Risky Play in Early Childhood Education: A Risk Worth Taking

Erken Çocukluk Döneminde Riskli Oyunlar: Risk Almaya Değer

**Fatma Yalçın**, *Middle East Technical University,* [*fatma.ay.17@gmail.com*](mailto:fatma.ay.17@gmail.com)

**Feyza Tantekin Erden**, *Middle East Technical University,* [*tfeyza@metu.edu.tr*](mailto:tfeyza@metu.edu.tr)

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| **Abstract.** This paper aimed to present a literature review, examine relevant studies and present their common aims and findings. Based on this review, the study also intended to discuss and evaluate the current status of risky play in Turkish early childhood education. The literature was chosen through online sources, including several books, reports and many articles in the journals. A comprehensive research was conducted through data bases including ERIC, SCOPUS, ULAKBIM and Complementary Index using the key words such as; risk, risk taking, risky play, risk perception. Sources were evaluated for eligibility based on predetermined categories such as the definition and categories of risky play, the value of risky play, and the effect of teacher interactions and school structure on risky play. The relevant studies were summarized using a template based on the predetermined categories and additional categories that emerged in the review process. In reviewed studies, it was frequently stated that over protective parenting style and a rise in risk anxiety related to children’s safety are common characteristics in modern society during the 19th and the 20th century. At that point, the key role of early childhood institutions in provision of risky play for children comes into question. However, there should be some regulations in schools in order to balance risk and safety. For instance, the staff–child ratio should be decreased to ensure active and appropriate supervision. Similarly, outdoor playgrounds should be improved to eliminate possibilities for negative risk-taking behaviors because of insufficient challenges or boredom. More natural elements could be included to increase the opportunities for risky play or the teacher might carry out outdoor play sessions in natural surroundings such as forests or woodland.  **Keywords:** Play, Outdoor Play, Risky Play |
| **Öz.** Bu çalışmada erken çocukluk döneminde riskli oyunlara ilişkin yürütülen çalışmalar incelenerek bir taraması sunulması amaçlanmıştır. Bu alanyazına bağlı olarak, ayrıca, Türk erken çocukluk eğitiminde riskli oyunların şu anki durumunun tartışılması ve değerlendirilmesi de hedeflenmiştir. İlgili çalışmalar birçok dergide yayınlanan makaleler, birkaç kitap ve rapordan oluşan elektronik kaynaklar kullanılarak seçilmiştir. ERIC, SCOPUS, ULAKBIM ve Complementary Index dahil olmak üzere, risk, risk-alma, riskli oyunlar, risk algısı gibi anahtar kelimeler kullanılarak kapsamlı bir araştırma gerçekleştirilmiştir. Kaynakların uygunluğu, riskli oyunların tanımı ve kategorileri, riskli oyunların önemi, öğretmenin riskli oyunlarındaki rolü ve okul yapısının riskli oyunlar üzerine etkisi gibi önceden belirlenmiş kategorilerden faydalanılarak değerlendirilmiştir. İlgili çalışmalar anlamlı bir bütün haline getirilmiş, önceden belirlenen ve araştırma süresince ortaya çıkan bir takım kategorilerden oluşan bir çerçevede sunulmuştur. 20. Yüzyılın modern toplumlarında çocukların güvenliğine ilişkin risk algısının giderek artan bir hal aldığı ve aşırı korumacı aile tutumunun giderek yükselişte olduğu yapılan çalışmalarda sıklıkla vurgulanmaktadır. Bu nedenle erken çocukluk eğitim kurumlarının riskli oyunlara yer vermede rolünün daha da arttığı düşünülmektedir. Ancak, riskli oyunların çocuğun gelişimine en üst düzeyde katkı sunabilmesi için öğretmenlerin konuya ilişkin bilinç düzeyinin hizmet içi ve hizmet öncesi eğitimlerle arttırılması, daha etkin bir gözlem için öğrenci-öğretmen oranının alanyazın uygun seviyelere çekilmesi ve dış mekân oyun alanlarının çocukların gelişim ve ihtiyaçları göz önünde bulundurularak yeniden düzenlenmesi önerilmektedir.  **Anahtar Sözcükler:** Oyun, Dış Mekân Oyunları, Riskli oyun |

**ÖZET**

***Amaç ve Önem***

Erken çocukluk döneminde riskli oyun alanında yapılan çalışmaların çoğunda çocukların oyun sürecinde risk arayışına ilişkin doğal bir isteklerinin olduğu vurgulanmıştır (Sandseter, 2009d; Stephenson, 2003). Bu doğal motivasyon pek çok araştırma için merak unsuru oluşturmuş ve 90’lardan itibaren araştırmacılar riskli oyunları farklı açılardan ele alan çalışmalar yürütmüşlerdir (örn. Brussoni, Gibson, Pike & Sleet, 2012; Sandseter, 2009c). Ancak yürütülen bu çalışmaları sistematik olarak irdeleyip, okuyucuya konuya ilişkin genel bir çerçeve sunan sınırlı sayıda çalışmanın olduğu görülmüştür (örn. Cevher-Kalburan, 2014). Bu nedenle bu çalışmada erken çocukluk döneminde riskli oyunlara ilişkin yürütülen çalışmaların incelenip bir alanyazın taraması sunulması amaçlanmıştır. Bu alanyazına bağlı olarak Türkiye’de erken çocukluk eğitimi döneminde riskli oyunların şu anki durumunun değerlendirilmesi de çalışmanın amaçları arasındadır.

***Yöntem***

Bu çalışmada erken çocukluk döneminde riskli oyunlara ilişkin yürütülen çalışmalar incelenerek bir alanyazın taraması sunulması amaçlanmıştır. Araştırmanın inceleme sürecinde SCOPUS, ERIC, ULAKBIM, Complementary Index veri tabanları sistematik olarak taranmış ve 2003-2017 yılları arasında yayınlanan çalışmalar seçilmiştir. Belirlenen veri tabanlarının taranmasında risk, risk-alma, riskli oyunlar ve risk algısı gibi anahtar kelimeler kullanılmıştır. Elektronik kaynaklar kullanılarak seçilen kitap, rapor ve makalelerin uygunluğunun belirlenmesinde riskli oyunların tanımı ve kategorileri, riskli oyunların önemi, öğretmenin çocukların riskli oyunlarındaki rolü ve okul yapısının riskli oyunlar üzerine etkisi gibi önceden belirlenmiş bazı kategoriler kullanılmıştır. İlgili çalışmalar bu kategoriler üzerinden anlamlı bir bütün haline getirilmiş ve inceleme sürecinde ortaya çıkan ailelerin ve toplumun riskli oyunlara ilişkin tutumları ve Türk erken çocukluk eğitiminde riskli oyunlarının durumu gibi kategoriler de sonradan çalışmaya eklenmiştir.

***Bulgular***

İlgili alanyazında risk ve tehlike kavramlarının birbirine karıştırıldığı, ancak iki kavramın birbirinden farklı anlamlara geldiği ifade edilmiştir. Riskin genellikle olumsuz bir anlamla ilişkilendirildiği ve bu algının risk ve risk almanın sağlayacağı olumlu sonuçları göz ardı etmeye neden olduğu vurgulanmıştır (Little, 2006; Sandseter, 2009). Ancak riskli oyunların, çocukların fiziksel gelişim, yaratıcılık ve özgüven başta olmak üzere pek çok yönden gelişimini desteklediği ifade edilmektedir (Brussoni et al., 2015; Kleppe, Melhurish & Sandseter, 2017). Riskli oyunların çocuğun gelişimine olan katkısı bilimsel çalışmalarla ortaya koyulsa da, modern toplum ebeveynlerinde çocukların risk alma davranışına ilişkin olumsuz bir tutumun hâkim olduğu sıklıkla vurgulanmaktadır (Cevher-Kalburan & İvrendi, 2016; Little, 2006). Bu noktada erken çocukluk eğitimi kurumlarının yapısının önemi ve öğretmenlerin riskli oyunları desteklemedeki rolü önem kazanmıştır. Yapılan çalışmalarda, riskli oyunların olumlu sonuçlarının arttırılması ve muhtemel olumsuz sonuçlarının en aza indirilmesi için öğretmenin etkili bir gözlem yapması gerektiği ifade edilmiştir (Little, Sandseter, & Wyver, 2012).

***Tartışma ve Sonuç***

Riskli oyunlara ilişkin yapılan İngilizce çalışmalar incelendiğinde, bu çalışmaların birçoğunun İskandinav ülkelerinde gerçekleştirildiği görülmektedir (örn. Kleppe, 2017; Kleppe, Melhuish & Sandseter, 2017; Sandseter, 2007). Bu durum iki farklı çerçeveden değerlendirilebilir. Birincisi, riskli oyunlar sıklıkla dış mekânda gerçekleşmektedir. Bu açıdan bakıldığında dış mekân oyunlarına ilişkin yapılan çalışmaların sıklığı ülkeler bazında kıyaslandığında aynı örüntünün burada da olduğu görülür (örn. Amus, 20013; Ärlemalm-Hagsér, & Sandberg; 2013). İkincisi, modern dünyanın sosyalleşme uygulamaları bu durumla ilişkili olabilir. Bu bağlamda Tovey (2007), 19. ve 20. yüzyılın modern toplumlarında çocukların güvenliğine ilişkin risk algısının giderek artan bir hal aldığını ifade etmiştir. Benzer bir şekilde, Little (2006) aşırı korumacı aile tutumunun yükselişte olduğuna ve toplumdaki bu değişimin okul uygulamalarına da yansıyabileceğine işaret etmiştir. Bu noktada akıllara “modern dünyadaki bu değişim neden İskandinav ülkelerini etkilememektedir?” sorusu gelebilir. Bu soruya verilecek kesin bir cevap olmamakla birlikte kültürel farklılığa değinen çalışmalar bulunmaktadır. Bu çalışmalarda, pek çok kültür için çok büyük endişe nedeni olabilecek olan bir çocuğu çetin kış günlerinde bebek arabasına koyup dışarda uyutmak ya da küçük bir çocuğa keskin bir bıçağı bir ağaç parçasını yontması için vermek gibi İskandinav kültüründe var olan uygulamalardan bahsedilmiştir (New, Mardell & Robinson, 2005). Elbetteki ülkeler ve dolayısıyla eğitimler arasında farklılıklar baş gösterebilir. Bu nedenle Türkiye gibi aşırı korumacı aile tutumunun yükselişte olduğu toplumlarda erken çocukluk eğitim kurumlarının riskli oyunlara yer vermede rolünün daha da arttığı düşünülmektedir.

**INTRODUCTION**

In her book *Playing outdoors: Spaces and places, risk and challenge*, Helen Tovey (2007) stated that her childhood was full of playing outside and performing scary activities such as taking sled on a winter’s day up to the highest and steepest slope and sliding down at an extreme but cheerful speed. Tovey (2007) points out that these kinds of memories are not specific to her own childhood and any adult will probably have similar memories. As researchers in the field of early childhood education, when we read those sentences, we remembered our childhood and thought this was also valid for us. As children living in small towns, it was also very common and enjoyable for us to climb trees, swim in the river, and play away from the house in the evening without adult supervision. Coming from different generations and cultural backgrounds, Tovey, and we sought out and enjoyed challenges in our play. In that sense, she asks the reader a question, “What is it that makes children choose to do scary things, to delight in the thrill and excitement of physical challenge or of seemingly danger-defying pursuits?” Although it is not possible for researchers and practitioners to respond to this question with a single certain answer, they have responded with empirical evidence. From the 1990s and particularly after 2000, many empirical studies have been conducted to understand the issue of risky play and to describe it from different perspectives (e.g. Brussoni, et al., 2012; Lavrysen et al., 2017; Sandseter, 2009c, 2011).

Like Tovey, both Sandseter (2009d) and Stephenson (2003) pointed out that children frequently and intentionally search for risk and challenge in the process of play. According to Sandseter, the major motivation for desire of risk and challenge in play is getting a prompt reward such as thrill and pleasure or a fearful joy. In addition, she stated that young children are not only naturally drawn to risky play but also capable of managing risk in their play. She observed children when they were reducing or avoiding risk in the process of play. She explained this case by telling that if children think that the likelihood of accident is higher than the likelihood of excitement, they would most likely withdraw the behavior of risk-taking. However, Stephenson (2003) stated safety regulations may make it hard for practitioners to enable children to experience risky play although children have natural motivation for risk and capability to manage risk. According to her, removing all possible challenge and risk from the environment of children may probably lead to lack of all opportunities for risky play. She claimed that removing them could be a small cost for the individuals considering that children should be kept safe as much as possible. Nonetheless, this issue is more important for the ones whose priority is not only safety but also the wider issues of children’s development and learning. From this point of view, as early childhood researchers and practitioners who are concerned with both children’s safety and holistic development, we think that risky play is an important play type that practitioners and caregivers should allow children to experience in and out of school environment. However, the current state of the art indicates that this field is recent but a growing area in the field of early childhood education. Therefore, studies that focus on the issue from different perspective are needed. At that point, this study is considered as significant as it would present current trends and tendency in this research field in a broad perspective. It is thought that the current study could be a base for the researchers to determine the gaps in the field and conduct further studies. In addition, it is thought that this study would probably extend the current body of knowledge in this field. Considering the close relationship between body of knowledge and practice in the field, this study could be important to inform practitioners through feeding body of knowledge. In other words, this review study would have implications for practitioners, care-givers and researchers in the field of early childhood education.

**METHOD**

This paper aims to present a literature review, examine relevant studies and present their common aims and findings. The literature was chosen through online and printed sources, including several books, reports and many articles in the journals. As Table 1 indicates, the researchers carried out searches through ERIC, SCOPUS, ULAKBIM and Complementary Index using the key words such as; risk, risk taking, risky play, risk perception. Obtained sources were mainly published between 2003-2017. This timespan was not particularly selected by authors. However, the published sources clustered mainly in that timespan as the risky play is a recent but growing area in the field of early childhood education.

**Table 1.** *Limits of the current review study*

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| The Year of Publications | 2002-2017 |
| Data Bases | ERIC, SCOPUS, ULAKBIM, Complementary Index |
| Type of Documents | Article, Book, Report |
| Key Words | Risk, Risk Taking, Risky Play, Risk Perception, |

Sources were evaluated for eligibility and relevancy based on predetermined categories such as the definition and categories of risky play, the value of risky play, and the effect of teacher interactions and school structure on risky play. Parental attitudes toward risky play and risky play in a Turkish early childhood education context are the additional categories that had emerged in the review process. Related references in the examined sources were also analyzed and the relevant ones were included to the pool. However, comment parts in practice magazines were not involved in the pool of studies. Under the guidance of the determined categories, 40 studies were selected for the review process. The relevant studies were summarized using a template based on the predetermined categories and additional categories that emerged in the review process.

Since risky play is mainly found to occur in outdoor play (Sandseter, 2007; Stephenson, 2003) and studies focus on risky play in outdoor settings, the scope of this literature review was also based on the risky outdoor play.

**FINDINGS**

As previously indicated, the eligible studies for the review process were examined in detail and they were summarized under pre-determined and emerging categories. Findings included sections that refer to those categories. To illustrate, the findings began with the definition and categories of risky play. It then presented the value of risky play in early years, parental attitudes toward risky play, the roles of the teacher and the school structure in providing risky play, and the measures that should be taken to create environments that promote positive risk taking and minimize negative risk in play. An additional part related to risky play in Turkish early childhood education was also introduced.

**The Definition and Categories of Risky Play**

The idea that children intentionally search for risk in the process of play was frequently emphasized in the relevant research (Sandseter, 2009d; Stephenson, 2003). However, Sandseter (2009a) claimed that studies conducted in relation to risky play lack a collective conceptualization of risky play and that words including *risk*, *hazard*, *risk taking* and *risky play* should be more clearly defined. Little (2011) suggested that risk is generally associated with negative thoughts and consequences by the community. However, she claimed that individuals fail to recognize that risk might have both positive and negative results. Similarly, Lupton and Tulloch (2002) asserted that, risk and hazard were considered as synonymous. According to Greenfield (2003), there should a distinction between these terms, and he defined hazard as something the child does not see. Similarly, Little and Eager (2010) identified hazard as something that is not clearly apparent to a child at play such as head, neck, or chest entrapment, or potential finger crush points. Greenfield (2003) associated the term risk with a child’s uncertainty about being able to reach a desired consequence and stated that risk requires a decision between taking and not taking. In a similar respect, Little (2011) supported this understanding of risk by stating that risk is something we handle whether it is positive or negative. Risk taking was defined as actions that included the possibility for undesirable and negative outcomes (Boyer, 2006) and risky play was defined as “thrilling and exciting forms of play that involve a risk of physical injury” by Sandseter (2009, p.3), one of the pioneer researchers in the risky play literature. In addition, Sandseter (2009) expressed that risky play could result in death in the worst-case scenario.

The definition of risky play seems very broad and it could be meaningful to present the categories of risky play generated by Sandseter (2007). These were developed from interviews with children, teachers and observations of children’s outdoor play in two Norwegian kindergartens, one ordinary and one in nature. In this study, the results of which were also confirmed and validated by taking the opinions of an experienced preschool teacher, Sandseter identified six categories for risky play. These categories are *play with great heights*, which includes the danger of injury due to falling; *play with high speed*, which includes the danger of collision with something due to uncontrolled pace and speed; *play with dangerous tools*, which includes dangers due to inappropriate usage; *play near dangerous elements*, which includes the danger of falling into or from something; *rough-and-tumble play*, which includes the risk of injury when playing becoming fighting; and *play where children can disappear or get lost*, which includes the risks of getting lost and injured due to a lack of supervision. Based on these categories, Sandseter (2009a) conducted further studies to identify the characteristics of risky play—she aimed to describe the characteristics that make risky play risky. She identified two categories, namely environmental characteristics and individual characteristics. Environmental characteristics refer to the characteristics in the environment that increase the likelihood of injury in play such as the height and steepness of a hill that a child might climb up and slide down. The level of supervision by an adult was also considered to be an environmental characteristic. Individual characteristics refer to how the children perform in play—for example, the actual height and speed the children are impelled towards in their play, their bodily control, their focus and concentration while playing. Sandseter (2009a) emphasized that both characteristics together affect the probability of being injured in the process of play.

Sandseter identified categories and characteristics of risky play based on children aged three to five. However, little was known about younger children’s risky play. Kleppe, Melhuish, and Sandseter (2017) conducted a study to identify and characterize risky play between the ages of one and three years. They found that the existing definition and characteristics of risky play are also applicable to younger children. However, for one-year-old children, the researchers identified deviations from the existing understanding of risky play. They suggested that one-year-old children should be evaluated with regard to motor development, particularly with their walking ability. Compared to older peers, one-year-old children were reported to demonstrate less risky play. In addition, the researchers put forward that one-year-old children showed fewer facial expressions that reflect fun, thrill, exhilaration, and fear or the excited cheers considered as frequently observed characteristics in older children’s risky play. Therefore; playing with dangerous elements was stated as the major risky play for one-year-olds as they are generally making efforts to explore and test their surroundings and their bodies.

Stephenson (2003) was also curious about the risky play of younger children. He suggested that the outdoor environment is more challenging and risky for children under two years of age who are mobile than older children. The researcher stated that activities such as negotiating steps, climbing onto a swing, transporting materials, making a bike move, and even running could create a challenge for them. In addition, inspired by the frequently used word *scar*y in the outdoor playground, Stephenson (2003) focused on the issue that makes a physical experience scary for a child who is four years old. He identified three features of scary physical experience, namely attempting something never done before; feeling to be on the borderline of ‘out of control’ because of height or speed; and overcoming fear. Based on the identified features, the researcher stated that outdoor activities provide more opportunities for risky play due to the fact that children can combine height and speed on a swing or can slide on climbing equipment to increase the level of risk in play.

In the literature, there are also studies that focus on parents’ opinions, beliefs, attitudes, and practices towards risky play, proposing that parents have an important influence on children’s risk taking behavior (Cevher-Kalburan & İvrendi, 2016; Lewis, DiLillo & Peterson, 2004; Little, 2015; Little, Wyver & Gibson, 2011; McFarland & Laird, 2017; Wyver et al., 2010). The following section will present a summary of those studies by synthesizing them.

**Public and Parental Attitudes towards Risk in Play**

When the studies and reports about risky play are examined, the most common terms that draw the attention of the reader are *overprotective style of parenting*, *aversion to risk*, and *surplus safety* (Cevher-Kalburan & İvrendi, 2016; Little, 2006; Tovey, 2007; Wyver et al., 2010). For example, Cevher-Kalburan and Ivrendi (2016) aimed to investigate the relationship between parenting style and parents’ thoughts and practices regarding risky play. They found that overprotective parenting is negatively related to the practices and benefits of risky play. However, surprisingly, they found that the education level of parents was also negatively related to risky play practices. Although well-educated parents appreciate the benefits of risky pay, they do not approve of risky play practices. Similarly, Little (2015) examined parents’ beliefs related to children’s outdoor play opportunities and the management of risk in outdoor playgrounds. The researcher found that there was tension between parents’ opinions about the importance of risky play for children’s wellbeing and their own fears related to children’s safety. The findings related to safety concerns and the decrease in children’s risky play opportunities due to parental concern were confirmed by several other studies (Little, Shirley & Gibson, 2008; McFarland & Laird, 2007; Wyver et al., 2010). Due to parental concerns for safety, new trends have emerged to meet children’s need to seek challenges. For example, Tovey (2007) touched upon the issue of changes in opportunities for risky play by referring to the increase in adult managed theme parks involving roller coasters and adrenaline busting rides. According to Tovey (2007), although those parks and equipment enable individuals to feel the sensations of falling, spinning, or whirling with accompanying shrieking, those kinds of entertainment cannot act as a substitute for children’s play. Tovey (2007) supported this claim by describing how riding a roller coaster does not require any skill as it is controlled by someone else. She stated that although it requires some degree of courage it does not include actual risk as in risky play. Tovey (2007) pointed out that risky play requires momentary judgments regarding danger and safety.

As for the public attitudes toward risky play, Lindon (1999 as cited in Gleave, 2008) stated that the media has a great effect on society’s concern regarding children’s risk-taking behaviours. Lindon claimed that media tend to publish what could go wrong without considering and emphasizing how possible or impossible this consequence might be. According to her, by doing so, media has an apparent role in manipulating the risk perception of societies. In this respect, she presented a dramatic example. The author stated that based on the statistics, the frequency of a car accident is considerably higher than the frequency of severe playground injury. Moreover, she claimed that although the car accidents have higher risk to occur compared to playground injury, the car accidents were not constantly publicized in the way playground injuries could be. Similarly, Landry (2005) stated that the developmental benefits of risky play and risk taking behavior were underestimated as media generated an atmosphere including social panic in relation to risk-taking. However, statistics tells more realistic things than media. According to the studies conducted by Ball (1989 and 2002 as cited in Gill, 2017), there is no increase in the annual possibility of a child visiting hospital due to playground injury. Both in 1989 and 2002, this probability was reported as around one in 200. Although, the positive developmental outcome of risk-taking is forgotten due to public and parental concerns, the benefits of risky play were presented in the relevant literature (Brussoni et al., 2015; Kleppe, Melhurish & Sandseter, 2017; Little, 2011; Sandseter, 2009; Tovey, 2007). The importance of risky play for children’s well-being and the value of providing risky play in an early childhood setting are presented in the following section.

**The Value of Providing Risky Play in Early Childhood Settings**

The short term or long term developmental benefits of play are not what motives children to play. Moreover, it does not guide their decisions about what to play. Their primary consideration is the enjoyment and the thrill obtained from play—children are naturally drawn to risky play because they enjoy engaging in risky play. Although children’s primary concern is not the immediate or deferred benefits of risky play, the positive developmental outcomes of risky play were evident to researchers (Ball, 2002; Brussoni et al., 2015; Kleppe, Melhurish, & Sandseter, 2017; Little, 2011; Sandseter, 2009; Tovey, 2007). Studies also emphasized that the overwhelming emphasis upon injury prevention in the debate means that the important developmental benefits of risky play are often overlooked (Little, 2006; Tovey, 2007).

Inspired by the debate about the benefits and harms of risky play, Brussoni et al. (2015) conducted a systematic review. In this study, the relationship between risky outdoor play and health in children was examined through 21 germane papers. The study addressed the effect of three types of risky play (play where children can disappear/get lost, play at great heights, and rough and tumble play) and environments that encourage risky play on health indicators. The study revealed that risky outdoor play has positive effects on health indicators such as physical activity and social health, creativity and resilience. The researchers therefore suggested that children’s risky outdoor play opportunities should be encouraged for healthy child development.

Risky play is not only important for healthy development. It is also seen as necessary for a child to reach *zone of proximal development* because risky play encourages the child to increase the level of a challenge step by step (Kleppe, Melhurish, & Sandseter, 2017). In this respect, Greenfield (2004, p.1) remarked, “without risk-taking we do not reach our potential”. Similarly, Little (2011) claims that we cannot learn skills such as climbing stairs, swimming, riding a bicycle, boiling an egg, and driving a car if we do not take risks in our life. This is why Little suggested that children should take and manage risk in order to achieve positive outcomes in a world that is full of risk. Little also claimed that a lack of risky play in a child’s life leads to risk deficit disorder, which means that they lack the ability and the knowledge to perceive and handle risk. Similarly, Little and Wyver (2008) indicate that the minimization of risky play indirectly leads to decrement physical benefit from physical play and increment the risks of chronic illness associated with low levels of activity. Tovey (2007) stated that risk taking is also important for supporting children’s emotional well-being and creative thinking because it requires a willingness to go beyond the accepted, the routine, and the given.

As all aforementioned studies indicates, risky play is essential for young children’s health and well-being. That is the reason why Little (2015) suggested that early childhood institutions have a critical role in providing opportunities for risky play in outdoor playgrounds to compensate for the decrease in children’s risky play opportunities due to parental concerns, overprotective styles of parenting, aversion to risk, and an excess of safety measures. The key role of early childhood institutions and particularly the role of teachers in risky play were emphasized by many studies (Little, 2006; Little & Wyver, 2008; Sandseter, 2009d, 2012, 2014; Cevher-Kalburan, 2015). In the following section, the effects of teacher interaction and school structure are presented in the light of the relevant literature.

**The Effect of Teacher Interactions and School Structure on Risky Play**

As previously mentioned, early childhood education and care centers might and should have a compensatory role to provide opportunities for risky play and to engage children in positive risk taking behavior. At this point, two important components of the school, namely the teacher and the outdoor playground, come into question. The views, beliefs, and attitudes of preservice and in-service teachers toward risky play, and the practices of in-service teachers, were the focus in many inquiries (Cevher-Kalburan, 2015; Little et al., 2012; Little, Wyver & Gibson, 2011; İpek & Ergül, 2016, Sandseter, 2009, 2012, 2014).

As teachers are the decision makers in the learning environment, it is reasonable to focus on the factors that may affect their position in respect to risky play and their existing practices. Stephenson’s (2003) observations of four-year-olds demonstrate an understanding of the importance of this issue. According to him, the enjoyment and interest demonstrated by teachers during outdoor play is much more satisfying for a four-year-olds hunger for physical challenge than the equipment that is considered to be challenging. In a similar respect, Little (2006) frequently emphasized that not only the regulations related to the learning environment, particularly outdoor playgrounds, but also appropriate adult supervision of outdoor play are critical for minimizing serious injury and promoting positive risky experiences in early years. However, according to the studies (e.g Little, Sandseter & Wyver, 2012; McFarland & Laird, 2007), teachers’ considerations regarding the appropriate balance between keeping children safe and encouraging them to engage in risky play were affected by culture. Studies coming from Scandinavian culture (Sandseter, 2012, 2014) showed that teachers had more positive attitudes toward risky play and were less worried about risky play practices, whereas studies coming from the UK, Australia, and Turkey (Cevher-Kalburan, 2015; Little, Wyver & Gibson, 2011; İpek & Ergül, 2016) showed that teachers were more worried about risky play practices even if they had positive attitude. Cross-cultural studies (Little, Sandseter & Wyver, 2012; McFarland & Laird, 2007) also confirmed these findings.

As for the outdoor playground, which is other important component for the provision of risky play, its features affect children’s play by affording certain types of play activities. The affordance concept was described by Sandseter (2009) as what the environment invites individuals to do. She also added that affordance is unique for every person as it depends on the individuals’ body size, strength, skills, courage, fear, etc. Sandseter (2009) conducted a study to explore the affordances for risky play in the outdoor environments of two Norwegian kindergartens, one being an ordinary playground and the other a natural playground. She found that both included many affordances for risky play by providing opportunities such as playing at great height (climbing, jumping down, and balancing), playing at high speed (swinging, sliding/sledding, running, and bicycling), and playing with dangerous tools. However, she stated that they differed in terms of dangerous elements such as cliffs, a pond/small lake, a fire pit, and enclosures/restrictions such as a fence. Sandseter (2009) stated that environmental features of the natural playground such as numerous high trees, several cliffs, rocky walls, big rocks, and a very long and steep hillside for climbing, jumping down, and balancing afforded a higher level of risky play than the ordinary playground. Similarly, the researchers, Knight (2012) and Kostbahn (2016) proposed that the natural playground provided more intense, exhilarating, and thrilling risky play opportunities for children than the ordinary playground. In this respect, Waters and Begley (2007) found that Forest Schools offer more challenges to children than the outdoor playgrounds of schools. The researchers stated that there may be two main underlying reasons for this difference. First, forest school involve a permissive culture while the school playground has the rule-bound structure; and second, the natural components of the forest present various forms of risky play, whereas outdoor play equipment presents limited opportunities for risky play. Thus, increasing natural elements in playgrounds, establishing kindergartens in locations with more natural surroundings, or practicing outdoor play in natural surroundings might benefit children’s engagement in risky play.

**The Measures that Should Be Taken to Create Safe Environments for Risky Play in Early Childhood Settings**

Tovey (2007, p. 101) asks, “What is a safe and secure environment? Is it one where children are protected from every possible source of harm and thereby kept dependent, metaphorically wrapped in cotton wool?” Tovey’s questions are striking to understand the approach that suggests as safe as necessary instead of as safe as possible when managing risks in play (Play Safety Forum, 2008). Little and Eager (2010) suggested an appropriate playground which is a place that attracts children for repeated usage. A successful playground should therefore include various opportunities that serve different interests and abilities and present different characteristics that stimulate risky play. However, it should be free of negative risk (hazards). Regulations for minimizing hazards were suggested as important if they are not restrictive for positive risky play (Little, 2006). However, not only regulations, but also appropriate adult supervision, were frequently stated as requirements for creating a developmentally appropriate environment for risky play (Little, 2006; Little & Wyver, 2008).

**Risky Play in a Turkish Early Childhood Education Context**

Risky play is a very recent but growing research area in the field of Turkish early childhood education. Upon reviewing the past decade, only very recent and limited studies were found in the literature (see e.g; Cevher-Kalburan, 2014, 2015; Cevher-Kalburan & Ivrendi, 2016; İpek & Ergül, 2016). For example, based on previous studies, Cevher-Kalburan (2014) presented a literature review including issues such as the definition and characteristics of risky play, the factors that affect risky play, risk management, and the importance of risky play. Another study was inspired by the negative reaction of pre-service teachers to any case, scenario, or photograph involving a risky play situation (Cevher-Kalburan, 2015). Here, Cevher-Kalburan (2015) examined the effectiveness of an intervention course that aimed to change pre-service teachers’ understanding of risky play. The intervention course included six classes that were carried out weekly for almost one and a half hours. Participant pre-service teachers were assigned both pedagogical readings about risky play and assignments such as observation of an outdoor play session, interview with parents and teachers and illustrating an imaginary playground. The researcher found that the intervention course was effective in helping preservice teachers to develop a theoretical framework for children’s risky play as well as developing positive attitudes towards and a deeper understanding of risky play. Cevher-Kalburan also conducted a study with Ivrendi (2016) to investigate the relationship between parenting styles and parents’ thoughts and practices regarding risky play. The results of this study were mentioned in the previous section. Lastly, İpek and Ergül (2016) conducted a study to investigate Turkish early childhood teachers’ opinions and perceptions of risky play. The researchers suggested that risky play was perceived by Turkish teachers as dangerous and damaging and their approaches to risky play were therefore cautious. The attitudes of parents and school administrators towards teachers and the inadequacy of physical components in the playgrounds were stated as underlying reasons for the teachers’ concerns.

As for the examination of the National Early Childhood Education Program in terms of risky play, it is seen that this program is a child-centered, play-based, and flexible program. Teachers are not restricted to teaching any subject or theme in a specific learning environment, whether indoor or outdoor. Even, teachers are encouraged to use an outdoor environment for what are usually indoor activities (MONE, 2013). In this respect, there is neither a restriction nor a special emphasize to encourage risky play in the national curriculum. Similarly, Cevher-Kalburan (2014) has also agreement with the issue that the national curriculum in Turkey makes no explicit statement to mention of risky play.

**DISCUSSION**

Risky play is a growing field for researchers in early childhood education. When studies in English are examined, it is seen that most studies over the past decade were from Europe, particularly from Scandinavia (Kleppe, 2017; Kleppe, Melhuish & Sandseter, 2017; Sandseter, 2007, 2009a, 2009b, 2009c, 2011, 2012, 2014). However, some recent studies examined the issue in North America and Australia (Little, 2006, 2015; Little & Eager, 2010; Little & Wyver, 2008). The frequency pattern in the risky play studies might be justified in two ways. First, as previously mentioned, risky play occurs more often outdoors. An examination of the outdoor play literature reveals the same pattern as it is in risky play literature (Amus, 20013; Ärlemalm-Hagsér, & Sandberg, 2013; Fjortoft, 2004; Karppinen, 2012). Second, socialization practices in the modern world might be related to this case. Tovey (2007) stated that a rise in risk anxiety related to children’s safety is a common characteristic in modern society during the 19th and the 20th century. Similarly, Little (2006) emphasized that overprotective parenting styles together with differential socialization practices might affect practices in early childhood institutions. This is because those institutions mirror the values of the community and particularly the parents whose children are attending the kindergartens. However, at this point the question of “why those socialization practices do not affect the Scandinavians?” might come to the minds. New et al. (2005) stated that there is cultural diversity in acknowledging and assessing risk. For example, it might be reasonable and necessary for some cultures to leave the Danish infant to nap outside in a stroller in a cold weather, to allow a Norwegian preschooler to use a sharp knife in order to whittle wooden sticks, or to permit the Japanese child to frequently engage in physically thrusting and offending behavior, whereas those kinds of practices are not acceptable for many American educators. New et al. (2005) also emphasized that not only the teachers in these cultures, but also the parents, acknowledge that those kinds of experiences are parallel to the educational goals of early childhood education. In this respect, it could be meaningful to remind the claim of Waters and Maynard (2014) that is; early childhood education both affect and is affected by the priorities, values and attitudes of sociocultural context within which it is embedded. Based on the claim of Waters and Maynard, Sandeter et. al. (2017) asserted that outdoor play practices in general and risky play opportunities particularly are influenced by sociocultural context of early childhood education.

In the case of Turkey—considering both Little’s (2006) and Waters and Maynard (2014) claims that an overprotective style of care and differential socialization practices may also occur within early childhood settings—Turkish early childhood researchers and practitioners might need to reconsider the practices in terms of risky play. In this respect, Aksoy, Kılıç and Kahraman (2009) suggested that Asian parents tend to be more protective and controlling. Similarly, several other studies (Cevher-Kalburan 2014; Deretarla-Gul 2012; Sisman and Ozyavuz 2010) put forward that there is a growing concern regarding safety in Turkish parents about children’s play. Moreover, Cevher-Kalburan and Ivrendi (2016) found that overprotective parenting is negatively related to the practices and benefits of risky play. At that point, we need to ask whether staff in early childhood intuitions limit or encourage positive risk taking behavior because it requires a high level of supervision. However, responding to this question is difficult because studies that investigate risky play experiences in a Turkish early childhood context do not exist in accessible relevant literatures. However, it is possible to make inferences based on the outdoor play literature as most of the risky play experiences occurred in outdoors (Sandseter, 2007; Stephenson, 2003). Such studies show that outdoor play is not extensively and frequently practiced in early childhood settings for several reasons including parental concerns, inclement weather, lack of appropriate equipment, clothing, and inappropriate adult-child ratios (Alat, Akgümüş and Cavali, 2012; Cevher-Kalburan & Yurt, 2011; Erbay & Saltali, 2012; Yalçın, 2015). Thus, it might not be reasonable to expect children have the opportunities for risky play in early childhood intuitions. Alat et al. (2012) supported this view by claiming that teachers and parents do not let children take risks in Turkey.

As a result, it could be stated that the triple messages coming from parents, curriculum and safety regulations generate challenges for teachers to enable children to take risk in play (Sandseter et.al, 2017). It is thought that there is a need for several educational implications in order to enable teachers to deal with challenges and make them advocate for outdoor and partially risky play.

**IMPLICATIONS**

Based on the current literature review, several implications might be presented for Turkey and countries that share the same position when responding to children’s needs for risky play. According to Little and Wyver, the factors which cause to minimize risk and risk taking in outdoor play sessions are high adult-child ratios, excessive safety regulations for outdoor environments, poorly designed outdoor playgrounds, lack of adequate understanding regarding the importance of risky ply by practitioners and lastly fear of litigation. Considering the model proposed by Little and Wyver (2008)—which represents the factors minimizing risky play and the developmental outcomes of this—some improvements should be done. For example, the courses in the early childhood teacher training programs should involve risky play to promote positive beliefs and attitudes and pedagogical knowledge for appropriate supervision. In addition, the staff–child ratio should be decreased to ensure active and appropriate supervision. Similarly, outdoor playgrounds should be improved to eliminate opportunities for negative risk-taking behaviors including the misuse of equipment because of insufficient challenges or boredom. More natural elements could be included to increase the opportunities for risky play or the teacher might carry out outdoor play sessions in natural surroundings such as forests or woodland. Moreover, teachers, administrators and policy makers should work in collaboration and take the same position to eliminate teachers’ fear of litigation. Finally, as Wyver et al. (2010) indicated, initiatives such as Child Friendly Cities (which consider all children’s well-being) should be generated to eliminate parent’s individualistic focus on their children’s safety rather than a focus on all children’s well-being in the society.

**LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDIES**

This study is limited to obtained studies through selected data bases, key words and the years of publications. Further studies could be conducted by involving other databases, key words and extending the publication years. In addition, this study aimed to present a literature review by examining the common aims and findings of the relevant studies. To this end, examined studies were presented as a synthesis of related categories. That is the reason why, this study did not present findings related to information such as publication year, journal and author names, title, country, independent researcher or university based research, method, or participants. Therefore, further studies could be conducted to examine those kinds of information in risky play studies.

**REFERENCES**

Aksoy, D. B., Kılıç, U. Ş., & Kahraman, G. T. (2009). Asya kültürlerinde ebeveynlik stilleri ve uygulamalari. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 18* (2), 14-25.

Alat, Z., Akgümüş, O., & Cavali, D. (2012). Outdoor activities: Early childhood teachers’ beliefs and practices*. Mersin University Journal of the Faculty of Education*, *8*(3), 47–62.

Amus, G. (2013). An Alternative Journey into Forest Kindergartens and Reggio Emilia Approach. In U. Harkönen (Ed.), *Reorientation of teacher education towards sustainability theory and practice*: *Vol. 7. proceedings of the 10th international JTEFS /BBCC conference sustainable development* (pp. 5-25). Joensuu: Publications of University of Eastern Finland.

Ärlemalm-Hagsér, E., & Sandberg, A. (2013). Outdoor play in a Swedish preschool context. In S. Knight (Ed.), *International perspectives on Forest School: Natural spaces to play and learn* (pp. 42–52). London: Sage.

Boyer, T. W. (2006). The development of risk-taking: A multi-perspective review. *Developmental Review, 26*, 291-345.

Brussoni, M., Gibbons, R., Gray C., Ishikawa, T. Sandseter, E.B. H., Bienenstock, A., Chabot, G., Fuselli, P., Herrington, S., Janssen, I., Pickett, W., Power, M., Stanger, N., Sampson, M. and Tremblay, M.S. (2015). What is the relationship between risky outdoor play and health in children? A systematic review. *International Journal of Environmental Research and Public Health, 12*, 6423-6454. doi:10.3390/ijerph120606423.

Brussoni, M., Olsen, L.L., Pike, I., & Sleet, D. A., (2012). Risky play and children’s safety: Balancing priorities for optimal child development. *International Journal of Environmental Research and Public Health*, *9,* 3134-3148. doi: 10.3390/ijerph9093134.

Cevher-Kalburan, N. (2014). Erken çocukluk döneminde riskli oyun. *Kastamonu Üniversitesi Kastamonu Eğitim Dergisi*, *22*(3), 943-960.

Cevher-Kalburan, N. (2014). Young children’s opportunities and parent’s opinions regarding outdoor play. *Journal of Studies on Social Policy, 32*, 113–135.

Cevher-Kalburan, N. (2015) Developing pre-service teachers’ understanding of children’s risky play, *Journal of Adventure Education and Outdoor Learning*, *15*(3), 239-260. DOI: 10.1080/14729679.2014.950976.

Cevher-Kalburan, N., & Ivrendi, A. (2016). Risky play and parenting styles. *Journal of Child and Family Studies*, *25*(2), 355-366. doi:10.1007/s10826-015-0236-1.

Cevher-Kalburan, N., & Yurt, Ö. (2011). “School playgrounds as learning environments: Early childhood teachers’ beliefs and practices”. *Paper presented at the 7th International Conference on Education*, INEAG, Samos-Greece.

Deretarla-Gul, E. (2012). An examination of parents’ perceptions on playgrounds and their equipment. Journal *of Cukurova University Institute of Social Sciences, 21*(3), 261–274.

Eager, D. & Little, H. (2011). Risk deficit disorder. *In Proceeding of IPWEA International Public Works Conference*, Canberra, Australia, 21–24 August 2011.

Erbay, F., & Saltali, N. D. (2012). The place of play in six-year-olds’ daily life and mothers’ play perception*. KEFAD, 13*(2), 249–264

Fjørtoft, I. (2004). Landscape as play scape: The effects of natural environments on children’s play and motor development. *Children, Youth and Environments, 14*(2), 21–44.

Gill, T. (2017). Policy on risk management in outdoor play. Tim Waller, Eva Arlemaalm-Hagser, Ellen Beate Hansen Sandseter, Libby Lee-Hammond, Kirsti Lekies, Shirley Wyver (Eds.) In *The Sage handbook of outdoor play and learning* (pp.-127-142). Thousand Oaks, CA: SAGE Publications.

Gleave, J. (2008). “Risk and play: A literature review”. [Online] Retrieved on 12-March-2017, at URL: [https://www.springzaad.nl/litdocs/risk\_and\_play a\_literature\_review.pdf](https://www.springzaad.nl/litdocs/risk_and_play%20a_literature_review.pdf).

Greenfield, C. (2003). Outdoor play: The case for risks and challenges in children’s learning and development. *Safekids News*, *21(*5).

Greenfield, C. (2004) ‘Can run, play on bikes, jump the zoom slide, and play on the swings’: Exploring the value of outdoor play, *Australian Journal of Early Childhood, 29*(2), 1–5.

İpek-Güler, B., & Ergül, D. (2016). Okul öncesi öğretmenlerinin riskli oyunlara yönelik görüş ve algıları. *Ankara Universitesi Egitim Bilimleri Fakultesi Ozel Egitim Dergisi, 17*(2), 97-118.doi:10.21565/ozelegitimdergisi.246484.

Karppinen, S. (2012). Outdoor education in Finland: Old experiential method in a new concept. Pathways: *The Ontario Journal of Outdoor Education, 24*(4), 30-33.

Kleppe, R. (2017). Characteristics of staff–child interaction in 1–3-yearolds’ risky play in early childhood education and care, *Early Child Development and Care*. DOI:10.1080/03004430.2016.1273909.

Kleppe, R., Melhuish, E. & Sandseter, E. B.H. (2017). Identifying and characterizing risky play in the age one-to-three years. *European Early Childhood Education Research Journal, 25*(3), 370-385, DOI: 10.1080/1350293X.2017.1308163.

Knight, S. (2012). Why adventure and why risk in the early years? *Child Links, 3*, 15-18.

Kostbahn, F. (2016). Reflection: Learning what is safe for me and my students. *Exchange (19460406)*, (229), 94.

Landry, C. (2005). Risk and creation of liveable spaces. In CABE Spaces (Ed.), *What are we scaring of? The value of designing of public space* (pp. 3-11). London: CABA Spaces.

Lavrysen, A., Bertrands, E., Leyssen, L., Smets, L., Vanderspikken, A., & De Graef, P. (2017). Risky-play at school. Facilitating risk perception and competence in young children. *European Early Childhood Education Research Journal*, *25*(1), 89-105. doi:10.1080/1350293X.2015.1102412.

Lewis, T., DiLillo, D., & Peterson, L. (2004). Parental beliefs regarding developmental benefits of childhood injuries. *American Journal of Health Behavior*, *28(11*), 61-68.

Little, H. (2006). Children’s risk‐taking behavior: Implications for early childhood policy and practice, *International Journal of Early Years Education*, *14*(2), 141-154. doi: 10.1080/09669760600661427.

Little, H. (2015). Mothers’ beliefs about risk and risk-taking in children’s outdoor play. *Journal of Adventure Education and Outdoor Learning, 15*(1), 24-39. doi:10.1080/14729679.2013.842178.

Little, H., & Eager, D. (2010). Risk, challenge and safety: Implications for play quality and playground design. *European Early Childhood Education Research Journal*, *18*(4), 497-513. doi:10.1080/1350293X.2010.525949.

Little, H., & Wyver, S. (2008). Outdoor Play: Does avoiding the risks reduce the benefits? *Australian Journal of Early Childhood*, *33*(2), 33-40.

Little, H., Sandseter, E.B.H., & Wyver, S. (2012). Early childhood teachers’ beliefs about children’s risky play in Australia and Norway*. Contemporary Issues in Early Childhood,* *13*(4), 300-316.

Little, H., Wyver, S. & Gibson, F. (2011). The influence of play context and adult attitudes on young children's physical risk‐taking during outdoor play, *European Early Childhood Education Research Journal, 19*(1), 113-131. doi: 10.1080/1350293X.2011.548959.

Lupton, D., & Tulloch, J. (2002). ‘Life would be pretty dull without risk’: Voluntary risk taking and its pleasures. *Health, Risk & Society, 4*(2), 113-124.

McFarland, L., & Laird, S. (2017). Parents’ and early childhood educators’ attitudes and practices in relation to children’s outdoor risky play. *Early Childhood Education Journal*, 1-10. doi:10.1007/s10643-017-0856-8.

Ministry of National Education, (MONE). (2013). *Okul Öncesi Egitim Programı.* The curricula and regulation for early childhood education. Ankara.

New, R. S., Mardell, B., & Robinson, D. (2005). Early childhood education as risky business: Going beyond what's" safe" to discovering what's possible. *Early Childhood Research & Practice, 7*(2).

Play Safety Forum. (2008). Managing risk in play provision: A position statement. [Online] Retrieved on 12 March-2017, at URL: <http://www.playengland.org.uk/media/120462/managing-risk-play-safety-forum.pdf>.

Sandseter, E. B. H. (2007). Categorizing risky play—how can we identify risk-taking in children's play? *European Early Childhood Education Research Journal*, *15*(2), 237-252. doi:10.1080/13502930701321733.

Sandseter, E. B. H. (2009a). Characteristics of risky play. *Journal of Adventure Education and Outdoor Learning, 9*(1), 3-21, doi: 10.1080/14729670802702762.

Sandseter, E. B. H. (2009b). Affordances for risky play in preschool: The importance of features in the play environment*. Early Childhood Education Journal,* *36*, 439–446, doi: 10.1007/s10643-009-0307-2.

Sandseter, E. B. H. (2009c). Children’s expressions of exhilaration and fear in risky play. *Contemporary Issues in Early Childhood, 10*(2), *92-106.*

Sandseter, E. B. H. (2014) Early childhood education and care practitioners' perceptions of children's risky play; examining the influence of personality and gender, *Early Child Development and Care,* 1*84*(3), 434-449, doi: 10.1080/03004430.2013.794797.

Sandseter, E. B. H., & Kennair, L. E. O. (2011). Children's Risky Play from an Evolutionary Perspective: The Anti-Phobic Effects of Thrilling Experiences. *Evolutionary Psychology,* *9*(2), doi:10.1177/147470491100900212.

Sandseter, E. B. H., (2009d). Risky play and risk management in Norwegian preschools: A qualitative observational study. *Safety Science Monitor, 13*(1), 1-10.

Sandseter, E. B. H., (2012). Restrictive safety or unsafe freedom? Norwegian ECEC practitioners' perceptions and practices concerning children's risky play. *Child Care in Practice, 18*(1), 83-101, doi: 10.1080/13575279.2011.621889.

Sandseter, E.B.H., Little, H., Ball, D. Eager, D., & Brussoni, M. (2017). Risk and Safety in Outdoor Play. Tim Waller, Eva Arlemaalm-Hagser, Ellen Beate Hansen Sandseter, Libby Lee-Hammond, Kirsti Lekies, Shirley Wyver (Eds.) In *The Sage handbook of outdoor play and learning* (pp.-113-126). Thousand Oaks, CA: SAGE Publications.

Sisman, E. E., & Ozyavuz, M. (2010). Distribution and use of proficiency of playgrounds: A case study in Tekirdag. *Journal of Tekirdag Agricultural Faculty, 7*(1), 13–22.

Stephenson, A. (2003). Physical risk-taking: dangerous or endangered? *Early Years*, *23*(1), 35-43. doi: 10.1080/0957514032000045573.

Tovey, H. (2007). *Playing outdoors: Spaces and places, risk and challenge*. Maidenhead: Open University Press.

Waters, J., & Begley, S. (2007). Supporting the development of risk-taking behaviors in the early years: An exploratory study. *Education 3-13*, *35*(4), 365. doi:10.1080/03004270701602632.

Wyver, S., Little, H., Tranter, P., Naughton, G., Sandseter, E., & Bundy, A. (2010). Ten ways to restrict children's freedom to play: The problem of surplus safety. *Contemporary Issues in Early Childhood*, *11*(3), 263-277. doi:10.2304/ciec.2010.11.3.263.

Yalçın, F. (2015). *A cross-cultural study on outdoor play: parent and teacher perspective*. Unpublished master’s thesis, Middle East Technical University, Ankara.