2011). According to Fraenkel et al. (2011), convenience sampling is also acceptable when the sample has different characteristics. With this in mind, participants with different characteristics were selected via convenience sampling in the quantitative phase of the current study. To determine the sample size, the sampling method of Krejcie and Morgan (1970) was used. They recommend that the required sample size depends on the defined population. The defined population for the current study is shown in Table 2 and includes 5074 early childhood teachers working in both public and private schools in Ankara. Following Krejcie and Morgan's (1970) table, a total number of 357 participants is recommended for this study. With the idea that a larger sample brings a lower potential for error, 495 early childhood teachers were selected for the quantitative phase of the study (Fraenkel et al., 2011). After preliminary data analysis, missing data and outliers were identified, resulting in

a total of 484 in-service early childhood teachers working in public and private preschools being included in this study. Only lead teachers, who take the main responsibility for classrooms, were included in the present study because in the Turkish context teachers' aides or assistant teachers work under the supervision of teachers in classrooms and are only responsible for keeping classrooms clean and orderly, assisting with activities, and helping children with self-care.

**Table 2**

*Number of Teachers Employed in Ankara*

| The City | Type of Preschool | Number of Teachers |
|---|---|---|
| Ankara | Public | 3572 |
| | Private | 1502 |

(MoNE, 2021)

### 3.2.1.1. Descriptive Information about Participants of Quantitative Phase

This section contains the descriptive information of 484 early childhood teachers who participated in the quantitative phase of the study. The teachers were asked about their age, gender, the degree program they graduated from, the type of preschool they work in, the number of children in their classroom, the presence of teachers' aides in their classroom, their teaching experience, the age of their students, the amount of time they spend outside each day at school, and whether they had previously taken some courses (e.g., play, environmental education, physical education, and risk play). The majority of teachers were female (n=478, 98.8%) and few were male (n=6, 1.2%). Educational levels of teachers included high school (n=14, 2.9%), two-year university (n=70, 14.5%), four-year university (n=349, 72.1%), and graduate school (n=51, 10.5%). Teachers are working in either public preschools (n=293, 60.5%) or private preschools (n=191, 39.5%) in Ankara. Teachers had been working for 1-5 years (n=136, 28.1%), 6-10 years (n=95, 19.6%), 11-15 years (n=127, 26.2%), and 16 years or more (n=126, 26%). Another factor was the number of children in their classrooms. Teachers are working with 0-15 children (n=195, 40.3%) and with 15-30 children (n=289, 59.7%). The ages of the children teachers worked with were 36-48 months (n=81, 16.7%), 48-60 months (n=190, 39.3%), and 60-72 months (n=213, 44%). The presence of teachers' aides was also considered a factor. In

this regard, there were teachers (n=170, 35.1%) working in the classroom with their aides in the classroom and teachers working alone in the classroom (n=314, 64.9%). Finally, the daily times teachers allowed children to be outside were divided into 0-15 minutes (n=97, 20%), 15-30 minutes (n=179, 37%), 30-45 minutes (n=140, 28.9%), 45-60 minutes (n=44, 9.1%), and 60 minutes or more (n=24, 5%). Regarding teachers' background information about the play, some teachers took university courses (n=115, 23.8%), while some of them participated in extracurricular activities such as seminars (n=117, 24.2%). Some teachers participated in both courses and activities (n=227, 46.9%), while some of them did not participate in any of the activities or courses (n=25, 5.2%). Regarding teachers' background information about environmental education, some teachers took university courses (n=141, 29.1%), while some of them participated in extracurricular activities such as seminars (n=126, 26.0%). Some teachers also participated in both courses and activities (n=140, 28.9%), while some of them did not participate in any of the activities or courses (n=77, 15.9%). Regarding teachers' background information of teachers about movement education, some teachers took university courses (n=184, 38%), while some of them participated in extracurricular activities such as seminars (n=86, 17.8%). Some teachers participated in both courses and activities (n=148, 30.6%), while some of them did not participate in any of the activities or courses (n=66, 13.6%). Regarding teachers' background information about risky play, some teachers attended university courses (n=143, 29.5%), while some of them participated in extracurricular activities such as seminars (n=41, 8.5%). Some teachers also participated in both courses and activities (n=39, 8.1%), while the majority of them did not participate in any of the activities or courses (n=261, 53.9%) (see Table 3).

**Table 3**

*Descriptive Information about Teachers Participated in Quantitative Phase*

| **Various Factors** | ***n*** | ***%*** |
|---|---|---|
| Gender | | |
| Female | 478 | 98.8 |
| Male | 6 | 1.20 |
| Education | | |
| High School | 14 | 2.90 |
| University (2 years) | 70 | 14.5 |
| University (4 years) | 349 | 72.1 |
| Graduate School | 51 | 10.5 |
| Preschool Type | | |
| Private | 191 | 39.5 |
| Public | 293 | 60.5 |

*Table 3 (cont'd)*

| Various Factors | *n* | *%* |
|---|---|---|
| Teaching experience | | |
| 1-5 years | 136 | 28.1 |
| 6-10 years | 95 | 19.6 |
| 11-15 years | 127 | 26.2 |
| 16+ years | 126 | 26.0 |
| Number of children | | |
| 0-15 children | 195 | 40.3 |
| 15-30 children | 289 | 59.7 |
| Age groups | | |
| 36-48 month | 81 | 16.7 |
| 48-60 month | 190 | 39.3 |
| 60-72 month | 213 | 44.0 |
| Teacher's aide | | |
| No | 314 | 64.9 |
| Yes | 170 | 35.1 |
| Outdoor play times | | |
| 0-15 min. | 97 | 20.0 |
| 15-30 min. | 179 | 37.0 |
| 30-45 min. | 140 | 28.9 |
| 45-60 min. | 44 | 9.10 |
| 60 min. or more | 24 | 5.00 |
| Play Courses Taken | | |
| None | 25 | 5.20 |
| University Course | 115 | 23.8 |
| Extracurricular Activity (e.g., in-service training) | 117 | 24.2 |
| Both | 227 | 46.9 |
| Environmental Education Courses Taken | | |
| None | 77 | 15.9 |
| University Course | 141 | 29.1 |
| Extracurricular Activity (e.g., in-service training) | 126 | 26.0 |
| Both | 140 | 28.9 |
| Movement Education Courses Taken | | |
| None | 66 | 13.6 |
| University Course | 184 | 38.0 |
| Extracurricular Activity (e.g., in-service training) | 86 | 17.8 |
| Both | 148 | 30.6 |
| Risky Play Courses Taken | | |
| None | 261 | 53.9 |
| University Course | 143 | 29.5 |
| Extracurricular Activity (e.g., in-service training) | 41 | 8.5 |
| Both | 39 | 8.1 |

### 3.2.2. Sampling Procedure of Qualitative Phase

According to Creswell (2015), there are several challenges to using an explanatory sequential design in mixed methods research. One is to adequately plan which participants will be included in the qualitative portion to build directly on the quantitative results. In this regard, Creswell and Plano Clark (2018) recommend selecting a small subsample from the quantitative portion of the study. The purposive sampling method was used to select information-rich cases purposefully for the qualitative phase of the study. In purposive sampling, the researcher selects a sample based on prior information to obtain the data needed (Creswell, 2015). Among the types of purposeful sampling designs, researcher employed the criterion-sampling.

The rationale to use this type of sampling is that Patton (2002) stated criterion-sampling can be used to identify cases from standardized questionnaires for in- depth follow-up. In line with this, on the demographic information form given to the teachers, there was initially a box for them to check if they wanted to participate in a follow-up online interview. The early childhood teachers who agreed to check the "yes" box and provide their contact information in the first part of the study were noted. Then, to build on and better explain the quantitative results, the following criterions were considered when selecting the participants of the qualitative phase: 1) both the relatively high and low scores from the quantitative part were considered since there was no cutoff value on the scale 2) they were selected considering each subcategory of the factors to better discuss the results of the quantitative results (e.g., regarding the presence of teachers' aides, both teachers who said "yes" and "no" were specifically included). Regarding the sample size for the qualitative stage, according to Fraenkel et al. (2011), it is usually between 1 and 20 for qualitative studies. In addition, Merriam (2009) states that there is a certain point in the research where the researcher hears the same things from the respondents. At this stage, the process is considered saturated because there is no more new information to gather. In this study, the researcher continued collecting data until she received new information from the teachers. Considering the recommendations on sample size and sampling procedure of qualitative studies, semi-structured interviews were conducted with 21 early childhood teachers.

#### 3.2.2.1. Descriptive Information about Participants of Qualitative Phase

This section provides descriptive information about early childhood teachers who participated in the qualitative phase of the study. In the present study, 21 preschool teachers participated in the semi-structured interview. Pseudonyms were chosen in consideration of ethical issues. For this reason, all teachers were marked with a "T" and numbered according to their order in the quantitative section. Regarding the descriptive factors of the participants, teachers are working in public preschools (n=13) and private preschools (n=8) in Ankara. Regarding years of experience, teachers are working for between 1-5 years (n=4), 6-10 years (n=5), 11-15 years (n=8), and 16 years or more (n=4). Another factor of teachers was the number of children in their classrooms. The teachers were working with 0-15 children (n=7) and with 15-30 children (n=14). Children's ages with whom teachers are working were 36-48 months

(n=1), 48-60 months (n=13), and 60-72 months (n=7). The presence of teachers' aides was also considered a factor. In this regard, there were teachers (n=7) who work with their aides in the classroom as well as teachers who work alone in the classroom (n=14). Finally, the daily times teachers allowed children to be outside were categorized into the following groups: 0-15 minutes (n=3), 15-30 minutes (n=8), 30-45 minutes (n=7), 45-60 minutes (n=1), and 60 minutes or more (n=2) (see Table 4).

**Table 4**

*Various Factors of Teachers Participated in Qualitative Phase*

| Teachers | Risky Play Attitude Score | School Type | Years of Experience | Number of Children | Age Group | Teacher Aide | Daily Outdoor Times |
|---|---|---|---|---|---|---|---|
| T30 | 118 | Private | 11-15 yrs. | 0-15 | 48-60 Month | Yes | 60+ min. |
| T310 | 117 | Private | 1-5 yrs. | 15-30 | 48-60 Month | No | 45-60 min. |
| T143 | 116 | Public | 6-10 yrs. | 15-30 | 60-72 Month | Yes | 30-45 min. |
| T354 | 114 | Private | 6-10 yrs. | 15-30 | 60-72 Month | Yes | 30-45 min. |
| T302 | 114 | Public | 11-15 yrs. | 15-30 | 60-72 Month | No | 15-30 min. |
| T466 | 114 | Private | 6-10 yrs. | 0-15 | 48-60 Month | No | 30-45 min. |
| T76 | 113 | Public | 16+ yrs. | 15-30 | 48-60 Month | No | 15-30 min. |
| T328 | 113 | Public | 11-15 yrs. | 15-30 | 60-72 Month | No | 15-30 min. |
| T452 | 112 | Public | 1-5 yrs. | 0-15 | 60-72 Month | No | 15-30 min. |
| T467 | 111 | Private | 6-10 yrs. | 15-30 | 48-60 Month | Yes | 30-45 min. |
| T141 | 91 | Public | 11-15 yrs. | 15-30 | 48-60 Month | Yes | 60+ min. |
| T334 | 91 | Private | 11-15 yrs. | 15-30 | 48-60 Month | No | 30-45 min. |
| T343 | 91 | Public | 16+ yrs. | 0-15 | 60-72 Month | No | 0-15 min. |
| T427 | 90 | Public | 16+ yrs. | 15-30 | 36-48 Month | No | 15-30 min. |
| T375 | 87 | Private | 1-5 yrs. | 0-15 | 48-60 Month | No | 15-30 min. |
| T435 | 86 | Public | 11-15 yrs. | 15-30 | 48-60 Month | No | 0-15 min. |
| T67 | 85 | Public | 11-15 yrs. | 15-30 | 48-60 Month | Yes | 30-45 min. |

*Table 4 (cont'd)*

| Teachers | Risky Play Attitude Score | School Type | Years of Experience | Number of Children | Age Group | Teacher Aide | Daily Outdoor Times |
|---|---|---|---|---|---|---|---|
| T361 | 82 | Public | 16+ yrs. | 0-15 | 60-72 Month | No | 0-15 min. |
| T103 | 77 | Public | 1-5 yrs. | 15-30 | 48-60 Month | Yes | 15-30 min. |
| T300 | 74 | Public | 11-15 yrs. | 15-30 | 48-60 Month | No | 15-30 min. |
| T413 | 73 | Private | 6-10 yrs. | 0-15 | 48-60 Month | No | 30-45 min. |

*N*=21

### 3.3. Data Collection Procedure

Prior to the data collection procedure, the ethical approval for the present study was obtained from the Ethical Committee of Middle East Technical University and the Ministry of Education. Then, within the scope of explanatory sequential design, the following steps suggested by Creswell and Plano Clark (2018) were used in data collection: collecting the quantitative data, analyzing the quantitative data, and using the results to inform the follow-up qualitative data collection. The data collection was completed in 5 months which started in November 2021 and ended in April 2022.

#### 3.3.1. Quantitative Data Collection Procedure

As can be seen in Figure 3, the researcher focuses on the initial, quantitative phase and uses the subsequent qualitative phase to explain the quantitative results. In this context, the researcher administered the Demographic Information Form and the Scale for the Attitudes Toward Risky Play in Early Childhood Teacher Form (Karaca & Uzun, 2020). The early childhood teachers were first informed of the purpose of the study and how they could participate in the study. Participants who gave their informed consent to participate in the study answered the questions. All information provided by teachers was kept confidential. In addition, participants were informed that they had the right to decline participation in the study at the beginning of the study or that they could withdraw from the study at any time. Completion of the demographic information form and Scale for the Attitudes Toward Risky Play in Early Childhood (Karaca & Uzun, 2020) took approximately 15 minutes. Quantitative data collection was completed between November 2021 and February 2022.

### 3.3.2. Qualitative Data Collection Procedure

The demographic information form asked participants to check a box if they wished to participate in an online follow-up interview. The early childhood teachers who selected the 'yes' box and provided their contact information were contacted by the researcher after the quantitative data collection was completed. Then, the researcher selected 21 of them for the semi-structured interview through purposive sampling. Then, the semi-structured interview was scheduled with the participants at a mutually convenient time. Prior to the interviews, the researcher read the consent form to inform participants of ethical considerations. In addition, during each interview, with the verbal consent of the participants, an audio recording was made for each of the semi-structured interviews. Depending on the interview process, the semi-structured interviews lasted approximately 30 minutes. Quantitative data collection was completed between February 2022 and April 2022.

## 3.4. Data Collection Instruments

There are many types of quantitative and qualitative data that can be collected in a mixed-methods study (Creswell & Plano Clark, 2018). Data collection procedures in the explanatory sequential design include collecting quantitative data, analyzing the quantitative data, and using the results as the basis for subsequent qualitative data collection (Creswell & Plano Clark, 2018). In the current study, (a) the Demographic Information Form and Scale for the Attitudes Towards Risky Play in Early Childhood-Teacher Form (Karaca & Uzun, 2020) were used to collect quantitative data and the semi-structured interview was used to collect the qualitative follow-up data (see Table 5). The characteristics of the data collection instruments are explained in the following sections and presented in Table 6.

### 3.4.1. Quantitative Data Collection Instruments

One of the aims of the study was to examine early childhood teachers' attitudes toward risky play in relation to various factors (e.g., preschool type, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children, and daily outdoor times. Therefore, to achieve this objective, the researcher administered a) the Demographic Information Form and b) the Scale for the Attitudes Towards Risky Play in Early Childhood - Teacher Form (Karaca & Uzun, 2020).

Attitude scales can be used to identify attitudes by asking individuals to respond to a series of preference statements. Attitude scales often resemble rating scales in form, with words and numbers arranged on a continuum. Subjects check off the word that best reflects how they feel about the issues included in the statements on the scale (Fraenkel et al., 2011). Detailed information on the quantitative instruments can be found in the following sections.

**Table 5**

*Data Collection Instruments and Research Questions*

| **Research Question** | **Data Collection Instrument** |
|---|---|
| 1. Do early childhood teachers' risky play attitudes differ in relation to various factors (e.g., *preschool type, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children, and daily outdoor times*)? | The Demographic Information Form |
| 1.a. Do early childhood teachers' *beliefs about the necessity of risky play* differ in relation to various factors?<br><br>1.b. Do early childhood teachers' *tolerance toward risky behaviors* differs in relation to various factors?<br><br>1.c. Does early childhood teachers' *sense of anxiety regarding risky play* differ in relation to various factors?<br><br>1.d. Does early childhood teachers' *differentiation of risky behaviors* differ in relation to various factors? | Scale for the Attitudes Towards Risky Play in Early Childhood-Teacher Form (Karaca & Uzun, 2020) |
| 2. What are the views of the early childhood teachers toward children's risky play? | Semi-structured Interview |

**Table 6**

*Characteristics of Data Collection Instruments*

| **Type of Instrument** | **The rationale to use** | **Sub-dimensions/ Categories** | **Number of Items** | **Response Format** |
|---|---|---|---|---|
| Demographic Information Form | to elicit early childhood' certain background characteristics. | certain background characteristic such as *gender, school type, years of experience* | 12 | Subject completed: filling the blanks and choosing from the options |

*Table 6 (cont'd)*

| Type of Instrument | The rationale to use | Sub-dimensions/ Categories | Number of Items | Response Format |
|---|---|---|---|---|
| Scale for the Attitudes Towards Risky Play at Early Childhood-Teacher Form (Karaca & Uzun, 2020) | to measure early childhood teachers' attitudes toward children's risky play. | 1. Beliefs about the necessity of risky play<br>2. Tolerance toward risky behaviors,<br>3. Sense of anxiety about risky play<br>4. Differentiation of risky behaviors | 25 | Subject completed:<br>1=No,<br>2=Sometimes no,<br>3=Neutral,<br>4=Sometimes yes,<br>5=Yes |
| Semi-Structured Interview Protocol | to gather data about the views of teachers regarding risky play to build the results on the quantitate part of the present study. | - | 12 | Researcher completed: orally |

### 3.4.1.1. Demographic Information Form

The demographic information form was prepared by the researcher in accordance with the comments and recommendations of her supervisor to collect certain background characteristics of early childhood teachers. During the preparation of the demographic information form, it was reviewed by three experts in the field of early childhood education and the necessary changes were made. In this regard, the form asked teachers about their age, gender, the program that they have graduated from, the preschool in which they work are working, the number of children in their classes, the presence of aides in their classroom, and teaching experience in the field, the ages of their students, daily outdoor times they spend in the school, and whether they had previously taken some courses (e.g., play, environmental education, movement education, and risky play) (see Appendix C).

### 3.4.1.2. Scale for The Attitudes Towards Risky Play at Early Childhood-Teacher Form for Early Childhood Educators (SATRPEC)

The Scale for Attitudes Towards Risky Play in Early Childhood-Teacher Form (SATRPEC) was developed by Karaca and Uzun in 2020. The purpose of developing this scale is to measure early childhood teachers' attitudes toward children's risky play.

The instrument is a 5-point Likert scale with options of *no, sometimes no, neutral*, sometimes yes, and yes. The SATRPEC contains 25 items and four sub-dimensions: 1) beliefs about the necessity of risky play, 2) tolerance towards risky behaviors, 3) sense of anxiety about risky play, and 4) differentiation of risky behaviors (see Table 7). To check the validity, exploratory factor analysis and confirmatory factor analysis were applied. In the exploratory factor analysis, it was seen that these sub-dimensions explained 60.87% of the total variance., confirmatory factor analysis was implemented, and the construct validity index were calculated which consists of the values of $\chi 2$ /df (3.765), RMSEA (.075), NFI (.95), CFI (.95), GFI (.91), AGFI (.86). To ensure the reliability of the scale, the researchers applied the scale to 381 early childhood teachers who were employed in Afyon. The total alpha coefficient was calculated to be .869. The reliability coefficients of the sub-dimensions of the scale were determined as $\alpha$=.949 for the first sub-dimension, $\alpha$=.846 for the second sub-dimension, $\alpha$=.777 for the third sub-dimension and $\alpha$= 768 for the fourth sub-dimension. After these validity and reliability analysis were completed, the scale was found valid and reliable (Field, 2013; Pallant, 2016). The highest total score that can be obtained on the scale is 125 and the lowest total score is 25. There is no cutoff score on the scale but the higher scores on the scale show that teachers are more supportive of risky play and lower scores show that they are less supportive of risky play.

**Table 7**

*Sub-dimension of The Scale for The Attitudes Towards Risky Play at Early Childhood*

| **Sub-dimensions** | **Item Numbers** | **Exemplary Items** |
|---|---|---|
| Beliefs about the necessity of risky play | 1, 2, 3, 4, 5, 6, 7, 8,9, 10, 11, 12, 13, 14 | When my students engage in risky play, their problem-solving skills are developed |
| Tolerance toward risky behaviors | 15, 16, 17, 18 | My students are allowed to jump off from great heights |
| Sense of anxiety about risky play | 19, 20, 21, 22 | When I want to allow children's risky play, I'm anxious about the possibility of getting injured |
| Differentiation of risky behaviors | 23, 24, 25 | My students can play with older children |

### 3.4.2. Qualitative Data Collection Instruments

One of the aims of the present study was to investigate teachers' views on children's risky play. Consistent with this goal, the qualitative portion of the study used a semi-structured interview to obtain more information about teachers' views on children's risky play. The semi- structured interview protocol essentially involves a series of questions for subjects to answer, and the flexibility of semi-structured interviews helps to elicit participants' views (Fraenkel et al., 2011). For the present study, the advantages of this tool are that the researcher clarified unclear questions and asked the respondent to add answers that are particularly important or insightful (Fraenkel et al., 2011). More information on the semi-structured interview protocol used in this study is given in the following section.

#### 3.4.2.1. Semi-Structured Interview Protocol

The semi-structured interview protocol was designed by the researcher and her advisor to expand the findings of the quantitate part of this study. After creating a semi-structured interview protocol as a draft, the researcher sought the opinions of six experts in the field of early childhood education (DeVellis, 2017). Based on their comments and recommendations, the researcher revised the questions and added new questions (Fraenkel et al., 2011). In addition, as suggested by Prescott and Soeken (1989), a pilot study was conducted with three early childhood teachers to understand the data collection procedure and to test the clarity and applicability of the questions. In this way, both the questions were tested, and the teachers were asked if they had any recommendations regarding the interview protocol. After the pilot study was completed, the questions were revised again to make them clearer. The final version of the semi-structured interview protocol included 12 open-ended questions. Probes were also used throughout the interview protocol depending on the teacher's response (see Appendix D). Some of the sample questions are listed below (see Table 8).

**Table 8**

*Semi-structured Interview Exemplary Questions*

| The Content of the Interview Protocol | Exemplary Questions |
|---|---|
| The views regarding children's risky play | *Could you tell me what kind of play children engage in outdoors?*<br>*How would you describe risky play?* |

*Table 8 (cont'd)*

| The Content of the Interview Protocol | Exemplary Questions |
|---|---|
| The views regarding children's risky play | *What is your view about children's jumping from or climbing to great heights?* |
| | *What are the views of parents about children's risky play?* |

### 3.5. Data Analysis and Interpretation Procedure

Mixed methods research data analysis involves analysis techniques applied to both quantitative and qualitative data, as well as the integration of the two forms of data (Creswell & Plano Clark, 2018). In explanatory sequential design, the researcher collects and analyzes the quantitative data first, then the qualitative data, and uses the qualitative results to understand the quantitative results (Hesse-Biber, 2010). In this regard, Teddlie and Tashakkori (2009) see mixed methods as a means to improve the quality of conclusions drawn from both quantitative and qualitative methods. In this study, quantitative and qualitative data were analyzed separately (Creswell, 2014). In addition, the demographic information of early childhood teachers was presented using frequencies and percentages. In terms of the interpretation procedure, mixing in mixed methods research occurs at four possible points during the research process: *interpretation, data analysis, data collection, and design* (Creswell and Plano-Clark, 2018). In this study, the researcher applied mixing during interpretation (discussion). Therefore, the researcher first collected and analyzed both data sets. Then, the quantitative and qualitative results are mixed while discussing the results of the study. More information about quantitative and qualitative data analysis can be found in the following sections.

#### 3.5.1. Quantitative Data Analysis

According to Creswell (2015), the quantitative and qualitative data are analyzed separately in explanatory sequential design. Therefore, in this study, the quantitative data were analyzed first using IBM Statistical Package for the Social Sciences (SPSS).

An assessment of the normality of the data is a prerequisite for many statistical tests, as normal data is a basic assumption in parametric tests (Pallant, 2016). For this reason, the researcher used the program IBM SPSS, to check the normality of the data

through a preliminary analysis of the data. Also, as Tabachnick and Fidell (2014) suggest, descriptive statistics, histograms, normal *Q-Q* plots, detrended *P-P* plots, and steam and leaf plots were examined. In addition, the researcher examine: 1) whether the mean, mode, and median values are close, 2) whether the skewness and kurtosis values are between +1 and -1, and 3) whether the Kolmogorov-Smirnov test value is $p > 0.05$ (Pallant, 2016; Tabachnick & Fidell, 2014). In the present study, it was found that the skewness kurtosis values were mostly in the range of +1 to -1 and the Kolmogorov-Smirnov test was significant ($p < 0.05$). Although the skewness and kurtosis values in this case showed an acceptable level of normal distribution, the Sig. value of the Kolmogorov-Smirnov test ($p <.05$) signifies the violation of the normality assumption, which is quite common in larger samples (Pallant, 2016). In addition, histograms were right- or left-skewed and variables were not linearly related in normal *Q-Q* plots. There were out-of-box and out-of-line values in both boxplots and detrended normal *Q-Q* plots in the box area. After examining the values and plots, it was found that the data did not meet the conditions of normal distribution. For this reason, it was decided to use nonparametric statistical tests, as suggested by Pallant (2016).

One of the aims of the study was to examine early childhood teachers' attitudes toward risky play in relation to various factors. For this reason, the total scores for teachers' attitudes toward risky play and the four subdimensions (*beliefs about the necessity of risky play, tolerance towards risky behaviors, sense of anxiety about risky play,* and *differentiation of risky behaviors)* were analyzed in relation to various factors, i.e., *type of preschool, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children,* and *daily outdoor time*. The Mann-Whitney *U* test was conducted to compare the means of the variables with two different (independent) groups (Pallant, 2016). These variables were: the type of preschool, the number of children in the classes, and the presence of preschool teachers' aides. Besides, the Kruskal-Wallis test was conducted to compare the means of variables with two or more groups (Pallant, 2016). These variables were: teaching experience, age groups of children, and daily outdoor time (see Table 9).

**Table 9**

*Quantitative Data Analysis Procedure*

| Type of Test | Dependent Variables | Independent Variables |
|---|---|---|
| Mann–Whitney *U* | Attitudes toward risky play total score<br>Beliefs about the necessity of risky play score<br>Tolerance towards risky behaviors score<br>Sense of anxiety about risky play score<br>Differentiation of risky behaviors score | The type of preschool<br>The number of children in the classes<br>The presence of teachers' aides |
| Kruskal–Wallis | Attitudes toward risky play total score<br>Beliefs about the necessity of risky play score<br>Tolerance towards risky behaviors score<br>Sense of anxiety about risky play score<br>Differentiation of risky behaviors score | Teaching experience<br>Age groups of children<br>Daily outdoor times |

### 3.5.2. Qualitative Data Analysis

In analyzing the qualitative data, the researcher used thematic analysis. Thematic analysis is a method of analyzing qualitative data in which a data set is searched to identify, analyze, and report recurring patterns (Braun & Clarke 2006). It is a method for describing data but also involves interpretation in the selection of codes and construction of themes (Kiger & Varpio, 2020). Thematic analysis is an appropriate and powerful method when trying to understand a set of experiences, thoughts, or behaviors in a data set (Braun & Clarke, 2006). In thematic analysis, researchers can use an inductive or deductive approach to finding themes (Braun & Clarke, 2006). In this study, the researcher used an inductive approach in which themes are derived from the researcher's data (Braun & Clarke, 2006). The inductive approach typically allows for a broader, more comprehensive analysis of the entire data set. In analyzing the qualitative data, six steps defined by Braun and Clarke (2006) were followed: 1) become familiar with the data, 2) generate initial codes, 3) search for themes, 4) review themes, 5) define and name themes, and 6) generate the report (see Figure 4). MAXQDA 2020 software was used for qualitative data analysis. MAXQDA is a qualitative data analysis software, which is a type of computer-assisted qualitative data analysis software (Kuckartz & Rädiker, 2019). As Merriam (2009) suggests, qualitative data analysis begins with data collection. For this reason, in the present

study, the analysis and data collection took place simultaneously to avoid missing data and wasted time. This process took approximately two months.

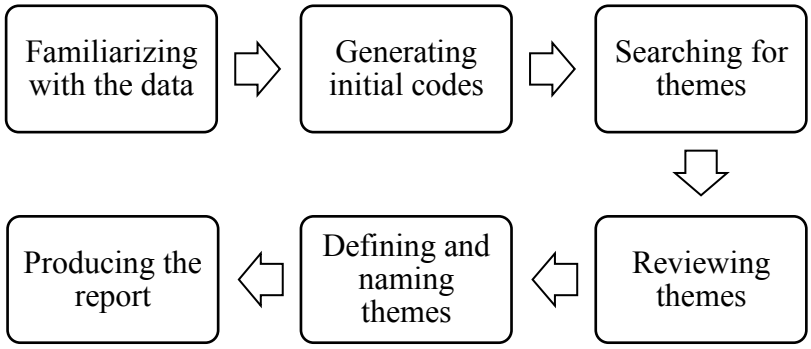



**Figure 4** *Qualitative Data Analysis Procedure*

*Adapted from Braun and Clarke (2006)*

### 3.6. Validity and Reliability

According to Fraenkel et al. (2011), validity is an important issue to consider when selecting an instrument for research, as it provides information about the focus of the research. In this sense, the researcher tried to ensure the validity and reliability of both the quantitative and qualitative data. The detailed information about both data sets can be found in the following sections.

#### 3.6.1. Validity and Reliability of Quantitative Data

To check the validity, exploratory factor analysis and confirmatory factor analysis were applied by researchers (Karaca & Uzun, 2020). In the exploratory factor analysis, it was seen that these sub-dimensions explained 60.87% of the total variance., confirmatory factor analysis was implemented and the construct validity index were calculated which consists of the values of $\chi 2$ /df (3.765), RMSEA (.075), NFI (.95), CFI (.95), GFI (.91), AGFI (.86). To ensure the reliability of the scale, the researchers applied the scale to 381 early childhood teachers who were employed in Afyon. The total alpha coefficient was calculated to be .869. The reliability coefficients of the sub-dimensions of the scale were determined as $\alpha$=.949 for the first sub- dimension, $\alpha$=.846 for the second sub-dimension, $\alpha$=.777 for the third sub-dimension and $\alpha$= 768 for the fourth sub-dimension. After these validity and reliability analysis were completed, the scale was found valid and reliable (Field, 2013; Pallant, 2016).

### 3.6.2. Validity and Reliability of Qualitative Data

Creswell (2007) proposed several methods to ensure the validity of qualitative results, also referred to as trustworthiness and credibility. These methods are triangulation of data, peer review, detailed and thick description, member review, external monitoring, long-term commitment, and clarification of researcher bias (Creswell, 2007). According to Creswell (2007), validity can be ensured if two of these methods are used. In the present study, the researcher used detailed and thick descriptions and peer review methods to ensure the trustworthiness of the present study. In this regard, the researcher brought in another researcher from the field of early childhood education to conduct peer review during coding and interpretation. Peer reviewers challenge the researcher's conclusions and check interpretations so that the validity of the findings is ensured (Creswell & Plano Clark, 2018). Another method of establishing credibility is a detailed and dense explanation to define in detail the setting, participants, and codes of a study (Creswell, 2007). In this sense, the researcher quotes the participants' statements to ensure both accuracy and completeness of the results (Creswell, 2007). For the reliability of the results in the qualitative section, the method of intercoder reliability was used (Creswell, 2007). This is a basic procedure in which a codebook is created and another person codes a transcript to show whether or not the coders have the same codes and themes (Miles & Huberman, 1994). In the present study, two coders determined the codes and themes separately and discussed whether the codes and themes matched or not. To check the inter-coder reliability, the formula "Reliability=Number of agreement/ (total agreements number + total disagreements number)" developed by Campbell et al. (2013) was used. The agreement rate was calculated and found to be 86.8, and since the result was above .70, inter-coder reliability was assured (Miles & Huberman, 1994).

## 3.7. Ethical Considerations

Researchers must have an ethical responsibility to conduct the research process with high quality (Pittenger, 2003). With this in mind, the researcher considered the following ethical issues when designing the present study. Firstly, prior to data collection, the researcher requested a review by the METU Human Research Ethics Committee and obtained the necessary approvals from the Middle East Technical

University's Ethical Board (see Appendix A). The researcher also obtained the necessary permission from the Ministry of National Education to collect data in preschools in Ankara (see Appendix B). In addition, the researcher granted permission from the researchers to use The Scale for Attitudes Towards Risky Play in Early Childhood-Teacher Form (SATRPEC). Secondly, in the quantitative phase, the early childhood teachers were first informed about the purpose of the study and how they could participate. Participants who gave their informed consent to participate in the study answered the questions without revealing any personal information. Therefore, all information provided by teachers was kept confidential. In addition, participants were informed that they had the right to decline to participate in the study at the beginning of the study or that they could withdraw from the study at any time. Thirdly, during the qualitative phase, the researcher read the consent form prior to the interviews to inform participants of ethical considerations. In addition, during each interview, an audio recording was made for each of the semi-structured interviews with the verbal consent of the participants. Fourthly, because the semi-structured interviews were conducted online due to the Covid 19 pandemic, researcher maintained data confidentiality at all levels of the research. Lastly, it is also important to ensure that the participant gives consent. In this regard, the researcher asked the participant for verbal and written consent to avoid any possible misunderstandings.

# CHAPTER 4

# FINDINGS

The research findings part of this study includes both the quantitative and qualitative results of the study. The purpose of the present study was twofold: a) to examine early childhood teachers' attitudes toward risky play in relation to various factors (e.g., *preschool type, number of children in the classes, presence of teachers' aides, teaching experience, children's age groups, and daily outdoor times*) and b) to examine teachers' views about children's risky play. Therefore, the researcher focused on the first, quantitative phase and used the subsequent qualitative phase to explain the quantitative results. Detailed information on the quantitative and qualitative results can be found in the following sections.

## 4.1. Quantitative Findings

This section reports whether there is a significant difference between early childhood teachers' attitudes toward risky play in relation to various factors. That is, the total scores for attitudes toward risky play and the scores for the sub-dimensions, namely 1) beliefs about the necessity of risky, 2) sense of anxiety toward risky play, 3) tolerance towards risky behaviors and 4) differentiation of risky behaviors were analyzed regarding the various factors: the type of preschool type, teaching experience, number of children in the classes, age groups of the children, presence of teacher's aide, and daily outdoor times. The quantitative data was collected through a) Demographic Information Form and b) Scale for Attitudes toward Risky Play in Early Childhood - Teacher Form (Karaca & Uzun, 2020). Quantitative data were analyzed using the software of IBM Statistical Package for the Social Sciences (SPSS).

### 4.1.1. Attitudes Toward Risky Play Scores

Descriptive statistics for the attitudes toward risky play total scores of early childhood teachers in relation to the various factors are shown in Table 10. The risky

play attitude mean scores of teachers working in private preschools (*M*=102.17) are higher than the risky play attitude mean scores of teachers working in public preschools (*M*=97.32). The risky play attitude mean scores of teachers with 1-5 years of experience (*M*=100.2) are higher than the risky play attitude mean scores of teachers with 6-10 years of experience (*M*=99.89), the risky play mean attitude scores of teachers with 11-15 years of experience (*M*=98.76) and the mean of risky play attitude of teachers with 16 or more years of experience (*M*=98.18). The risky play attitude mean scores of the teachers who are working with 15-30 children (*M*=99.40) are higher than teachers who are working with 0-15 children (*M*=98.99). The risky play attitude mean scores of 36-48 months old age group (*M*=101.28) are higher than the mean scores of 48-60 months old children (*M*=98.68) and 60-72 months old age groups (*M*=98.95). Regarding the presence of a teacher's aide in the classroom, the risky play attitude mean score of teachers with an aide (*M*=101.1) is higher than the mean scores of teachers without an aide (*M*=98.20). Finally, the risky play attitude mean scores of a daily 60 or more minutes of outdoor play (*M*=102.46) is higher than the mean scores for daily 45-60 minutes (*M*=101.95), 30-45 minutes (*M*=100.3), 15-30 minutes (*M*=96.40), and 0-15 minutes of outdoor play (*M*=97.22).

**Table 10**

*Attitudes toward Risky Play Total Scores and Various Factors*

| **Various Factors** | ***n*** | ***%*** | ***M*** | ***SD*** |
|---|---|---|---|---|
| Preschool type | | | | |
| Private | 191 | 39.5 | 102.1 | 10.6 |
| Public | 293 | 60.5 | 97.32 | 11.5 |
| Teaching experience | | | | |
| 1-5 years | 136 | 28.1 | 100.2 | 10.7 |
| 6-10 years | 95 | 19.6 | 99.89 | 11.5 |
| 11-15 years | 127 | 26.2 | 98.76 | 12.0 |
| 16+ years | 126 | 26.0 | 98.18 | 11.4 |
| Number of children | | | | |
| 0-15 children | 195 | 40.3 | 98.99 | 12.0 |
| 15-30 children | 289 | 59.7 | 99.40 | 11.0 |
| Children's age groups | | | | |
| 36-48 month | 81 | 16.7 | 101.2 | 11.1 |
| 48-60 month | 190 | 39.3 | 98.68 | 11.7 |
| 60-72 month | 213 | 44.0 | 98.95 | 11.1 |
| Presence of teacher's aide | | | | |
| No | 314 | 64.9 | 98.20 | 11.8 |
| Yes | 170 | 35.1 | 101.1 | 10.4 |

*Table 10 (cont'd)*

| Various Factors | *n* | *%* | *M* | *SD* |
|---|---|---|---|---|
| Outdoor play times | | | | |
| 0-15 min. | 97 | 20.0 | 97.22 | 11.0 |
| 15-30 min. | 179 | 37.0 | 96.40 | 12.2 |
| 30-45 min. | 140 | 28.9 | 100.3 | 10.4 |
| 45-60 min. | 44 | 9.10 | 101.9 | 10.6 |
| 60 min. or more | 24 | 5.00 | 102.4 | 12.3 |

#### 4.1.1.1. Attitudes Towards Risky Play and Preschool Type

The Mann-Whitney *U* test was conducted to analyze whether attitudes toward risky play total scores differ in relation to the type of preschool teachers' work. A Mann-Whitney *U* test revealed a statistically significant difference between the attitudes toward risky play total scores of private preschool teachers (*Md* =105, *n*=191) and public preschool teachers (*Md* = 99, *n* = 293), *U* = 20929, 500, *z* = -4.691, *p* = .000, with a small effect size (*r* = 0.2). The findings confirm that private preschool teachers (mean rank= 279.42) had significantly higher attitudes toward risky play total scores than public preschool teachers (mean rank = 218.43) (see Table 11).

**Table 11**

*Mann-Whitney U Test for Attitudes Toward Risky Play Total Scores and Preschool Type*

| Preschool type | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| Private | 191 | 279.42 | 53369.50 | | | |
| | | | | 20929.500 | -4.691 | .000* |
| Public | 293 | 218.43 | 64000.50 | | | |

*N*= 484, *$p<.05$

#### 4.1.1.2. Attitudes Toward Risky Play and the Number of Children

The Mann-Whitney *U* test was conducted to analyze whether attitudes toward risky play total scores differ in relation to the number of children in the classroom. A Mann-Whitney *U* test revealed no significant difference between the attitude toward risky play total scores of teachers who are working with 0-15 children (*Md* = 101, *n* = 195) and 15-30 children in their classrooms (*Md* = 101, *n* = 289), *U* = 28101.500, *z* = -.050, *p* = .960, *r* = .002 (see Table 12).

**Table 12**

Mann-Whitney U Test for Attitudes Toward Risky Play Total Scores and The Number of Children

| Number of children in the classroom | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| 0-15 children | 195 | 242.11 | 47211.50 | 28101.500 | -.050 | .960 |
| 15-30 children | 289 | 242.76 | 70158.50 | | | |

*N*= 484

### 4.1.1.3. Attitudes Toward Risky Play and the Presence of Teacher's Aide

The Mann Whitney *U* test was conducted to analyze whether attitudes toward risky play total scores differ in relation to the presence of teacher's aide. A Mann-Whitney *U* test revealed a statistically significant difference between the attitudes toward risky play total scores of teachers who are working without an aide (*Md* = 101, *n* = 314) and who are working with an aide (*Md* = 104, *n* = 170), *U* = 22821,500, *z* = -2.635, *p* =.008, with a small effect size (*r* =0.1). The findings confirm that teachers working with an aide (mean rank= 265.26) had significantly higher attitudes toward risky play total score than teachers working without an aide (mean rank = 230.18) (see Table 13).

**Table 13**

*Mann-Whitney U Test for Attitudes Toward Risky Play Total Scores and The Presence of Teacher's Aide*

| Presence of teacher's aide | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| No | 314 | 230.18 | 72276.50 | 22821.500 | -2.635 | .008* |
| Yes | 170 | 265.26 | 45093.50 | | | |

*N*= 484, *$p$<.05

### 4.1.1.4. Attitudes Toward Risky Play and Teaching Experience

The Kruskal-Wallis test was conducted to analyze whether attitudes toward risky play total scores differ in relation to teaching experience. A Kruskal-Wallis test revealed no significant difference in attitudes toward risky play total scores of teachers across four different teaching experience groups (Gp1, *n* = 136: 1-5 years, Gp2, *n* = 95: 6-10 years, Gp3, *n* = 127: 11-15 years, Gp4, *n*=126: 16 or more years), $\chi 2$ (3, *n* = 484) = 2.791, *p* = .425 (see Table 14).

**Table 14**

*Kruskal-Wallis Test for Attitudes Toward Risky Play Total Scores and Teaching Experience*

| Teaching experience | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 1-5 years | 136 | 253.49 | | | |
| 6-10 years | 95 | 252.66 | 3 | 2.791 | .425 |
| 11-15 years | 127 | 236.93 | | | |
| 16 or more years | 126 | 228.59 | | | |

*N*=484

### 4.1.1.5. Attitudes Toward Risky Play and Children's Age Groups

The Kruskal-Wallis test was conducted to analyze whether attitudes toward risky play total scores differ in relation to children's age groups. A Kruskal-Wallis test revealed no significant difference in attitudes toward risky play total scores of teachers across three different age groups of children in the classroom (Gp1, $n$ = 81: 36-48 month, Gp2, $n$ = 190: 48-60 month, Gp3, $n$ = 213: 60-72 month), $\chi 2$ (2, $n$ = 484) = 3.289, $p$ = .193 (see Table 15).

**Table 15**

*Kruskal-Wallis Test for Attitudes Toward Risky Play Total Scores and Children's Age Groups*

| Children's age groups | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 36-48 month | 81 | 268.06 | | | |
| 48-60 month | 190 | 235.94 | 2 | 3.289 | .193 |
| 60-72 month | 213 | 238.63 | | | |

*N*=484

### 4.1.1.6. Attitudes Toward Risky Play and Daily Outdoor Play Time

The Kruskal-Wallis Test was conducted to analyze whether attitudes toward risky play total scores differ in relation to daily outdoor play times. A Kruskal-Wallis Test revealed a statistically significant difference in attitudes toward risky play total scores of teachers across five different daily outdoor play time (Gp1, $n$ = 97: 0-15 minutes, Gp2, $n$ = 179: 15-30 minutes, Gp3, $n$ = 140: 30-45 minutes, Gp4, $n$=45-60 minutes, Gp5, $n$ = 24: 60 minutes or more), $\chi 2$ (4, $n$ = 484) = 10.714, $p$ = .03. Pairwise comparisons with adjusted $p$-values showed that there were no significant differences between attitudes toward risky play total scores of teachers who spend 0-15 minutes outdoors compared to those spending 15-30 minutes ($p$=1.000, $r$=.052), those spending 30-45 minutes ($p$=.294, $r$=.099), those spending 45-60 minutes ($p$=.133,

*r*=.111), or those spending 60 or more minutes (*p*=.224, *r*=.103). There were also no significant differences in attitudes toward risky play total scores of teachers who spend 15-30 minutes outdoors compared to those spending 30-45 minutes (*p*=1.000, *r*=.057), those spending 45-60 minutes (*p*=.697, *r*=.082), or those spending 60 or more minutes (*p*=.839, *r*=.078). There were also no significant differences in attitudes toward risky play total scores between those spending 30-45 minutes and those spending 45-60 minutes (*p*=1.000, *r*=.042), and 60 or minutes (*p*=1.000, *r*=.047). Finally, there were no significant differences in attitudes toward risky play total scores between those spending 45-60 minutes and those spending 60 or more minutes (*p*=1.000, *r*=.012) (see Table 16).

**Table 16**

*Kruskal-Wallis Test for Attitudes Toward Risky Play Total Scores and Outdoor Play Times*

| Outdoor play time | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 0-15 min | 97 | 214.05 | | | |
| 15-30 min | 179 | 234.30 | | | |
| 30-45 min | 140 | 254.27 | 4 | 10.714 | .030* |
| 45-60 min | 44 | 276.97 | | | |
| 60min or more | 24 | 286.83 | | | |

*N*=484, *$p<.05$

### 4.1.2. Beliefs about the Necessity Scores

Descriptive statistics for the beliefs about the necessity of risky play scores of early childhood teachers in relation to the various factors are given in Table 17. Beliefs about the necessity of risky play mean scores of teachers working in private preschools (*M*=60.58) are higher than the beliefs about the necessity mean scores of teachers working in public preschools (*M*=58.15). The beliefs about the necessity mean scores of teachers with 1-5 years of experience (*M*=59.50) are higher than beliefs about the necessity mean scores of teachers with 6-10 years of experience (*M*=59.26), beliefs about the necessity mean scores of teachers with 11-15 years of experience (*M*=59.28) and the mean of beliefs about the necessity of teachers with 16 or more years of experience (*M*=58.72). The beliefs about the necessity mean scores of teachers who are working with 15-30 children (*M*=59.31) are higher than teachers who are working with 0-15 children (*M*=58.81). Beliefs about the necessity mean scores of 36-48 months old age group (*M*=59.59) are higher than the mean scores of 48-60 months old

children (*M*=58.52) and 60-72 months old age groups (*M*=58.19). Regarding the presence of a teacher's aide in the classroom, beliefs about the necessity mean score of teachers with an aide (*M*=60.29) is higher than the mean scores of teachers without an aide (*M*=58.46). Finally, beliefs about the necessity mean scores of a daily 60 or more minutes of outdoor play (*M*=61.29) is higher than the mean scores for daily 45-60 minutes (*M*=60.84), 30-45 minutes (*M*=59.36), 15-30 minutes (*M*=58.88), and 0-15 minutes of outdoor play (*M*=57.84) (see Table 17)

**Table 17**

*Belief about the Necessity Scores and Various Factors*

| **Various Factors** | ***n*** | ***%*** | ***M*** | ***SD*** |
|---|---|---|---|---|
| Preschool Type | | | | |
| Private | 191 | 39.5 | 60.58 | 8.507 |
| Public | 293 | 60.5 | 58.15 | 9.512 |
| Teaching experience | | | | |
| 1-5 years | 136 | 28.1 | 59.50 | 8.557 |
| 6-10 years | 95 | 19.6 | 59.26 | 9.665 |
| 11-15 years | 127 | 26.2 | 59.28 | 9.282 |
| 16+ years | 126 | 26.0 | 58.72 | 9.483 |
| Number of children | | | | |
| 0-15 children | 195 | 40.3 | 58.81 | 9.772 |
| 15-30 children | 289 | 59.7 | 59.31 | 8.799 |
| Children's age groups | | | | |
| 36-48 month | 81 | 16.7 | 59.59 | 8.790 |
| 48-60 month | 190 | 39.3 | 58.52 | 9.243 |
| 60-72 month | 213 | 44.0 | 58.19 | 9.320 |
| Presence of teacher's aide | | | | |
| No | 314 | 64.9 | 58.46 | 9.345 |
| Yes | 170 | 35.1 | 60.29 | 8.820 |
| Outdoor play times | | | | |
| 0-15 min. | 97 | 20.0 | 57.84 | 9.030 |
| 15-30 min. | 179 | 37.0 | 58.88 | 9.688 |
| 30-45 min. | 140 | 28.9 | 59.36 | 8.518 |
| 45-60 min. | 44 | 9.10 | 60.84 | 8.455 |
| 60 min. or more | 24 | 5.00 | 61.29 | 10.909 |

### 4.1.2.1. Belief about the Necessity and Preschool Type

The Mann-Whitney *U* test was conducted to analyze whether beliefs about the necessity scores differ in relation to the type of preschool teachers' work. A Mann-Whitney *U* test revealed a statistically significant difference between the beliefs about the necessity scores of private preschool teachers (*Md* = 63, *n* =191), and public preschool teachers (*Md* = 60, *n* = 293) and *U* = 23928, *z* =-2,698, *p* =.007, with a small effect size (*r* =0.12). The findings confirm that private preschool teachers (mean rank= 263.72) had a significantly higher belief about the necessity scores than public preschool teachers (mean rank = 228.67) (see Table 18).

**Table 18**

*Mann-Whitney U Test for Belief about the Necessity Scores and Preschool Type*

| Preschool type | *N* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| Private | 191 | 263.72 | 50371.00 | 23928.000 | -2.698 | .007* |
| Public | 293 | 228.67 | 66999.00 | | | |

*N*= 484, **p*<.05

### 4.1.2.2. Belief about the Necessity and Number of Children

The Mann-Whitney *U* test was conducted to analyze whether beliefs about the necessity scores differ in relation to the number of children in the classroom. A Mann-Whitney *U* Test revealed no significant difference between the beliefs about the necessity scores of early childhood teachers who are working with 0-15 children in the classroom (*Md*=61*, n* =195) and working with 15-30 children in the classroom (*Md = 61*, *n* =289), *U* = 27841.500, *z* = -.223, *p* = .824, *r* = .01 (see Table 19).

**Table 19**

*Mann-Whitney U Test for Beliefs about the Necessity Scores and The Number of Children*

| Number of children | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| 0-15 children | 195 | 240.78 | 46951.50 | 27841.500 | -.223 | .824 |
| 15-30 children | 289 | 243.66 | 70418.50 | | | |

*N*= 484

### 4.1.2.3. Belief about the Necessity and the Presence of Teacher's Aide

The Mann-Whitney U test was conducted to analyze whether the beliefs about the necessity scores differ in relation to the presence of the teacher's aide. A Mann-Whitney *U* test revealed a statistically significant difference between the beliefs about the necessity scores of early childhood teachers who are working without an aide (*Md* = 60, *n* = 314) and with an aide (*Md* = 62, *n* = 170), *U* = 23337.000, *z* = -2.285, *p* = .022, with a small effect size (*r* = 0.1). The findings confirm that teachers who are working with an aide (mean rank= 262.22) had significantly higher beliefs about the necessity scores than teachers who are working without an aide (mean rank = 231.82) (see Table 20).

**Table 20**

*Mann-Whitney U Test for Beliefs about the Necessity Scores and The Presence of Teacher's Aide*

| Presence of teacher's aide | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| No | 314 | 231.82 | 72792.00 | 23337.000 | -2.285 | .022* |
| Yes | 170 | 262.22 | 44578.00 | | | |

*N*= 484, **p*<.05

### 4.1.2.4. Belief about the Necessity and Teaching Experience

The Kruskal-Wallis test was conducted to analyze whether the beliefs about the necessity scores differ in relation to teaching experience. A Kruskal-Wallis test revealed no significant difference in beliefs about the necessity scores across four different teaching experience groups (Gp1, $n = 136$: 1-5 years, Gp2, $n = 95$: 6-10 years, Gp3, $n = 127$: 11-15 years, Gp4, $n=126$: 16 or more years), $\chi 2$ (3, $n = 484$) = 1.082, $p = .781$ (see Table 21).

**Table 21**

*Kruskal-Wallis Test for Beliefs about the Necessity Scores and Teaching Experience*

| Teaching experience | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 1-5 years | 136 | 244.94 | | | |
| 6-10 years | 95 | 248.06 | 1.156 | 1.082 | .781 |
| 11-15 years | 127 | 246.63 | | | |
| 16 or more years | 126 | 231.51 | | | |

*N=484*

### 4.1.2.5. Belief about the Necessity and Children's Age Groups

The Kruskal-Wallis test was conducted to analyze whether the beliefs about the necessity scores differ in relation to children's age groups. A Kruskal-Wallis test revealed no significant difference in beliefs about the necessity scores across three different age groups of children (Gp1, $n = 81$: 36-48 month, Gp2, $n = 190$: 48-60 month, Gp3, $n = 213$: 60-72 month), $\chi 2$ (2, $n = 484$) =1.772, $p = .412$ (see Table 22).

**Table 22**

*Kruskal-Wallis Test for Beliefs about the Necessity Scores and Children's Age Groups*

| Children's age groups | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 36-48 month | 81 | 247.59 | | | |
| 48-60 month | 190 | 232.03 | 2 | 1.772 | .412 |
| 60-72 month | 213 | 249.90 | | | |

*N*=484

#### 4.1.2.6. Belief about the Necessity and Daily Outdoor Play Time

The Kruskal-Wallis test was conducted to analyze whether beliefs about the necessity scores differ in relation to daily outdoor play times. A Kruskal-Wallis test revealed no statistically significant difference in beliefs about the necessity scores across five different outdoor play time (Gp1, $n$ = 97: 0-15 minutes, Gp2, $n$ = 179: 15-30 minutes, Gp3, $n$ = 140: 30-45 minutes, Gp4, $n$=45-60 minutes, Gp5, $n$ = 24: 60 minutes or more), $\chi 2$ (4, $n$ = 484) =8.324, $p$ =.080 (see Table 23).

**Table 23**

*Kruskal-Wallis Test for Beliefs about the Necessity Scores and Outdoor Play Times*

| Outdoor play time | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 0-15 min. | 97 | 219.10 | | | |
| 15-30 min. | 179 | 241.66 | | | |
| 30-45 min. | 140 | 241.71 | 4 | 8.324 | .080 |
| 45-60 min. | 44 | 268.76 | | | |
| 60min or more | 24 | 299.79 | | | |

*N=484*

### 4.1.3. Tolerance Toward Risky Behaviors Scores

Descriptive statistics for the tolerance toward risky behaviors scores of early childhood teachers in relation to the various factors are given in Table 24. Tolerance toward risky behaviors mean scores of teachers working in private preschools ($M$=14.49) are higher than the tolerance toward risky behaviors mean scores of teachers working in public preschools ($M$=12.69). Tolerance toward risky behaviors mean scores of teachers with 16 or more years of experience ($M$=13.52) are higher than tolerance toward risky behaviors mean scores of teachers with 11-15 years of experience ($M$=13.39), tolerance toward risky behaviors mean scores of teachers with 6-10 years of experience ($M$=13.32) and the mean of tolerance toward risky behaviors of teachers with 1-5 years of experience ($M$=13.35). The tolerance toward risky behaviors mean scores of teachers who are working with 15-30 children ($M$=13.49) are higher than teachers who are working with 0-15 children ($M$=13.26). Tolerance toward risky behaviors mean scores of 36-48 months old age group ($M$=14.22) are higher than the mean scores of 48-60 months old children ($M$=13.29) and 60-72 months old age groups ($M$=13.18). Regarding the presence of a teacher's aide in the classroom, tolerance toward risky behaviors mean score of teachers with an aide ($M$=14.23) is higher than the mean scores of teachers without an aide ($M$=12.95).

Finally, tolerance toward risky behaviors mean scores of a daily 60 or more minutes of outdoor play (*M*=16.17) is higher than the mean scores for daily 45-60 minutes (*M*=14.57), 30-45 minutes (*M*=13.84), 15-30 minutes (*M*=13.07), and 0-15 minutes of outdoor play (*M*=12.15) (see Table 24).

**Table 24**

*Tolerance toward Risky Behaviors and Various Factors*

| Various Factors | *n* | % | *M* | *SD* |
|---|---|---|---|---|
| Preschool type | | | | |
| Private | 191 | 39.5 | 14.49 | 4.289 |
| Public | 293 | 60.5 | 12.69 | 4.876 |
| Teaching experience | | | | |
| 1-5 years | 136 | 28.1 | 13.35 | 4.857 |
| 6-10 years | 95 | 19.6 | 13.32 | 4.226 |
| 11-15 years | 127 | 26.2 | 13.39 | 4.989 |
| 16+ years | 126 | 26.0 | 13.52 | 4.741 |
| Number of children | | | | |
| 0-15 children | 195 | 40.3 | 13.26 | 4.629 |
| 15-30 children | 289 | 59.7 | 13.49 | 4.805 |
| Children's age groups | | | | |
| 36-48 month | 81 | 16.7 | 14.22 | 4.871 |
| 48-60 month | 190 | 39.3 | 13.29 | 4.675 |
| 60-72 month | 213 | 44.0 | 13.18 | 4.716 |
| Presence of teacher's aide | | | | |
| No | 314 | 64.9 | 12.95 | 4.766 |
| Yes | 170 | 35.1 | 14.23 | 4.564 |
| Outdoor play times | | | | |
| 0-15 min. | 97 | 20.0 | 12.15 | 4.691 |
| 15-30 min. | 179 | 37.0 | 13.07 | 4.886 |
| 30-45 min. | 140 | 28.9 | 13.84 | 4.422 |
| 45-60 min. | 44 | 9.10 | 14.57 | 4.839 |
| 60 min. or more | 24 | 5.00 | 16.17 | 3.510 |

### 4.1.3.1. Tolerance Toward Risky Behaviors and Preschool Type

The Mann-Whitney U test was conducted to analyze whether tolerance toward risky behaviors scores differ in relation to the preschool type where teachers are working. A Mann-Whitney *U* test revealed a statistically significant difference between the tolerance toward risky play scores of private preschool teachers (*Md*=16, n =191) and public preschool teachers (*Md* =13, *n* =293), *U* = 21986.000, *z* =-3.999, *p* =.000, with a small effect size (*r* = 0.1). The findings confirm that teachers who are working at private preschools (mean rank= 273.89) had significantly higher tolerance toward risky play scores than teachers who are working at public preschools (mean rank = 222.04) (see Table 25).

**Table 25**

*Mann-Whitney U Test for Tolerance Toward Risky Behaviors Scores and Preschool Type*

| Preschool type | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| Private | 191 | 273.89 | 52313.00 | 21986.000 | -3.999 | .000* |
| Public | 293 | 222.04 | 65057.00 | | | |

*N*= 484, **p*<.05

### 4.1.3.2. Tolerance Toward Risky Behaviors and Number of Children

The Mann-Whitney U test was conducted to analyze whether tolerance toward risky behaviors scores differ in relation to the number of children in the classroom. A Mann-Whitney *U* test revealed no significant difference between the tolerance toward risky behaviors scores of teachers who are working with 0-15 children (*Md*=14, *n* = 195) and 15-30 children in their classrooms (*Md* = 15, *n* =289), *U*= 27076.000, *z* = -.732, *p* = .464, *r*=.03 (see Table 26).

**Table 26**

*Mann-Whitney U Test for Tolerance Toward Risky Behaviors Scores and The Number of Children*

| Number of children | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| 0-15 children | 195 | 236.85 | 46186.00 | 27076.000 | -.732 | .464 |
| 15-30 children | 289 | 246.31 | 71184.00 | | | |

*N*= 484

### 4.1.3.3. Tolerance Toward Risky Behaviors and The Presence of Teacher's Aide

The Mann-Whitney U test was conducted to analyze whether tolerance toward risky behaviors scores differ in relation to presence of a teacher's aide. A Mann-Whitney *U* test revealed a statistically significant difference between the tolerance toward risky behaviors of teachers without aide teacher (*Md* = 14, *n* = 314) and with aide teacher (*Md* =15, *n* = 170), *U* = 22479.500, *z* = -2.876, *p* = .004, with a small effect size (*r* = 0.13). The findings confirm that teachers who are working with an aide (mean rank= 267.27) had significantly higher tolerance toward risky behaviors scores than teachers who are working without an aide (mean rank = 229.09) (see Table 27).

**Table 27**

*Mann-Whitney U Test for Tolerance Toward Risky Behaviors Scores and The Presence of Teacher's Aide*

| Presence of teacher's aide | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| No | 314 | 229.09 | 71934.50 | 22479.500 | -2.876 | .004* |
| Yes | 170 | 267.27 | 45435.50 | | | |

*N*= 484, *$p$<.05

### 4.1.3.4. Tolerance Toward Risky Behaviors and Teaching Experience

The Kruskal-Wallis test was conducted to analyze whether tolerance towards risky behaviors scores differ in relation to teaching experience. A Kruskal-Wallis test revealed no significant difference in tolerance towards risky behaviors scores across four different teaching experience groups (Gp1, $n$ = 136: 1-5 years, Gp2, $n$ = 95: 6-10 years, Gp3, $n$ = 127: 11-15 years, Gp4, $n$=126: 16 or more years), $\chi 2$ (3, $n$ = 484) = .422, $p$ = .936 (see Table 28).

**Table 28**

*Kruskal-Wallis Test for Tolerance Toward Risky Behaviors Scores and Teaching Experience*

| Years of experience | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 1-5 years | 136 | 242.18 | | | |
| 6-10 years | 95 | 234.85 | 3 | .422 | .936 |
| 11-15 years | 127 | 244.46 | | | |
| 16 or more years | 126 | 246.63 | | | |

*N*=484

### 4.1.3.5. Tolerance Toward Risky Behaviors and Children's Age Groups

The Kruskal-Wallis test was conducted to analyze whether tolerance towards risky behaviors scores differ in relation to children's age groups. A Kruskal-Wallis test revealed no significant difference in tolerance toward risky behaviors scores across three different age groups of children (Gp1, $n$ = 81: 36-48 month, Gp2, $n$ = 190: 48-60 month, Gp3, $n$ = 213: 60-72 month), $\chi 2$ (2, $n$ = 484) = 3.693, $p$ = .158 (see Table 29).

**Table 29**

*Kruskal-Wallis Test for Tolerance Toward Risky Behaviors Scores and Children's Age Groups*

| Children's age groups | *n* | Mean rank | *df* | $X^2$ | *P* |
|---|---|---|---|---|---|
| 36-48 month | 81 | 269.49 | | | |
| 48-60 month | 190 | 238.67 | 2 | 3.693 | .158 |
| 60-72 month | 213 | 235.65 | | | |

*N*=484

### 4.1.3.6. Tolerance Toward Risky Behaviors and Outdoor Play Time

The Kruskal-Wallis test was conducted to analyze whether tolerance towards risky behaviors scores differ in relation to outdoor play times. A Kruskal-Wallis test revealed a statistically significant difference in tolerance towards risky behaviors scores across five different outdoor play time (Gp1, $n$ = 97: 0-15 minutes, Gp2, $n$ = 179: 15-30 minutes, Gp3, $n$ = 140: 30-45 minutes, Gp4, $n$=45-60 minutes, Gp5, $n$ = 24: 60 minutes or more), $\chi 2$ (4, $n$ = 484) = 20.929, $p$ = .000. Mann-Whitney $U$ tests between pairs of groups were conducted as a follow-up analysis using a Bonferroni correction. A Mann-Whitney U test revealed a statistically significant difference between the tolerance toward risky behaviors scores of teachers who spend 0-15 minutes and 45-60 minutes outdoors ($z$ =-2.96, $p$ = .003), with a small effect size ($r$ = 0.13). The findings confirm that teachers who spend 45-60 minutes (mean rank= 86.07) had significantly higher tolerance toward risky behaviors scores than teachers who spend 0-15 minutes (mean rank = 64.16). A Mann-Whitney $U$ test revealed a statistically significant difference between the tolerance toward risky behaviors scores of teachers who spend 0-15 minutes and 60 minutes or more outdoors ($z$ =-3.797, $p$ = .000), with a small effect size ($r$ = .17). The findings confirm that teachers who spend 60 minutes or more (mean rank= 85.25) had significantly higher tolerance toward risky behaviors scores than teachers who spend 0-15 minutes (mean rank = 55.00). A Mann-Whitney $U$ test revealed a statistically significant difference between the tolerance toward risky behaviors scores of teachers who spend 15-30 minutes and 60 minutes or more outdoors ($z$ =-3.037, $p$ = .002), with a small effect size ($r$ = .13). The findings confirm that teachers who spend 60 minutes or more (mean rank= 136.08) had significantly higher tolerance toward risky behaviors scores than teachers who spend

15-30 minutes (mean rank = 97.43) (see Table 30).

**Table 30**

*Kruskal-Wallis Test for Tolerance Toward Risky Behaviors Scores and Outdoor Play Times*

| Outdoor play time | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 0-15 min. | 97 | 204.11 | | | |
| 15-30 min. | 179 | 233.93 | | | |
| 30-45 min. | 140 | 253.71 | 4 | 20.929 | .000* |
| 45-60 min. | 44 | 280.41 | | | |
| 60min or more | 24 | 326.63 | | | |

*N*=484, **p*<.05

### 4.1.4. Sense of Anxiety Scores

Descriptive statistics for the sense of anxiety toward risky play scores of early childhood teachers in relation to the various factors are given in Table 31. the sense of anxiety mean scores of teachers working in public preschools (*M*=14.71) are higher than the sense of anxiety mean scores of teachers working in private preschools (*M*=14.21). The sense of anxiety mean scores of teachers with 6-10 years of experience (*M*=14.68) are higher than the sense of anxiety mean scores of teachers with 11-15 years of experience (*M*=14.46), the sense of anxiety mean scores of teachers with 1-5 years of experience (*M*=14.41) and the mean of the sense of anxiety of teachers with 16 or more years of experience (*M*=14.56). The sense of anxiety mean scores of teachers who are working with 15-30 children (*M*=14.59) are higher than teachers who are working with 0-15 children (*M*=14.41). The sense of anxiety mean scores of 48-60 months old age group (*M*=14.63) are higher than the mean scores of 60-72 months old children (*M*=14.53) and 36-48 months old age groups (*M*=14.22). Regarding the presence of a teacher's aide in the classroom, the sense of anxiety mean score of teachers without an aide (*M*=14.82) is higher than the mean scores of teachers with an aide (*M*=13.95). Finally, the sense of anxiety mean scores of a daily 0-15 minutes of outdoor play (*M*=15.27) is higher than the mean scores for daily 15-30 minutes (*M*=14.74), 30-45 minutes (*M*=14.52), 45-60 minutes (*M*=13.36), and 60 or more minutes of outdoor play (*M*=11.96) (see Table 31).

**Table 31**

*Sense of Anxiety Scores and Various Factors*

| Various Factors | *n* | *%* | *M* | *SD* |
|---|---|---|---|---|
| Preschool Type | | | | |
| Private | 191 | 39.5 | 14.21 | 3.861 |
| Public | 293 | 60.5 | 14.71 | 3.889 |
| Teaching experience | | | | |
| 1-5 years | 136 | 28.1 | 14.41 | 4.006 |
| 6-10 years | 95 | 19.6 | 14.68 | 3.757 |
| 11-15 years | 127 | 26.2 | 14.46 | 3.988 |
| 16+ years | 126 | 26.0 | 14.56 | 3.768 |
| Number of children | | | | |
| 0-15 children | 195 | 40.3 | 14.41 | 3.835 |
| 15-30 children | 289 | 59.7 | 14.59 | 3.918 |
| Children's age groups | | | | |
| 36-48 month | 81 | 16.7 | 14.22 | 3.994 |
| 48-60 month | 190 | 39.3 | 14.63 | 3.974 |
| 60-72 month | 213 | 44.0 | 14.53 | 3.766 |
| Presence of teacher's aide | | | | |
| No | 314 | 64.9 | 14.82 | 3.811 |
| Yes | 170 | 35.1 | 13.95 | 3.957 |
| Outdoor play times | | | | |
| 0-15 min. | 97 | 20.0 | 15.27 | 4.175 |
| 15-30 min. | 179 | 37.0 | 14.73 | 3.706 |
| 30-45 min. | 140 | 28.9 | 14.52 | 3.700 |
| 45-60 min. | 44 | 9.10 | 13.36 | 3.551 |
| 60 min. or more | 24 | 5.00 | 11.96 | 4.349 |

### 4.1.4.1. Sense of Anxiety and Preschool Type

The Mann-Whitney U test was conducted to analyze whether a sense of anxiety scores differ in relation to the preschool type where teachers work. A Mann-Whitney *U* test revealed no significant difference between the sense of anxiety scores of private preschool teachers (*Md*=14, *n* = 191) and public preschool teachers (*Md* =16, *n* = 293), *U* = 25788.500, *z* = -1.463, *p* = .143, *r* = .06 (see Table 32).

**Table 32**

*Mann-Whitney U Test for Sense of Anxiety Scores and Preschool Type*

| Preschool type | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| Private | 191 | 231.02 | 44124.50 | 25788.500 | -1.463 | .143 |
| Public | 293 | 249.98 | 73245.50 | | | |

*N*= 484

### 4.1.4.2. Sense of Anxiety and The Number of Children

The Mann-Whitney U Test was conducted to analyze whether the sense of anxiety scores differ in relation to the number of children in the classroom. A Mann-

Whitney *U* Test revealed no significant difference between the sense of anxiety of teachers who are working with 0-15 children (*Md*= 15, *n* =195) and 15-30 children in their classrooms (*Md* = 15, *n* =289), *U* = 27269.000, *z* = -.604, *p* = .546, *r* = .02 (see Table 33).

**Table 33**

*Mann-Whitney U Test for Sense of Anxiety Scores and The Number of Children*

| Number of children | *n* | Mean Rank | Sum of Ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| 0-15 children | 195 | 237.84 | 46379.00 | 27269.000 | -.604 | .546 |
| 15-30 children | 289 | 245.64 | 70991.00 | | | |

*N*= 484

### 4.1.4.3. Sense of Anxiety and The Presence of Teacher's Aide

The Mann-Whitney *U* test was conducted to analyze whether the sense of anxiety scores differ in relation to the presence of a teacher's aide. A Mann-Whitney *U* test revealed a statistically significant difference between a sense of anxiety scores of teachers who are working without an aide teacher (*Md*=15, *n* = 314) and with an aide teacher (*Md* =14, *n* = 170), *U* = 23309, *z* = -2,310, *p* = .021, with a small effect size (*r* =.1). The findings confirm that teachers who are working without an aide (mean rank= 253.27) had a significantly higher sense of anxiety scores than teachers who are working with an aide (mean rank =222.61) (see Table 34).

**Table 34**

*Mann-Whitney U Test for Sense of Anxiety Scores and the Presence of Teacher's Aide*

| Presence of Teacher's Aide | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| No | 314 | 253.27 | 79526.00 | 23309.000 | -2.310 | .021* |
| Yes | 170 | 222.61 | 37844.00 | | | |

N= 484, *$p$<.05

### 4.1.4.4. Sense of Anxiety and Teaching Experience

The Kruskal-Wallis test was conducted to analyze whether the sense of anxiety scores differ in relation to teaching experience. A Kruskal-Wallis test revealed no significant difference in sense of anxiety scores across four different teaching experience groups (Gp1, *n* = 136: 1-5 years, Gp2, *n* = 95: 6-10 years, Gp3, *n* = 127:

11-15 years, Gp4, *n*=126: 16 or more years), χ2 (3, *n* = 484) = .131, *p* = .988 (see Table 35).

**Table 35**

*Kruskal-Wallis Test for Sense of Anxiety Scores and Teaching Experience*

| Years of experience | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 1-5 years | 136 | 239.81 | | | |
| 6-10 years | 95 | 246.47 | 3 | .131 | .988 |
| 11-15 years | 127 | 241.98 | | | |
| 16 or more years | 126 | 242.93 | | | |

*N*=484

### 4.1.4.5. Sense of Anxiety and Children's Age Groups

The Kruskal-Wallis test was conducted to analyze whether a sense of anxiety differs in relation to children's age groups. A Kruskal-Wallis test revealed no significant difference in sense of anxiety scores across three different age groups of children (Gp1, *n* = 81: 36-48 month, Gp2, *n* = 190: 48-60 month, Gp3, *n* = 213: 60-72 month), χ2 (2, *n* = 484) = .730, *p* = .694 (see Table 36).

**Table 36**

*Kruskal-Wallis Test for Sense of Anxiety and Children's Age Groups*

| Children's age groups | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 36-48 month | 81 | 232.69 | | | |
| 48-60 month | 190 | 248.13 | 2 | .730 | .694 |
| 60-72 month | 213 | 241.21 | | | |

*N*=484

### 4.1.4.6. Sense of Anxiety and Daily Outdoor Play Time

The Kruskal-Wallis test was conducted to analyze whether the sense of anxiety scores differ in relation to daily outdoor play times (see Table 37). A Kruskal-Wallis test revealed a statistically significant difference in sense of anxiety scores across five different outdoor play time (Gp1, *n* = 97: 0-15 minutes, Gp2, *n* = 179: 15-30 minutes, Gp3, *n* = 140: 30-45 minutes, Gp4, *n*=45-60 minutes, Gp5, *n* = 24: 60 minutes or more), χ2 (4, *n* = 484) = 20.250, *p* = .000. Mann-Whitney *U* tests between pairs of groups were conducted as a follow-up analysis using a Bonferroni correction. A Mann-Whitney *U* test revealed a statistically significant difference between the sense of anxiety scores of teachers who spend 0-15 minutes and 45-60 minutes outdoors (*z* =-

3.091, $p$ = .002), with a small effect size ($r$ = .14). The findings confirm that teachers who spend 0-15 minutes (mean rank= 78.13) had a significantly higher sense of anxiety scores than teachers who spend 45-60 minutes (mean rank = 55.27). A Mann-Whitney U test revealed a statistically significant difference between the sense of anxiety scores of teachers who spend 0-15 minutes and 60 minutes or more outdoors ($z$ =-3.474, $p$ = .001), with a small effect size ($r$ = .15). The findings confirm that teachers who spend 0-15 minutes outdoors (mean rank= 66.49) had a significantly higher sense of anxiety scores than teachers who spend 60 or more minutes (mean rank = 38.81). A Mann-Whitney $U$ test revealed a statistically significant difference between the sense of anxiety scores of teachers who spend 15-30 minutes and 60 minutes or more outdoors ($z$ =-3.086, $p$ = .002), with a small effect size ($r$ = .14). The findings confirm that teachers who spend 15-30 minutes (mean rank= 106.64) had a significantly higher sense of anxiety scores than teachers who spend 60 or more minutes (mean rank = 67.38).

**Table 37**

*Kruskal-Wallis Test for Sense of Anxiety Scores and Outdoor Play Times*

| Outdoor play time | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 0-15 min. | 97 | 276.22 | | | |
| 15-30 min. | 179 | 249.12 | | | |
| 30-45 min. | 140 | 240.30 | 4 | 20.250 | .000* |
| 45-60 min. | 44 | 194.58 | | | |
| 60min or more | 24 | 157.50 | | | |

*N*=484, **p*<.05

### 4.1.5. Differentiation of Risky Behaviors Scores

Descriptive statistics for differentiation of risky behaviors scores of early childhood teachers in relation to the various factors are given in Table 38. Differentiation of risky behaviors mean scores of teachers working in private preschools (*M*=12.90) are higher than the differentiation of risky behaviors mean scores of teachers working in public preschools (*M*=11.77). Differentiation of risky behaviors mean scores of teachers with 1-5 years of experience (*M*=12.93) are higher than the sense of anxiety mean scores of teachers with 6-10 years of experience (*M*=12.63), differentiation of risky behaviors mean scores of teachers with 11-15 years of experience (*M*=11.62) and the mean of teacher's differentiation of risky behaviors with 16 or more years of experience (*M*=11.71). differentiation of risky behaviors

mean scores of teachers who are working with 0-15 children (*M*=12.52) are higher than teachers who are working with 15-30 children (*M*=12.01). The differentiation of risky behaviors mean scores of 36-48 months old age group (*M*=13.25) are higher than the mean scores of 48-60 months old children (*M*=12.24) and 60-72 months old age groups (*M*=11.80). Regarding the presence of a teacher's aide in the classroom, t differentiation of risky behaviors mean score of teachers with an aide (*M*=12.68) is higher than the mean scores of teachers without an aide (*M*=11.96). Finally, differentiation of risky behaviors mean scores of a daily 45-60 minutes of outdoor play (*M*=13.18) is higher than the mean scores for daily 60 or more minutes (*M*=13.04), 30-45 minutes (*M*=12.57), 0-15 minutes (*M*=11.96), and 15-30 minutes of outdoor play (*M*=11.72) (see Table 38).

**Table 38**

*Differentiation of Risky Behaviors Scores and Various Factors*

| **Various Factors** | ***n*** | ***%*** | ***M*** | ***SD*** |
|---|---|---|---|---|
| Preschool Type | | | | |
| Private | 191 | 39.5 | 12.90 | 2.599 |
| Public | 293 | 60.5 | 11.77 | 3.187 |
| Teaching experience | | | | |
| 1-5 years | 136 | 28.1 | 12.93 | 2.673 |
| 6-10 years | 95 | 19.6 | 12.63 | 2.859 |
| 11-15 years | 127 | 26.2 | 11.62 | 3.057 |
| 16+ years | 126 | 26.0 | 11.71 | 3.254 |
| Number of children | | | | |
| 0-15 children | 195 | 40.3 | 12.52 | 2.865 |
| 15-30 children | 289 | 59.7 | 12.01 | 3.104 |
| Children's age groups | | | | |
| 36-48 month | 81 | 16.7 | 13.25 | 2.171 |
| 48-60 month | 190 | 39.3 | 12.24 | 2.984 |
| 60-72 month | 213 | 44.0 | 11.80 | 3.232 |
| Presence of teacher aide | | | | |
| No | 314 | 64.9 | 11.96 | 3.220 |
| Yes | 170 | 35.1 | 12.68 | 2545 |
| Outdoor play times | | | | |
| 0-15 min. | 97 | 20.0 | 11.96 | 2.919 |
| 15-30 min. | 179 | 37.0 | 11.72 | 3.155 |
| 30-45 min. | 140 | 28.9 | 12.57 | 2.899 |
| 45-60 min. | 44 | 9.10 | 13.18 | 2.722 |
| 60 min. or more | 24 | 5.00 | 13.04 | 2.911 |

*N*=484

### 4.1.5.1. Differentiation of Risky Behaviors and Preschool Type

The Mann-Whitney *U* test was conducted to analyze whether differentiation of risky behaviors scores differ in relation to the preschool type they work. A Mann-Whitney U test revealed a statistically significant difference between the

differentiation of risky behaviors scores of private preschool teachers (*Md*= 14, *n* = 191) and public preschools (*Md* = 13, *n* = 293), *U* = 21872, *z* = -4.145, *p* = .000, with a small effect size (*r* = .1). The findings confirm that private preschool teachers (mean rank=274.49) had significantly higher differentiation of risky behaviors scores than public preschool teachers (mean rank = 221.65) (see Table 39).

**Table 39**

*Mann-Whitney U Test for Differentiation of Risky Behaviors Scores and Preschool Type*

| Preschool type | *n* | Mean rank | Sum of ranks | *U* | *p* | *p* |
|---|---|---|---|---|---|---|
| Private | 191 | 274.49 | 52427.00 | 21872.000 | -4.145 | .000* |
| Public | 293 | 221.65 | 64943.00 | | | |

*N*= 484, *$p<.05$

### 4.1.5.2. Differentiation of Risky Behaviors and The Number of Children

The Mann Whitney *U* test was conducted to analyze whether the differentiation of risky behaviors scores of teachers differ in relation to the number of children in the classroom. A Mann-Whitney *U* test revealed no significant difference between differentiation of risky behaviors of teachers who are working with 0-15 children (*Md*= 13 *n* =195) and 15-30 children in their classrooms (*Md* = 13, *n* = 289), *U* = 25429, *z* = -1,858, *p* = .063, *r* = .08 (see Table 40).

**Table 40**

*Mann-Whitney U Test for Differentiation of Risky Behaviors Scores and The Number of Children*

| Number of children | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| 0-15 children | 195 | 256.59 | 50036.00 | 25429 | -1.858 | .063 |
| 15-30 children | 289 | 232.99 | 67334.00 | | | |

*N*= 484

### 4.1.5.3. Differentiation of Risky Behaviors and the Presence of Teacher's Aide

The Mann-Whitney *U* test was conducted to analyze whether differentiation of risky behaviors scores differ in relation to the presence of a teacher's aide. A Mann-Whitney *U* test revealed a statistically significant difference between the differentiation of risky behaviors scores of teachers working without an aide teacher (*Md*= 13, *n* = 314) and with an aide teacher in their classrooms (*Md* =13, *n* = 170), *U* = 23795.500, *z* =2.011, *p* = .044, with a small effect size (*r* = .09). The findings

confirm that teachers who are working with an aide (mean rank= 259.53) had significantly higher differentiation of risky behaviors scores than teachers who are working without an aide (mean rank = 233.28) (see Table 41).

**Table 41**

*Mann-Whitney U Test for Differentiation of Risky Behaviors Scores and The Presence of Teacher's Aide*

| Presence of teacher's aide | *n* | Mean rank | Sum of ranks | *U* | *z* | *p* |
|---|---|---|---|---|---|---|
| No | 314 | 233.28 | 73250.50 | 23795.500 | -2.011 | .044* |
| Yes | 170 | 259.53 | 44119.50 | | | |

*N*= 484, *$p$<.05

### 4.1.5.4. Differentiation of Risky Behaviors and Teaching Experience

The Kruskal-Wallis test was conducted to analyze whether differentiation of risky behaviors scores differ in relation to teaching experience. A Kruskal-Wallis test revealed a statistically significant difference in differentiation of risky behaviors scores across four different teaching experience groups (Gp1, $n$ = 136: 1-5 years, Gp2, $n$ = 95: 6-10 years, Gp3, $n$ = 127: 11-15 years, Gp4, $n$=126: 16 or more years), $\chi 2$ (3, $n$ = 484) = 20.934, $p$ = .000. Mann-Whitney U tests between pairs of groups were conducted as a follow-up analysis using a Bonferroni correction. A Mann-Whitney U test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers with 6-10 years and 11-15 years of teaching experience ($z$ =-2.807, $p$ = .005), with a small effect size ($r$ = .12). The findings confirm that teachers with 6-10 years of teaching experience (mean rank= 125.23) had significantly higher differentiation of risky behaviors scores than teachers with 11-15 years of teaching experience (mean rank = 101.23). A Mann-Whitney U test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers with 1-5 years and 11-15 years of teaching experience ($z$ =-3.969, $p$ = .000), with a small effect size ($r$ = .18). The findings confirm that teachers with 1-5 years of teaching experience (mean rank= 149.61) had significantly higher differentiation of risky behaviors scores than teachers with 11-15 years of teaching experience (mean rank = 113.14). A Mann-Whitney U test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers with 1-5 years and 16 or more years of teaching experience ($z$ =-3.328, $p$ = .001), with a small effect size ($r$ = .15). The findings confirm that teachers with 1-5 years of teaching experience (mean

rank= 146.17) had significantly higher differentiation of risky behaviors scores than teachers with 16 or more years of teaching experience (mean rank = 115.67) (see Table 42).

**Table 42**

*Kruskal-Wallis Test for Differentiation of Risky Behaviors and Teaching Experience*

| Teaching experience | *n* | Mean rank | *df* | $X^2$ | *P* |
|---|---|---|---|---|---|
| 1-5 years | 136 | 277.37 | | | |
| 6-10 years | 95 | 263.51 | 3 | 20.934 | .000* |
| 11-15 years | 127 | 210.81 | | | |
| 16 or more years | 126 | 220.97 | | | |

*N*=484, *$p$<.05

### 4.1.5.5. Differentiation of Risky Behaviors and Children's Age Groups

The Kruskal-Wallis test was conducted to analyze whether differentiation of risky behaviors scores differ in relation to children's age groups. A Kruskal-Wallis test revealed a statistically significant difference in differentiation of risky behaviors scores across three different age groups of children (Gp1, $n$ = 81: 36-48 month, Gp2, $n$ = 190: 48-60 month, Gp3, $n$ = 213: 60-72 month), $\chi 2$ (2, $n$ = 484) = 13.583, $p$ = .001. Mann-Whitney U tests between pairs of groups were conducted as a follow-up analysis using a Bonferroni correction. A Mann-Whitney U test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers who are working with 36–48-month-old and 60–72-month-old children ($z$ =-3.679, $p$ = .000), with a small effect size ($r$ = .16). The findings confirm that teachers who are working with 36–48-month-old children (mean rank= 176.48) had significantly higher differentiation of risky behaviors scores than teachers who are working with 60–72-month-old children (mean rank = 136.48). A Mann-Whitney U test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers who are working with 36–48-month-old and 48-60-month-old children ($z$ =-2.555, $p$ = .011), with a small effect size ($r$ = .11). The findings confirm that teachers who are working with 36–48-month-old children (mean rank= 154.09) had significantly higher differentiation of risky behaviors scores than teachers who are working with 48–60-month-old children (mean rank = 128.29) (see Table 43).

**Table 43**

Kruskal-Wallis Test for Differentiation of Risky Behaviors Scores and Children's Age Groups

| Children's age groups | *n* | Mean rank | *df* | $X^2$ | *P* |
|---|---|---|---|---|---|
| 36-48 month | 81 | 289.57 | | | |
| 48-60 month | 190 | 243.53 | 2 | 13.583 | .001* |
| 60-72 month | 213 | 223.68 | | | |

*N*=484, **p*<.05

### 4.1.5.6. Differentiation of Risky Behaviors and Outdoor Play Time

The Kruskal-Wallis test was conducted to analyze whether differentiation of risky behaviors scores differ in relation to outdoor play times (see Table 44). A Kruskal-Wallis test revealed a statistically significant difference in differentiation of risky behaviors scores across five different outdoor play time (Gp1, $n$ = 97: 0-15 minutes, Gp2, $n$ = 179: 15-30 minutes, Gp3, $n$ = 140: 30-45 minutes, Gp4, $n$=45-60 minutes, Gp5, $n$ = 24: 60 minutes or more), $\chi 2$ (4, $n$ = 484) = 20.783, $p$ = .000. Mann-Whitney *U* tests between pairs of groups were conducted as a follow-up analysis using a Bonferroni correction. A Mann-Whitney U test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers who spend 0-15 minutes and 45-60 minutes outdoors ($z$ =-2.964, $p$ = .003), with a small effect size ($r$ = .13). The findings confirm that teachers who spend 45-60 minutes (mean rank= 85.81) had significantly higher differentiation of risky behaviors scores than teachers who spend 0-15 minutes (mean rank = 64.28). A Mann-Whitney *U* test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers who spend minutes and 15-30 and 30-45 minutes outdoors ($z$ =-2.882, $p$ = .004), with a small effect size ($r$ = .13). The findings confirm that teachers who spend 30-45 minutes (mean rank= 176.53) had significantly higher differentiation of risky behaviors scores than teachers who spend 15-30 minutes (mean rank = 147.07). A Mann-Whitney *U* test revealed a statistically significant difference between differentiation of risky behaviors scores of teachers who spend minutes and 15-30 and 45-60 minutes outdoors ($z$ =-3.490, $p$ = .000), with a small effect size ($r$ = .15). The findings confirm that teachers who spend 45-60 minutes (mean rank= 141.88) had significantly higher differentiation of risky behaviors scores than teachers who spend 15-30 minutes (mean rank = 104.66).

**Table 44**

*Kruskal-Wallis Test for Differentiation of Risky Behaviors Scores and Outdoor Play Times*

| Outdoor play time | *n* | Mean rank | *df* | $X^2$ | *p* |
|---|---|---|---|---|---|
| 0-15 min. | 97 | 224.78 | | | |
| 15-30 min. | 179 | 216.85 | | | |
| 30-45 min. | 140 | 261.99 | 4 | 20.783 | .000* |
| 45-60 min. | 44 | 296.97 | | | |
| 60min or more | 24 | 291.88 | | | |

*N*=484, **p*<.05

## 4.2. Qualitative Findings

The second phase of the study includes semi-structured interviews. This part addresses the main findings that emerged from the analysis of the data from the semi-structured interviews conducted with 21 early childhood teachers who expressed their willingness to participate in the second phase of the current study. In analyzing the qualitative data, the researcher used thematic analysis, in which a data set is searched to identify, analyze, and report recurring patterns (Braun & Clarke 2006). MAXQDA 2020 software was used for the qualitative analysis. In this section, qualitative findings were presented in seven sections: 1) outdoor time allocations, 2) outdoor play types, 3) outdoor play equipment, 4) description of risk risky play, 5) children's engagement in risky play, 6) teacher-reported parent views of risky play, 7) teacher-reported administrator views of risky play.

### 4.2.1. Outdoor Time Allocations

The first question of the interview was "*How often do you spend time outdoors with the children in the preschool*?". Analysis of the responses revealed that the vast majority of early childhood teachers (n=20) indicated that they incorporate outdoor playtime into their daily routine. However, seasonal conditions were found to be an important factor in their decisions about spending time outdoors. On this topic, T452 said, "The time we spend outdoors depends on the season, I can say 10 minutes in winter, but it increases to 60 minutes in summer." In terms of frequency of time spent outdoors in the summer, more than half of the teachers (n=17) indicated that they spend

time outdoors every day in the summer. In addition, four of the teachers indicated that they spend time outdoors three times per week during the summer. Regarding the amount of time spent outdoors each day during the summer, nine teachers indicated that the amount of time spent outdoors during the summer season could be 60 minutes or even more. In addition, some teachers (n=5) stated that they spend 30-45 minutes outdoors during the summer months. In addition, teachers mentioned 45-60 minutes (n=2), 20-30 minutes (n=2), and 10-20 minutes (n=1) for the summer months. Regarding the winter season, some of the teachers (n=5) reported that they never spent time outdoors during the winter, while some of them (n=6) reported that they spent time outdoors every day during the winter season. Regarding the amount of time spent outdoors in the winter, two teachers reported spending 45-60 minutes outdoors each day, while one teacher reported spending 15-20 minutes outdoors each day. In addition, for the winter season, three teachers reported that the time they spend outdoors is only 5-10 minutes or less (see Table 45).

Although teachers were not asked about reasons for changes to outdoor time, they cited weather conditions (n=17), lack of playgrounds (n=1), and parent concerns (n=2) as reasons for changes to outdoor time. On this topic, T467 made the following statement when commenting on the impact of winter conditions on the amount of time spent outdoors:

> Of course, the amount of time we spend outside with the children in preschool changes depending on the weather, but we try to go outside every day. When the weather is warm in the summer, the time usually increases by 30 or 40 minutes.

Regarding the change in outdoor time due to the lack of playgrounds and parents' concerns, T30 and T343 each commented as follows:

> We cannot spend much time outdoors because we do not have enough space in our preschool. I work in a public preschool where there is no playground, especially for children to play.

> I want to go outside with the children in all kinds of weather, including rain, hurricanes, storms, because I want them to have these experiences, but we may have problems communicating with parents, and the preschool administrator does not allow us to go outside all the time.

**Table 45**

*Duration and Frequency of Outdoor Time*

| | | | |
|---|---|---|---|
| **Winter** | Frequency | Never (n=5)<br>Every day (n=6) | **Outdoor time might change because of…** |
| | Duration (Daily) | 5-10 minutes (n=3)<br>15-20 minutes (n=1)<br>45-60 minutes (n=2) | Weather conditions (n=17) |
| **Summer** | Frequency | 3 times a week (n=4)<br>Every day (n=17) | Lack of playgrounds (n=1) |
| | Duration (Daily) | 10-20 minutes (n=1)<br>20-30 minutes (n=2)<br>30-45 minutes (n=5)<br>45-60 minutes (n=2)<br>60 minutes or more (n=9) | Parent concerns (n=2) |

*Each teacher gave more than one answer

### 4.2.2. Outdoors Play Types

To learn what types of outdoor play children engage in, the teachers were asked, "*Could you tell me what types of outdoor play the children engage in at the preschool?"* The teachers' responses were categorized into active play, object play, and symbolic play (see Table 46). In the context of this study, active play was referred to as children's unstructured physical movements such as jumping, climbing, running, rolling, and hopping. Most teachers (n=19) gave multiple examples of active play, such as chasing (n=11), playing on the playground equipment (n=7), hiding (n=5), and jumping (n=4):

> They like to play chase the most. They love to be outside and when I say we are going outside, I see this excitement and enthusiasm in them every time, like they stay inside all the time and go outside for the first time (T334).

> They like to play chase, but since it is risky, it happens under my control. They like to jump from a great height, so I try to keep an eye on all of them, you know, they also do their play among themselves (T76).

Another type of play reported by some teachers (n=7) was object play, in which children use play objects and materials to create and construct something. Two common examples of this type of play were playing with buckets and shovels in the sandbox (n=4) and playing with natural elements such as branches, sticks, and rocks (n=3). In this sense, T143 expressed, "When girls and boys play together, they spend time in the sandbox. They use tools like shovels, picks, and buckets in the sandbox

and shape their play." Some teachers (n=3) mentioned symbolic play, where children engage in make-believe play. Two common examples were fighting games (n=2) and house games (n=1). For example, T375 said, "My class is mostly boys, and they play fighting games, so sometimes I have to limit them because they start being too hard on each other." A small number of teachers (n=5) also gave other examples, such as the duck goose.

**Table 46**

*Types of Play Children Play Outdoors*

| Types of Play | *n* | *%* |
|---|---|---|
| **Active games** | | |
| Chasing | 11 | 52.3 |
| Sliding, swinging, seesawing | 7 | 33.3 |
| Hide-and-seek | 5 | 23.8 |
| Jumping | 4 | 19.0 |
| Running | 4 | 19.0 |
| Low-and-high game | 4 | 19.0 |
| Obstacle course games | 5 | 23.8 |
| Hopscotch | 3 | 14.2 |
| Puss in the corner | 3 | 14.2 |
| Dodge ball | 2 | 9.52 |
| Blindmans' buff | 2 | 9.52 |
| Climbing | 2 | 9.52 |
| Football/basketball | 1 | 4.76 |
| Hula hoop | 1 | 4.76 |
| **Object play** | | |
| Playing with buckets and shovel | 4 | 19.0 |
| Playing with sticks, rocks, and branches | 3 | 14.2 |
| **Symbolic play** | | |
| Fighting games | 2 | 9.52 |
| House games | 1 | 4.76 |
| **Others** | 5 | 23.8 |

*Each teacher gave more than one answer

### 4.2.3. Outdoor Play Equipment

The next section of the interview was about the play equipment that children use when playing outside. In this context, teachers were asked, "*What kinds of outdoor play equipment are there in your school*?" The equipment listed below illustrates what teachers (n=21) said (see Table 47). Three pieces of equipment were the most common, namely slides (n=12), swings (n=10), and climbing equipment (n=6). T310 commented on the equipment as follows:

> There's a slide, the kids are playing on the slides, one child is waiting at the bottom, one child is at the top or something, or they are trying to slide down without touching each other with their hands.

Within this framework, T328 also commented, “In our playground area, there is a small area that consists of a slide and two swings.” More than half of the teachers who answered this question (n=12) also mentioned the heights in their playgrounds. A small number of teachers (n=4) said that there are heights of 1.5 meters or more on their playground for children to climb or jump on. On this topic, two of the teachers said:

> In our preschool, there are places where the children can climb 1.5 meters or more. There is also an area for sliding, but the children climb there too, maybe a meter high. There is also another climbing area for children that is 1.8 or 1.7 meters tall (T103).

> The children try to climb up the stairs and jump off from the climbing spots in balance, they try to climb up and down the stairs. The height is more than 1.5 meters. As you already know, it must have a certain height to be a climbing area. Just because I define it as this bridge, we usually think of bridges as being high, so I have given details here (T143).

**Table 47**

*Outdoor Play Equipment*

| **Equipment** | ***n*** | ***%*** |
|---|---|---|
| Slides | 12 | 57.1 |
| Swings | 10 | 47.6 |
| Climbing equipment | 6 | 28.5 |
| See-saws | 5 | 23.8 |
| Ropes | 3 | 14.2 |
| Hula-hoops | 3 | 14.2 |
| Large blocks | 3 | 14.2 |
| Balls | 3 | 14.2 |
| Wooden house | 2 | 9.52 |
| Balance equipment | 2 | 9.52 |
| Bucket/shovels | 2 | 9.52 |
| Obstacle courses | 1 | 4.76 |
| Wheeled toys | 1 | 4.76 |
| Wooden billets | 1 | 4.76 |
| Recycled tires | 1 | 4.76 |

*Each teacher gave more than one answer.

### 4.2.4. Description of Risky Play

In the next part, the researcher presents the results of the teachers’ views on the definition of risky play. Teachers were asked, “*How would you describe risky play*?”. This question was asked two times: the one before the researcher did not give a definition of risky play, and the other one just after the researcher defined what risky play is. In this way, the positive and negative views on the concept of risky play were identified. The views before and after the definitions are presented in the following sections.

#### 4.2.4.1. Views about Risky Play (Before Definition)

The teachers first answered what they thought of the definition of risky play. When first asked about the definition, they indicated that they did not know much about the subject (see Table 48). Analysis of the responses revealed that a small number of the teachers (n=5) had positive views about risky play even though they had never heard of it. Some teachers (n=3) held the view that children can improve their problem-solving skills through risky play. T452, who had the higher risk play attitude score in the quantitative phase, commented:

> After taking precautions against risk factors, it is valuable to me that children want to jump off from a great height or climb up somewhere. This is because this kind of play develops children's problem-solving skills.

Another positive aspect mentioned by teachers (n=2) was that it increased children's self-confidence. T354, who also had a higher attitude toward risky play in the quantitative phase, commented on this issue as follows:

> There are always risks, in every phase of our lives, even in childhood. I honestly believe that children should take risks. When they take risks, children recognize their strengths. They recognize what they can do and what they cannot do, and their self-confidence increases.

Analysis of the responses showed that other responses to this question (n=16) included negative views about the concept of risky play. More than half of the teachers (n=15) reported that risky play leads to physical injuries such as broken arms/legs, bumps on the head, and scratches on the face. For example, two of the teachers said:

> When we talk about risky play, injuries were the first thing that came to mind. It's a form of play where injuries can happen because like I said, we are talking about climbing a tree, we are talking about sliding backwards, all of that made me think that the result would be injury or damage (T143).

> The concept of risky play to me means it's scary, we have to protect the children, okay, but we are a kindergarten, so risks are inevitable. For example, catching and climbing are very risky because there is a concrete floor that physically hurts the children if they fall (T76).

Regarding sharp objects, T141 commented as follows: “Risky play, for example, if they have sharp objects in their hands, there is a possibility that they will stab each other in the eyes.” Another negative opinion of teachers (n=3) was that risky play was dangerous. Along these lines, T466 commented:

> Risky play was a concept I first encountered when I filled out your questionnaire, but I was thinking of dangerous situations that children are exposed to, so this concept did not seem very new to me.

A few teachers (n=3) also pointed out that no activity is absolutely risk-free. In this context, T30 claimed that:

> Every play has a risk, because sometimes children can act differently from what you want them to do. There is a little risk in every play, but of course it is much greater in risky plays.

**Table 48**

*Views about Risky Play Before Definition*

| Positive Views | Negative Views |
|---|---|
| Having better problem-solving skills (n=3) | Causing physical injuries (n=15) |
| Increasing self-confidence (n=2) | Being dangerous (n=3) |

To obtain more information about teachers' opinions on the concept of risky play, they were asked, "*Do you think what kind of play is risky?"* Many of the teachers mentioned playing at high speed (n=9), jumping from a great height (n=8), and colliding with someone/something (n=6) as examples (see Table 49). In talking about this topic, the teachers said:

> For example, it can be risky for them to jump from a very high place, or it can be risky to go to places that I cannot see, or it can be games where they use different tools, that is, games where they use tools that can hurt them can be risky (T466).

> For example, if a child passes by the slide, grabs the stick and starts swinging on it, he suddenly loses his balance and falls down, he might break his arm or hurt his neck and face (T30).

> For example, games that involve violence are risky for me. Toy weapons, games like wars are the biggest risk for me. I think that the tendency to violence starts at an early age. I think that only non-violent games where people do not hurt each other should be allowed (T427).

> What I mean by risk is that a game can harm the child's health. That is, I have no control over it. The child wants freedom, but if I cannot clarify that space, he can cross the line and harm himself or someone else, which is a risk for me. That causes a lot of harm to the child, which is contrary to the principles of play, which is learning and pleasure (T343).

> In general, playing both outdoors and indoors can be risky. I think that games that involve very extreme actions such as running, climbing, and jumping can be risky whether they are played indoors or outdoors (T435).

> For me, indoor plays are risky because there are many areas that can cause physical injuries. Therefore, I prefer to allow children to play outside and give them more space. In my opinion, it is a risky play to bump your head when children push each other at that moment because they want to win (T302).

**Table 49**

*Risky Play Examples Before Definition*

| Risky Play Examples | n | % |
|---|---|---|
| Playing with high speed | 9 | 42.8 |
| Jumping from great heights | 8 | 38.1 |
| Colliding | 6 | 28.5 |
| Falling | 5 | 23.8 |
| Climbing | 5 | 23.8 |
| Outdoor free play | 4 | 19.0 |
| Loss of control | 4 | 19.0 |
| Sliding backward | 4 | 19.0 |
| Broken arms/leg | 4 | 19.0 |
| Sharp corners | 3 | 14.2 |
| Bump on the head | 3 | 14.2 |
| Narrow playground | 3 | 14.2 |
| Active games | 2 | 9.5 |
| Concrete floor | 2 | 9.5 |
| Playing with a toy gun | 2 | 9.5 |
| Disappearance/getting lost | 1 | 4.7 |
| Playing chase | 1 | 4.7 |
| Throwing something | 1 | 4.7 |
| Health damage | 1 | 4.7 |
| Swallowing small pieces of toys | 1 | 4.7 |
| Using dangerous tools | 1 | 4.7 |

### 4.2.4.2. Views about Risky Play (After Definition)

After getting their opinion without giving a definition, the teachers were given a definition to think about the subject again. The definition of risky play given was: a thrilling and exciting form of physical play which consists of involving uncertainty and the risk of physical injury (Sandseter, 2010b). After the definition, teachers were asked, "*What do you think about the definition of risky play now?*" Teachers focused on both the positive and negative sides of risky play (see Table 50). Analysis of the responses revealed that some of the teachers (n=9) held positive views. It was noteworthy that the number of teachers who expressed positive views increased from five to nine after hearing the definition. Four of the teachers believed that risky play enhances children's physical skills and gross motor development. On this topic, T143

made the following remark while commenting on the influence of risky play on children's physical skills:

> As stated in the definition from the literature, risky play is a type of play that can cause physical injury but is also beneficial to children's gross motor development. For example, this includes climbing, running at high speeds, and handling dangerous tools.

Another positive aspect (n=3) was that children can test the limits of their bodies during risky play. On this topic, T67 stated her idea by saying:

> So yes, even though the definition will not change my practice, I believe that as teachers we should not limit children's competition and curiosity because children need to explore their physical limits and potential.

Analysis of the responses showed that other responses to this question (n=12) also contained negative views. Of note, the number of teachers who expressed negative views decreased from 18 to 12 after hearing the definition. Teachers (n=10) commented on the issue of risky play causing physical injuries such as broken arms/legs. T141 expressed her opinion by saying:

> Of course, the risk of physical injury is exciting for the children, but since we feel a bit of responsibility to the families, legal responsibility is not just what I will explain to them. I work in a big preschool, and sometimes my friends have problems with this issue, which of course puts us in danger, so when we think of risky play, we think of play that can cause physical injury.

Another negative aspect (n=2) was that risky play is considered dangerous. Talking about this issue, one of the teachers said about this issue:

> It is a play that helps children in all developmental areas. In my opinion, risky play is also dangerous and requires attention, especially teachers' attention to children (T143).

**Table 50**

*Views about Risky Play After Definition*

| Positive Views | Negative Views |
|---|---|
| Supporting physical skills (n=4) | Causing physical injuries (n=10) |
| Exploring body limit (n=3) | Being dangerous (n=2) |
| Increasing self-confidence (n=2) | |

To obtain further information about teachers' view on the definition of risky play, they were asked, "*Do you think what kind of play is risky*?" Many of the teachers gave examples of falling from heights (n=5), climbing (n=5), and obstacle courses (n=3) (see Table 51). In discussing this topic, teachers said:

> This definition is exactly what I think when I follow the definition, and when I talk about risky play, I think of falls, collisions, injuries, or physical harm. Especially competitive games involve these types of risks (T361).

> In general, obstacle courses are more exciting, there is competition, for example, there is a risk of tripping and falling on it when you run under the table. As I said, he might trip and fall on his foot there (T334).

> Now, as I said, children fighting with each other, hitting each other, sliding backwards, and jumping from heights are examples of risky play by your definition. I think of these examples primarily in terms of physical injuries (T302).

> I think it's a big deal to be exciting. The adrenaline rush of risky play gives people a little feeling of happiness, you know, it's very good for them, but if they fall as a result, they are aware that it's their own fault. That can add to the definition of risky play (T310).

**Table 51**

*Risky Play Examples After Definition*

| **Risky Play Examples** | ***n*** | ***%*** |
|---|---|---|
| Falling from heights | 5 | 23.8 |
| Climbing | 5 | 23.8 |
| Obstacle courses | 3 | 14.2 |
| Running at high speed | 2 | 9.50 |
| Jumping from great heights | 2 | 9.50 |
| Racing games | 2 | 9.50 |
| Free play | 2 | 9.50 |
| Using dangerous tools | 2 | 9.50 |
| Collision | 2 | 9.50 |
| Rough-tumble play | 1 | 4.76 |

### 4.2.5. Children's Engagement in Risky Play

In this part, teachers were asked a set of questions: 1) "*What do you think about children's engagement in risky play?*", 2) "*Do you think engaging in risky play has developmental benefits for children?*" 3) "*Do you think engaging in risky play has negative outcomes*?" The analysis of the answers showed that the majority of the teachers (n=18) were in favor of risky play but with the necessary conditions. On the other hand, very few (n=3) claimed that risky play should not be allowed. As for the

reasons for their answers, the teachers mentioned both the developmental benefits and the negative effects of risky play.

#### 4.2.5.1. Developmental Benefits of Risky Play

Almost all teachers (n=20) talked about the developmental benefits of risky play in specific areas. The analysis of the responses was presented under the theme of developmental benefits. In this sense, five main categories emerged: 1) social-emotional, 2) physical, 3) cognitive, and 4) self-care (see Table 52).

##### 4.2.5.1.1. Social-Emotional Benefits

More than half of the teachers (n=17) reported the social-emotional developmental benefits of risky play. There were four codes that teachers mentioned under this category (see Table 52). Nine of the teachers stated that risky play gives children the opportunity to increase their self-confidence. Talking about this issue, T467 said:

> I think the most important effect is that the child develops a sense of confidence and self-confidence, because when the child has that sense of achievement, when he climbs and jumps from a high place and is successful, his self-confidence grows. I think the most important effect is the increase in self-confidence.

Some of the teachers (n=4) focused on the enjoyment of taking risks while playing. On this topic, T310 made the following statement when commenting on the impact of risky play on children's social-emotional development:

> I think the adrenaline rush gives children a sense of pleasure, you know, that's very good for them, but when they fall in risky play, they are aware that it's their own fault.

Some of the teachers (n=3) indicated that they felt risky play gave children the opportunity to improve their resilience. In a comment on this topic, T354 opined that:

> Maybe risks need to be taken so that the child's life is not difficult, so that the child becomes a resilient individual and learns to be a controlled individual, but unfortunately I do not think we as adults give children that opportunity.

Another social-emotional benefit mentioned by three teachers was developing the courage to do something. T103 commented on this issue as follows:

> I think they will have more courage if they engage in risky plays. For example, jumping two stairs is a big thing for them. I think it will be good for them to achieve something to do more.

#### 4.2.5.1.2. Physical Benefits

Many of the teachers (n=16) reported physical benefits. There were four codes that teachers mentioned under this category (see Table 52). Seven of the teachers indicated that risky play gives children the opportunity to improve their gross motor skills. T354 commented on this issue as follows:

> Gross motor skills develop much faster. By the way, I am the leader of forest preschool education and we saw this a lot there. I am talking about all the developmental areas where children's development is 3-4 months faster, with risky play compared to symbolic plays with rules indoors, in a normal preschool period.

Some of the teachers (n=7) emphasized expanding the boundaries of the body. On this topic, T103 made the following remark while commenting on the impact of risky play on children's physical development:

> Risky play expands the limits of what they can do, and children become more confident for the next level, supporting them in many areas, including physical development. I think the same thing happens in adulthood. Taking risks improves us, so it's beneficial for everyone.

Some teachers (n=2) indicated that they believe risky play gives children the opportunity to improve their eye-hand coordination. T30 commented on this point as follows:

> I think risky play is very beneficial for several reasons. For example, in terms of balance, jumping on two legs and jumping from one place to another provides that balance, which children the opportunity to improve their hand-eye coordination.

Other physical benefits cited were better fine motor skills (n=1) and better body awareness (n=1). Talking about this topic, two of the teachers said:

> For example, she or he sometimes uses a hammer as a dangerous tool, and one child sometimes takes nails and tries to hammer them in properly, which to me is a risky play, so that kind of play helps develop small muscles (T143).

> In risky plays, children find that they can achieve better balance by opening their arms, they acquire these skills, but they are not aware of it. This gives them a great advantage (T310).

#### 4.2.5.1.3. Cognitive Benefits

The majority of teachers (n=14) reported cognitive benefits of children's risky play. There were five codes that teachers mentioned under this category (see Table

52). Seven of the teachers said that risky play gives children the opportunity to learn through experience. On this topic, T310 said:

> It certainly has a developmental effect because children in this age group are often unable to anticipate the next step and sense the danger. But after experiencing the risk in play, children can say, I should be more careful, I should jump differently.

Some of the teachers (n=5) focus on better knowledge acquisition. That is, they believe that children are more open to learning when they play risky. On this topic, T76 made the following remark when commenting on the impact of risky play on children's cognitive development:

> For a child, of course, learning means playing. Children cannot read just like that, they cannot do anything, they play and observe to learn. The greatest learning technique for them is play, and of course they can learn a lot in risky play.

Some of the teachers (n=5) indicated that children cope better with their problems when they engage in risky plays. For example, one teacher said:

> In cognitive development, for example, a different perception of the child works when he gets involved in risky play. It learns to solve problems in a cognitive sense, and it realizes that a problem it encounters should be solved by itself and not by an adult (T354).

Some teachers (n=4) indicated that they felt that risky play provided children with the opportunity to increase their creativity. T452 commented on this point as follows:

> It definitely enhances their creativity; it improves their creative thinking and problem-solving skills. Anyway, I think if we had taught them before teaching math or teaching concepts, we would have been at a different level in preschool.

One teacher mentioned increased attention. In talking about this issue, T452 stated that:

> I think we do not provide a place for children to play risky plays, but through those kinds of games, children adapt better, they participate more in those kinds of games because of the adrenaline release, and they can focus on something better.

#### 4.2.5.1.4. Self-Care Benefits

Some of the teachers (n=5) reported the benefits of risky play for self-care development. There were two codes that teachers mentioned under this category (see

Table 52). Three of the teachers commented that risky play allows children to protect themselves from danger. T334 commented on this issue as follows:

> I think children should play and learn to do it. I think children should learn to protect themselves from danger and recognize the danger in dangerous situations and act accordingly. You know, I want children to recognize the risk and engage in risky play.

A few (n=2) indicated that they felt that risky play teaches children to clean themselves up after a fall. T143 commented on this point as follows:

> I think risky play actually helps children develop self-care. An example can be cleaning themselves when they fall during play, I think it improves all developmental areas.

**Table 52**

*Views on Developmental Effect of Risky Play*

| Themes | Categories | Codes | Exemplary Quotes |
|---|---|---|---|
| Developmental Benefits | Social-Emotional | Increasing self-confidence (n=9) | I think the most important effect is that the child develops a sense of confidence and self-confidence, because when the child experiences that sense of achievement, when he climbs and jumps from a high place and succeeds, his self-confidence increases. At this point, I think the most important effect is the increase in self-confidence. (T467) |
| | | Feeling enjoyment (n=4) | The increase in adrenaline gives people a felling of enjoyment, you know, it is very good for them, but when they fall as a result, they are aware that it is because of themselves. (T310) |
| | | Increasing resilience (n=3) | Maybe risks need to be taken so that the child's life is not difficult so that the child becomes a resilient individual and learns to be an individual in control, but unfortunately, I think that as adults, we do not give this opportunity to children. (T354) |
| | | Developing courage (n=3) | I think they will have more courage when they engage in risky play. For example, jumping two stairs is a big thing for them, so I think it will be good for them to achieve something to take more actions. (T103) |

*Table 52 (cont'd)*

| Themes | Categories | Codes | Exemplary Quotes |
|---|---|---|---|
| Developmental Benefits | Physical | Having better gross-motor skills (n=7) | Gross motor skills are progressing at a much faster rate. By the way, I am the leader of forest school education and we saw these a lot there. I am talking about all the developmental areas where the development of children continues (T354). |
| | | Expanding the boundaries of body (n=7) | Risky play expands the limits of what they can do, and children become more confident for the next stage, and supports it in many areas as well as physical development. (T103) |
| | | Having better hand-eye coordination (n=2) | For example, I think risky play will be very beneficial in balance, as I said, jumping on two legs, jumping to another place provides this balance and improve their hand-eye coordination. (T30) |
| | | Having better fine-motor skills (n=1) | For example, she or he uses a hammer, the child uses nails and tries to hammer it properly, which is a risky play, so this type of play supports small muscle development. (T143) |
| | | Increasing body awareness (n=1) | While engaging in risky play, children realize that they can achieve better balance by opening their arms, in fact they get these skills, but they are not aware of it. This gives them a huge advantage. (T310) |
| | Cognitive | Learning by experiencing (n=7) | It certainly has a developmental effect because children in this age group are often unable to anticipate the next step and cannot anticipate danger. Yet, after experiencing the risk in play children can says 'I should be more careful, I should jump in a different way' (T310) |
| | | Having better knowledge acquisition (n=5) | Of course, for a child, learning means playing. Children can't read like that, they can't do anything, they play and observe to learn. The biggest learning technique is play for them, of course, they have a lot to learn in risky plays. (T76) |
| | | Having better problem-solving skills (n=5) | A different perception of the child works while engaging in risky play, he learns to solve problems in a cognitive sense, he realizes that a problem he encounters should be solved by himself or herself, not by an adult. (T354) |

*Table 52 (cont'd)*

| Themes | Categories | Codes | Exemplary Quotes |
|---|---|---|---|
| Developmental Benefits | Cognitive | Increasing creativity (n=4) | It improves their creativity; it improves their creative thinking and problem-solving skills. Anyway, I think if we had taught them before teaching mathematics or teaching concepts, we would have been in a different level in preschool. (452) |
| | | Increasing attention (n=1) | I think we do not provide a place for children's risky play, but such plays make children adapt better, they participate more in this type of play because that adrenaline excitement allows them to focus more on something. (T452) |
| | Self-care | Protecting themselves from danger (n=3) | I think children should play it and learn it too. I think children should learn to protect themselves from danger and realize the danger in dangerous situations and to act accordingly. You know, because I want children to see the risk, I want them to engage in risky play. (T334) |
| | | Learning to clean themselves after falling (n=2) | I think it supports even self-care development, such as brushing and cleaning when they fall in play, in fact, I think it improves each developmental domain. (T143) |

#### 4.2.5.2 Negative Impacts of Risky Play

Teachers (n=21) also commented on the negative effects of risky play. The analysis of the responses was presented under the theme of negative effects and two main categories emerged: *injuries* and *feelings* (see Table 53).

##### 4.2.5.2.1 Injuries

Many of the teachers (n=11) mentioned bumps on the head (n=5), broken arms/legs/fingers (n=4), and scratches on the face (n=2) as physical injuries that occur during risky play that can negatively impact children's health (see Table 53). In talking about this issue, teachers said:

> For example, if a child tries to slide back from the slide, they can get hurt. I think it is dangerous because she or he can hit his head quickly. Although I do not want to let something like that happen, some children naturally want to try again (T427).

> Physical injuries can occur when playing risky plays. To give an example, children can break their arms when they jump from a great height. Sometimes they also hurt each other when swinging on the swing. When a friend runs in front of her, she naturally hurts her friend because she cannot control her speed at that moment (T310).

> Quite simply, we had a seesaw that was made of iron, and we saw the damage of it very often. When the children play, there are the lower parts of these shields, they put their hands there, so they can break their fingers there (T334).

> The reason why I warn the children to be careful when they play is because they fall and their faces get hurt and scratched. We behave this way because the children have already experienced physical injuries (T141).

#### 4.2.5.2.2 Feelings

Some of the teachers (n=6) reported some feelings as a negative impact of risky play. There were three codes that teachers mentioned under this category (see Table 53). Three of the teachers commented that children who engage in risky play may feel sad because they hurt someone, namely peers in the play. Talking about this topic, T343 said:

> For example, they run like crazy, and you have to warn them. If they run at high speed, they may hurt themselves and others. In such a situation, they may feel sad and take a step back because they hurt someone else and got hurt.

Some of the teachers (n=3) focus on the feeling of lack of courage. That is, they believe that children's courage decreases when they do not succeed in a risky play. On this topic, T300 made the following remark when commenting on the negative influence of risky play on children's courage:

> Of course, they may get physically hurt or hurt each other with their friends while playing, and the positive atmosphere in the class may be disturbed. They can get physically hurt, and at the same time, it is difficult for the children to have the courage to do the same things when they get physically hurt (T300).

Another feeling reported by two teachers was that of failure. In talking about this issue, T76 stated that:

> When they fall, children can have feelings of failure because of their fear. For example, if we imagine that a child fell back from a skateboard, he hit his head and may feel like a failure.

**Table 53**

*Negative Impacts of Risky Play*

| Theme | Categories | Codes | Exemplary Quotes |
|---|---|---|---|
| Negative Experiences | Injuries | Bump on the head (n=5) | For example, I can say that when a child tries to slide back from the slide, she/he can hurt himself/herself. I think it is dangerous because she or he can bump his/her head to ground quickly. Although I do not want to allow such things, there are children who want to try again, of course (T427). |
| | | Broken arms/legs/fingers (n=4) | Physical injuries may happen in risky play for example, children's arm can be broken when they jump off from great heights (T310). |
| | | Scratches on the face (n=2) | The reason I warn children to be careful while playing is that they fall, and their faces are injured and scratched. In fact, we behave like this because of previous physical injury experiences of children (T141). |
| | Feelings | Feeling sad for hurting someone (n=3) | For example, they run like crazy, and they need to be warned. If they run at high speed, they may injure both themselves and others. In such a situation, they may feel sad, and may take a step back because they hurt someone else and are injured (T343). |
| | | Feeling of lack of courage (n=3) | They may have physical injuries, and at the same time, children may find it difficult to have the courage to do the same things if they are physically harmed (T300). |
| | | Feeling of failure (n=2) | When they fall, children may have feelings of failure because of their fear. For example, if we think that a child skied back from the skateboard, he hit his head and may feel the failure (T76). |

In addition, many of the teachers (n=17) reported their suggestions for minimizing physical injuries in the preschool environment (see Table 54). In this sense, many of the teachers (n=14) suggested using shock-absorbing materials, referring to the properties of the protective surface that help prevent or minimize injuries. In addition, some teachers (n=3) suggested rounding the sharp edges of playground equipment to minimize physical harm. Finally, some teachers (n=3) suggested reducing the height of the equipment. In a comment on this topic, T310 said:

> As I said before, some precautions can be taken for the playground, such as the softness of the ground, then for example the grass can be suitable for the children because they roll on the grass a lot. Also, the ground must be softer so that the children do not hurt themselves when they jump off from a great height.

In addition, T30 mentioned the same problem by saying, "The outdoor area can be designed to round sharp corners," and T375 expressed that "In the outdoor area, the height of the equipment can be reduced for the children's level."

**Table 54**

*Suggestions to Minimize Physical Injuries*

| Suggestions | Exemplary Quotes |
|---|---|
| Using shock absorbing materials (n=14) | As I said, some arrangements can be done for the playground, such as the softness of the ground, then, for example, the grass can be suitable for the children since they do a lot of rolling on the grass. Besides, there needs to be softer places to prevent injuries when children jump off from great heights. (T310) |
| Rounding off the sharp edges of playground equipment (n=3) | The outdoor area can be arranged and as I said, sharp corners can round. (T30) |
| Reducing the height (n=3) | In the outdoor area, the height of the equipment can be reduced for the level of children. (T375) |

### 4.2.5.3 Views about Play with Great Heights

Related to one of the quantitative questions, "*My students are allowed to climb/jump off from great heights*," the qualitative section asked teachers, "*What is your view about children jumping from or climbing to great heights?*" Responses to this question were analyzed and two themes emerged: (1) facilitators and (2) barriers to children jumping off of or climbing onto tall heights.

#### 4.2.5.3.1 Facilitators

The facilitator theme describes the factors that contribute to children's play with great heights. Three main categories emerged from the teachers' responses (n=13), namely 1) teacher-related, 2) child-related, and 3) school-related (see Table 55). In the first category, the most common teacher-related facilitator cited by teachers (n=10) was staying close to children. Many of the teachers expressed a desire to be near the children to avoid possible injury. As T143 put it:

> My approach to climbing the tree is not very restrictive, I even say let us try, but of course I and my aide needs to be near the tree to intervene if needed. That usually happens when the trees are greening up and bearing fruit in the spring. You know, we want the kids to have this experience in the summer, especially in May and June. Fortunately, there are so many trees in our preschool that we provide many opportunities for the children to experience this.

In a comment on the same topic, T334 reinforced her idea by saying:

> To prevent injuries and protect the children from physical harm, I always want to stay near the children to intervene when the children want to climb, because they do not just climb to low heights, they always want to go further and climb to greater heights.

The second most common teacher-related facilitation expressed by some teachers (n=3) was physical support for children to climb. T354 expressed her desire to provide physical support for children to be safe by saying:

> I support taking risks with my control. In other words, I am in favor of climbing trees, but with our physical support, with a little help. For example, in our backyard, there are walls and the kids climb there too. With physical support, I let them walk on the front and back of the walls. Also with trees, it is important to consider their size, thickness, and strength.

The third frequently mentioned facilitator in relation to teachers (n=3) was informing children about risks. Some of the teachers mentioned that they inform the children about possible risks and accidents before allowing them to play at great heights because they believe that this makes the children more aware of possible accidents. On this topic, T361, who had a lower score for attitude toward risky play in the quantitative phase, said:

> In other words, I usually inform the children about the possible risks. That is, I explain to them all the negative consequences that can occur if they lose control while running at high speed and playing at great heights.

In the second category, teachers (n=5) most frequently cited knowledge of children's abilities as a facilitator. Some of the teachers (n=5) indicated that what children are able to do plays an important role in deciding whether to allow them to play at great heights. T427 described her boundary before deciding whether to allow play:

> My limit of allowing children to play is related to the children's risk assessment. For example, I have a student in my class who is afraid of many things, even going down the stairs. But I also have another student who can jump from 4 to 5 steps without help.

In the third category, school-related facilitators were cited as physical conditions that they expected to decide whether to allow children to play at great heights. Some of the teachers (n=3) made their remarks about having low heights of playground equipment. On this topic, T328 said:

> In our preschool, there are walls, but there are also fences around them. Therefore, there is no way to climb on the wall. Of course, I wish there was an area with lots of trees. I am not so strict about that. If they are at a low height that does not harm them, I want them to be able to climb under my supervision.

On the same topic, T427 commented on the height of the equipment, saying, “I only allow the kids to play when the height of the equipment reaches the kids' waist height.”

Another school-related facilitator mentioned by a teacher was a soft play area. T76 commented on this issue by stating, “I only let them jump if they do so in a controlled way by putting mats under the heights.”

#### 4.2.5.3.2 Barriers

The theme of barriers describes the factors related to children's play with great heights. Three main categories emerged from the teachers' responses (n=10): 1) parent-related, 2) child-related, and 3) school-related (see Table 55). In the first category, the most common parent-related barrier cited by some teachers (n=5) was holding teachers responsible for injuries. Many of the teachers expressed that parents usually hold teachers responsible for possible injuries, even if they are not accused of negligence. In this regard, T375 shared a memory she had:

> I want to share a memory with you. One day at preschool, while the children were playing, a child fell down. After the child fell, a parent told me that this injury happened because you allowed my child to do this during play.

On this topic, T310 made her comment:

> Parents do not support things like this and do not see the risks as normal. If something happens, they hold us responsible for the injuries, so we have started to be a little restrictive about things like that.

Regarding parent-related barriers, some teachers (n=3) expressed that parents warn teachers to discourage their children from taking risks and even going outside. T375, who works at a private preschool and had a lower score for risky play in the quantitative phase, said on this topic:

> In my opinion, of course I want the children to have risky play in large areas, to have more toys, more toys that get their attention, and to be able to use their bodies, but unfortunately that is not possible in private preschools. Parents tell us, my child goes there, I do not allow him, you know, we do not let him go out and climb either.

In the second category, the most common child-related barrier noted by a minority of teachers (n=2) was physical harm. They indicated that although they want to allow children to play at great heights, the possibility of physical injury prevents them from doing so. T435, who had a lower score for risky play in the quantitative phase, reported this theme:

> In other words, I do not prefer them to climb if they could get hurt. That's because with families I know, I naturally have to intervene with protection depending on where they are playing.

One of the teachers also noted that children lose control when playing with great heights, which is a barrier to allowing children to play at high heights. On this topic, T302 stated the following:

> Some children are so out of control that they do not know that something bad can happen to them. This is because their parents are so protective of them that sometimes they say they can get hurt if they fall from there. The child has never fallen in her life, for example, she is hanging upside down on the banister of our stairs. I do not let them go up there because they act like they are out of control when they play with big heights and always want to go higher.

In the third category, teachers (n=2) focused on school barriers to allowing children from playing at great heights. One of the teachers mentioned a concrete floor, while another teacher mentioned a high number of children as a school obstacle. Their comments on this topic were as follows:

> There's the soccer nearby and we go there sometimes, like for a run or something. But I do not allow them to climb too much because the ground is concrete, not soft material. I would feel safer for them if the ground was made of earth or something like that (T343).

> I have 20 students in my class, the number of boys is higher than girls, so the boys are very active. I do not want them to climb a tree or the walls too often because otherwise there will be situations where the children might hurt each other intentionally or unintentionally (T334).

It is remarkable that the majority of teachers (n=7) who mentioned barriers had lower scores for attitudes towards risky play in the quantitative section. Regarding the presence of an aide, many of the teachers (n=8) who mentioned barriers did not have an aide working with them. For example, T334 commented on barriers as follows:

> There are times when we are with several classes at the same time. It is then a problem to coordinate and observe them alone, and as I said, we do not allow such actions because accidents can occur.

**Table 55**

*Views about Play with Great Heights*

| Theme | Category | Codes | Exemplary Quotes |
|---|---|---|---|
| **Facilitators** | Teacher-related | Staying close to children (n=10) | My approach to climb the tree is not very restrictive, I even say let's try, but of course me and my aide need to be around that tree to make intervention when needed. (T143) |
| | | Providing physical support (n=3) | I support climbing trees but with our physical support, with a little help. There are walls and children climb there, too. With physical support, I let them to walk, front and back in the heights. (T354) |

*Table 55 (cont'd)*

| Theme | Category | Codes | Exemplary Quotes |
|---|---|---|---|
| Facilitators | Teacher-related | Informing children about risks (n=3) | I usually inform them about the risk and explain outcomes that may happen if they lose their control. (T361) |
| | Child-related | Knowing about children's capabilities (n=5) | My limit is related to the children's risk assessment, for example, I have a student who is afraid to even go down the stairs, but another student can jump from 4-5 steps easily. (T427) |
| | School-related | Having low heights (n=3) | I'm not strict about this, if they are at low height that will not harm them, I would like them to climb under the supervision of me. (T328) |
| | | Having soft playground (n=1) | I let them jump only if they do this in a controlled way by putting mats under the heights. (T76) |
| Barriers | Parent-related | Holding teachers responsible for injuries (n=5) | Parents do not support such things and do not think the risks as normal, when something happen, they take us accountable for the injuries, so we started to be a bit restrictive in such things. (T310) |
| | | Warning teachers to be careful (n=3) | Parents tell us that my child goes there, I don't allow him, you know, you also don't let him to go out and climb. (T375) |
| | Child-related | Having physical harms (n=2) | I do not prefer them to climb for the possibility of physical harms. (T435) |
| | | Being out of control (n=1) | Based on my observations of children, they act like out of control while playing with great heights and wants more heights so she needs to constrain heights (T302) |
| | School-related | Having a concrete floor (n=1) | I don't allow them to climb the stairs much because the floor is concrete. (T343) |
| | | Having high number of children(n=1) | I have 20 students so I don't want them to climb too often because there would be situations where children can harm each other. (T334) |

### 4.2.5.4. Views on Children's Sliding Backward

In relation to one of the items of the quantitative part, "*My students are allowed to slide upside down/backwards from the slide*", the teachers were also asked the same question in the qualitative part: "*How do you think about children's sliding backward?*" The analysis of their responses revealed that the teachers had different roles during the time the children spent on the slides. While some preferred to just observe the children and become onlookers (n=12), others preferred to participate in the slide as stage managers (n=4), directors (n=4) or co-players (n=1) (see Table 56). When discussing this topic, teachers expressed the following:

If a child is waiting at the end of the slide, I tell them, “Watch out, your friend is coming down now, he or she could hit you and you could get hurt” (T143).

I allow them to slide backwards, but I observe children and just want them to slide, waiting for each other in line so they do not run over each other and hurt themselves (T361).

I do not interfere with them sliding, I let them have their experience, but as I said, to ensure safety, I wait at the end of the slide and usually let them try different moves. So, I put a soft mat at the end of the slide so they can just try it out (T30).

There are always children who want to try sliding backwards, but I warn the children who try it first, I tell them that it is dangerous, I offer the children to do it in a different way, I tell them that you can slide like this, not like this (T300).

They have so much fun sliding backwards and we do it together. So there is no problem for me, and the children can slide the way they want, so I do not stop them from being outdoors (T466).

**Table 56**

*Teachers’ Roles During Children’s Sliding Backwards*

| Theme | Category | Codes | Exemplary Quotes |
|---|---|---|---|
| Teacher Roles | Onlookers | Providing verbal comments (n=6) | When a child is waiting at the end of the slide, I am telling him or her that ‘look, your friend will get down now she or he may hit you and you can be injured’ (T143). |
| | | Observing children’s behaviors (n=6) | I allow them to slide backward but I observe them and just want them to slide by waiting each other in line so that they do not get on top of each other and hurt each other (T361). |
| | Stage managers | Facilitating sliding backward (n=4) | I don't interfere, I let them experience it, but as I said, by ensuring safety, I wait at the end of that slide, I usually let them try different movements. So there, at the end of the slide, I put a soft mat for them to experience this easily. (T30) |
| | Directors | Asking children to slide down (n=3) | There are always children who wants to try sliding backward, but I warn those children who try sliding backward first, I tell them it is dangerous, I offer children to do it in an alternative way, I tell them you can slide like this, not that way (T300). |
| | Co-players | Participating in sliding (n=1) | They have so much fun while sliding backward and we are doing it together. Thus, there is no problem for me and children can slide as they want, so I do not prevent them from doing almost any movement during the outdoor times (T466). |

### 4.2.6. Teacher Reported Parent Views on Risky Play

To obtain information about teacher reported parents' views on children's risky play, teachers were asked, "*What are parents' views on children's risky play in preschool?*" Teachers commented on different views of parents, and the views were presented under the theme "teacher reported parent views." Three categories emerged under this theme: 1) overprotective parents, 2) supportive parents, and 3) criticizing parents (see Table 57).

#### 4.2.6.1. Overprotective Parents

Analysis of the responses revealed that some of the teachers (n=17) noted that parents are overprotective about their children. There were two codes mentioned by the teachers under this category (see Table 57). The majority of teachers (n=14) expressed that parents have an aversion to risk for children's play. That is, they do not want their children to take any risks while playing in preschool. Talking about this topic, T361 said:

> There are many overprotective parents who are very anxious. They can cause bigger problems because they think that even the simplest things are a big risk. For example, some parents do not want their child to go to the park at all. They do not want their kids to take risks there because they think the kids might push each other and their knee might bleed or they might hit their head.

Many of the teachers (n=11) commented that parents can limit teachers' outdoor play. While speaking about this issue, T435 commented:

> I think parents interfere too much with our work. They think that when the kids are outside, we need to intervene with the kids, so they do not run too fast or push each other, do not jump away, etc. Then we become restrictive because of these concerns and the restrictive attitude of the parents.

#### 4.2.6.2. Supportive Parents

The analysis of the responses showed that some of the teachers (n=10) perceived the parents as supportive in relation to the children's risky play. There were two codes mentioned by the teachers under this category (see Table 57). Seven of the teachers indicated that their parents accept risky play as experiential learning. T361 commented on this issue as follows:

> For example, some parents do not want their children to go out at all because they cannot take risks there... but I can say that the other parents who say that the child is a child, let him play, socialize, children can fall because they learn through experience.

Some of the teachers (n=3) commented that parents consider injuries as part of childhood. While talking about this topic, T467 said:

> Even though physical injuries can happen, parents see them as part of childhood. I never got a negative reaction from my parents because of this. Parents have a positive attitude because they have no time to go out with their children.

### 4.2.6.*3*. Criticizing Parents

Analysis of the responses revealed that some teachers (n=6) perceive parents to blame for the consequences of risky play. There were two codes mentioned by teachers under this category (see Table 57). Six of the teachers commented that parents litigate teachers when a physical injury occurs during outdoor risky play. T435 commented on this issue as follows:

> The parents of the kids in my class do not want us to allow risky play. Unfortunately, when kids get hurt or something happens in preschool, we restrict the kids because the parents immediately litigate us even if minor physical injuries happen to their kids.

Some of the teachers (n=5) reported that parents overreact to physical injuries that can happen when children play risky play. For example, T466 argued that:

> We can experience very negative situations. For example, there was a toy on a ladder and the kids reached the slide and went down from there. One of our children goes up the stairs and wants to go back down, of course he falls while going down, and the parents overreact to this problem.

**Table 57**

*Teacher Reported Parent Views on Risky Play*

| Theme | Category | Codes | Exemplary Quotes |
|---|---|---|---|
| **Teacher Reported Parent Views** | Overprotective parents | Being aversive to risk (n=14) | There are parents who say please do not take any risks because his/her friend may push my child and s/he can hit his/her head and his/her knee can bleed. (T361) |
| | | Being restrictive to teachers outdoor practices (n=11) | I think that parents interfere with us too much. They believe that when children are out, we have to intervene children not to run at high speed or not to push each other, not to jump off etc. Then, we become restrictive due to these concerns and restrictive attitudes of the parents. (435) |

*Table 57 (cont'd)*

| Theme | Category | Codes | Exemplary Quotes |
|---|---|---|---|
| Teacher Reported Parent Views | Supportive parents | Accepting risky play as experiential learning (n=7) | For example, there are parents who don't want their children to go out at all, they can't take the risks there…. but I can say that the other parents who say that the child is a child, let him or her play, socialize, children can fall because they are learning by experiencing. (T361) |
| | | Viewing injury as part of childhood (n=3) | Even though physical injuries may happen, the parents view the injuries as a part of childhood. I never got a negative reaction from my parent because of this. The parents have positive views because they do not have a chance to take their children out due to their busy work life. (T467) |
| | Criticizing parents | Litigating teachers (n=6) | Our parents of children in my class do not want us to allow risky play, when children get hurt in school or something happens, we, restrict children because parents litigate us even if small physical injuries happen to their children (T435). |
| | | Being overreactive to physical injuries (n=5) | We can have very negative situations. For example, there was a toy on a ladder, and children reached and descended the slide from there. One of our children goes up the stairs and wants to go down again, of course, he falls while going down, the parents have overreaction to this issue. (T466) |

### 4.2.7. Teacher Reported Administrator Views on Risky Play

To obtain information about teacher reported administrators' views on children's risky play, teachers asked, "*What are administrators' views on children's risky play in preschool?"* Teachers commented on their different perceptions of the administrators with whom they work, and the perceptions were presented under the theme of teachers' perceptions of administrators. Under this theme, three categories emerged: 1) administrators as overprotective, 2) administrators as supportive, and 3) administrators holding teachers responsible (see Table 58).

#### 4.2.7.1. Administrators as Overprotective

Analysis of the responses revealed that some of the teachers (n=11) noted that administrators become overprotective regarding children's risky play. There was one code mentioned by teachers under this category (see Table 58). The majority of

teachers (n=11) expressed that administrators have an aversion to risk in children's play. That is, they do not prefer to take any risks in preschool. T361 commented on this issue as follows:

> Preschool administrators try to design the preschool environment to avoid risk, and both as a state education system and as a preschool, everyone tries to do the best they can from the beginning, within budget.

#### 4.2.7.2. Administrators as Supportive

Analysis of the responses revealed that some of the teachers (n=11) noted that administrators supported children's risky play. There were three codes mentioned by teachers under this category (see Table 58). The majority of teachers (n=11) expressed that administrators support risky play and take safety measures. On this topic, T427 said:

> The administrators in my preschool accept the situation that children may suffer physical injuries during risky play. Therefore, we need to consider safety rules before children take any risks while playing.

Four of the teachers said that the administrators consider risky play as experiential learning. T143 commented on this issue as follows:

> My administrators support risky play. They believe that we should set limits for the children. If they want to climb a tree, they can do it, or if they want to learn something, they can try it, we should let them have experiences.

In addition, one of the teachers (n=1) mentioned that their administrators provide them with additional staff so that they can provide more risky play opportunities for the children. In this context, she said:

> The administration provides staff support for risky play when needed. We already have additional staff in our classrooms, but there are also staff in the hallways when we need them, and they help. The kids can engage in risky play, the administration does not have a restrictive stance (T334).

#### 4.2.7.3. Administrators as Holding Teachers Responsible

The analysis of the responses showed that some of the teachers (n=4) remarked that administrators held teachers responsible for any physical injuries of the children (see Table 58). In this regard, some of the teachers (n=4) expressed that when injuries occur, the administrators tend to blame the teachers as if they do not observe the children enough while they are playing. On this topic, T466 said:

They often ask why we are around the kids when injuries occur. In other words, I do not think they look at it positively because we are asked to be the person supervising the child.

**Table 58**

*Teacher Reported Administrator Views on Risky Play*

| Theme | Category | Code | Exemplary Quotes |
|---|---|---|---|
| Teacher Reported Administrator Views | Administrator as overprotective | Being aversive to risk (n=11) | The school administration tries to organize the school environment to prevent the risks. Both as a national education and as a school, everyone is trying to do the best they can, in line with the budget, from the very beginning of the school. (T361) |
| | | Safety regulations (n=5) | The administrators in my school accept the situation that while children engage in risky play physical injuries may happen, so we need to consider safety regulations before children take any kinds of risk in play. (T427) |
| | Administrator as supportive | Accepting risky play as experiential learning (n=4) | My administrators support risky play. They believe that we should limit children, if they want to climb a tree, they can climb, or if they want to learn something, they can try it, we should let them experience it. (T143) |
| | | Providing extra staff (n=1) | The administrative staff provide personnel support for risky plays if necessary. We already have extra personnel in our classrooms, but there are staffs in the hallways when we need, they help us. We can play risky play and the administration does not have a restrictive attitude. (T334) |
| | Administrator as holding responsible | Holding teachers responsible for children's injuries (n=4) | It can be questioned a lot why we are not in the environment on certain issues. They believe that we always be the person who |

# CHAPTER 5

# DISCUSSION AND CONCLUSION

This chapter consists of a summary of the study, a discussion, and a conclusion of the study. The summary of the study section briefs the entire process of the study, while the discussion section provides explanations and interpretations of the results in relation to the aims of the study and related literature. The conclusion of the study consists of the implications and limitations of the study and suggests new directions for future research.

## 5.1. Summary of the Study

The present study had the dual aims of examining a) early childhood teachers' attitudes toward risky play in relation to various factors (e.g., preschool type, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children, and daily outdoor time), and b) teachers' views about children's risky play. Therefore, explanatory sequential mixed-methods research was conducted using both quantitative and qualitative methods to better explain the research questions and obtain in-depth information on the topic (Creswell, 2015; Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). The researcher focused on the first, quantitative phase and used the subsequent qualitative phase to explain the quantitative results. Participants in the quantitative portion of the study were 484 in-service early childhood teachers who are working in both private and public preschools in the nine main districts of Ankara. The first, quantitative phase of the study consisted of two parts. The first part included a) the Demographic Information Form and b) the Scale for the Attitudes Towards Risky Play at Early Childhood-Teacher Form (Karaca & Uzun, 2020). The five-point Likert scale contains 25 items and four sub-dimensions of risky play, namely 1) beliefs about the necessity of risky play, 2) tolerance towards risky behaviors, 3) sense of anxiety about risky play, and 4) differentiation of risky

behaviors. The second phase included semi-structured interviews developed by the researcher in accordance with the opinions of six experts in the field of early childhood education and the piloting of the interview protocol with three early childhood teachers (DeVellis, 2017; Prescott and Soeken (1989), Participants in the qualitative part of the study were 21 early childhood teachers who indicated their willingness in the first part of the study. Quantitative data were initially analyzed using the software of IBM Statistical Package for the Social Sciences (SPSS). To ensure the reliability and validity of the quantitative results, the alpha coefficient and construct validity index were ensured (Field, 2013; Fraenkel et al., 2011). Qualitative data were then analyzed using MAXQDA 2020 software. In analyzing the qualitative data, the researcher used thematic analysis, in which a data set is searched to identify, analyze, and report recurring patterns (Braun & Clarke 2006). As suggested by Creswell and Plano Clark (2018), intercoder reliability was calculated to ensure the trustworthiness of the qualitative results, and thick descriptions and peer review methods were used to ensure the credibility of the results. In this regard, the following part is about the discussion of both quantitative and qualitative results of the study.

### 5.2. Discussion of the Findings

The discussion section contains a detailed analysis and interpretation of both the quantitative and qualitative data in the context of the study's research objectives and the relevant literature. In mixed methods research, mixing occurs at four possible points in the research process: Interpretation, data analysis, data collection, and design (Creswell & Plano Clark, 2018), In this study, the researcher applied mixing during interpretation. Therefore, the researcher first collected and analyzed both sets of data, and then the quantitative and qualitative results were mixed while discussing the results of the study.

The results of the current study indicated that private preschool teachers have more positive attitudes toward risky play than public preschool teachers. In relation to the sub-dimensions of the scale, the results showed that private preschool teachers are more positive beliefs about the necessity of risky play, have more tolerance toward risky behaviors, and better able to differentiate risky behaviors than public preschool teachers. This pattern of results can be explained by previous studies by Sandseter et al. (2021a) and Cevher-Kalburan (2014b). In their study, Sandseter et al. (2021a)

found a significant difference in the environment in which risky play occurs and concluded that risky play is particularly higher amounts outdoors compared to indoors. In addition, Cevher-Kalburan (2014b) demonstrated in her comparative study of public and private preschools that private preschool teachers facilitate more outdoor play than public preschool teachers. Consistent with the literature, in the present study, the result of the differences in risky play attitudes between public and private preschool teachers can be explained in several ways. First, since studies have shown that private preschool teachers allow more outdoor play, it is more likely that teachers observe children engaging in risky outdoor play so that they can better discriminate and tolerate risky behaviors. It is also possible that private preschool teachers who spend more time outdoors observe positive effects of children's risk-taking in play, such as their resilience, which could lead them to believe in the need for risky play and ultimately have more positive attitudes toward risky play. The differences between the attitudes of public and private preschool teachers can also be partially explained by the interpretation of their interviews from the qualitative phase of the current study. While the private preschool teachers primarily indicated climbing as one of the risky play types, the public preschool teachers indicated that playing with fixed playground structures is risky. In this sense, the difference between the teachers' responses may indicate that the private preschool teachers cited examples of risky play, while what the public preschool teachers considered risky was not a type of risky play. Therefore, the differences between the attitudes of public and private preschool teachers can also be partially explained by the types of outdoor play reported by both groups of teachers during the semi-structured interviews. Although it was found in the quantitative phase that private preschool teachers have more positive attitudes towards risky play, on the other hand, it was surprising to see in the interview data that public preschool teachers indicated more climbing equipment, heights, and natural elements than outdoor play equipment, which were usually considered to afford risky play more in previous studies (Sandseter, 2009c; Çetken-Aktaş & Sevimli-Çelik, 2021). One possible explanation for this situation could be that teachers in public schools do not allow children to engage in risky play due to their attitudes toward risky play, even if the environments are more affordable and challenging for children. In the current study, no significant difference was found between the sense of anxiety levels of private and public preschool teachers regarding risky play. During interviews, preschool teachers working in both types of preschools expressed their sense of anxiety about children's

safety and the possibility of injury. Consistent with these findings, Maynard and Waters (2007) found that although teachers have positive attitudes toward risky play, they also have a sense of anxiety about children's safety. Therefore, I believe that the fact that there is no difference in sense of anxiety scores could be statistically explained by the fact that the two groups do not differ on this variable.

In light of Little and Wyver's (2008) study showing that the child-staff ratios play an important role in how risk-taking in play is restricted or allowed by teachers in early childhood education. Contrary to expectations, in the quantitative part of the study, the current study found no difference in early childhood teachers' attitudes toward risky play and all four sub-dimensions in relation to the number of children in their classrooms. However, the data from the interviews revealed different responses. In the interviews, some teachers expressed that a high number of children in their classrooms can be a barrier to allowing children to engage in risky play, namely climbing at high heights. These findings mirror those of Van Rooijen and Newstead's (2017) study that child-teacher ratios prevent teachers from enabling children to engage in risky play. The discrepancy between the quantitative and qualitative results may be due to the fact that teachers ideally answered the questions in the quantitative section based on their own opinions, while they elaborated on the interview questions considering their actual practice and the obstacles they faced.

Teacher aides, who reduce teachers' workloads and help them with children's self-care, are employed in many countries. According to early childhood educational regulations in Türkiye, preschools are not required to hire staff to help teachers in the classrooms (MoNE, 2014). Therefore, some teachers work with an aide while others do not. Considering this fact, a significant finding of the present study is that early childhood teachers who work with an aide in the classroom have more positive attitudes toward risky play than teachers who work without an aide. In relation to the sub-dimensions of the scale, teachers who work with an aide have more positive beliefs about the necessity of risky play, have more tolerance toward risky behaviors, have a lower sense of anxiety toward risky play, and are better able to differentiate risky behavior than teachers who work without an aide. To the best of the researcher's knowledge, the effect of the presence of teacher aides on teachers' attitudes toward risk play has not been previously studied, but these findings are partially consistent with those of previous studies. Karademir et al. (2017) found that teacher aides have an important role in the classroom because they ensure the safety of children in the

classroom. In their study, one teacher said that she prefers to work with more children together with an aide rather than working with less children alone (Karademir et al., 2017). In addition, Shim et al. (2004) found that the quality of instruction was higher in classes where teachers and their aides worked in coordination than in classes with only one teacher. Given these findings, one possible explanation for the results of the present study could be that teachers have fewer safety concerns when they work with their aides, resulting in lower feelings of anxiety, higher tolerance for risky behaviors, and more time to better differentiate risky behaviors. Therefore, it is possible that teachers ultimately have a more positive attitude toward children's risky play. Further confirmation of this view emerged from the qualitative findings of the present study. In their evaluations of children's risky play at great heights, teachers identified some facilitators. Regarding facilitators by teachers, they frequently mentioned staying close to the children while they were at great heights. This finding could be due to the fact that working with an aide gives teachers more opportunity to stay close to children to ensure their safety, so this facilitation could support their positive attitude toward risky play.

The teaching experience was another aspect considered in the present study in relation to teachers' risky play attitude. The results of the present study showed no differences between years of experience and teachers' attitudes toward risky play. This result is consistent with previous research by Višnjić-Jevtić et al. (2021), who found no differences between teachers' years of experience and attitudes toward risky play. In relation to the sub-dimensions of the scale, it was interesting to see that less experienced/novice teachers differentiate risky play behaviors better than those who have more experience. These findings can be partially explained by Sandseter's (2014) study that teachers' excitement-seeking behavior decreases with age, suggesting that younger teachers are more excitement-seeker than older teachers. While age itself did not correlate with attitudes toward risky behavior in the present study, one possible explanation could be that younger teachers' more excitement-seeking personalities make them allow children's risky play, making them more likely to differentiate risky behaviors in children's play. Another possible explanation, in my opinion, could be that numerous studies indicate that novice/ less experienced teachers experience anxiety, frustration, and hopelessness during their first years of teaching (Beauchamp & Thomas, 2009). For this reason, it can be said that teachers tend to be more alert during their first years of teaching due to their anxiety and safety concerns, so the alert

mode could help teachers better identify risky behaviors. Importantly, the qualitative results of the present study contained an unexpected finding. It was reported that how they allowed children's risky play depended on years of teaching experience. Therefore, although the five-item scale showed no difference between teaching experience and attitudes toward risky play, the semi-structured interview suggested that experience might influence teachers' practices regarding risky play.

Researchers (Sandseter et al., 2021a) found in a previous study that as children's age increases, the expected amount of risky play, particularly playing at great heights increases. The present study found no significant differences in teachers' attitudes toward risky play, beliefs about the necessity, tolerance toward risky behaviors, and sense of anxiety about risky play in relation to the age groups of the children with whom they work. However, this finding partially contradicts the findings from the qualitative section of the current study. It was found that one of the factors that make it easier for teachers to allow children to engage in risky play, namely climbing/jumping, is children's risk assessment, which is enhanced by developing decision-making skills about what risks they can take (Tovey, 2007). For this reason, 60-72 months-old children are more likely to be better able to assess risk, and this situation makes it easier for teachers to allow children's risky play. Another possible explanation for these rather contradictory results could be that the teachers do not consider the age group of the children when evaluating their attitudes in the quantitative measurement, but when it comes to expressing their practices during the semi-structured interviews, they could carefully consider the age groups and abilities of the children in their classrooms. Surprisingly, the quantitative results indicated that teachers working with 36-48- month-old children differentiate risky behaviors better than teachers working with 48-60 and 60-72-month-old children. This finding can possibly be explained by the fact that 36-48-month-old children are more dependent on teachers, which could lead teachers to closely monitor this young age group. From this point of view, teachers working with younger children are more likely to be better able to differentiate risky behavior.

Previous research has associated risky play mainly with a type of play that children engage in primarily outdoors (Brussoni et al., 2015; Clements, 2004; Greenfield, 2004; Little & Eager, 2010; Little & Wyver, 2008; Sandseter et al., 2021a; Stephenson, 2003; Tovey, 2007; Wyver et al., 2010). In this context, it can be said that the more time children spend outdoors, the more likely they are to engage in risky

play. This idea is further related to Bronfenbrenners (1979) Bioecelogical theory that in *the chronosystem,* the environment is not a static force that affects children in the same way rather it is constantly changing. In the context of the present study, a decrease in outdoor play time of young children is considered a major event in the chronosystem that affects children's opportunity for risky play. In addition, when considering the relationship between time spent outdoors and teachers' attitudes toward risky play, in the present study there were, as expected, important associations between teachers' attitudes toward risky play and children's daily time spent outdoors. First, teachers who spent more time outdoors were found to have a higher tolerance toward risky behaviors than teachers who spent less time outdoors. Similarly, teachers who spend less time outdoors had higher levels of anxiety toward risky play than teachers who spend more time outdoors. In addition, teachers who spend more time outdoors were better able to differentiate risky behaviors than teachers who spend less time outdoors. In my opinion, the most compelling explanation for the present findings is that teachers who spend more time outdoors are more likely to be familiar with children's outdoor play, which in turn leads them to be familiar with children's outdoor play behaviors and the environment in which they play. That is, when teachers are familiar with children's environments and play behaviors, they are likely to be less sense of anxiety and more tolerant of risky behaviors. This idea is supported in a similar study showing that the better teachers understand the space and manage the logistical challenges in that space, the better they recognize the learning potential of outdoor learning experiences (Strachan et al., 2017). Further confirmation of this view emerged from the qualitative findings of the current study. Teachers indicated that outdoor play is part of their daily routine, but seasonal conditions influence their decisions about how much time to spend outdoors. In this sense, the finding of the current study is consistent with previous literature (Alat et al., 2012; Ebbeck et al., 2019; Güler & Demir, 2016; Hinchion et al., 2021; Mayrand & Waters, 2007; Sandseter et al., 2021b) that the amount of time preschool children spend outdoors changes depending on weather conditions. In the current study, preschool teachers were reported to spend more time outdoors in the summer than in the winter. These results are consistent with Bronfenbrenner's Ecological Systems Theory (1979) since weather and seasonal influences is considered as a two macro-level factors which influences on children's risk play in the context of the present study. In this sense, some of the preschool teachers, in the current study, even stay exclusively indoors

during the winter season because parents are concerned about their children's getting sick in the winter. While the quantitative data revealed the differences in teachers' attitudes toward risky play in relation to different daily outdoor times, the qualitative section of the current study provides a more complete picture of the reasons for the changes in their daily outdoor times.

Notably, another factor influencing their decision to spend time outdoors was parental concerns. This finding is also supported by the results of studies showing that Turkish parents are concerned about their children when they spend time outdoors (Alat et al. 2012). Cevher-Kalburan (2014b) also studied children's outdoor play opportunities and found that children's outdoor play in preschool was limited by parents' fear of risks. In this regard, New et al. (2005) and Van Rooijen & Newstead (2017) mentioned that the relationship with parents is a significant factor in teachers' attitudes toward risky play. Given this theme, further exploration in the semi-structured interviews revealed, as expected, that teachers described parents' overprotective parenting style as a barrier to their outdoor play practices and risky play. In the context of overprotective parenting style, in line with previous studies (Cevher-Kalburan & İvrendi, 2016; Little, 2006; Tovey, 2007; Wyver et al., 2010), the most common views of teachers in the current study were aversion to risk and restriction of outdoor play practices. These findings support evidence from a previous study by Cevher-Kalburan and Ivrendi (2016) that overprotective parenting leads to a decrease in outdoor play and risk-taking practices. These findings are also in relation to the second system of Bronfenbrenners' theory (1979), *the mesosystem,* which comprises teachers' interactions with children's parents. In this sense, the findings of the present study are in agreement with Ecological Systems Theory (1979) which suggested teachers and parents should keep good communication with each other and act together for the benefit of the child. In the current study, teachers also explained their feeling of anxiety and mentioned criticizing parents who were overreactive and tend to litigate them. These findings are consistent with other research (Cheng et al.,2022; Harper & Obee, 2021; LeMasters & Vandermaas-Peeler, 2021; Little et al., 2012; Liu & Birkeland, 2022; Sandseter & Sando, 2016) indicating that early childhood teachers' main concerns about allowing children to engage in risky play are fear of litigation and parental overreaction. Consistent with previous studies (Little et al., 2012; Van Rooijen et al., 2020), teachers who participated in the semi-structured interviews indicated that parents' overreactions to physical injuries limited their

decision-making regarding allowing children to engage in risky play. In terms of litigation, consistent with the present study, Tovey (2007) noted that some teachers are concerned about supporting children's risk-taking behaviors because they fear being blamed and litigated. In addition, Little and Wyver (2008) indicated that fear of litigation may lead to risk minimization that limits the quality of outdoor play. In the current study, teachers acknowledged that litigation influenced their decisions, and they felt that children's safety was overrated. In addition to overprotective and criticizing parents, teachers also mentioned supportive parents who accept risky play as experiential learning and view physical injuries as part of childhood. In the present study, teachers were reported to allow children more freedom when parents were supportive. One possible explanation for these findings may be that teachers' attitudes toward allowing children to engage in risky play and the amount of time children are allowed to play outside may change depending on parents' views.

Another issue that influences teachers' decision-making regarding children's risky play was the views of school administrators. School administrators' views were also reported in teachers' accounts as *overprotective*, *supportive*, and *holding teachers responsible*, which is noteworthy because administrators' views in teachers' accounts are not common in the literature. Teachers felt that administrators can sometimes be overprotective and risk-averse. This means that teachers may find this view restrictive when it comes to allowing children to play risky play and setting limits (Little et al., 2011). One possible unintended consequence of administrators' views was that they were supportive. One teacher reported that her administrator even provides extra staff and accepts risky play as experiential learning, which is hopeful because administrators' views seem to be related to teachers' practices inside and outside of school. On the other hand, some teachers in the interviews reported that administrators hold teachers responsible for children's injuries, which creates tension among teachers about allowing this type of play. Therefore, as previous research has shown, opportunities for accountability impact early childhood teachers who allow risk in play (Little et al., 2012). In this context, one possible explanation for this finding could be that external regulation that may constrain teachers in their risk management practices also contribute to risk aversion.

When exploring early childhood teachers' views on the definition of risky play in the semi-structured interviews, the teachers emphasized several negative and positive sides of this play. The findings regarding teachers' definitions of risky play

are discussed in two parts: the first part before the researcher did not give a definition of risky play, and the second part after the researcher defined what risky play is. Before the definition was given, some of the teachers seem to have been aware of the benefits of risky play and argued mainly the positive experiences of the children (e.g., self-esteem and problem solving). On the other hand, most of the teachers defined risky play as a form of play where there is a risk of physical injury, which is consistent with existing research findings (Sandseter, 2007; Sandseter, 2009a). One possible explanation for these findings could be the negative connotation of the word risk (Little & Eager, 2010). On the other hand, many teachers have expanded this definition by citing some of the widely mentioned benefits of risky play such as self-esteem and problem solving (Güler & Demir, 2016; Harper & Obee, 2021). When examining teachers' descriptions after hearing the definition, a common definition of what risky play actually was not changed, but surprisingly, the number of negative views decreased, and the number of positive views increased. This result may be explained by the fact that the interviewed teachers may have no idea about risky play and consider the words "exciting" and "physical forms of play" in the definition of risky play while stating their arguments for the positive side of risky play. Therefore, it is likely that, after they heard the definition, they emphasize improving physical skills, expanding the limits of the body, and increasing self-confidence, which is consistent with the results of previous studies (Harper & Obee, 2021; İvrendi et al., 2019).

Another important finding of the current study was that teachers' first and most frequent examples of children's risk-taking before and after the definition were related to playing at high speed and falling from heights, respectively. This finding suggested that most teachers initially conceptualized children's risky play as outdoor physical activity, which is consistent with the concept of risky play (Sandseter, 2009a). These findings are likely related to the fact that children's risky play is primarily associated with outdoor physical play, as physical risk-taking is readily recognized by teachers (Cooke et al., 2020; Little & Eager, 2010; Sandseter, 2009b; Stephenson, 2003). It was interesting to note that some of the teachers in the current study expressed that free outdoor play is also a type of risky play. This finding confirms previous studies (Little & Wyver, 2008; Little et al., 2011) that children tend to use playground equipment to get excited on playgrounds when there are no other opportunities for children to take the risk. In this sense, it could be said that children's engagement with fixed playground equipment such as swings and slides is also considered risky by some

teachers, who believe that children seek excitement in their play. These findings are consistent with the findings of Sandseter (2009b), who showed that the immediate reward of such play for children was excitement and pleasure, even if it was sometimes a fearful joy.

Another surprising finding of the current study was the difference in views about playing with great heights (e.g., climbing and jumping) and sliding backwards. Playing with great heights and sliding backward were the two examples of risky play mentioned in the semi-structured interviews related to the quantitative phase of the study. In this regard, the interview data indicated that most teachers were more likely to allow play at great heights than sliding backward. This could be interpreted as an expression of the teachers' understanding and acceptance of playing with great heights as a natural part of children's free play. Second, since the teachers, in the current study, allowed various climbing and jumping activities, they likely considered the outdoor environment appropriate for play with great heights such as climbing and jumping off. The interview data also confirmed that the majority of teachers were in favor of playing at great heights as long as it was under their control. In the cases where they allowed sliding backwards, it was reportedly the result of intentional facilitation of the environment. Traces of these results were also seen in the quantitative data, where they responded that they mainly allowed climbing and jumping, but backward sliding was not allowed. In terms of practice, teachers described their role when children try to slide backwards. It is reported that teachers want to support sliding backwards but also have some concerns. Onlooker, stage manager, and co-player roles seem to facilitate children's risky play while in the directive role, teachers restrict children's actions and ask them to slide as usual. It was found that the roles found in the current study were partially consistent with a previous study in which Norwegian kindergarten teachers identified the following six roles: supporter, protector, role model, playmate, rule-maker, and home coordinator while the kindergarten teachers in Anji believed that kindergarten teachers mainly had six roles: supporter, observer, protector, guide, participant, and sharer (Liu & Birkeland, 2022). In this regard, it could be said that the present study and their study have different views about some roles but agree that supporters and protectors are significant roles in teachers' decisions about children's risky play.

In their positive evaluations of children's play with great heights, teachers simultaneously identify some facilitators. These facilitators largely relate to the

teacher, the child, and the school. It appeared in the present study that many teachers recognize the value of risky play and provide appropriate opportunities for children to engage in risk-taking. The results of the current study showed that teachers generally use one of three facilitation strategies in dealing with children's risky play, namely playing at great heights: teacher-related facilitation, such as staying close to the children, child-related facilitation, such as knowing the children's abilities, and school-related facilitation, such as a shock-absorbent grounds. On the other hand, teachers also mentioned the barriers for not allowing children from playing with great heights which are related to the parents, the child, and the school. These results confirms the findings of much of the previous work of Van Rooijen et al. (2020), according to which teachers retrospectively mentioned barriers related to feelings of tension for being responsible for physical injuries, even fear and doubt about when to intervene. In a study of Norwegian and Australian teachers, the high-speed category, which includes actions such as climbing to great heights, jumping from solid or flexible surfaces, and actions such as swinging quickly and running fast, was found to be unbearable by Australian teachers in contrast to Norwegian teachers (Little et al., 2012). The present study partially agrees with these findings, as the early childhood teachers in the current study do not prohibit play at high heights, but they do mention the obstacles such as the concrete floor in the preschool that limits them. In the current study, these results showed that the preschool teachers mention barriers that prevent them from allowing risky play, which contradicts previous studies that indicated less risk-taking attitudes among Norwegian preschool teachers (Sandseter, 2012).

As mentioned earlier, in the present study, the teachers' definition of risky play included both positive and negative aspects of risky play. In this context, teachers' views on the positive and negative effects of children's risky play on their development were further explored. Interview data indicated that many teachers were positive about risky play and recognized its key role in children's development. The results of this study are consistent with the findings of previous studies that indicated that teachers believe that risky play is a significant aspect of young children's learning and development (Hewitt-Taylor & Heaslip, 2012; Little et al., 2012; Little et al., 2011; New et al., 2005). Interview data also revealed that teachers classified the benefits of risky play into four categories: social-emotional, physical, cognitive, and self-care, which are consistent with other research findings (Little & Wyver 2008; Obee et al., 2021). While teachers reported the developmental role of risky play in the semi-

structured interviews and found associations about their beliefs about the necessity of risky play in the quantitative portion of the study, teachers also had a sense of anxiety about risky play practices even when they held positive attitudes. In the same direction, previous studies (Cevher-Kalburan, 2015; Little et al., 2011) have shown that teachers have a sense of anxiety about the negative effects of risky play. This finding of the present study was particularly important because it was first obtained through questioning during the in-depth study of the teachers' interviews. It appeared that the teachers in the present study are aware of the reasons for their feelings of fear of risky play opportunities. The negative aspects of risky play in play were reported in two different categories: Injuries and Feelings. As mentioned earlier, injuries are consistent with existing research and literature on forms of play that involve the potential for physical injury (Sandseter, 2007; Sandseter, 2009a). However, the interview data of the current study indicated that teachers expanded on the negative effects of risky play by considering feelings, which is consistent with Harper & Obee's (2021) findings that risky play carries the potential not only for physical injury but also for emotional and social harm.

### 5.3. Conclusion of the Study

The conclusion of the study section includes the implications and limitations of the current study and provides recommendations for future research. The purpose of the present study was twofold: a) to examine early childhood teachers' attitudes toward risky play in relation to various factors (e.g., preschool type, number of children in the classes, presence of teachers' aides, teaching experience, age groups of children, and daily outdoor time) and b) to examine teachers' views about children's risky play. In this regard, this study contributes to the growing literature by revealing significant differences in early childhood teachers' risky play attitude in relation to *preschool type*, *presence of teachers' aides*, and *daily outdoor time* practices. In addition, the present study concluded that teachers considered risky play as an important part of children's social-emotional, physical, cognitive, and self-care development. It was also found that there are both facilitators and barriers to children's risky play, namely parent, school, and child-related. The most surprising conclusion from the semi-structured interview was that the teachers answered the closed scale items ideally in most cases, while they responded to the open-ended questions of the semi-structured interview from their practice and indicated their concerns. In this

regard, the semi-structured interviews provided valuable insights into the reasons for influencing teachers' attitudes and views. They pointed out the negative aspects of risky play for children and also expressed some concerns related to parents and administrators. Taken together, it was concluded that parents and administrators play a role in promoting more positive attitudes toward risky play among teachers. The current study found that parents are important factors influencing play opportunities for children. Most importantly, it was concluded that teachers limit children's risky play because of parents' concerns. Therefore, in order to develop opportunities for children's risky play that can have a positive impact on children's health and development, it is significant to create conditions where adults feel comfortable and motivated during the time spent outside. Based on the results of the study, it can be concluded that collaboration between teachers, parents, and administrators is extremely important. In other words, more engagement and communication between parents, teachers, and school administrators seem necessary. In this context, the following section identifies some practical implications for individuals involved in early childhood education, such as teachers, program developers, administrators, and policymakers.

### 5.3.1. Implications

The results of the current study provide some practical implications to individuals involved in the field of early childhood education, such as in-service teachers, pre-service teachers, parents, administrators, program developers, and policymakers.

#### 5.3.1.1. Implications for Early Childhood Teachers

It is of great importance for early childhood teachers to provide children with more risky play opportunities to meet their learning and developmental needs. In order to provide children with opportunities for risky play, early childhood teachers need to have a comprehensive understanding of risky play. First, the current study showed that the majority of teachers do not know much about what risky play is. Therefore, it is recommended for in-service early childhood teachers to be lifelong learners and follow the research and new pedagogical approaches in the field of early childhood education, particularly about risky play and outdoor education. In this context, the organizations that support the professional development of teachers related to outdoor education can

be suggested. In the Turkish context, forest preschools (e.g., Serpil Forest School in Mersin, Türkiye) and outdoor cooperatives (e.g., the Instagram account dogadaogreniyorum initiated by Gaye Amus) share their practices of risky outdoor play through technological channels such as blogs, social media accounts, videos, and so on. In addition, for the international context, the Child and Nature Alliance of Canada (CNAC) provides several online resources to learn about the benefits of unstructured outdoor play that outweigh the potential risks. Second, the present study found that private preschool teachers have more positive attitudes than public preschool teachers. Consistent with this finding, in-service training and seminars could be organized for both public and private preschool teachers to attend in order to develop more positive attitudes toward risky play. These training and seminars could include: what risky play is, the categories of risky play, the benefits of risky play, the role of teachers in children's risky play, and how to support children's risky play. In this context, by learning more about risky play, teachers learn how to balance risks and benefits. In this sense, this should be done on the basis of a risk-benefit assessment. Risk-benefit assessment is a method of considering the risks involved in play while recognizing the benefits to children. In addition, it is recommended that these training and seminars include practical exercises combined with theoretical knowledge. In this context, field trips to the outdoors, such as the forest, can be organized to better understand the concept of risky play. Third, this study makes a noteworthy contribution to the relevant literature by using quantitative and qualitative measures to show that more outdoor time in preschool leads to more positive attitudes and views of preschool teachers toward children's risky play. For this reason, it is highly recommended that preschool teachers balance outdoor and indoor activities in their daily schedules. To create a balance between indoor and outdoor activities, early childhood teachers should prepare and implement different plans for outdoor activities so that children can take risks in their play. In addition, teachers should consider all age groups when allowing children sufficient time for outdoor activities.

The results of the current study may also have some practical implications for teachers in relation to parents. In the current study, teachers reported that parents' concerns limit the amount of time they spend outdoors at school. In this regard, teachers are advised to take safety precautions regarding materials and clothing for outdoor play in rainy and snowy weather. In this way, parents may get a better sense of their children's safety, which could lead to children spending more time outdoors

and taking more risks while playing. In addition, the current study showed that parents may worry about their children's safety, be overprotective, and even criticize preschool teachers for their children's injuries. In preschool, information sharing between teachers and parents is critical. Therefore, it is important for teachers to convince parents of the benefits of risky play for children's development and learning. In this context, there are several implications for teachers. First, there are online tools to help parents manage their fears and develop a plan for change so their children have more opportunities for risky play. OutsidePlay.ca, for example, was a joint initiative of the University of British Columbia, BC Children's Hospital, and the BC Injury Research and Prevention Unit. The project was conducted in collaboration with Dr. Mariana Brussoni's research team and the BC Children's Hospital digital lab. The website was created to help parents and communities change the views that limit children's opportunities to play outside and take risks. It is designed to help users take a more balanced approach for themselves and their children by understanding the importance of risky play, managing the fear that can lead to setting too many limits and creating an action plan for change. Teachers can use the website to find a way to persuade parents. Strategies on the website include: 1) have parents self-reflect by thinking about the similarities and differences between children's favorite activities and their own childhood activities, 2) present some scenarios for risky play and ask for reactions to them, and 3) ask about parents' general concerns and their action plans for promoting children's risky play. Second, teachers can hold seminars for parents on what risky play is, the opportunities and characteristics of the school environment, the benefits of risky play, how to assess risk and its benefits, and how to learn through risky play to further their understanding of the risky play. By learning how to assess risks and benefits, parents should also balance risks and benefits, as should teachers. In this way, parents' negative overreactions related to physical injuries could gradually decrease as teachers explain the importance of risky play and encourage parents to participate in such seminars (Bento & Dias, 2017). Third, international examples in the area of risky play could be provided to educate parents about the importance of engaging in risky play. For example, forest schools with risky play practices in European countries such as Finland and the United Kingdom could be cited as examples to highlight children's development. In addition, collaboration with parents could consist of establishing the necessary protocols for outdoor play, especially risky play. In this sense, some protocols can be signed at the beginning of the semester by

parents. In this way, parents can be informed about the issues related with outdoor practices which may decrease teacher's sense of anxiety to allow children's risky play. For example, the current study found that outdoor time decreases during the cold season and teachers are concerned about physical injuries to children. These protocols could be established to inform parents about necessary outdoor clothing such as boots, umbrellas, waterproof winter coats, etc. Providing children with appropriate outdoor clothing can help alleviate parents' concerns about being outdoors as it ensures children's health and safety (Bento & Dias, 2017). In addition, to alleviate teachers' fear of allowing children to engage in risky play, necessary precautions can be taken, such as using shock-absorbing materials and rounding the sharp edges of playground equipment as suggested in the interviews.

#### 5.3.1.2. Implications for Pre-service Early Childhood Teachers

As mentioned above, it is crucial that teachers have a good understanding of risky play for them to provide children with opportunities for risky play. Another way to promote teachers' understanding of risky play is to include risky play topics in the curriculum for pre-service early childhood teachers. In this regard, Cevher-Kalburan (2015) examined the effectiveness of an intervention course in changing early childhood pre-service teachers' understanding of children's risky play. The results suggest that participation in the intervention course increased their positive views of children's risky play and improved their understanding. For this reason, the topic of risky play should be addressed in detail in the undergraduate early childhood curriculum. Moreover, the theoretical knowledge of risky play can be combined with practical exercises. In order for pre-service teachers to learn better, at least two or three weeks of their internship can be held outdoors, for example in the forest. In addition, the learning process could be further enhanced by field trips to preschools that offer children the opportunity for risky play, such as forest kindergartens. According to the researcher, who is also a research assistant at a university, the concept of risky play needs to be integrated into the curriculum because pre-service teachers do not know much about this topic.

#### 5.3.1.4. Implications for Administrators

School administrators play an important role in shaping the structure of the institutions and creating positive relationships (Kalkan et al., 2020). In addition,

preschool administrators are individuals who interact with both teachers and parents. Therefore, they play an important role in creating positive attitudes toward children's risky play. Therefore, it is important for administrators to talk and convince parents to the benefits of risky play for children's development and learning. In addition, in the current study, it was found that some administrators were supportive of risk play, while others were not. In this context, teachers reported that they believed the views of administrators who did not support risk play were wrong but these views restrict them to allow children's risky play. For example, they referred to overprotective administrators who are aversive to risk in children's play. In this regard, school administrators are advised to attend training or seminars on risk play as part of their responsibilities, as are teachers. These training and seminars could include: what risky play is, the categories of risky play, the benefits of risky play, the role of school administrators in balancing children's safety with risk-taking, and designing school policies to support children's risky play. This is because in-service training seminars for both administrators and teachers could be effective in developing an understanding of risky play. In addition, the current study found that more outdoor time in preschool leads to more positive attitudes among teachers about children's risky play. In this context, school administrators are advised to design rotation programs to provide children with outdoor time each day. In addition, school administrators are recommended to allocate a budget for outdoor environments and materials for outdoor design, keeping in mind that children need to take risks in their play to ensure healthy development (Brussoni et al., 2015).

#### 5.3.1.5. Implications for Curriculum Developers

In the Turkish National Program for Early Childhood Education, there is no formal explanation for risky play, neither a restriction nor a promotion (Yalçın & Tantekin-Erden, 2018). Therefore, the Turkish National Curriculum for Early Childhood Education can be revised to include specific statements about providing opportunities for risky play. In the current study, early childhood teachers reported their fears of being sued for the children's physical injuries. In this case, teachers' fear of litigation might decrease if there were a formal statement of risky play in the Turkish National Program for Early Childhood Education. For this reason, curriculum developers may revise the program to increase teachers' awareness of risky play and decrease their fear of litigation. The results of the study showed that teachers had

parental barriers to allowing children to engage in risky play. Therefore, curriculum developers need to emphasize the important role of parents in supporting the implementation of children's risky outdoor play in preschool.

#### 5.3.1.6. Implications for Policymakers

Van Rooijen et al. (2020) found that early childhood teachers face policy barriers and need freedom in their practice to allow children to engage in risky play. In this regard, the current study expanded knowledge about the effects of the presence of teachers' aides by showing that teachers who work with an aide have more positive attitudes toward risky play. Teacher aides, who reduce teachers' workloads and help them with children's self-care, are employed in many countries. In the United States, for example, almost all preschools employ one or more teacher aides depending on the number of children in their classrooms (Sosinsky & Gilliam, 2011). According to early childhood regulations in Türkiye, preschools are not required to employ staff to support teachers in preschool settings (MoNE, 2014). Therefore, some preschool teachers in Türkiye work with an aide while others do not. Given the more positive attitudes of teachers who work with an aide, the findings of the current study suggest to policymakers that it is necessary to enact regulations for the provision of additional staff in their classrooms so that teachers have more positive attitudes that affect their practices about risky play. In addition, it is important to design preschool outdoor spaces that allow children to develop as individuals who have an awareness of their bodies and a sense of resilience. This brings us to the problem of inadequate outdoor environment and equipment in playgrounds because the play environment is considered a conditional factor for the possibility of experiencing risky play. This concept is related to the constraints that a poor outdoor environment provides, thus minimizing risky play (Little & Wyver, 2008; Little et al., 2011; Little, 2017, Sandseter, 2009b; Van Rooijen et al., 2020). In this regard, an adventure playground involves riskier play compared to a conventional playground. There are more rough edges, heavy objects, and unsupervised space than in conventional playgrounds. Regarding the type of equipment, in the preschools of the teachers who participated in the current study, there are mainly slides, swings, and climbing equipment. Therefore, policymakers can be reviewed by adopting certain outdoor playground design standards to encourage risky play opportunities for children. As Gill (2007) suggests, when conducting a risk analysis, it is necessary to manage the risk in terms of a benefit-

harm relationship rather than eliminating it. Considering that it is advised for policymakers to bring regulations on designing adventurous playgrounds which promote risk-taking, creativity, and active play. Furthermore, according to Early Childhood Education and Care Policy in Denmark Background Report (2000), several authorities built cabin in kindergarten to allow children spent time in all seasons. Considering that it is advised for policymakers to bring regulations to build such cabins in order to increase children's time spent outdoor in preschool setting.

### 5.4. Limitations and Recommendations

The present study has clear limitations regarding the possibility of generalizing the results. Despite these limitations, the purpose of the present study is not to generalize the findings, but to gain further insight into the factors influencing attitudes toward risky play and to examine teachers' views of risky play. At the same time, the results of the present study open several potential avenues for further research.

The present study was presented based on the data obtained from the early childhood teachers' reports. Thus, the researcher did not have the opportunity to observe the teachers in the children's risky play situations to gain a deeper understanding of what might lead to limitations. For this reason, further qualitative studies, particularly observational studies are recommended for the researchers. Second, as Fraenkel et al. (2011) noted, the nature of the five-point Likert scale could pose a risk of influencing responses by forcing teachers to select one of the scale responses. In addition, the questions in the scale and the semi-structured interview protocol placed emphasis on the specified sub-dimensions. For this reason, further studies may focus on different subdimensions of teachers' attitudes and views regarding children's risky play. In the present study, the use of open-ended questions in semi-structured interview allowed teachers to express their views on risky play that may not be captured by the primary quantitative questionnaire. In addition, the number of participants was 484 in the quantitative phase and 21 in the qualitative phase, so the results may indicate differences among participating teachers, but further studies with larger samples are recommended to provide a more insight base on this topic. Generalizations of these results should be viewed with caution, as some bias may have occurred among the teachers included in the sample. For example, the likelihood that

teachers with an interest in risky play or outdoor plays would be larger and consequently more receptive to the topic may have led to their overrepresentation. The early childhood teachers in this study volunteered, which may have led to response bias. Although the sample was intentionally selected, it might be a limitation because the results may represent only a small portion of the attitudes and views expressed by early childhood teachers about risky play. Further research with early childhood teachers from different countries, cities, and backgrounds could add more depth to this preliminary study. Further research on the attitudes and views of early childhood teachers from different socioeconomic and cultural backgrounds would provide valuable insight into this topic. In addition, these participants in the present study represent only a small region, Ankara, Türkiye, and it would be beneficial to replicate this study to represent a larger geographic area. In addition, qualitative analysis also requires some caution in drawing conclusions. Even if two independent researchers completed the coding process and inter-coder reliability was ensured, the process of coding and categorizing the textual material depends mainly on the researchers conducting the analysis. Therefore, for future studies, it is recommended that other codes, categories, and themes be used. The results of this study contribute to the existing knowledge about the factors that influence attitudes toward risk play by showing that teachers' risky play attitudes change according to the preschool type, presence of teachers' aides, and daily outdoor time. In this respect, it is recommended that these differences be explored in more detail through observations, especially to get a better sense of why these differences exist. By further exploring these influencing factors and how they relate to early childhood teachers in their specific practice situations, we can learn more about how to support early childhood teachers in enabling children to take risks in their play. Further empirical research is therefore needed to investigate whether and how these influencing factors affect teachers' practice in the area of risky play. In the current study, teachers also indicated that the views of parents and administrators were either supportive or limiting. In this regard, further research aimed at examining the views of both male and female parents and administrators from their perspectives is recommended. In addition, since the number of male participants were limited in the present study, further studies with more male participants recommended in order to gain insight regarding the factor of gender on teachers' risky play attitude.

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# APPENDICES

## A. APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
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ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

Sayı: 28620816 / 397

29 EYLÜL 2021

Konu : Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi : İnsan Araştırmaları Etik Kurulu Başvurusu

**Sayın Dr. Öğr. Üyesi Serap Sevimli ÇELİK**

Danışmanlığını yürüttüğünüz Rabia Turgut KURT'un "Okul Öncesi Öğretmenlerinin Riskli Oyunlara Karşı Tutumları" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **397-ODTU-2021** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Dr.Öğretim Üyesi Şerife SEVİNÇ
İAEK Başkan Vekili

# B. APPROVAL OF THE MINISTRY OF NATIONAL EDUCATION

T.C.
ANKARA VALİLİĞİ
Milli Eğitim Müdürlüğü

Sayı : E-14588481-605.99-36047992 03.11.2021
Konu :Araştırma İzni

ORTA DOĞU TEKNİK ÜNİVERSİTESİNE
(Öğrenci İşleri Daire Başkanlığı)

İlgi : a)MEB Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 2020/2 nolu Genelgesi.
b)15.10.2021 tarihli ve 239 sayılı yazınız.

Üniversiteniz Temel Eğitim Ana Bilim Dalı, Okul Öncesi Eğitimi Yüksek Lisans programı öğrencisi Rabia TURGUT KURT'un **"Okul Öncesi Öğretmenlerinin Riskli Oyunlara İlişkin Tutumları"** konulu çalışması kapsamında İlimiz 9 merkez ilçesindeki İlkokul ve Anaokullarında, uygulama talebi ilgi (a) Genelge çerçevesinde incelenmiştir.

Yapılan inceleme sonucunda, söz konusu araştırmanın Müdürlüğümüzde muhafaza edilen ölçme araçlarının; Türkiye Cumhuriyeti Anayasası, Milli Eğitim Temel Kanunu ile Türk Milli Eğitiminin genel amaçlarına uygun olarak, ilgili yasal düzenlemelerde belirtilen ilke, esas ve amaçlara aykırılık teşkil etmeyecek, eğitim-öğretim faaliyetlerini aksatmayacak şekilde okul ve kurum yöneticilerinin sorumluluğunda gönüllülük esasına göre uygulanması Müdürlüğümüzce uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Harun FATSA
Vali a.
Milli Eğitim Müdürü

Dağıtım:
Gereği:
Orta Doğu Teknik Üniversitesi

Bilgi:
9 İlçe MEM

Bu belge güvenli elektronik imza ile imzalanmıştır.
Adres : Belge Doğrulama Adresi : https://www.turkiye.gov.tr/meb-ebys
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Unvan : Veri Hazırlama ve Kontrol İşletmeni
İnternet Adresi: Faks:_____

Bu evrak güvenli elektronik imza ile imzalanmıştır. https://evraksorgu.meb.gov.tr adresinden 5519-dcec-37f0-983e-a652 kodu ile teyit edilebilir.

# C. DEMOGRAPHIC INFORMATION FORM

**Araştırmanın ilerleyen zamanlarında yürütülecek olan 15 dakikalık uzaktan (Zoom üzerinden) görüşmeye** *(yalnızca araştırmacı ve siz)* **katılmak istiyorum.** **EVET** ☐ **HAYIR** ☐

Eğer cevabınız **"EVET"** ise lütfen aşağıya iletişim bilginizi yazınız.

**Cep Telefonu: ...**.....

| | | | |
|---|---|---|---|
| 1. Yaşınız: | ……. | | |
| 2. Cinsiyetiniz: | Kadın ☐ | Erkek ☐ | |
| 3. Çalışmakta olduğunuz kurum türü: | Resmi Anasınıfı ☐ | Resmi Bağımsız Anaokulu ☐ | Diğer ..... |
| | Özel Anasınıfı ☐ | Özel Bağımsız Anaokulu ☐ | |
| 4. Çalışmakta olduğunuz kurumun bağlı olduğu ilçe: | …… | | |
| 5. Eğitim Durumunuz: | Lise ☐ | Lisans ☐ | Diğer..... |
| | Ön Lisans ☐ | Lisansüstü ☐ | |
| 6. Mesleki deneyiminiz: (Süre olarak belirtiniz) | ……..... | | |
| 7. Çalışmakta olduğunuz sınıfın mevcudu: | …….. | | |
| 8. Sınıfınızda yardımcı personeliniz/öğretmeniniz var mı? | Evet ☐ | Hayır ☐ | |
| 9. Çalışmakta olduğunuz sınıfın yaş grubu: | 36-48 Ay ☐ | 48-60 Ay ☐ | 60-72 Ay ☐ |
| 11. Günlük eğitim akışınızda **dış mekân** oyun zamanı ortalama ne kadar? | 0-15 dk. ☐ | 30-45 dk. ☐ | 60 dk. ve üstü ☐ |
| | 15-30 dk. ☐ | 45-60 dk. ☐ | |

| | | | | |
|---|---|---|---|---|
| 12. Erken çocukluk döneminde **oyun** konusunda profesyonel gelişiminize dair aşağıdaki etkinliklerden hangilerine katıldınız? | Lisans dersi ☐ | Seminer ☐ | Diğer..... |
| | Lisansüstü dersi ☐ | Kongre ☐ | |
| | Sertifika programı ☐ | Hiçbiri ☐ | |
| 13. Erken çocukluk döneminde **çevre eğitimi** konusunda profesyonel gelişiminize dair aşağıdaki etkinliklerden hangilerine katıldınız? | Lisans dersi ☐ | Seminer ☐ | Diğer..... |
| | Lisansüstü dersi ☐ | Kongre ☐ | |
| | Sertifika programı ☐ | Hiçbiri ☐ | |
| 14. Erken çocukluk döneminde **hareket eğitimi/beden eğitimi** konusunda profesyonel gelişiminize dair aşağıdaki etkinliklerden hangilerine katıldınız? | Lisans dersi ☐ | Seminer ☐ | Diğer..... |
| | Lisansüstü dersi ☐ | Kongre ☐ | |
| | Sertifika programı ☐ | Hiçbiri ☐ | |
| 15. Erken çocukluk döneminde **riskli oyun** konusunda profesyonel gelişiminize dair aşağıdaki etkinliklerden hangilerine katıldınız? | Lisans dersi ☐ | Seminer ☐ | Diğer..... |
| | Lisansüstü dersi ☐ | Kongre ☐ | |
| | Sertifika programı ☐ | Hiçbiri ☐ | |

## D. SEMI-STRUCTURED INTERVIEW PROTOCOL

### Yarı Yapılandırılmış Görüşme Soruları

Değerli öğretmenim,

Bu çalışma, Orta Doğu Teknik Üniversitesi Temel Eğitim Bölümü Erken Çocukluk Eğitimi Anabilim Dalı öğretim üyesi Dr. Öğr. Üyesi Serap Sevimli Çelik'in danışmanlığında yürüttüğüm "Okul Öncesi Öğretmenlerinin Riskli Oyun Tutumları ve Görüşleri" isimli yüksek lisans tezim için bilgi toplamak amacıyla hazırlanmıştır. Bu görüşme, yaklaşık 15 dakika sürmektedir ve bu süre içinde sizden istenen, sorulara içtenlikle cevap vermenizdir. Bu çalışmaya katılmak tamamen gönüllülük esasına dayanmaktadır. Araştırmaya katılmama veya katıldıktan sonra herhangi bir anda çalışmayı bırakma hakkına sahipsiniz. Aynı zamanda bu çalışma gizlilik esasına dayanmakta olup kişisel bilgileriniz talep edilmeyecek ve çalışmada size ve kurumunuza ilişkin bilgiler kullanılmayacaktır. Elde edilecek bilgiler tamamen bilimsel amaçlar için kullanılacaktır. Soruların doğru ya da yanlış cevabı olmamakla birlikte sorulara kendi fikirlerinize ve deneyimlerinize göre cevap vermeniz beklenmektedir. Araştırma bilimsel bir nitelik taşıdığından soruların sizin için en uygun şekilde cevaplanması araştırmanın güvenilirliği açısından önemlidir.

Desteğiniz için şimdiden teşekkür ederim.

1. Çocuklarla açık alanda ne sıklıkla vakit geçiriyorsunuz?
2. Okulunuzdaki çocukların açık alanda geçirdiği sürede nasıl oyunlar oynadıklarından bahseder misiniz?
3. Açık alanda ne gibi oyun malzemeleri var? Bu malzemelerin nasıl konumlandığından bahsedebilir misiniz?
4. Çocukların yüksek yerlerden (okulu çevreleyen duvarın üstüne, ağaca... gibi) atlamalarına veya tırmanmalarına yaklaşımınız nasıldır?
5. Çocukların kaydıraktan ters kaymalarına yaklaşımınız olur?
6. Riskli oyun kavramı size ne çağrıştırıyor? Hangi oyunların riskli oyun olduğunu düşünürsünüz?

Şimdi size, ortak bir fikir olması için ilgili literatürden aldığım riskli oyun tanımını okuyacağım. Riskli oyun, oyunun fiziksel yaralanma riski taşıyan, heyecan verici ve mücadele gerektiren bir formu olarak tanımlanır (Örneğin: Büyük yüksekliklerden sarkma/sallanma)

7. Yukarıdaki tanımdan yola çıkarak riskli oyun kavramı hakkındaki düşünceleriniz nelerdir?

8. Size göre çocuklar açık alanda riskli oyunlar oynamalı mıdır? Bu konuya yaklaşımınız nasıldır?

9. Sizce riskli oyunlar oynamanın çocukların gelişimi üzerinde bir etkisi var mıdır? Neden?

10. Sizce çocukların riskli oyunlarında meydana gelebilecek olumsuz durumlar var mıdır? Neden?

11. Riskli oyunlara ilişkin ailelerin yaklaşımı nasıldır?

12. Riskli oyunlara ilişkin okul yönetiminin yaklaşımı nasıldır?

# E. CONSENT FORM

**ARAŞTIRMAYA GÖNÜLLÜ KATILIM FORMU**

Değerli öğretmenler,

Bu form, Orta Doğu Teknik Üniversitesi Temel Eğitim Bölümü Okul Öncesi Eğitimi Ana Bilim Dalı öğretim üyesi Dr. Öğr. Üyesi Serap Sevimli Çelik'in danışmanlığında yürüttüğüm "Okul Öncesi Öğretmenlerinin Riskli Oyunlara Karşı Tutumları" başlıklı yüksek lisans tez çalışmam için bilgi toplamak amacıyla hazırlanmıştır.

Çalışmaya katılım gönüllülük esaslıdır. Formda sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Araştırma bilimsel bir nitelik taşıdığından soruların sizin için en uygun şekilde cevaplanması araştırmanın güvenilirliği açısından önemlidir. Soruların doğru ya da yanlış cevabı olmadığı gibi sorulara kendi fikirlerinize ve deneyimlerinize göre cevap vermeniz beklenmektedir.

Formu doldurmak yaklaşık 3-5 dakikanızı almaktadır. Araştırmaya verilecek yanıtlar gizli tutulacak olup, formun geçerli olabilmesi için tüm sorulara yanıt verilmesi gerekmektedir. Çalışmanın 15.10.2021 tarihli ve 239 sayılı MEB İzni ve 28620816/ 397 sayılı ODTÜ Etik Kurul Onayı bulunmaktadır.

Bu formu cevaplayarak yürüttüğüm çalışmaya ve bilime yaptığınız katkılardan dolayı teşekkür eder, sağlıklı ve mutlu günler dilerim. Çalışma hakkında daha fazla bilgi almak için Dr. Öğr. Üyesi Serap Sevimli Çelik (e-posta: ya da Rabia Turgut Kurt (e-posta: ile iletişim kurabilirsiniz.

Araştırmacı
Rabia Turgut Kurt

**Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katılıyorum.**

Ad Soyad Tarih İmza

……/……../.....

# F. TURKISH SUMMARY / TÜRKÇE ÖZET

OKUL ÖNCESİ DIŞ MEKANLARINDA RİSKLİ OYUN: ÖĞRETMEN TUTUM VE GÖRÜŞLERİ

## GİRİŞ

Yıllardır çeşitli disiplinlerce incelenmiş olan oyunu (Freud, 1961; Johnson vd., 1999; Parten, 1932; Pellegrini vd., 2007; Piaget, 1929; Smith & Vollstedt, 1985; Vygotsky, 1978), Johnson ve diğerleri (1999), motive edici, özgür, eğlenceli ve süreç odaklı bir aktivite olarak tanımlamaktadır. Bu bağlamda oyun, çocukların öz düzenleme ve iş birliği becerilerini geliştirirken başkalarıyla ilişki kurabileceği, problem çözme gibi bilişsel beceriler edinmelerini kolaylaştırıcı bir ortam sağlamaktadır (Bredekamp, 2017; Klein vd., 2003). Aynı zamanda, çocuklar oyun yoluyla motor becerilerini geliştirebilir, fiziksel sınırlarını test edebilir, sonuçları hakkında endişelenmeden oyunlarında risk alabilmektedir (Tovey'e, 2007; Sandseter, 2010). Bu doğrultuda, heyecan gerektiren, fiziksel sınırların test edildiği ve yüksek yerlere tırmanma gibi potansiyel yaralanma riskinin alındığı oyunlar *riskli oyun* olarak tanımlanmaktadır (Sandseter, 2007). Sandseter (2007), Norveç'te iki farklı okul öncesi eğitim kurumunda yürüttüğü çalışmasında riskli oyunları altı kategoriye ayırmıştır. Bu kategoriler şu şekildedir: *büyük yüksekliklere tırmanma/yüksek nesneler ile oynama*, *yüksek hızda oynama, tehlikeli aletleri kullanma, tehlikeli unsurlara yakın oynama*, *itiş-kakış oyunları*, *yalnız oynayarak gözden uzaklaşma* (Cevher-Kalburan, 2014a). Riskli oyun, çocukların fiziksel gelişimine katkı sağlamasının yanı sıra benlik saygısı, çatışma çözme gibi becerileri kazanmalarına da yardımcı olmaktadır (Sandseter vd., 2021b; Sandseter & Kennair, 2011; Tovey, 2007). Bununla birlikte, zaman içinde yaralanmayı azaltarak çocukların sağlığını desteklemekte ve hareketsiz davranışlarda azalması gibi olduğundan sağlık açısından birçok olumlu etkiye sahiptir (Brussoni vd., 2015; Lavrysen vd., 2017). Öte yandan, ilgili alan yazında riskin çoğunlukla tehlike

ile eş anlamlı olarak kabul edildiği görülmüştür (Sandseter, 2012). Tehlikenin çocukların gelişimine katkısı olmamakla birlikte çocuklar, tehlikeleri kendileri için değerlendirmekte zorlanabildikleri görülmektedir (Ondeck & Focareta, 2009). Buna karşılık risk, çocukların zorluğu fark edip değerlendirdiği ve bununla nasıl başa çıkacağına karar verdiği bir durum olarak tanımlanmaktadır (Adams, 2001). Riskli oyun üzerine mevcut araştırmalar, okul öncesi eğitim ortamlarını çocukların risk alabilecekleri önemli ortamlar olarak tanımlamaktadır (Brussoni vd., 2020; McFarland & Laird, 2018; Sandseter vd., 2021b). Bu nedenle, çocukların riskli oyun fırsatları eğitim ortamlarının düzenlenmesinde rol oynayan okul öncesi öğretmenlerinden büyük ölçüde etkilenmektedir (Hewitt-Taylor & Heaslip, 2012; Little vd., 2012; Sandseter, 2014; Storli & Sandseter, 2017).

**Problem Durumu ve Çalışmanın Önemi**

Mevcut çalışmalar, okul öncesi öğretmenlerinin çocukların riskli oyunlarındaki rolünün önemine işaret etmektedir (Little vd., 2012; Sandseter, 2012; Sandseter, 2014; Stan & Humberstone, 2011). Bu bağlamda, çocukların riskli oyunlarına yönelik olumlu tutumlar, çocuklara riskli oyunlara katılmaları için daha fazla fırsat sağlamakla ilişkilendirilmiştir (Güler & Demir, 2016; Little vd., 2012; Van Rooijen vd., 2020). Sandseter ve Sando (2016), Norveç gibi riskten daha az kaçınan ülkelerden birinde bile okul öncesi öğretmenleri tarafından alınan güvenlik önlemlerinin ve riskli oyunlara yönelik kısıtlamaların arttığını ifade etmişlerdir. Öte yandan, bazı öğretmenler çocukların risk almalarını sınırlarken, bazıları da okul ortamında çocuklara riskli oyun fırsatları sağlayabilmektedir (Tovey, 2007). Bu anlamda Sandseter (2012), öğretmenlerin riskli oyuna yönelik olumsuz tutum ve görüşlerinin, çocukların oyunda risk almalarını kısıtlamalarıyla doğrudan ilişkili olduğunu ortaya koymuştur. Bu nedenle, öğretmenlerin riskli oyuna ilişkin tutumlarını etkileyen faktörlerin incelenmesi önem taşımaktadır (Sandseter, 2014; Wyver vd., 2010). İlgili alan yazındaki çalışmalar, öğretmenlerin çalıştıkları okul türü ve sınıflarında sahip oldukları çocuk sayısı gibi faktörlerin riskli oyunlara izin verme durumlarında farklılık gösterdiğini belirlemişlerdir. (Little vd., 2012; Sandseter, 2012; Van Rooijen vd., 2020). Bu bağlamda, öğretmenlerin çalıştıkları okul türü ve sınıflarında sahip oldukları çocuk sayısı gibi çeşitli faktörlerin göre riskli oyun tutumlarını etkileyip etkilemediğinin araştırılmasının önemli olduğu düşünülmektedir.

Önceki çalışmalar, öğretmenlerin riskli oyuna yönelik tutumlarının eğitim düzeyi, deneyim yılı, cinsiyet ve sınıftaki çocuk sayısına göre değişebileceğini göstermektedir (Güler & Demir, 2016; Sandseter, 2014; Van Rooijen vd., Newstead, 2017). Bu doğrultuda, mevcut çalışmanın, *okul öncesi kurum türü, sınıftaki çocuk sayısı, yardımcı öğretmenin varlığı, deneyim yılı, çocukların yaş grupları ve günlük dışarıda geçirilen zaman* faktörlerinin öğretmenlerin riskli oyun tutumlarında anlamlı bir farklılık yaratıp yaratmadığına ilişkin sonuçları ortaya koyacağından ilgili alan yazına katkı sunacağı düşünülmektedir. Aynı zamanda, mevcut çalışma okul öncesi öğretmenlerinin görüşlerini incelemeyi de amaçlamaktadır. Waters ve Begley (2007), öğretmenlerin riskli oyuna ilişkin görüşlerinin, çocukların riskli oyunlara katılımında önemli bir rol oynadığını ifade etmektedir. Buradan hareketle, okul öncesi öğretmenlerinin riskli oyuna yönelik görüşlerinin alınmasının öğretmenlerin çalışma ortamlarında karşılaştıkları destekleyici ve engelleyici faktörleri ortaya çıkarmak için faydalı olacağı düşünülmektedir (Van Rooijen & Newstead, 2017). Bunun yanı sıra, riskli oyun üzerine yapılan çalışmalar Türkiye'de yeni ve büyüyen bir konu (Yalçın & Tantekin-Erden, 2018; Karaca & Uzun, 2020; Yılmaz, 2020) olduğundan ulusal bağlamda çocukların riskli oyun fırsatlarını artırmak için farklı perspektiflerden çalışmalara ihtiyaç olduğu düşünülmektedir. Ulusal çalışmaların yanı sıra, uluslararası alan yazında da riskli oyun tutumlarının çeşitli faktörlere göre incelendiği araştırmalar bulunmaktadır (Little vd., 2011; McFarland & Laird, 2018; Van Rooijen vd., 2020). Bu nedenle, bu çalışmanın hem ulusal hem de uluslararası düzeyde konunun daha derinden anlaşılmasına katkıda bulunması ve araştırmacılara kültürler arası çalışmalar yapma konusunda ilham vermesi beklenmektedir.

**Araştırmanın Amacı ve Araştırma Soruları**

Bu çalışmanın amacı, okul öncesi öğretmenlerinin riskli oyunlara yönelik tutumlarının çeşitli faktörlere (*okul öncesi kurum türü, sınıftaki çocuk sayısı, öğretmen yardımcılarının varlığı, deneyim yılı, çocukların yaş grupları ve günlük açık hava zamanı*) göre incelenmesi ve öğretmenlerin riskli oyunlara ilişkin görüşlerinin araştırılmasıdır. Amaca uygun olarak, bu çalışmada aşağıdaki araştırma sorularına yanıt aranmıştır:

**a.** Okul öncesi öğretmenlerinin riskli oyun tutumları, çeşitli faktörlere (*Okul öncesi kurum türü, sınıftaki çocuk sayısı, öğretmen yardımcılarının varlığı, deneyim yılı, çocukların yaş grupları ve günlük açık hava zamanı*) göre anlamlı farklılık göstermekte midir?

**a.1.** Okul öncesi öğretmenlerinin riskli oyunun gerekliliğine ilişkin inançları çeşitli faktörlere göre anlamlı farklılık göstermekte midir?

**a.2.** Okul öncesi öğretmenlerinin riskli davranışlara toleransı çeşitli faktörlere göre anlamlı farklılık göstermekte midir?

**a.3.** Okul öncesi öğretmenlerinin riskli oyunlara ilişkin kaygı duymaları çeşitli faktörlere göre anlamlı farklılık göstermekte midir?

**a.4.** Okul öncesi öğretmenlerinin riskli davranışları ayırt etmeleri çeşitli faktörlere göre anlamlı farklılık göstermekte midir?

**b.** Okul öncesi öğretmenlerinin çocukların riskli oyunlarına ilişkin görüşleri nelerdir?

## YÖNTEM

### Araştırmanın Deseni

Bu araştırma, karma araştırma modellerinden açımlayıcı ardışık karma desende yürütülmüştür (Creswell & Plano Clark, 2018). Açımlayıcı ardışık desen, nicel sonuçları açıklamak için nitel sonuçları kullanmaktadır (Creswell & Plano Clark, 2018). Bu nedenle, mevcut çalışmada ilk olarak okul öncesi öğretmenlerinin riskli oyun tutumlarını incelemek için nicel veriler toplanmış ve analiz edilmiş, ardından öğretmenlerin riskli oyuna ilişkin görüşlerini derinlemesine incelemek için yarı yapılandırılmış görüşmeler yapılmıştır.

### Araştırmanın Örneklemi

Araştırmanın evrenini, 2021-2022 eğitim-öğretim yılında Ankara merkez ilçelerinde İl Milli Eğitim Müdürlüğü'ne bağlı devlet ve özel okul öncesi kurumlarında çalışan okul öncesi öğretmenleri, örneklemini ise evrenden kolay ulaşılabilir örnekleme yoluyla belirlenen Ankara il merkezindeki dokuz ilçeye bağlı okul öncesi kurumlarında çalışan 484 öğretmen oluşturmaktadır. Araştırmanın nicel aşamasında,

kolay ulaşılabilir örnekleme yoluyla çeşitli özelliklere sahip katılımcılar seçilmiştir. Örneklem büyüklüğünü belirlemek için Krejcie ve Morgan'ın (1970) örnekleme yöntemi kullanılmıştır ve toplam 484 okul öncesi öğretmeni bu çalışmanın nicel bölümüne dahil edilmiştir. Araştırmanın nitel aşaması, çalışmanın nicel bölümünden amaçlı örneklem yöntemlerinden ölçüt örnekleme yöntemi ile küçük bir alt örneklem (21 okul öncesi öğretmeni) (Creswell & Plano Clark, 2018) belirlenerek yürütülmüştür. Katılımcıları seçilirken şu kriterler göz önünde bulundurulmuştur: 1) Ölçekte kesme değeri olmadığı için nicel kısımdan hem yüksek hem de düşük puanlar dikkate alınmıştır. 2) nicel sonuçların sonuçlarını daha iyi tartışabilmek için faktörlerin her bir alt kategorisi göz önünde bulundurularak seçilmiştir.

**Veri Toplama Süreci ve Veri Toplama Araçları**

Araştırmanın nicel veri toplama sürecinde, araştırmacı tarafından hazırlanan, öğretmenlerin mesleki ve kişisel bilgilerini edinmek amacıyla *Demografik Bilgi Formu* ve okul öncesi öğretmenlerinin riskli oyuna ilişkin tutumlarını belirlemek amacıyla *Okul Öncesi Öğretmenleri İçin Erken Çocukluk Riskli Oyun Değerlendirme Aracı* kullanılmıştır (Karaca ve Uzun, 2020). Araştırmanın nitel veri toplama sürecinde ise, öğretmenlerin çocukların riskli oyunlarına ilişkin görüşlerini incelemek amacıyla altı uzmandan görüşlerinin alınması ve pilot çalışmasıyla hazırlanan *yarı yapılandırılmış görüşme protokolü* kullanılmıştır.

**Verilerin Analizi**

Bu çalışmada öncelikle nicel veriler IBM SPSS 28.0.1 programı kullanılarak analiz edilmiştir. Çalışmada verilere ilişkin betimsel değerler (çarpıklık, basıklık katsayıları, ortalama, standart sapma vb.) ve grafikler (histogram, Q-Q plot vb.) incelendikten sonra, normal dağılım koşullarını sağlamadığından Pallant (2016) tarafından önerildiği gibi parametrik olmayan istatistiksel testlerin kullanılmasına karar verilmiştir. *Okul öncesi eğitim kurumu türü, sınıftaki çocuk sayısı ve yardımcı öğretmenin varlığı* değişkenlerine göre riskli oyun tutumlarının anlamlı farklılık gösterip göstermediğini test etmek için Mann-Whitney U testi yapılmıştır. *Deneyim yılı, çocukların yaş grupları ve günlük dışarıda geçirilen zaman* değişkenlerine göre riskli oyun tutumlarının anlamlı farklılık gösterip göstermediğini test etmek için

Kruskal-Wallis testi kullanılmıştır. Nitel verilerin analizinde tematik analiz kullanılmıştır ve veriler MAXQDA 2020 yazılımı kullanılarak analiz edilmiştir.

# BULGULAR

## Nicel Bulgular

Mevcut çalışmanın bulguları, devlet okulu ile kıyaslandığında özel okulda çalışan öncesi öğretmenlerinin riskli oyuna karşı daha olumlu tutuma sahip olduklarını göstermiştir. Ölçeğin alt boyutlarına ilişkin bulgular, özel okulda çalışan öğretmenlerin riskli oyunun gerekliliği konusunda daha olumlu inançlara sahip olduklarını, riskli davranışlara daha fazla tolerans gösterdiklerini ve riskli davranışları daha iyi ayırt edebildiklerini belirtmiştir.

Mevcut çalışmada, sınıftaki çocuk sayısına göre öğretmenlerin riskli oyuna ve dört alt boyutun tamamına yönelik tutumlarında anlamlı farklılık olmadığı belirlemiştir.

Sınıfta bir yardımcı ile çalışan okul öncesi öğretmenlerinin, yardımcısız çalışan okul öncesi öğretmenlerine göre riskli oyuna yönelik tutumlarının daha olumlu olduğu sonucuna ulaşılmıştır. Ölçeğin alt boyutları ile ilgili olarak, bir yardımcı ile çalışan öğretmenlerin riskli oyunun gerekliliğine ilişkin daha olumlu inançlara sahip oldukları, riskli davranışlara karşı daha toleranslı oldukları, riskli oyunlara yönelik kaygılarının daha düşük olduğu belirlenmiştir. Buna ek olarak, yardımcısı olmadan çalışan öğretmenlerin riskli davranışları daha iyi ayırt ettiği bulunmuştur.

Bu çalışmada, deneyim yılının öğretmenlerin riskli oyuna karşı tutumlarında bir farklılık oluşturmadığı tespit edilmiştir. Ölçeğin alt boyutları ile ilgili olarak, daha az deneyimli öğretmenlerin riskli davranışları daha fazla deneyime sahip olanlara göre daha iyi ayırt ettiği saptanmıştır.

Mevcut çalışmada, öğretmenlerin riskli oyun tutumları, gerekliliğine ilişkin inançları, riskli davranışlara toleransı ve riskli oyuna ilişkin kaygı duyma durumları birlikte çalıştıkları çocukların yaş gruplarına göre anlamlı bir farklılık göstermemiştir. Öte yandan, 36-48 aylık çocuklarla çalışan öğretmenlerin riskli davranışları daha iyi ayırt ettiği ortaya çıkmıştır.

Son olarak, dışarıda daha fazla zaman geçiren öğretmenlerin, dışarıda daha az zaman geçiren öğretmenlere göre riskli davranışlara karşı daha yüksek toleransa sahip oldukları bulunmuştur. Benzer şekilde, dış mekân oyun zamanı az olan öğretmenlerin, dışarıda daha fazla zaman harcayan öğretmenlere göre riskli oyunlara karşı daha yüksek kaygı seviyelerine sahip oldukları görülmüştür. Ayrıca, dış mekân oyun zamanı fazla olan öğretmenlerin, dışarıda daha az zaman geçiren öğretmenlere göre riskli davranışları daha iyi ayırt edebildiği belirlenmiştir

**Nitel Bulgular**

Bu çalışmanın nitel bölümünde yer alan okul öncesi öğretmenlerinin çoğu (n=20), açık alan oyun zamanını günlük rutinlerine dâhil ettiklerini belirtmişlerdir. Ancak açık alanda vakit geçirme kararlarında mevsimsel koşulların önemli bir faktör olduğu tespit edilmiştir. Açık alanda oynanan oyunlara ilişkin çoğu öğretmen (n=19); kovalama (n=11), oyun alanı ekipmanıyla oynama (n=7), saklanma (n=5) ve atlama (n=4) gibi birden fazla aktif oyun örneği vermiştir. Öğretmenlerin görüşleri üzerine çalıştıkları kurumun açık alanlarında kaydıraklar (n=12), salıncaklar (n=10) ve tırmanma ekipmanları (n=6) olmak üzere en yaygın üç ekipman olduğu saptanmıştır. Öğretmenlerin yarısından fazlası (n=12) oyun alanlarındaki yüksekliklerden de bahsetmişlerdir. Az sayıda öğretmen (n=4) oyun alanlarında çocukların tırmanabileceği veya zıplayabileceği 1.5 metre ve üzeri yükseklikler olduğunu belirtmiştir. Öğretmenlere riskli oyun kavramının tanımı verilmeden önce öğretmenler, konu hakkında fazla bir şey bilmediklerini vurgulamışlardır. Yanıtlara ilişkin bulgular, az sayıda öğretmenin (n=5) riskli oyun kavramını daha önceden duymamış olmasına rağmen olumlu görüşe sahip olduğunu ortaya koymuştur. Tanımlamanın ardından öğretmenler, riskli oyunun hem olumlu hem de olumsuz yönlerine odaklandığı görülmektedir. Bulgular, öğretmenlerin çoğunluğunun (n=18) riskli oyundan yana olduklarını ancak gerekli koşulların sağlanması gerektiğini ifade ettiklerini göstermiştir. Hemen hemen tüm öğretmenler (n=20), belirli alanlarda riskli oyunun gelişimsel faydalarından bahsetmişlerdir. Bu anlamda beş ana kategori ortaya çıkmıştır: 1) sosyal-duygusal, 2) fiziksel, 3) bilişsel ve 4) öz bakım gelişimi. Öğretmenler (n=21) ayrıca riskli oyunun olumsuz etkileri hakkında da yorum yapmışlardır. Yanıtların analizi sonucunda iki ana kategori ortaya çıkmıştır: yaralanmalar ve duygular. Ayrıca, öğretmenlerin çoğu (n=14), açık alanda fiziksel

yaralanmaların en aza indirilmesine yönelik şok emici materyallerin kullanılmasını önermiştir. Öğretmenlerin çocukların büyük yüksekliklerden atlamaları veya yükseklere tırmanmaları hakkındaki görüşlerine ilişkin iki tema ortaya çıkmıştır: (1) destekleyiciler ve (2) engeller. Destekleyiciler teması, çocukların riskli oyun oynamasına katkıda bulunan faktörleri açıklarken engeller teması çocukların riskli oyun oynamasına engel olan faktörleri açıklamaktadır. Öğretmenlerin yanıtlarından (n=13) üç ana kategori ortaya çıkmıştır: 1) öğretmenle ilgili, 2) çocukla ilgili ve 3) okulla ilgili. Öğretmenler, ebeveynlerin farklı görüşleri hakkında da görüşlerini belirtmiş ve bu tema altında üç kategori ortaya çıkmıştır: 1) aşırı koruyucu ebeveyn, 2) destekleyici ebeveyn ve 3) eleştiren ebeveyn. Son olarak, öğretmenler birlikte çalıştıkları yöneticilerin farklı görüşleri hakkında yorumlar yapmışlardır bu tema altında ise, üç ana kategori oluşmuştur: 1) aşırı koruyucu yöneticiler, 2) destekleyici yöneticiler ve 3) öğretmenleri sorumlu tutan yöneticiler.

## TARTIŞMA

Sandseter ve diğerleri (2021a), araştırmalarında riskli oyunun kapalı alanlara göre açık alanda daha fazla gerçekleştiği sonucuna varmıştır. Cevher-Kalburan (2014b) ise, özel okulda çalışan okul öncesi öğretmenlerinin devlet okulunda çalışanlara göre daha fazla açık alanda oyun oynattığını belirtmiştir. Alan yazınla paralel olarak, mevcut çalışmada özel okulda çalışan öğretmenlerin riskli davranışları daha iyi ayırt edebilmeleri ve tolere edebilmelerinin açık alanda oyun oynayan çocukları daha fazla gözlemlemelerinden kaynaklandığı düşünülmektedir. Açık havada daha fazla zaman geçiren özel okul öğretmenlerinin, çocukların oyunda risk almalarının dayanıklılığı artırma gibi olumlu etkilerini gözlemlemeleri de mümkün olacağından, bu da onların riskli oyunun gerekliliğine inanmalarına ve nihayetinde riskli oyuna karşı daha olumlu tutumlara sahip olmalarına neden olabilir. Devlet ve özel okul öğretmenlerinin tutumları arasındaki farklılıklar, bu araştırmanın nitel aşamasından yapılan görüşmelerin yorumlanmasıyla da kısmen açıklanabilir. Özel okulda çalışan okul öncesi öğretmenleri riskli oyun türlerinden biri olarak tırmanmayı belirtirken, devlet okulu öğretmenleri sabit oyun yapılarıyla oynamanın riskli olduğunu belirtmişlerdir. Bu anlamda öğretmenlerin yanıtları arasındaki farklılık, özel

okul öğretmenlerinin riskli oyun örneklerine atıfta bulunduğunu, devlet okulu öğretmenlerinin riskli olarak değerlendirdiklerinin ise, riskli bir oyun türü olmadığını gösterebilmektedir. Özel okul öğretmenlerinin riskli oyuna karşı daha olumlu tutumlara sahip oldukları nicel aşamada belirlenmesine karşın nitel verilerde devlet okulu öğretmenlerinin okullarının daha fazla tırmanma ekipmanı, yükseklik ve doğal unsurlar içerdiğini bulmak şaşırtıcı olmuştur. Bu durum, devlet okullarındaki öğretmenlerin riskli oyuna karşı tutumları nedeniyle çocukların riskli oyunlara katılmasına ve okuldaki riskli oyun ortamını kullanmalarına izin vermemeleri ile açıklanabilir.

Little ve Wyver'ın (2008) sınıftaki çocuk sayısının, riskli oyun fırsatlarını etkilediğini gösteren çalışmasının aksine, mevcut çalışmada, sınıftaki çocuk sayısından kaynaklı öğretmenlerin riskli oyuna ve dört alt boyutun tamamına yönelik tutumlarında herhangi bir farklılık olmadığını belirlenmiştir. Ancak, görüşmelerden elde edilen bulgular, çocuk sayısının fazla olmasının riskli oyunlara izin vermeye engel olabileceğini göstermiştir. Bu bulgular, Van Rooijen ve Newstead'in (2017) çocuk-öğretmen oranlarının, öğretmenlerin çocukların riskli oyunlara katılmalarını sağlamaktan alıkoyduğuna ilişkin çalışmasının sonuçları ile paralellik göstermektedir. Nicel ve nitel sonuçların arasında bazı uyumsuzlukların olmasının, öğretmenlerin nicel bölümdeki soruları kendi görüşlerine göre ideal olarak yanıtlamalarından, görüşme sorularını ise, gerçek uygulamalarına ve karşılaştıkları engellere göre detaylandırmalarından kaynaklanabileceği düşünülmektedir.

Bu araştırmanın bir diğer bulgusu, yardımcı öğretmen ile çalışan okul öncesi öğretmenlerinin, yardımcısız çalışanlara göre riskli oyuna yönelik tutumlarının daha olumlu olmasıdır. Ölçeğin alt boyutları ile ilgili olarak, bir yardımcı ile çalışan öğretmenlerin riskli oyunun gerekliliğine ilişkin daha olumlu inançlara sahip oldukları, riskli davranışlara karşı daha toleranslı oldukları ve kaygılarının daha düşük olduğu görülmüştür. Araştırmacının bildiği kadarıyla, yardımcı öğretmen varlığının öğretmenlerin risk oyun tutumları üzerindeki etkisi daha önce araştırılmamıştır, ancak bu bulguların önceki çalışmalarla kısmen tutarlı olduğu söylenebilir. Karademir ve diğerleri (2017), öğretmen yardımcılarının sınıfta çocukların güvenliğini sağladığı için önemli bir role sahip olduğunu belirtmiştir. Ayrıca, Shim ve diğerleri (2004) öğretmen ve yardımcılarının koordineli çalıştığı sınıflarda öğretim kalitesinin daha yüksek olduğunu bulmuşlardır. Alan yazındaki bu araştırma sonuçları da göz önüne alındığında, mevcut çalışmanın sonuçları için olası bir açıklama, öğretmenlerin

yardımcılarıyla çalıştıklarında daha az güvenlik kaygısı yaşamaları, bunun sonucunda riskli oyunlara ilişkin daha az kaygı duymaları, riskli davranışlara daha yüksek tolerans göstermeleri ve riskli davranışları daha iyi ayırt etmek için daha fazla zaman bulmaları olabilir.

Deneyimi yılı, öğretmenlerin riskli oyun tutumu ile ilgili olarak bu çalışmada ele alınan bir diğer husustur. Bu çalışmanın sonuçları, deneyim yılı ile öğretmenlerin riskli oyuna karşı tutumları arasında anlamlı farklılık olmadığını göstermektedir. Buna paralel olarak, Višnjić-Jevtić ve diğerleri (2021) de, öğretmenlik deneyimleri ile riskli oyuna karşı tutumları arasında bir fark bulamamıştır. Ölçeğin alt boyutları ile ilgili olarak, bu çalışmada yer alan daha az deneyimli öğretmenlerin riskli oyun davranışlarını daha fazla deneyime sahip olanlara göre daha iyi ayırt ettiğini görmek ise ilginçtir. Bu bulgular, Sandseter'in (2014) öğretmenlerin heyecan arama davranışlarının yaşla birlikte azaldığını gösteren çalışmasıyla kısmen açıklanabilir. Yaşın kendisi bu çalışmada riskli davranışlara yönelik tutumlarla ilişkilendirilmemiş olsa da, olası bir açıklama, genç öğretmenlerin daha fazla heyecan arayan kişiliklerinin, çocukların riskli oyunlarına izin vermelerini ve çocukların oyunlarındaki riskli davranışları ayırt etmelerini daha olası hale getirmesi olabilir.

Araştırmacılar (Sandseter vd., 2021a), çocukların yaşı arttıkça riskli oyunların, özellikle de yükseklerde oynamanın arttığını belirlemişlerdir. Bu çalışmada, öğretmenlerin riskli oyuna yönelik tutumları, gerekliliğine ilişkin inançları, riskli davranışlara toleransları ve riskli oyuna ilişkin kaygılarında, birlikte çalıştıkları çocukların yaş gruplarına göre anlamlı bir farklılık olmadığını göstermiştir. Ancak bu bulgu, mevcut çalışmanın nitel bölümünden elde edilen bulgularla kısmen çelişmektedir. Öğretmenlerin çocukların riskli oyunlarına izin vermesini kolaylaştıran faktörlerden birinin, çocukların risk değerlendirmeleri olduğu bulunmuştur. 60-72 aylık çocukların gelişim düzeyine bağlı olarak riski daha iyi değerlendirebilmeleri daha olası olduğundan bu durumun öğretmenlerin riskli oyunlara izin vermesini kolaylaştırabileceği düşünülmektedir. Ek olarak, 36-48 aylık çocuklarla çalışan öğretmenlerin riskli davranışları daha iyi ayırt etmesi, 36-48 aylık çocukların öğretmene daha bağımlı olması ve öğretmenlerin bu yaş grubunu daha yakından takip etmelerine yol açması ile açıklanabilir. Önceki araştırmalar, riskli oyunu çocukların açık alan oyunları ile ilişkilendirmektedir (Brussoni vd., 2015; Little & Wyver, 2008; Sandseter vd., 2021a; Stephenson, 2003). Bu düşünce, ayrıca Bronfenbrenner'in (1979) ekolojik sistemler kuramıyla da ilişkilendirilebilir. Kronosistemde çevre,

çocukları aynı şekilde etkileyen statik bir güç değildir ve sürekli değişmektedir. Bu çalışma bağlamında, çocukların açık alanda oyun sürelerinin azalması, kronosistemde çocukların riskli oyun fırsatlarını etkileyen önemli bir olay olarak düşünülmüştür. Ek olarak, açık alanda geçirilen zaman ile öğretmenlerin riskli oyuna yönelik tutumları arasındaki ilişki göz önüne alındığında, öğretmenlerin riskli oyuna yönelik tutumları ile çocukların açık alanda geçirdikleri günlük zaman arasında ilişkiler bulunmuştur. Mevcut çalışmanın bulguları olan açık alanda daha fazla zaman geçiren öğretmenlerin, az zaman geçiren öğretmenlere göre riskli davranışlara karşı daha yüksek toleransa, daha düşük kaygıya sahip olmaları ve riskli davranışları daha iyi ayırt edebilmeleri; çocukların risk içeren oyunlarına aşina olma olasılıklarının daha yüksek olması bunun da bulundukları çevreye aşina olmalarına yol açması ile açıklanabilir. Benzer şekilde, alan yazınla paralel olarak, mevcut çalışmanın nitel bulgularında, mevsimsel koşulların açık alan zamanını etkilediği görülmüştür (Alat vd., 2012; Ebbeck vd., 2019; Hinchion vd., 2021). Bu bağlamda, hava durumu ve mevsimsel etkiler, çocukların riskli oyunlarını etkileyen iki makro düzeyde (Bronfenbrenner, 1979) faktör olarak ele alınmaktadır. Aynı zamanda mevcut çalışmadaki okul öncesi öğretmenlerinin bir kısmı, ebeveynler kışın çocuklarının hastalanmalarından endişe duydukları ve bunu ifade ettikleri için kış mevsiminde çocuklarla eğitime sadece kapalı alanda devam etmektedirler. Bu bulgu, Türk anne babaların çocukları dışarıda vakit geçirdiklerinde endişe duyduklarını gösteren araştırmaların sonuçlarıyla da desteklenmektedir (Alat vd., 2012). Aşırı koruyucu ebeveynlik stili bağlamında, daha önceki araştırmalarla (Cevher-Kalburan ve İvrendi, 2016; Little, 2006; Tovey, 2007; Wyver vd., 2010) uyumlu olarak, bu çalışmada öğretmenlerin en yaygın görüşleri riskli oyunları ebeveyn etkisi bağlamında kısıtlama olmuştur. Bu bulgular, aynı zamanda, öğretmenlerin çocukların ebeveynleriyle etkileşimlerini içeren mezosistem olan Bronfenbrenners teorisinin (1979) ikinci sistemi tarafından da desteklenmektedir. Öğretmenlerin çocukların riskli oyunlarına ilişkin karar vermelerini etkileyen bir diğer konu da yöneticilerin görüşleri olmuştur. Yönetici görüşlerinin öğretmen tarafından aşırı korumacı, destekleyici veya sorumlu tutucu olarak belirtilmesi dikkat çekicidir. Görüşmelerde bazı öğretmenler, çocukların yaralanmalarından yöneticilerin öğretmenleri sorumlu tuttuklarını bildirmiştir. Bu nedenle, önceki araştırmaların da gösterdiği gibi, hesap verme durumu öğretmenlerin oyunda riske izin vermelerini etkilemektedir (Little vd., 2012). Bu bağlamda, bu bulgunun olası bir açıklaması, öğretmenlerin risk yönetimi uygulamalarında kısıtlayıcı faktör olabilen dış

düzenlemelerin de çocukların oyununda riskten kaçınmalarına etkide bulunması olabilir.

Nitel aşamadaki görüşmelerde tanım yapılmadan önce, öğretmenlerin çoğu, önceki araştırma bulgularıyla (Sandseter, 2007; Sandseter, 2009a) tutarlı olarak, riskli oyunu fiziksel yaralanma riskinin olduğu bir oyun biçimi olarak tanımlamışlardır. Bu bulgular için, risk kelimesinin olumsuz çağrışımının olabileceği düşünülmektedir (Little & Eager, 2010). Öte yandan, birçok öğretmen, riskli oyunun özsaygı ve problem çözme gelişimi gibi yaygın olarak bahsedilen bazı faydalarından söz ederek bu tanımı genişletmiştir (Harper & Obee, 2021; Güler & Demir, 2016). Tanımı duyduktan sonra öğretmenlerin açıklamaları incelendiğinde ise, aslında riskli oyunun ne olduğuna dair ortak bir tanım oluşmadığı ancak şaşırtıcı bir şekilde olumsuz görüşlerin sayısının azaldığı görülmüştür. Bu sonuç, görüşülen öğretmenlerin riskli oyun hakkında bir fikre sahip olmamaları ve riskli oyunun olumlu yönüne ilişkin argümanlarını belirtirken riskli oyun tanımındaki "heyecan verici" ve "oyunun fiziksel biçimleri" kelimelerini dikkate almaları ile açıklanabilir. Araştırmanın bir diğer önemli bulgusu, öğretmenlerin çocukların risk almalarına ilişkin tanımın verilmesinden önce ve sonra en sık görülen örneklerin sırasıyla yüksek hızda oynama ve yüksekten düşme ile ilgili olmasıdır. Bu bulgu, çoğu öğretmenin başlangıçta riskli oyunu açık havada fiziksel aktivite (Sandseter, 2009a) olarak kavramsallaştırdığını düşündürmektedir. Bu sonuçların gerekçesinin, fiziksel risk almanın kolayca tanınması nedeniyle, öğretmenlerin çocukların riskli oyunlarını öncelikle açık alanda fiziksel oyunla ilişkilendirmeleri olduğu düşünülmektedir (Cooke vd., 2020; Little & Eager, 2010; Sandseter, 2009b). Mevcut çalışmanın bir başka şaşırtıcı bulgusu da, büyük yüksekliklerde oynama ve kaydıraktan ters kayma hususundaki görüşlerdeki farklılıklardır. Bu bağlamda, görüşme bulguları, çoğu öğretmenin ters kaymaktansa yükseklerde oynamaya izin verme olasılığının daha yüksek olduğunu göstermiştir. Bu, öğretmenlerin yüksekte oynamayı çocukların serbest oyunlarının doğal bir parçası olarak görmelerinin ve kabul etmelerinin bir ifadesi olarak yorumlanabilir. Nitel veriler de öğretmenlerin çoğunluğunun kendi kontrolleri altında olduğu sürece yükseklerde oynamayı tercih ettiğini doğrulamıştır.

Bu çalışmanın sonuçları, öğretmenlerin riskli oyunun çocukların öğrenmelerinin ve gelişimlerinin önemli bir parçası olduğuna inandıklarını belirten önceki çalışmaların bulgularıyla tutarlıdır (Hewitt-Taylor & Heaslip, 2012; Little ve diğerleri, 2012; Little ve diğerleri, ., 2011; Yeni ve diğerleri, 2005). Önceki çalışmalar

ile paralel olarak (Cevher-Kalburan, 2015; Little vd., 2011; Güler ve Demir, 2016) öğretmenlerin riskli oyunun olumsuz etkileri konusunda bir kaygı duygusuna da sahip oldukları bulunmuştur. Çalışmanın bu bulgusu, ilk olarak öğretmenlerle yapılan görüşmelerin derinlemesine incelenmesi sırasında sorgulama yoluyla elde edildiğinden özellikle önemlidir. Aynı zamanda, mevcut çalışmanın nitel verileri, Harper & Obee'nin (2021) riskli oyunun sadece fiziksel yaralanma için değil aynı zamanda duygusal yaralanma için de potansiyel taşıdığına dair bulgularıyla tutarlıdır.

## SONUÇ VE ÖNERİLER

Okul öncesi öğretmenlerinin çocuklara öğrenme ve gelişimleri için riskli oyun fırsatları sunmaları büyük önem taşımaktadır. Mevcut çalışma, öğretmenlerin riskli oyun kavramı hakkında bilgi eksikliği olduğunu göstermektedir. Bu nedenle, öğretmenlerin yaşam boyu öğrenen bireyler olmaları, riskli oyun ve açık havada eğitim alanındaki araştırmaları takip etmeleri önerilmektedir. Ayrıca, riskli oyuna karşı daha olumlu tutumlar geliştirmek için çalışan okul öncesi öğretmenlerinin katılabileceği teorik ve uygulamalı hizmet içi eğitim ve seminerlerin artırılması önerilmektedir. Bu bağlamda riskli oyun kavramını daha iyi anlamak için orman gibi açık alanlara saha gezileri düzenlenebilir. Mevcut çalışmada öğretmenler, ebeveynlerin kaygılarının okulda açık alanda geçirdikleri süreyi sınırladığını bildirmişlerdir. Bu bağlamda öğretmenlere yağmurlu ve karlı havalarda açık alan oyunları için malzeme ve kıyafet konusunda güvenlik önlemleri almaları tavsiye edilmektedir. Okul öncesi eğitimde, öğretmenler ve ebeveynler arasındaki bilgi paylaşımı çok önemlidir. Öğretmenler riskli oyunun ne olduğu, okul ortamının fırsatları ve özellikleri, riskli oyunun yararları, riskin ve faydalarının nasıl değerlendirileceği ve riskli oyun yoluyla nasıl öğrenileceği konusunda ebeveynlere yönelik seminerler düzenleyebilir ve bu da onların oyun hakkındaki anlayışlarını geliştirebilir. Öğretmenlerin riskli oyun anlayışını geliştirmenin bir başka yolu da okul öncesi öğretmen adayları için müfredata riskli oyun konularını dâhil etmektir. Okul öncesi öğretmenliği lisans müfredatında riskli oyun konusu ayrıntılı olarak ele alınmalıdır. Ayrıca, riskli oyunun teorik bilgisinin uygulamalarla pekiştirilmesi önerilmektedir. Öğretmen adaylarının daha iyi öğrenebilmeleri için öğretmenlik uygulamalarının en az iki veya üç haftası açık

havada, örneğin ormanda yapılabilir. Buna ek olarak, orman anaokulları gibi çocuklara riskli oyun fırsatı sunan anaokullarına yapılan saha gezileri ile öğrenme süreci daha da geliştirilebilir. Ayrıca, okul yöneticileri hem öğretmenler hem de ebeveynler ile etkileşim içinde olan bireylerdir. Bu bağlamda, okul yöneticilerine ve öğretmenlere sorumluluklarının bir parçası olarak risk oyuna ilişkin eğitim veya seminerlere katılmaları tavsiye edilmektedir. Okul yöneticilerinin çocukların sağlıklı gelişimleri için oyunlarında risk almaları gerektiğini akılda tutarak açık alan tasarımına yönelik materyallere bütçe ayırmaları önerilmektedir (Brussoni vd., 2015). Mevcut çalışmanın bulguları kapsamında, bir yardımcı ile çalışan öğretmenlerin daha olumlu tutumları göz önüne alındığında, politika yapıcılara sınıfa ek personel sağlanmasına yönelik düzenlemelerin yapılması konusunda kararlar almaları ve bu kararı uygulama sürecine geçirmeleri önerilmektedir. Bu çalışma, okul öncesi öğretmenlerinin ifadelerinden elde edilen verilere dayanılarak sunulmuştur. Bu nedenle araştırmacılar gözlemler yoluyla öğretmenlerin davranışları belirleyerek konuya dair derinlemesine bir anlayış kazanabilir. Bu çalışmadaki katılımcılar yalnızca küçük bir bölgeyi Ankara ilini temsil etmektedir ve daha geniş bir coğrafi alanı temsil etmek için bu çalışmayı tekrarlamanın faydalı olacağı düşünülmektedir. Farklı sosyoekonomik ve kültürel geçmişlerden gelen öğretmenlerin tutum ve görüşleri üzerine yapılacak daha fazla araştırmanın, bu konu hakkında değerli bilgiler sağlayacağı düşünülmektedir.

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**TEZİN ADI /** TITLE OF THE THESIS (**İngilizce** / English): RISKY PLAY IN OUTDOOR EARLY CHILDHOOD SETTINGS: TEACHER ATTITUDES AND VIEWS

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