Analyzing the Relationships between Preschool Children’s Play Skills and Their Social Competence and Emotion Regulation Skills

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Abstract

Developing effective social and emotional skills is an important aspect of development in all children, and children’s play skills are in constant interaction with their social and emotional competence. The aim of this research is to examine the relationship between preschool children’s play skills and their social competence and emotion regulation skills. Tools used in this study are Revised Knox Preschool Play Scale (Değirmenci, 2016), Social Competence and Behavior Evaluation-Preschool Edition, Short Form (Çorapçı, Aksan, Arslan-Yalçın & Yaşmurlu, 2010) and Emotion Regulation Checklist (Batum & Yaşmurlu, 2007). This study was designed as relational survey model. The research was carried out with 131 preschool children aged 48-72 months who continued their education in public and private preschool institutions of the Ministry of National Education in Istanbul during 2016-2017 school year. Pearson Product-Moment Correlation was conducted for data analysis. Results have shown that preschool children’s Revised Knox Preschool Play Scale total scores have a significant positive correlation with “Social Competence” sub-dimension scores of Social Competence and Behavior Evaluation (r = .179; p<.05), and a significant negative correlation with “Anxiety-Withdrawal” sub-dimension scores (r = -.416; p<.01). It was also found that Revised Knox Preschool Play Scale total scores have a significant positive correlation with “Emotion Regulation” sub-dimension scores of Emotion
Regulation Checklist \((r= .491; p<.01)\), and a significant negative correlation with “Lability/Negativity” sub-dimension scores \((r= -.190; p<.05)\). In light of these findings, it can be said that as play skills of preschool children increase, their social competence and emotion regulation skills also increase; on the other hand, their levels of anxiety-withdrawal and lability-negativity decrease.

**Key words:** emotion regulation; play skills; preschool; social competence.

**Introduction**

Children play for inner pleasure and while playing, they practice a number of skills that prepare them for their future life. Play allows children to escape from reality, to set new rules and discover new ways, to expand their worlds and their possibilities without the serious consequences of risk taking. This perceived sense of freedom and security encourages children to discover and apply their competences without the fear of failure and thus contributes to their development in all areas (Pellegrini, 2009; Veiga, Neto, & Rieffe, 2016). One of the critical milestones in the preschool period is children's skill to start and sustain positive social interactions. In other words, preschool children should be competent in social and emotional terms. The most important learning opportunity to develop and practice social and emotional skills is playing (Veiga et al., 2017). Playing is related to many aspects of child development and therefore it serves as a suitable environment for examining children's social and emotional competences. This is because interactions among preschool children include shared play activities that provide an environment for social interactions.

The development of social competence is critical for the preschool period because it is the period when children start to leave home for some time to go to kindergarten. This transition is easy for some children; but it can be quite challenging for others since it requires them to adapt to new environments and develop new social relationships (Gagnon et al., 2014). Children with high social competence are good at social interactions (Rose-Krasnor, 1997) and these children exhibit effective problem solving, emotion regulation and communication skills (Hart, Olsen, Robinson, & Mandleco, 1997), sensitivity and empathy towards peers, complex play skills, friendship development and social problem solving skills (Howes, Hamilton, & Matheson, 1994). On the other hand, the lack of social competence is considered as a risk factor for both current and long-term adaptation problems and difficulties in interpersonal relationships (Pearson & Rao, 2003). In order for children's social competence to successfully develop, it is necessary that children be actively involved in the social environment, both by meeting their social interaction goals and by showing sensitivity to their peers’ social needs (Howes & James, 2002). Therefore, the quality of interactions in peer plays is often seen as a sign of social competence in young children. Skills important in social life such as speaking, thinking, sharing, understanding the roles in life, helping each other, interacting with the environment, problem-solving are also reinforced in the play environment (Darwish, Esquivel,
Houtz, & Alfonso, 2001). In addition, child-centered play techniques improve the relationship both between parents and children and between teacher and child, which also supports the social competence of children (Leung, 2015).

It is quite clear that children's skill to regulate their emotions plays an inseparable role in the development of social competence. In a number of studies, emotion regulation indicators were associated with children's both simultaneous and future social competence and behavioral problems (Denham et al., 2003; Eisenberg et al., 1993, 1996, 2005; Maszk, Eisenberg, & Guthrie, 1999). Positive peer play behaviors require recognition, expression and control of emotions (Denham et al., 2003; Eisenberg et al., 2001; LaFreniere & Dumas, 1996). The inability to express and regulate feelings appropriately can prevent the solving of conflicts and cause negative peer interaction (Cohen & Mendez, 2009).

In order to acquire and sustain the pleasure of playing together, children need to be able to take into consideration the perspectives and emotions of others, to share their own ideas and emotions, and to react empathically to others. The play environment, hence, encourages children to gain experience in these emotional competences (Denham et al., 2003). Children sometimes use play to understand and communicate emotions and situations they find difficult to express verbally (Landreth, Homeyer, & Morrison, 2006) and they sometimes recreate striking emotional situations they experience and thus gain a better understanding (Gayler & Evans, 2001). In both cases, the more children play, the more they learn about the causes, consequences and expressions of emotions. Therefore, there is a relationship between the free play frequency in school and children's ability to understand emotions (Lindsey & Colwell, 2013). Furthermore, these skills enable children to predict and understand the behavior of others and to react to these behaviors with mutual and emotional acts and expressions. For this reason, less empathic children have difficulties in participating in play with others (Veiga, Neto, & Rieffe, 2016) and continuing their play with others (Cordier, Bundy, Hocking, & Einfeld, 2009). Likewise, Galyer and Evans (2001) found a positive relationship between empathy in everyday life interactions and the frequency of symbolic play. Thus, children learn to regulate their emotions better in this natural play environment where they expose their emotions (Rubin, Burgess, Kennedy, & Stewart, 2003).

When studies conducted on this issue are examined, there appears to be a significant number of studies carried out on the relationship between preschool children's play behaviors and their social and emotional competence (e.g., Fantuzzo, Sekino, & Cohen, 2004; Hoffman & Russ, 2012; Lemche et al., 2003; Newton & Jenvey, 2011; Veiga et al., 2017). However, the number of studies examining this issue in Turkey is rather limited (Gülay Ögelman & Erten Sarkaya, 2014; Koçyiğit, Sezer, & Yılmaz, 2015). In addition, no other study examining the relationship between children's play skills and social competences and emotion regulation skills was carried out using the Revised Knox Preschool Play Scale (Knox, 2008), in which children's play skills
are assessed through observation. Starting from this point of view, this study aims to examine the relationship between play skills of preschool children assessed through observation and their social competences and emotional regulation skills based on teacher evaluation.

**Method**

**Research Model**

This study aimed to determine the relationships between play skills and social competences and emotion regulation skills of children aged 48-72 months. To this end, relational survey model from quantitative research methods was used in the study. Although the relational survey model does not provide a real cause-and-effect relationship, when a situation is known in a variable, it allows the prediction of the other (Karasar, 2000).

**Study Group**

The study group of the research consists of a total of 131 children, 59 (45%) girls and 72 (55%) boys aged 48-72 months, who attended preschool education institutions in the city of Istanbul in the academic year of 2016-2017 and who were selected on the basis of easy accessibility principle.

Of the children in the study group, 79 (60.3%) children were 48-59 months old while 52 (39.7%) children were 60-72 months old. While 33 (25.2%) of the children attended a private preschool education institution, 98 (74.8%) children were enrolled in a public preschool education institution. The families of 34 (26%) children had a low-level income; those of 62 (47.3%) children had a middle-level income, and the parents of 35 (26.7%) children had a high-level income.

The teachers of 25 (19.1%) children in the study group had between 0 and 5 years of teaching experience, those of 71 (54.2%) children between 6 and 10 years, teachers of 26 (19.8%) children between 11 and 15 years, and those of 9 (6.9%) children between 16 years and more. Also, the teachers of 4 (3.1%) of the children are graduates of the vocational high school, those of 22 (16.8%) children have an associate's degree, teachers of 80 (61.1%) children have a bachelor's degree and those of 25 (19.1%) children have a master's degree.

**Data Collection Tools**

Personal Information Form, Knox Preschool Play Scale, Social Competence and Behavior Evaluation-30 Scale (SCBE-30) and Emotion Regulation Scale were used as data collection tools in the study.

**Personal Information Form**

With this form, prepared by the researchers, information regarding the preschool teachers’ length of service and the schools they graduated from as well as information regarding age, gender and family income status of the children were obtained.
Revised Knox Preschool Play Scale

The Knox Play Scale was developed by Susan Knox in 1968 as a scale giving the developmental definition of play behaviors from birth to six years of age (Knox, 2008). It was later revised by Knox in 2008.

The scale consists of four main dimensions and 12 sub-dimensions (Knox, 2008). These dimensions are:

• Field Management: Gross motor and interest
• Material Management: Using/manipulating, building, purpose, attention
• Symbolic Play: Imitation, dramatization
• Participation: The way of participation, cooperation, humor, language.

The scale is filled in by an observer in the form of two 15-minute sets - 15 minutes in-class free-play behavior and 15 minutes out-of-class (garden) free-play behavior, and of the observation of children's play behaviors. In order for the observer to reach the correct observation result, it is important that he/she spends 1-2 hours with the children before the observation in the same way as he/she will be during the observation so that children do not focus on the observer, but exhibit natural playing behaviors (Knox, 2008). In this study, the researchers filled in the Revised Knox Preschool Play Scale.

In the scale, 1 point is given if the child exhibits appropriate play behavior; 0 point if the behavior cannot be observed, and -1 point if the child does not perform or fails in the expected behavior though he/she has the opportunity to exhibit particular behavior. The result obtained after the scoring process gives the “play age” of the child. It is thought that the child may be under developmental risk if there emerges a difference of 8 months or over between the child’s chronological age and his/her play age (Kennedy-Behr, Rodger, & Mickan, 2013).

The adaptation of the 48-59 month and 60-72 month forms of the Revised Knox Preschool Play Scales into Turkish was conducted by Değirmenci (2016). The internal consistency Cronbach Alpha value of the scale was found to be .747. In this study, reliability coefficient of the scale was found to be .80.

Social Competence and Behavior Evaluation Scale (SCBE-30)

The Social Competence and Behavior Evaluation Scale was developed by LaFreniere and Dumas (1996) and adapted into Turkish by Çorapçı, Aksan, Arslan-Yalçın, and Yağmurlu (2010). This scale consists of 30 items that assess the quantity of problem symptoms and social skills of preschool children.

The scale is a six-point Likert scale, and it has three sub-scales: “Social Competence”, “Anger-Aggression” and “Anxiety-Withdrawal”. The “Social Competence” subscale measures positive features such as co-operation among children and seeking solutions to disagreements when they are together with peers. The “Anger-Aggression” sub-scale assesses the symptoms of externalization problems, such as defying adults
and incompatible and aggressive behaviors in peer relations whereas the “Anxiety-Withdrawal” sub-scale assesses the symptoms of internalization problems, such as sad and depressed moods of children and showing shyness within the group.

The Cronbach alpha internal consistency coefficients of the scale's sub-dimensions were found to be .88, .87 and .84, respectively for the subscales. In this study, the scale was evaluated by the children's teachers. The reliability coefficients of the scale's sub-dimensions for this study were found to be .91, .91 and .86, respectively.

**Emotion Regulation Scale**

The Emotion Regulation Scale was developed by Shields and Cicchetti (1997) and adapted into Turkish by Batum and Yağmurlu (2007). The scale consists of 24 items evaluating the emotional responsiveness of preschool and school-age children and regulation and expression of emotions according to the conditions in the environment. The scale is a 4-point Likert scale, and it has two sub-dimensions, “Emotion Regulation” and “Lability/Negativity”. The Cronbach Alpha internal consistency coefficients of the scale were found to be .73 for the emotion regulation sub-dimension and .75 for the lability-negativity sub-dimension. For the purpose of this study, the scale was evaluated by the children's teachers. The reliability coefficients of the scale's sub-dimensions for this study were found to be .74 and .88, respectively.

**Data Collection and Analysis**

Data of the study were obtained from 131 children aged 48-72 months included in the study group. The Revised Knox Preschool Play Scale, used as the data collection tool, was filled in by the researchers by observing 15 minutes of in-class free play behaviors and 15 minutes of out-class free play behaviors of children in a 15 * 2 set. In order to ensure that children do not focus on observers but exhibit natural playing behaviors, researchers visited the classes 1-2 hours before starting to observe the children. Social Competence and Behavior Evaluation-30 Scale and Emotion Regulation Scale were filled in by the children's preschool teachers.

The data of the study were analyzed by SPSS 24.0 program. Prior to the analysis of the study data, missing points and errors in the data set were identified and necessary corrections were made. The Pearson Moments Multiplication Correlation Coefficient was calculated to determine whether there was a significant relationship between play skills and social competences and emotional regulation skills of children aged 48-72 months. The significance level was accepted as p <.05.

**Results**

In this section, findings related to the relationship between play skills, social competences and emotion regulation skills of the children participating in the research are presented.
When Table 1 is examined, it is seen that there was a positive significant relationship (r = .247, p <.001) between the mean scores of “Social Competence” sub-dimension of the Social Competence and Behavior Evaluation-30 Scale and the mean scores of “Participation” sub-dimension of Revised Knox Preschool Play Scale, and that there was also a positive significant relationship (r = .179; p <.05) between the total mean scores of Knox Preschool Play Scale. In addition, there was a negative significant relation (r= -.215; p<.05) between the mean scores of “Anger-Aggression” sub-dimension of the SCBE-30 and the “Material Management” sub-dimension of Revised Knox Preschool Play Scale, and a negative significant relation (r= -.237; p<.01) between the mean scores of the “Participation” sub-dimension. On the other hand, there was a negative significant relation (r= -.232; p<.01) between the mean scores of “Anxiety-Withdrawal” sub-dimension of SCBE-30 and the Knox Preschool Play Scale’s “Field Management” sub-dimension, a negative significant relation (r= -.313; p<.01) with the mean scores of “Material Management” sub-dimension, a negative significant relation (r= -.236; p<.01) with the mean scores of “Symbolic Play” sub-dimension, and a negative significant relation (r= -.434; p<.01) with the mean scores of “Participation” sub-dimension. In addition, there was a negative significant relation (r = -.416, p <.01) between the mean scores of the Knox Preschool Play Scale and the mean scores of “Anxiety-Withdrawal” sub-dimension of the SCBE-30.

When Table 2 is examined, it is seen that there was a positive significant relationship between the mean scores of “Social Competence” sub-dimension of the Social Competence and Behavior Evaluation-30 Scale and the mean scores of “Emotion Regulation” sub-dimension of Revised Knox Preschool Play Scale, and a positive significant relation (r = .491; p <.01) between the total mean scores of Knox Preschool Play Scale and the mean scores of “Anxiety-Withdrawal” sub-dimension of the SCBE-30.
When Table 2 is examined, it is seen that there was a positive significant relationship ($r = .235; p < .01$) between the mean scores of the “Emotion Regulation” sub-dimension of the Emotion Regulation Scale and the Revised Knox Preschool Play Scale’s “Field Management” sub-dimension, a positive significant relation ($r = .420; p < .01$) with the mean scores of “Material Management” sub-dimension, and a positive significant relation ($r = .360; p < .01$) with the mean scores of “Symbolic Play” sub-dimension, and a positive significant relation ($r = .431; p < .01$) with the mean scores of “Participation” sub-dimension. In addition, it was found that there was a positive significant relation ($r = .491; p < .01$) between the total mean scores of Revised Knox Preschool Play Scale and the “Emotion Regulation” sub-dimension of the Emotion Regulation Scale. Furthermore, there was a negative relation ($r = .218, p < .05$) between the mean scores of the “Lability-Negativity” sub-dimension of the Emotion Regulation Scale and the “Material Management” sub-dimension of Revised Knox Preschool Play Scale, and a negative relation ($r = .266; p < .01$) with the mean scores of “Participation” sub-dimension. However, there was a negative significant relation ($r = .190, p < .05$) between the mean of the total points of Revised Knox Preschool Play Scale and the mean scores of the “Lability-Negativity” sub-dimension of the Emotion Regulation Scale.

**Discussion and Conclusions**

This research first examined the relationship between play skills and social competences of preschool children. According to this, it was found that as children's play skills increase, their social competences increase, whereas their levels of anger-aggression and anxiety-withdrawal decrease. When literature is examined, it is seen that many studies have found that social play and social competence are empirically related (e.g., Fantuzzo, Sekino, & Cohen, 2004; Gagnon & Nagle, 2004; Gülay Ögelman & Erten Sarıkaya, 2014; Howes & Matheson, 1992; Veiga et al., 2017). It is seen that such interactive play is parallel to children's social development and that this play has a powerful influence on future social competence and interpersonal relationships (Johnson, Ironsmith, Snow, & Poteat, 2000). The research conducted by Lindsey and Colwell (2003) found that playing sophisticated games shows a positive correlation with children's social competence. Successful peer play interactions are related to positive behavioral and social development (Coolahan, Fantuzzo, Mendez, & McDermott 2000; Fantuzzo, Sekino, & Cohen, 2004). This is so because play supports peer interaction which predicts the children's social skills and peer relations, cooperation and positive emotions (Mize & Pettit, 1997). Social competence is promoted by the quality of peer interaction within play (Newton & Jenvey, 2011; Veiga et al., 2017). In other words, children who are able to maintain peer relations and who have a closer social interaction while playing are socially more competent.

This research also examined the relationship between children’s play skills and emotion regulation skills. According to this, as children's play skills increase, emotion
regulation skills increase, while their levels of lability-negativity decrease. When literature is examined, many studies have shown that there is a relationship between children's play skills and their self-regulation skills, including conflict solving and emotion regulation (Fantuzzo, Sekino, & Cohen, 2004; Hoffman & Russ, 2012; Lemche et al., 2003). Gayler and Evans (2001) found that symbolic play developed children's ability to regulate their emotions. Their study revealed that preschoolers who play symbolic play more often organize their emotions better. In a study by Lindsey and Cowell (2003), it was found that children with more complex play skills have a better emotional understanding.

Gagnon and Nagle (2004) revealed that there is a highly positive relationship between the interactive peer play skills and socio-emotional development of children. Their study found that the children who were competent in play showed strong socio-emotional skills at the same time, whereas children who were negative and aggressive during play interactions exhibited lower levels of socio-emotional skills. Fantuzzo et al. (1998) also found similar findings in their study. There was a positive correlation between play interactions of children and their self-control, interpersonal and social skills, whereas a negative correlation was found between their aggressive, antisocial and introverted play behaviors. A study by Koçyiğit, Sezer, and Yılmaz (2015) also examined the relationship between play skills assessed by parents of 60-72-month-old children and social competence and emotion regulation skills assessed by their teachers. They also found results similar to this study.

Skills required to establish and maintain positive relationships with peers require children to join peer groups and solve conflicts and continue playing - these skills are also observed during play (Guralnick, 1993). Moreover, peer play provides opportunities for children to learn to regulate their emotions and to develop a sense of common understanding of social norms and expectations. Children who interact positively with their peers during play tend to be more popular and are constantly involved in situations where their social competence is encouraged by their peers. On the other hand, children who do not have positive interactions with their peers are not popular and are deprived of the experience that offers opportunities to develop and practice social skills (Gagnon & Nagle, 2004; Hatch, 1987).

In light of all this information, it is safe to claim that the relationship between play skills and social competence and emotion regulation skills is reciprocal. This is because socially more competent children can join in play more easily and can continue the play with their peers longer and in a more positive way. Future research should include longitudinal studies to determine the direction of this relationship. Also ideally, children should be observed more frequently during the academic year; this would show whether their skills in different play types are consistent in terms of time and person.

Findings obtained from this study also provide educational inferences. This inference is even more important, especially given the current trend towards the
replacement of unstructured free play times of children with increasingly academic and structured activities. Child-centered playtime has critical importance for children to be happy, healthy and successful by supporting their development (Ginsburg, 2007). Therefore, it should be emphasized in preschool education institutions that focusing on children’s academic achievements should not deprive children of play with rich developmental opportunities.

References


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Analiza odnosa između vještina igre i društvenih sposobnosti i vještine reguliranja emocija u predškolske djece

Sažetak
Razvijanje učinkovitih društvenih i emocionalnih vještina važan je aspekt razvoja za svu djecu i dječje vještine u stalnoj su interakciji s njihovim društvenim i emocionalnim sposobnostima. Cilj ovog istraživanja jest ispitati odnos između vještina igre u predškolske djece i njihovih društvenih sposobnosti i vještine reguliranja emocija. Ta studija dizajnirana je kao model istraživanja odnosa. Istraživanje je provedeno sa 131 predškolskim djetetom u dobi od 48 do 72 mjeseca koji nastavljaju školovanje u javnim i privatnim predškolskim ustanovama Ministarstva nacionalnog obrazovanja u Istanbulu tijekom školske godine 2016./2017. godine. Instrumenti za mjerenje koji su se koristili u ovoj studiji su Knox Skala za predškolske igre (Değirmenci, 2016), Procjena društvene sposobnosti i ponašanja (Çorapçi, Aksan, Arslan-Yalçın, i Yağmurlu, 2010) i Skala za regulaciju emocija (Batum i Yağmurlu, 2007). U analizi podataka koristili su se Pearson produkt-moment koeficijent korelacije i višestruka regresijska analiza. Na kraju istraživanja utvrđeno je da ukupni bodovi Knox skala za predškolske igre djece predškolske dobi imaju značajan pozitivan odnos s bodovima poddimenzije “Društvene sposobnosti” Skale procjene društvene sposobnosti i ponašanja -30 (r = .179; p<.05) i značajan negativan odnos s bodovima poddimenzije t “Povlačenje” poddimenzijskih rezultata “anksioznosti – introvertnosti” (r = -.416, p<.01). Također je ustanovljeno postojanje značajnog pozitivnog odnosa između ukupnih bodova Knox skala za predškolske igre i poddimenzijskih bodova Skale za regulaciju emocija (r = .491; p<.01), kao i značajan negativan odnos između bodova poddimenzije “promjenjivost-negativnost” (r = -.190; p<.05). U svjetlu tih rezultata, kako se povećava vještina igre u djece, tako se povećavaju i njihove društvene sposobnosti i sposobnost kontroliranja emocija. S druge strane može reći da dolazi do smanjenja razine anksioznosti-introverzije i promjenjivosti-negativnosti.

Ključne riječi: društvene sposobnosti; predškolski odgoj i obrazovanje; reguliranje emocija; sposobnost igre.