

“We Enjoyed Our Childhood to The Fullest”: Early Childhood Teachers’ Risky Play Memories and Risky Play Managements

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Abstract: The aim of the study is to evaluate the relationship between early childhood teachers’ risky play experiences, their injury histories in their childhood and risky play management strategies they used as a teacher. 190 early childhood teachers participated in this study. Data were collected through a semi- structured interview form. Only play with great heights (climbing up a tree) and play with high speed (swinging on playground swings) were included in the semi-structured interview form. Scenario-based, black and white drawings were used as a data collection tool. Results showed that teachers’ risky play histories, injury histories and their management strategies at play with great heights are independent of each other. However, a different pattern was identified for play with high speed (swinging on playground swings). This result provides an opportunity to discuss whether teachers’ injury histories at specific risky play categories, may affect their risky play management strategies.

Keywords: Early Childhood Teachers, Play Memories, Injury Histories, Risky Plays

“Biz Çocukluğumuzu Dolu Dolu Yaşadık”: Okul Öncesi Öğretmenlerinin Riskli Oyun Anıları ve Riskli Oyunu Yönetim Stratejileri

Öz: Bu çalışmanın amacı okul öncesi öğretmenlerinin, çocukluk çağlarında riskli oyuna dahil olma durumlarının, yaralanma geçmişlerinin ve sınıflarına devam eden çocukların riskli oyunlarını yönetirken kullandıkları stratejilerin incelenmesidir. Araştırma, öğretmenlerin çocukluk yıllarına ait riskli oyun geçmişleri, yaralanma geçmişleri ve çocukların riskli oyunlarında kullandıkları stratejiler ile sınırlandırılmıştır. Bu çalışmaya 190 öğretmen katılmıştır. Veriler yarı yapılandırılmış görüşme formu ile toplanmıştır. Yarı yapılandırılmış görüşme formuna sadece büyük yüksekliklerde (ağaca tırmanmak) ve yüksek hızda oyun (oyun parkı salıncağında sallanmak) kategorileri dahil edilmiştir. Veri toplama aracı olarak senaryoya dayalı, siyah beyaz çizimlerin olduğu durum kartları kullanılmıştır. Bulgular, öğretmenlerin riskli oyun geçmişlerinin, yaralanma geçmişlerinin ve büyük yükseklikteki riskli oyunları yönetim stratejilerinin birbirinden bağımsız olduğunu göstermiştir. Bununla birlikte, yüksek hızda riskli oyun (salıncakta sallanma) için farklı bir desen tanımlanmıştır. Bu sonuç, öğretmenlerin belirli riskli oyun kategorilerindeki yaralanma geçmişi durumlarının riskli oyun yönetimi stratejilerini etkileyip etkilemeyeceğini tartışma fırsatı sunmuştur.

Anahtar Sözcükler: Okul Öncesi Öğretmenleri, Oyun Anıları, Yaralanma Geçmişi, Riskli Oyun

Received: 17.04.2020

Accepted: 15.07.2020

Article Type: Research Article

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To cite/Atıf için:

Keleş, S. & Yurt, Ö. (2020). “We enjoyed our childhood to the fullest”: Early childhood teachers’ risky play memories and risky play managements. *Yaşadıkça Eğitim*, 34(2), 438-450.

Increasing frequency of adverse conditions, such as obesity and hyperactivity observed in childhood, the research investigating the effect of residential area and outdoor experiences of young children on the prevention of these adverse conditions has gained momentum especially in the last 5 years (Dadvand et al., 2014; Herrington and Brussoni, 2015; McCurdy, Winterbottom, Mehta, and Roberts, 2010). There are strong findings that outdoor environments and outdoor plays not only affect the well-being of children but also contribute to their social, emotional, cognitive, and motor development (Hirose, Koda, and Minami, 2012; Waters and Maynard, 2010). Outdoor spaces are one of the environments that support children's initiatives, especially in early childhood. These initiatives can be varied. It is known that a part of children's physical interventions (%20) undoubtedly comprises outdoor risky plays (Sandseter, Kleppe and Sando, 2020). Risky plays are defined as engaging and exciting forms of play preferred by children, often involving the risk of physical injury (Sandseter, 2007). Children participate in risky plays for excitement, testing their physical limits, satisfying their curiosity and needs (Keleş and Yurt, 2018). Two aspects of the risky plays are emphasized in terms of positive and negative various developmental opportunities due to the childhood injuries. Findings from research conducted in different fields of science in recent years point to the importance of risky plays in creating a balance between the reduction of children's injuries and the use of various developmental (such as risk management skills, initiative, self-confidence, resilience, self-regulation) opportunities (Brussoni, Olsen, Pike, and Sleet, 2012).

Many factors have an impact on children's risk-taking decisions. It is generally possible to divide these factors into two groups: Child relevant factors (age, gender, mood, motivation, past experiences, personality traits, etc.) and contextual factors (parents, teachers, siblings, peers, media, instant contextual demands, etc.) (Morrongiello and Matheis, 2007). The contextual structure is an important factor in supporting risky plays. Environments, as a contextual structure, where children are let to take and manage risk, are critical to children's safety (Brussoni et al., 2012).

The physical environments of early childhood education, centers, kindergartens, and playgrounds (such as gardens, parks) must be organized in such a perfectly safe way that offers various opportunities for risky play. Recent findings prove that providing children with options for risky play activities in school environment contributes to improve children's risk perceptions and risk competence (Lavrysen et al., 2017). Different contextual structures provide different opportunities for risky plays. Sandseter (2009a), for example, indicate that children attending nature and outdoor kindergarten tend to take higher levels of risk when compared to children attending an ordinary kindergarten. However, the lack of necessary security arrangements in the playgrounds can create a barrier for teachers (Little, Wyver, and Gibson, 2011). Naturally, the opportunities offered by the physical environment and the approach of the people near the child, in this sense, parents, and teachers, play an important role in overcoming obstacles of the risky play. These findings increase the valuable role of teachers in promoting risky play in early childhood.

Teachers' beliefs and attitudes towards children's risky play

van Rooijen and Newstead (2017) proposed a current and a systematic model for early childhood education professionals' behaviors towards children's risk-taking during play. According to this model, the behaviors of professionals towards children's risk-taking in plays are particularly influenced by five factors namely; (1) constructs of children, (2) teachers' attitudes to risk, (3) teacher-parent relationships, (4) regulatory factors and (5) cultural factors. When examined from the perspective of personal attitudes towards risk, it is possible to say that teachers commonly agree on the benefits of children's risky play experiences (Bento, 2017; Little, Sandseter, and Wyver, 2012).

However, teachers' views on the benefits do not show parallelism with their practices for creating opportunities for risky play contexts and strategies for children's risky plays (Bento, 2017). This asymmetrical situation is explained by teachers' opinion that children's physical health is of primary importance (Güler and Demir, 2016) and the lack of adequate security measures in playgrounds (Alat, Akgümüş, and Cavali, 2012; Güler and Demir, 2016). According to van Rooijen and Newstead's model (2017), the teacher-parent relationship is another factor that guides teachers' behaviors. Parents have various concerns about their

children playing outdoors. Some of these concerns include violation of traffic rules, traffic jam, malicious strangers, risk of kidnapping and injury (Kalburan, 2014). Parents' common concern about risky plays specifically is the possibility of being injured. Therefore, they expect schools and teachers provide safe environments for their children. It is possible to think that this expectation causes teachers to face a dilemma in supporting risky play. Another factor that affects teachers' practices about children's risky play is the environment, which is organized for safety. Teachers can intervene in risky plays due to poor safety measurements (Alat et al., 2012). When this matter is examined from a cultural perspective, it is demonstrated that teachers' views in children's play are affected by culture (Rentzou et al., 2019; Wu and Rao, 2011). Cultural differences are like those of risky play. For example, McFarland and Laird (2018) determined that Australian teachers consider outdoor risk games more important than US teachers.

Consequently, the efforts having an insight into teachers' thoughts, practices about risky plays and barriers in risky plays, involving children, are quite new. The systematic model proposed by van Rooijen and Newstead in 2017 has provided an insight into future research.

- Findings on teachers' restrictions on risky play for security reasons with having the knowledge about the impact of risky play in child development (Güler and Demir, 2016),

- The presence of research that restrictive strategies for risky play arise from environmental settings (Alat et al., 2012),

- Comparison of teachers' views about risky plays in different cultures (Mcfarland and Laird, 2018) have risen the need of examining personal attitudes of teachers' towards risk and testing the direction of its effectiveness in the model of the van Rooijen and Newstead (2017). It is possible to relate teachers' personal attitudes concerning risk with the value they give on risky play and their risky play experiences.

There are some findings that professional developmental training for teachers' beliefs and practices in risky plays, caused various changes in their practices even if not in their beliefs (Vu, Han, and Buell, 2015). At this point, the resistance of teachers to change their beliefs makes the formation process of teachers' beliefs more important. Accordingly, understanding how their beliefs are formed in risky plays, gains importance in terms of foreseeing their behaviors towards risky plays. One of the structures that shape teachers' values related to educational practices, beliefs and expectations might be their childhood (Van Hook, 2002).

Childhood memories and practices of teachers

While there are strong structures suggesting that past lives of adults effect their present tendencies and approaches, there is also finding that reveals this situation (Marshall, Ireland, and Dalton, 2015; Puhl and Schwartz, 2003). Although there are various findings about the age that adults could recall from their earliest memories, studies show that 5 or 6 and a half-year of age are commonly accepted (Wells, Morrison, and Conway, 2014). Although there are different determinations about the age on which the earliest childhood recollections of adults' focus, it is commonly recognized that age is particularly 5 or 6 and a half years of age (Wells et al., 2014). Studies revealed that gender (Davis, 1999), culture (Mullen, 1994; Peterson, Wang, and Hou, 2009; Wang, 2001) and quality of memories are listed as the determinant factors for recalling childhood memories. It will not be wrong to claim that risky plays, children involve with motivation sources such as excitement, pleasure, relieving curiosity and pushing physical boundaries (Keleş and Yurt, 2018; Sandseter and Kennair, 2011), can be remembered more easily than other memories in terms of their nature and emotions they make children experience.

Accordingly, in the analysis of chronological changes in child play in micro level, comparison of child plays of early childhood teachers' and child plays of present children can present an important analysis. In a study for realizing this analysis (Doliopoulou and Rizou, 2012), majority of teachers indicate that there are no changes between their childhood plays and current child plays of children attending their classes. Besides, it is established that teachers, who believe there are changes in child play due to time, justify lack of time and space as a reason for these changes. In another parallel study with early childhood teachers, carried by Sandberg and Samuelsson (2003), showed that teachers shared the idea that present children have more

outdoor plays when compared to outdoor plays of their childhood. As is seen, teachers emphasize play settings and idealize their childhood years in terms of play comparison (Sandberg and Samuelsson, 2003). In the light of this information, it is undoubtedly worth to analyze the impact of playgrounds and play opportunities of teachers had in their childhood, on present teaching practices. Van Hook's (2002) research inspired the configuration of this problem. In a study Van Hook (2002) conducted with preservice teachers has asked to share their earliest childhood memories that they could remember and their emotional reactions about their present early childhood experiences. In the end of this study, he asserted that childhood memories and early childhood experiences of teachers might influence accepted values, beliefs, and expectations of future teaching practices.

The present study

The five-dimensional model presented by van Rooijen and Newstead (2017) on early childhood education professionals 'behaviors towards children' risk-taking during play is a rather inclusive model. The two dimensions of this five-dimensional model (teachers' attitudes to risk and teacher-parent relationships) are directly related to preschool teachers. In this case, this model emphasizes that teachers have a key role in risky plays. There are opinions that adults, in this sense, that their perceptions of risk they may have in influencing teachers' risky play behaviors (Sandseter, 2009b). However, the sources of strategies used by teachers in managing the risky play behavior of children are one of the topics waiting to be investigated in many ways.

The first aim of the study is to evaluate the relationship between the early childhood teachers' risky play experiences in their childhood; teachers' childhood injuries caused by risky play and their management strategies for risky play as a teacher. The second aim of the study is to examine whether early childhood teachers' risky play management strategies for different types of risk plays are independent of each other.

Method

The research was planned in the quantitative research design. Relational screening model, which is one of the general screening models, was used in the research.

Participants and Research Ethics

Participants were selected by a "convenience sampling method" of a non-random sampling, which is widely used in the educational area (McMillan, 1996). Data were collected from 190 teachers working in preschools of 25 independent primary schools (Total of 19 cities namely, Adana, Ankara, Balıkesir, Bursa, Çankırı, Denizli, Edirne, Erzurum, Gaziantep, Hatay, İstanbul, İzmir, Kastamonu, Malatya, Manisa, Gümüşhane, Trabzon, Van and Zonguldak) in the spring term of 2018-2019 academic year. 175 female, 15 males, total of 190 early childhood teachers, in Turkey were participated in this study. Teachers age ranged between 21-57 ($M_{age}=29.03$, $SS=6.17$), and their experience period in early childhood education ranged between 1 to 34 years ($M_{year}=6.37$, $SD=5.77$).

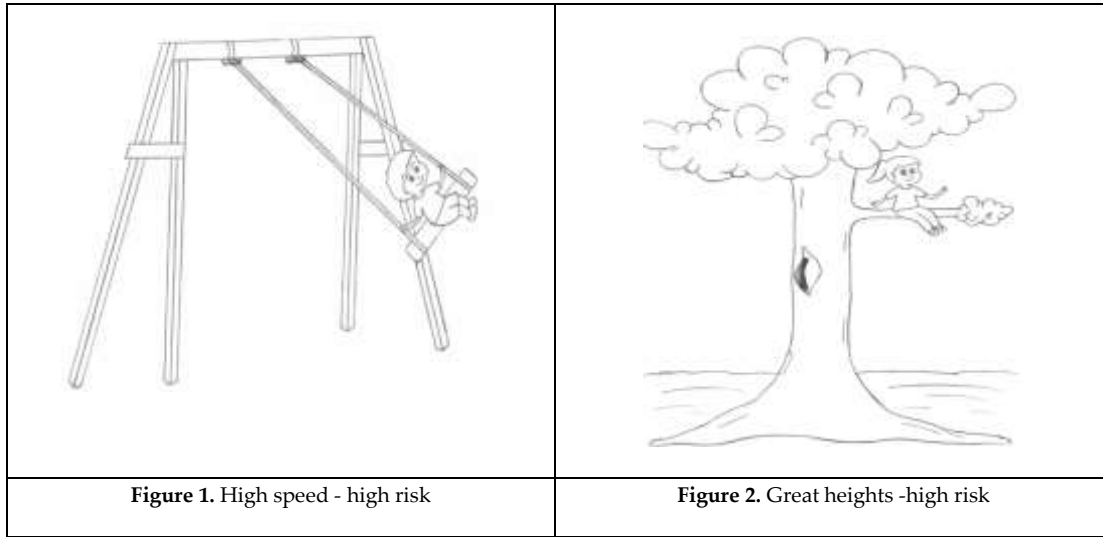
All teachers were informed about the purpose of research, duration of interview and data collection procedure, with scenario-based materials and were assured that all data would be treated anonymously and confidentially. All the teachers were volunteer participants of this study.

Materials and procedure

Semi-structured forms were prepared and used for analyzing teachers' early childhood experiences and their management strategies towards risky play. Total of four questions were asked in this semi-structured form, in which two of them were about two different risky play categories (plays at great height, plays at high speed). The first of these questions is about teachers' childhood memories. The other question is directed at the management strategies of the teachers regarding the risky play situation.

Two different risky play categories (plays at great height, plays at high speed) were included in the semi-structured form. Since the majority of childhood injuries in Turkey caused by "falling down" (Özkan et al., 2006; Çelik İnanc, Uğur Baysal, Coşkun, Taviloğlu, and Ünüvar, 2008) and the most popular risky play

activities involve play at great heights and at high speed (Sandseter, 2007), the questions in the interview form were based on play experiences at great heights and play experiences at high speed. In other words, teachers' childhood risky play experiences were examined as part of two target risky play events. Teachers were firstly asked a question for each target risky play events; "Did you ever attempt to play at great heights, that had a risk of falling, like climbing up a tree, in your childhood? Can you tell us about it?". Secondly, they were asked another hypothetical question showing some drawings; "Please examine the drawings. What will be your reaction when you see one of your children climbing up the highest branch of a tree as in the drawings?" (See Figure 2). The same question was repeated for the risky play at high-speed category (See Figure 1).



The semi-structured interview forms were either delivered during school visits or via e-mail to teachers volunteered to participate in this study.

Data coding and analysis

Raw data obtained from all open-ended questions were written down verbatim as the first step of the data analysis. Then two different encoders classified the raw data independently. For the first step, the existence of teachers' target risky play event experiences was reduced to two categories "Yes/No" as nominal variables. Then, teachers' self-injuries or unintentional injuries caused by fault of others as a result of risky play in their childhood, in other words, teachers' injury and unintentional injury histories were examined by a nominal variable having two categories (injured, not injured). In the next step, teachers' risky play management strategies about risky play situations were coded with five categories (asked to get down a tree, giving information about possible consequences, staying close, taking precaution, and setting limits). Therefore, each participated teacher classified by risky play experiences (with great heights and high speed), injury history (with great heights and high speed) and risky play management strategies (with great heights and high speed). In the next step, the raw data obtained from teachers' implementation of management strategies towards risky play observed in their class rooms, which they were asked as a hypothetical question, were analyzed under nominal variables with 5 categories (bring down, inform about the possible consequences, stay close, take precautions and set limits). Finally, correlation of independent variables was analyzed. Finally, the chi-square test of independence was used to determine the relationship between early childhood teachers' risky play experiences of their childhood, their childhood injury histories, and their management strategies for risky play as a teacher.

Reliability and validity

The data in the study were collected through a semi-structured interview form created by the researchers to examine the childhood strategies of teachers and their management strategies for risky play. Yurt and Keleş (2019) received opinions from three academicians who are experts in the field of early childhood education for the suitability of the drawings in the semi-structured interview form. Then the drawings in the semi-structured

interview form were presented to five preschool teachers. In line with the feedback received from the teachers, it was determined that the drawings and questions were understandable.

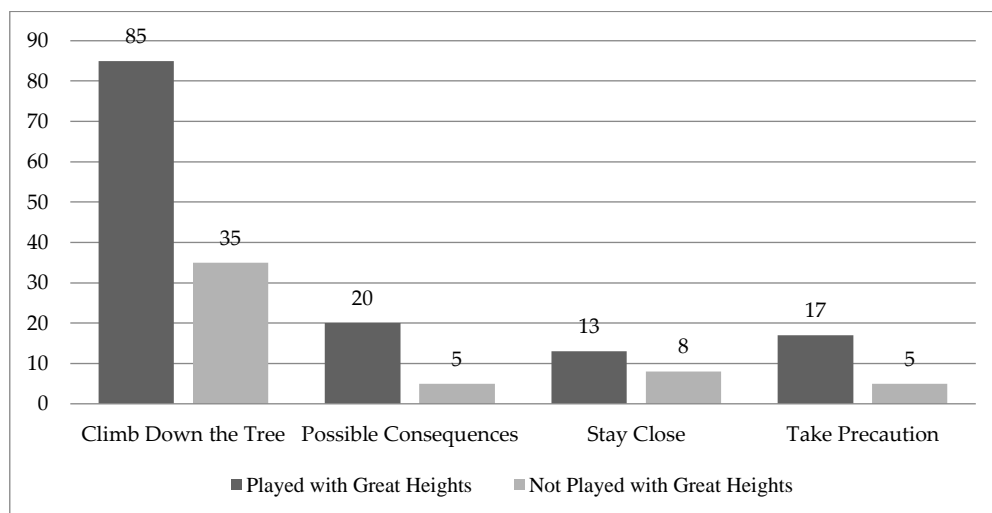
For reliability, the Cohen Kappa coefficient (Cohen's κ) was used to examine intercoder reliability from two independent coders. As a result, Cohen Kappa coefficient; $\kappa = 0.87$ for injury histories with high speed category, $\kappa = 0.92$ for injury histories with great heights category; $\kappa = 0.91$ for high speed risky play management strategies and $\kappa = 0.94$ for great height risky play management strategies.

Findings

Findings related to risky play at great heights

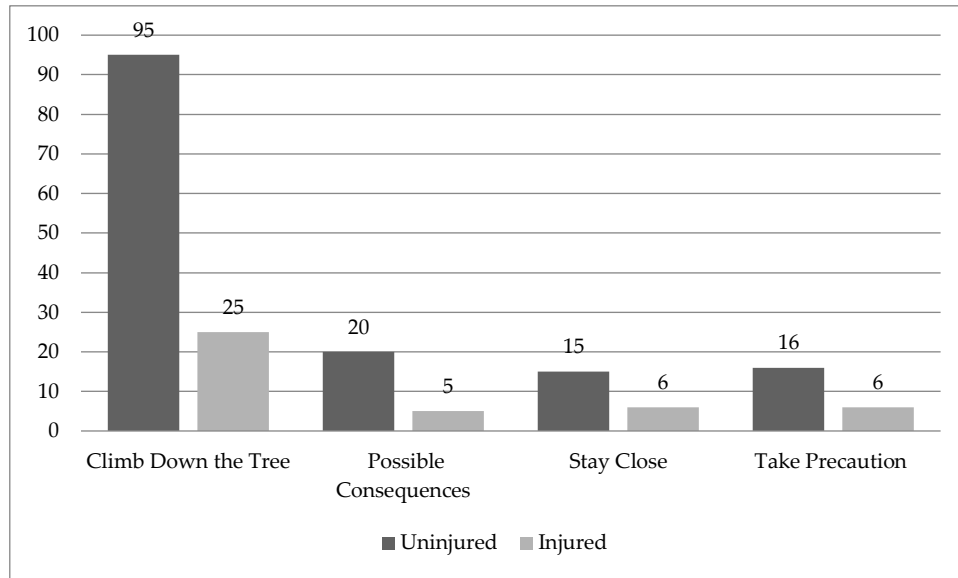
Teachers' risky play management strategies at great heights were tested on the basis of two different variables: As a first step, we examined the relationship between risky play experience status (Yes/No) and risky play management strategies (asked to climb down the tree, inform about possible consequences, take precautions and stay close). Then, we examined the relationship between injury histories caused by risky play experience status (Yes/No) and risky play management strategies (asked to climb down the tree, give information about possible consequences, take precautions and stay close).

In the sample, just more than half of the teachers (63.8%, $n=120$) were asked to ask a child to climb down the tree, but only 64% ($n= 85$) of teachers climbed up to great heights in their childhood while 36.0 % ($n= 35$) did not climbed up to great heights in their childhood. It was determined that 11,7 % ($n=22$) of teachers stated that they would use the strategy of taking precautions, 11,2% ($n=21$) of staying close and 13,3 % ($n=25$) of informing about possible consequences (Graph 1). Chi-square test of independence also showed that there is no significant relation between teachers' childhood experiences with risky play at great heights across risky management strategies at great heights $X^2(3, n=190) = 2.23, p=.53$.



Graph 1: Risky play experiences and strategies at great heights

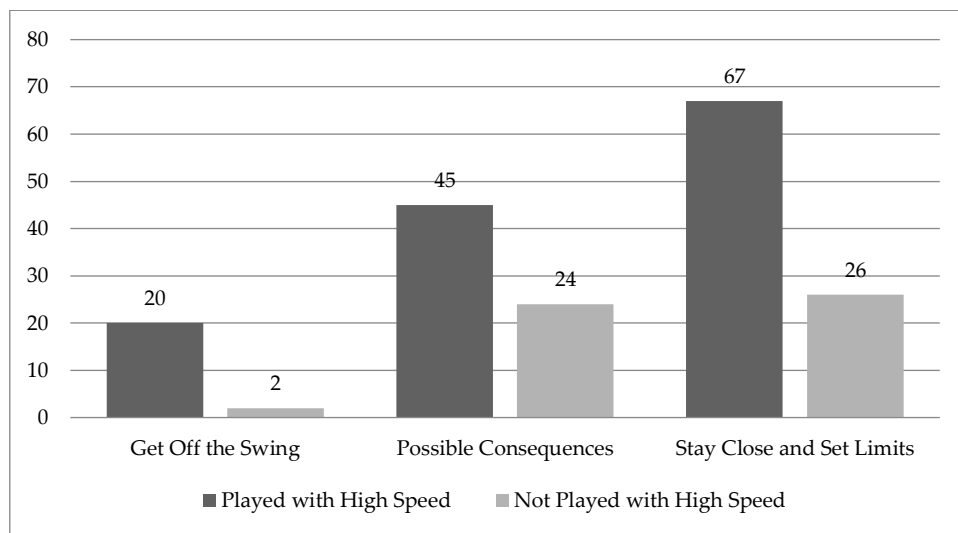
In the sample, just more than half of the teachers (63.8%, $n=120$) were asked to ask a child to climb down the tree, but %65.1 of teachers did not have an injury history caused by falling from that height and 59.5% had an injury history caused by falling. It was determined that 11.7% ($n=22$) of the teachers stated that they would use the strategy of taking precaution while 11.2% ($n=21$) of stay close and 13.3% ($n=25$) of inform about possible consequences (Graph 2). Chi-square test of independence also indicated that there is no significant relation between teachers' childhood injury histories with risky play at great heights across risky management strategies at great heights



Graph 2: Injury history status and strategies for great heights

Findings related to risky play with high speed

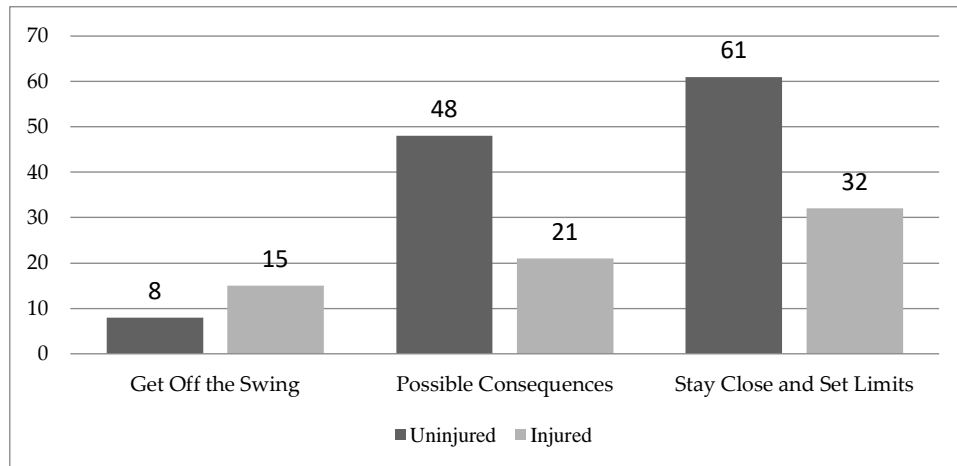
In the sample, half of the teachers (50.3%, $n=93$) said that they would set limits or stay close with a child while he/she was playing at high speed, but 50.8% of the teachers involved in risky plays at high speed in their childhood while 49.1 % did not involve in risky plays at high speed in their childhood. It was determined that 37.3% ($n=69$) of the teachers stated that they would use the strategy to inform about possible consequences while 12.4% ($n=22$) would ask a child to get off the swing (Graph 3). Chi-square test of independence also indicated that there was no significant relation between teachers' childhood experience with risky play at high speed across risky play management strategies with risky play at high speed $X^2(2, n=190) = 4.03, p=.13$.



Graph 3: Risky play experiences and strategies for high speed

In the sample, half of the teachers (50.3%, $n=93$) said they would set limits or stay close with a child while he/she was playing with high speed, but 52.1% of teachers did not have injury histories caused by falling at high speed and 47.1.0% of a teachers state that they had injury histories caused by falling at high speed in their childhood. It was determined that 37.3% ($n=69$) of the teachers stated that they would use the strategy to inform about possible consequences while 12.4% ($n=23$) of them state that they would ask a child to get off the swing. 6.8% ($n=8$) of the teachers, who stated that they would want children to get off the swing, reported that they did not have an injury history in risky play with high speed in childhood, while 22.1% ($n=15$) reported

that they had an injury history in risky play with high speed in childhood (Graph 4). Chi-square test of independence also indicated that there is a significant relation between teachers' injury histories with risky play at high speed across risky play management strategies at high speed $X^2(2, n=190) = 9.42, p=.009$, Cramér's $V = .23$).



Graph 4: Injury history status and strategies for high speed

Conclusion and Discussion

In this study, it is aimed to determine if there is a predictable relationship between early childhood teachers' risky play experiences, childhood injuries caused by risky play and management strategies for risky play as a teacher, through semi-structured interviews. As a result, it was determined that most of the teachers were involved in plays at great heights and at high speed and experienced risky plays during their childhood. This finding is in line with the results of the research conducted by Sandseter et al. (2020). In the study they observed 80 children, it was found that the time spent in risky plays were high speed risky play and great height risky play categories. This similarity between the findings, gives an idea that teachers have the opportunity to identify with children, especially in great height risky play and high-speed risky play.

Concerning injury, which is the possible outcome of risky plays during childhood, participant teachers of this study were injured as a result of both plays at high speed and at great heights. Studies examining the childhood plays of teachers and parents revealed that there was a perception about time-dependent changes in play, in terms of space and time. Parents and teachers think they were given more opportunities for outdoor play during their childhood (Doliopoulou and Rizou, 2012; Valentine and McKendrick, 1997). In this context, it will be meaningful to examine the extent of outdoor areas where risky play opportunities exist and to which extent, they meet the demand.

Enrichment of outdoor playgrounds in terms of safety measures - reducing the likelihood of injury of children - can be considered to lead to an increase in use of these areas since one of the obstacles to risky plays is known to be the possibility of injury.

In this study, it was found that teachers frequently used the strategy to inform children about possible outcomes in plays requiring high speed. However, it was observed that being injured as a result of risky play in childhood led to differences in their risky play management. In other words, teachers' management strategies in children's plays at high speed were dependent on their injury histories. This finding may be ascribed to the fact that swinging was chosen as an example of play at high speed in the study (swing is structured as a playground equipment) since teachers commonly think that their role in outdoor plays is to ensure safety (Çetken and Sevimli-Çelik, 2018), supervise and guide (Ihmeideh and Al-Qaryouti, 2016). Regardless of teachers' injury histories, teachers frequently use of the strategy to inform children about possible consequences, stay close and set limits in plays requiring high speed, found to be in line with the results of Ihmeideh and Al-Qaryouti's (2016) study. Ihmeideh and Al-Qaryouti (2016) determined that

providing verbal instructions and participating in outdoor plays were not common for teachers. When above mentioned two findings taken together, regardless of teachers' injury histories, it may imply that teachers inform about the possible consequences and the outcomes of violating rules to children in order to keep them safely continue their play, by reminding the rules and in this respect it may imply that they have a Professional approach to the matter.

As a result of this study, it was found that teachers frequently used the strategy of informing children about possible consequences of plays requiring at high speed and used the strategy of getting down a child from heights while they are playing with great heights. However, teachers' who did not have any injury history for risky plays at great heights during their childhood and did not inform children about the possible consequences, mostly tend to have strategies to getting down preschool children from great heights. Considering the falling from great heights as the possible outcome of two risky play category, it is a remarkable fact that teachers' use of different management strategies across these situations. In the current study, drawing of climbing up a tree can be considered in the concept of natural materials and drawing of swinging on a swing within the context of structured play equipment. Sandseter (2009a) determined that ordinary preschool and nature- outdoor schools offer highly risky games for children, while nature playgrounds create high-level risks in children's plays. When evaluated with this finding, in the case of taking risks with natural materials, this result suggests that the fact that teachers adopted the strategy of getting children down from great heights may arise from their concerns about the high risks that children may face.

There is no statistically significant relation was found between teachers' injury histories at great heights and their management strategies for plays at great heights in other words, teachers' management strategies for only at great heights were shaped independently from their injury histories of risky plays. This condition is partly in line with recent studies conducted with teachers (McClintic and Petty, 2015) and parents (Laird, McFarland-Piazza, and Allen, 2014; Rixon, Lomax and O'Dell, 2019). McClintic and Petty (2015) stated that all of the participant preschool teachers in his study, remembered themselves being children playing outdoors for long periods of time and with having freedom of being an adventurer and creative in outdoors, in their childhood memories, but their behaviors towards children of their class, playing at outdoors, were rather prohibiting and supervised and controlled. In a similar study carried out with parents, it is determined that, parents set restrictive limits to their children for outdoor plays (Rixon et al., 2019) even though they emphasized the importance of outdoors in physical risk taking, autonomy and friendship relations in their childhood memories; but a few parents gave chance to experience nature to their children (Laird et al., 2014). Adults' restrictive and supervisory behaviors towards children, in contradiction to their childhood experiences, can be attributed to the idea that their current freedom levels were very low (Rixon et al., 2019) and had less nature-based experience (Skår and Krogh, 2009). Similarly, preschool teachers reached a consensus regarding the decline of outdoor plays in quality and in quantity, due to children having limited playing time, intensity of activities and media impact (Sandberg and Samuelsson, 2003). When evaluated together with these findings, it is suggested that teachers' management strategies for risky play, developed by analyzing environmental conditions and potential risks of today's children may face, regardless of teachers' memories of their own childhood and their experiences.

Limitation and Suggestions

This study shows that teachers' childhood injury history at great heights and teachers' management strategies for plays at great heights are independent of each other. This means teachers' risky play management strategies do not depend on teachers' injury histories. This finding is important, because it reveals that teachers' risky play management strategies can be influenced by variables other than teachers' childhood injury histories. But, even if these two variables appeared to be independent from each other, it is limited to reveal the association between teachers' experiences and their management strategies of risky play. It may be suggested to use climbing ladder as play equipment instead of climbing a tree that was used in this study for risky play at great heights, in order to overcome this limitation. In future research, the use of structured play equipment for risky play at great heights, will clarify whether independence is derived solely

from climbing tree behavior. This research has other limitations. In this study, only two categories-play at great heights and play at high speed- of risky play were included. It may be suggested to include all risky play categories and to analyze the relation between teachers' risky play histories and their risky play management strategies in their classes for future research. The study results only reflect childhood experiences and current strategies of a small group, mostly comprised of female teachers. Broader results may be achieved by conducting this study with different genders. It was determined that male practitioners had more tolerant attitude towards risky play and allowed children to participate in risky play more than female practitioners in a study which provided an insight to this suggestion (Sandseter, 2014). Another limitation to this study was to address hypothetical questions to teachers using semi-structured interview forms as a data collection tool. In future research, risky play management strategies of teachers and their real risky play strategies aimed at children may be established and examined while observing them at outdoor plays, besides hypothetical questions. Workshops and training may be organized for examining teachers' risky management skills and developing their understanding of risky play. Previous research showed how professionals had limited understanding of encouraging opportunity to take risks (Little, 2017), but professionals may be supported by briefing and discussions on risky play (van Rooijen, Lensvelt-Mulders, Wyver, and Duyndam, 2020). Besides, it may be suggested to examine the relation between parents' risky play histories and risky play management strategies towards their children closely.

Declarations

Acknowledgements: Not applicable.

Authors' contributions: **Sadiye Keleş** contributed to the design of the functional definition of the research, literature review, data collection process, data analysis and discussion section; **Özlem Yurt** contributed to the data collection tool, data collection process, data analysis, discussion section, proofreading and editing of the bibliography.

Competing interests: The authors does not have any conflicts of interest with any person or institution due to the study.

Funding: The authors has conducted the study without any financial support from any institution / institution.

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