



## ORJİNAL MAKALE / ORIGINAL ARTICLE

Balıkesir Sağlık Bilimleri Dergisi / BAUN Sağlık Bil Derg  
Balıkesir Health Sciences Journal / BAUN Health Sci J  
ISSN: 2146-9601- e ISSN: 2147-2238  
Doi: <https://doi.org/10.53424/balikesirsbd.1201148>



### Evaluation of the Effect of Play Therapy on Separation Anxiety among Preschool Children: A Randomized Controlled Study

Öznur YILMAZ DEMİRER<sup>1</sup>, Aysel TOPAN<sup>2</sup>

<sup>1</sup> Ministry of Health, Kocaeli Derince Training and Research Hospital

<sup>2</sup> Zonguldak Bülent Ecevit University, Faculty of Health Sciences, Department of Nursing

*Geliş Tarihi / Received: 08.11.2022, Kabul Tarihi / Accepted: 26.01.2023*

#### ABSTRACT

**Objective:** The efficiency of play therapy on separation-anxiety among preschool-children was evaluated as an experimental study including a pretest-posttest controlled-group. **Materials and Methods:** The population of the study consisted of 292 preschool children in the 3-5 age group who were educated in two kindergartens. The sample-size calculated by power-analysis included 30 preschool-children in experimental- and 30 in the control-group. Data was collected by the demographic information form, Separation-Anxiety Scale for Preschool Children, and Revised Preschool Anxiety Scale. Six-sessions of the 'Play Therapy Program' were applied to the experimental-group. **Results:** A higher decrease in separation-anxiety in the experimental-group compared to the control-group was observed when the change in total mean score from the Separation-Anxiety Scale was evaluated. When the total mean score of the Revised Preschool Anxiety Scale and the changes in sub items were assessed, the decrease in separation-anxiety in the experimental-group after training was statistically significant. **Conclusion:** This program was efficient in reducing separation-anxiety in kindergarten. Both teachers and parents of the children included in the study reported that play therapy is an effective method for reducing separation anxiety. **Keywords:** Preschool Children, Separation Anxiety, Play Therapy, Teacher.

### Okul Öncesi Çocuklarda Oyun Terapisinin Ayrılık Kaygısı Üzerine Etkisi: Randomize Kontrollü Çalışma

#### ÖZ

**Amaç:** Okul öncesi çocuklarda oyun terapisinin ayrılık kaygısı üzerine etkisini değerlendirmek amacıyla yapılan ön test-son test kontrol gruplu deneysel bir çalışmadır. **Gereç ve Yöntem:** Araştırmanın evrenini, iki ana okulda eğitim gören 3-5 yaş grubu 292 okul öncesi çocuk oluşturmıştır. Power analizine göre hesaplanan örneklem büyüklüğü deney grubunda 30; kontrol grubunda 30 toplam 60 okul öncesi çocuk üzerinde yapılmıştır. Verilerin toplanmasında; demografik bilgi formu, yeniden düzenlenen Okul Öncesi Kaygı Ölçeği ve Yuva Çocukları İçin Ayrılma Kaygı Ölçeği (Öğretmen Formu) kullanılmıştır. Deney grubuna altı oturumdan oluşan "Oyun Terapisi Programı" uygulanmıştır. **Bulgular:** Ayrılma kaygı ölçeği toplam puan ortalamasındaki değişim değerlendirildiğinde; deney grubunda olan çocukların eğitim sonrası ayrılık kaygısındaki düşüş kontrol grubuna göre daha fazladır. Yeniden düzenlenen okul öncesi kaygı ölçeği toplam puan ortalaması ve alt maddelerdeki değişim değerlendirildiğinde; deney grubunda olan çocukların eğitim sonrasında meydana gelen ayrılık kaygısındaki düşüş istatistiksel olarak anlamlı bulunmuştur ( $p<0.000$ ). **Sonuç:** Uygulanan programın, anaokulundaki çocuklarda ayrılık kaygısını azaltmada etkili olduğu bulunmuştur. Çalışmaya dahil edilen çocukların hem öğretmenleri hem de ebeveynleri oyun terapisinin ayrılık kaygısını azaltmada etkili bir yöntem olduğunu bildirmişlerdir. **Anahtar Kelimeler:** Okul Öncesi Çocuklar, Ayrılık Kaygısı, Oyun, Oyun Terapi, Öğretmen.

**Sorumlu Yazar / Corresponding Author:** Aysel TOPAN, Zonguldak Bülent Ecevit University, Faculty of Health Sciences, Department of Nursing, 67600, Kozlu, Zonguldak, Turkey.

**E-mail:** [aysel.topan@beun.edu.tr](mailto:aysel.topan@beun.edu.tr)

**Bu makaleye atıf yapmak için / Cite this article:** Yılmaz Demire, Ö., & Topan, A. (2023). Evaluation of the effect of play therapy on separation anxiety among preschool children: a randomized controlled study. *BAUN Health Sci J*, 12(3), 667-674. <https://doi.org/10.53424/balikesirsbd.1201148>



BAUN Health Sci J, OPEN ACCESS <https://dergipark.org.tr/tr/pub/balikesirsbd>

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

## INTRODUCTION

The preschool period is a period when children jointly perform group and symbolic plays. This period is the time when brain development and the establishment of synaptic connections are very fast among children. Children in this age group are able to start a play, learn some rules during the play, play games with other children, pay attention to things that interest them, think concretely and magically, whereas they are not able to predict the outcomes of the things they do, establish a connection between their behaviors and protect themselves (MEB, 2013; TTB, 2012).

Preschool education includes the years from the time the child was born to the basic education she/he has gained in primary school. It is defined as the educational process in which children highly complete their mental, physical, social, linguistic, psychomotor, and emotional development, which plays important roles in their past lives and their personalities develop and take shape with the education given in families, social environments, and schools (Abazaoğlu et al., 2015; Oktay, 1990; Seven, 2014).

Separation anxiety, frequently encountered in the preschool period, is the individual's state of anxiety when he/she leaves the mother or attachment figure or when he/she expects to leave (APA, 2013; Bowlby, 1959). It is affected by the fact that the mother has a high level of unconditional attachment, the family has a weak attachment, the mother has an obsessive attachment, the parents are very anxious and the family is divorced (Can, 2015; Malak & Khalifeh, 2018). The separation anxiety is experienced much more intensely by the children, especially when having a mother with high separation anxiety. Whether the children have a sibling also affects the separation anxiety. The separation anxiety of children in families with one child is higher compared to families with two or more children (Battaglia et al., 2016; Çetin, 2017; Küçüködük, 2015). Regarding the child's age group, separation anxiety decreases as the age of the child increases (Küçüködük, 2015).

In a study by Warren et al. (2020) with 45 children, they found that children exposed to intense stress and anxiety-inducing situations experienced deterioration in their brain normals during functional magnetic resonance scans, and their emotion regulation and decision-making skills were negatively affected (Warren et al., 2020).

During the preschool period, play is a natural way of learning that has a universal aspect and is fulfilled by the child with or without a tool, with which the child is playing willingly and with pleasure and affects all the developmental areas of the child with or without rules for a specific purpose or unintentionally wherever he/she is (Koçyiğit et al., 2007).

Games played during the childhood period are effective in raising healthy individuals in terms of mental, physical, social, and cultural aspects. Children who are matured by playing games are

luckier than other individuals in achieving success in life, self-realization, and happiness (Gökşen, 2014). Toys played by this age group help children improve their personality development, social relationships, physical skill development, feelings of patience and sharing, reasoning and creative thinking (Arslan, 2017; Kılınç & Saltık, 2020).

Play therapy during the preschool period is a multidisciplinary nursing approach and intervention that has been performed and developed to improve the emotional, social, and behavioral skills of preschool children (Sezici et al., 2017). Play therapy helps preschool children to improve their emotional, social and behavioral skills. It also decreases their levels of anxiety and fear, enhances their self-esteem, and helps them improve their self-respect and communication skills. The use of play therapy is recommended among the basic requirements of nursing and in the profession of pediatric nursing (Sezici et al., 2017). Play therapy, which is used by the nurses during hospitalization of children, contributes to the reduction of anxiety in the child, their adaptation to the environment and the development of their sense of trust (Davidson et al., 2017; Patel et al., 2014; Ramdaniati & Hermaningsih, 2016; Yati et al., 2017).

## MATERIALS AND METHODS

### Type of the study

This study is an experimental study conducted by applying pretest-posttest control group to evaluate the effect of play therapy on separation anxiety in preschool children.

### Universe and sample of the study

The universe of the study was composed of the students in the age group of 3-4-5 (N:292) who were studying in two kindergartens located in Zonguldak during the 2017-2018 academic year. No sample was selected in the study, and it was conducted on the whole universe.

The sample size of the study was determined to be a total of 60 preschool children, including 30 in the control group and 30 in the experimental group, by a power analysis with a confidence interval of 80% and an error rate of  $\pm 5\%$ . Children included in the sample (60) were randomly assigned to study and control groups. These children were randomized into two groups (study and control), each including 30 children, with the help of a computer program.

### Inclusion criteria of the study

The sample of the study included kindergarten children:

- who were attending the classes for the 3-4-5-year-old group,
- who had just started going to kindergarten for the first time,
- whose parents were willing to participate in the study and provided written and verbal consent,
- who were continuing their education in the morning-afternoon education group.

**Data collection instruments**

- Demographic Information Form
- The Separation Anxiety Scale for Kindergarten Children (Teacher Form)
- The Revised Preschool Anxiety Scale was used to collect data (Parent Form)

**Demographic Information Form:** A short information form was prepared and applied to the parents who agreed to participate in the study and their children to learn about their personal information in addition to the determination of separation anxiety on the scales.

**The Separation Anxiety Scale for Kindergarten Children (Teacher Form):** The validity and reliability studies of The Separation Anxiety Scale for Kindergarten Children were performed by Akman (1987). At the end of the analyses, Cronbach’s alpha coefficient for internal consistency of the scale was found to be between 0.35 and 0.94; and two half-test reliability was found to be 0.96 (Akman, 1987). The Separation Anxiety Scale for Kindergarten Children (Teacher Form) is a scale composed of 25 items. Scale items are behaviors that children can exhibit, and adults can observe as an anxious expression of separation anxiety. Each item is marked by the teacher on a 5-likert scale (1= never; 5= always).

**Revised Preschool Anxiety Scale (Parents Form):** The Revised Preschool Anxiety Scale was developed by Edwards et al. (2010) for the 3-6 year-old group, and its validity and reliability study was performed by Güler (2016).

The Revised Preschool Anxiety Scale is composed of 30 items in the parent form. Scale items include behaviors that can be exhibited by children and observed by adults as an expression of separation anxiety. Each item is scored by the parents appropriately on a 5-likert type grading (0=not at all true, 4=very often true). At the end of the analysis, Cronbach’s alpha coefficient was found to be at a level of 0.90 for internal consistency of the scale; and McDonald Omega value was found to be 0.92. Its distinctiveness was detected to be between 5.40 and 14.90 based on the results of analysis (Güler, 2016).

**Implementation of the study**

The play therapy program was applied to the experimental group by the researcher who previously had a 32-hour training within the “Play Therapy Practitioner” certification program.

**Implementation phases**

**Pretest phase:** During pre-test phase, families of the children in both groups were applied “Demographic Information Form” and “Revised Preschool Anxiety Scale (Parents Form)” before the intervention. The teachers were given “The Separation Anxiety Scale for Kindergarten Children (Teacher Form)”.

**Intervention phase:** In this study, the play therapy program, which lasted 40 minutes and consisted of 6 sessions, was applied to each of the students. The ‘Play Therapy Program’ prepared and led by the researchers was applied to the experimental group weekly with the aim of decreasing separation anxiety in preschool children (Table 1).

**Table 1. Play therapy program.**

Basic goals	Sessions	Activities
1. Decreasing anxiety 2. Making them to feel that their families did not actually leave them	1st session	Activity called ‘Game on Pictures’
1. Making them to manifest their feelings 2. Decreasing accumulated tension	2nd session	Activity called ‘Dough game’
1. Recreating experienced anxiety 2. Banalizing anxiety by looking from outside	3rd session	Activity called ‘Magic Carpet’
1. Making them to express anxiety 2. Relaxing by providing emotional discharge	4th session	Activity called ‘Hidden Problems’
1. Understanding the feeling of the child 2. Determining the severity of the feeling experienced by the child	5th session	Activity called ‘The World of Emotions’
1. Detecting the place where the child wants to be 2. Providing togetherness by combining the pictures	6th session	Activity called ‘Photo Album’

In the first session, parents of the children took part in the therapy according to the state of the children’s separation anxiety, and then slow exclusion method was performed on the parents. Families were also informed about the things they had to do at home about these issues, and it was aimed to alleviate the child’s separation anxiety.

**Posttest:** At the post-test phase, parents in both study and control groups were applied the “Revised Preschool Anxiety Scale (Parents Form)” again 6 weeks after the intervention, and the teachers were applied “The State Anxiety Scale for Kindergarten Children (Teacher Form)”.

### Statistical analysis

The statistical analysis of the data was done by using the SPSS 24.0 program. Kolmogorov-Smirnov test was used to examine the distribution of data besides descriptive statistical methods (frequency, percentage, mean, standard deviation). Pearson chi-square test and Fisher exact test were used to compare qualitative data. Parameters showing normal distribution were compared by Independent Samples t test between the groups whereas the parameters. The results were evaluated within a confidence interval of 95% and a significance level of 0.05.

### Ethical considerations

The study was approved by the Zonguldak Bülent Ecevit University Human Research Ethics Committee (27.04.2017/227). Necessary institutional authorizations were also taken from Kozlu Central Kindergarten and Kozlu Fatih Kindergarten which were affiliated with Zonguldak Directorate of National Education. Verbal consent was taken from the parents of preschool children and preschool teachers included in the study.

### RESULTS

When demographic characteristics of the children included in the study were examined, it was found that 50.0% (n=30) were the only child of their families and most of them (86.7%, n=52) had a core family type. Data regarding their parents indicated that 41.7% of the mothers (n=25) were aged between 31-35, 45% of the fathers (n=27) were older than 31 years old, 55% of the mothers (n=33) were high school graduates and 46.7% of the fathers (n=28) were university graduates or higher, 58.3% of the mothers (n=35) were unemployed, 95.0% of the mothers (n=57) were employed, 58.3% of the mothers (n=35) were housewives and 33.3% of the fathers (n=20) were working in the private sector. It was also detected that 95.0% of the families (n=57) had a social assurance.

No statistically significant differences were found when demographic characteristics of the children included in the study were compared between groups ( $p>0.05$ ).

When children in the study and control groups were compared based on age, 33.3% of the children in both groups (n=60) were found to be within 3-4-5 year-old group. No statistically significant difference was found between the children in both groups based on age groups ( $\chi^2=0.100$ ,  $p=0.951$ ).

When children in the study and control groups were compared based on sex characteristics, it was determined that 53.3% of the children in the experimental group (n=16) were males and 46.7% of them (n=14) were females, whereas 56.7% of the children in the control group (n=17) were males and 43.3% of them (n=13) were females. Statistical analyses did not show any significant differences

between the groups ( $\chi^2=0.067$ ,  $p=0.500$ ). It was also found that 76.7% of the children in the experimental group (n=23) were the first child and 23.3% of them (n=7) were the second child whereas 80.0% of the children in the control group (n=24) were the first, 13.3% (n=4) were the second and 6.7% (n=2) were the third child of the family. Statistical analyses did not indicate any statistically significant difference between groups ( $\chi^2=2.839$ ,  $p=0.242$ ).

When mean scores of the children in the study and control groups from The Separation Anxiety Scale for Kindergarten Children (Teacher Form) were examined, no statistically significant differences were found between their mean scores before and after the training ( $p>0.05$ ). When examining the groups, the decreases in the separation anxiety of children in the experimental group before and after the training were found to be higher than those in the control group, and the decreases in the separation anxiety of children were found to be significant in both groups (Table 2,  $p=0.000$ ).

When mean scores of the children in the study and control groups from the Revised Preschool Anxiety Scale were compared, the decrease in the experimental group after training was found to be statistically significant ( $p=0.000$ ). On the other hand, according to the Revised Preschool Anxiety Scale score of the control group before training, the change that occurred after training was not found to be statistically significant (Table 3,  $p=0.962$ ).

When mean total scores of the Revised Preschool Anxiety Scale were compared between the children in the study and control groups, no statistically significant difference was detected between the groups before and after the training (Table 3,  $p>0.05$ ). When the results of mean scores of Revised Preschool Anxiety Scale subscales (social anxiety, generalized anxiety, separation anxiety, and specific fears) were examined, the differences between the groups were not found to be statistically significant before and after the training (Table 3,  $p>0.05$ ).

The decrease that occurred in social anxiety score in the experimental group after the training was statistically significant compared to the score before training ( $p=0.000$ ). In the control group, the change that occurred after training was not found to be statistically significant compared to the social anxiety score before training (Table 3,  $p=0.586$ ).

The decrease that occurred in generalized anxiety score in the experimental group after the training was statistically significant compared to the score before training ( $p=0.000$ ). However, the change that occurred in the control group after training was not found to be statistically significant compared to the generalized anxiety score before training (Table 3,  $p=0.142$ ).

**Table 2. Comparison of the mean scores of the separation anxiety scale for kindergarten children (teacher form) between experimental and control groups.**

The Separation Anxiety Scale for Kindergarten Children (Teacher Form)		Experimental group (n=30)		Control group (n=30)		t	p
		Mean	SD	Mean	SD		
Total mean score	Pretest	2.460	0.942	2.061	1.157	1.464*	0.149
	Posttest	1.419	0.462	1.212	0.367	1.918*	0.060
	p and t values	t=4.578*	p=0.000	t=4.578*	p=0.000		

SD=Standard deviation, \*Independent samples t test.

**Table 3. Comparison of the mean scores of revised preschool anxiety scale between the children in experimental and control groups.**

Revised Preschool Anxiety Scale		Experimental group (n=30)		Control group (n=30)		t	p
		Mean	SD	Mean	SD		
Total mean score	Pretest	2.363	0.690	2.229	0.553	-0.833*	0.408
	Posttest	1.963	0.523	2.233	0.682	1.722*	0.091
	p and t values	t=0.048*	p=0.000	t=5.618*	p=0.962		
Mean scores of subscales							
Social anxiety items	Pretest	2.238	0.809	2.219	0.823	-0.090*	0.928
	Posttest	1.924	0.687	2.281	0.862	1.774*	0.081
	p and t values	t=0.551*	p=0.000	t=3.098*	p=0.586		
Generalised anxiety items	Pretest	2.557	0.763	2.381	0.752	-0.901*	0.371
	Posttest	2.071	0.599	2.219	0.727	0.858*	0.394
	p and t values	t=1.508*	p=0.004	t=5.083*	p=0.142		
Separation anxiety items	Pretest	2.607	0.930	2.307	0.840	-1.311*	0.195
	Posttest	1.987	0.743	2.220	0.963	1.051*	0.298
	p and t values	t=0.558*	p=0.000	t=5.548*	p=0.581		
Specific fears items	Pretest	2.278	0.864	2.159	0.618	-0.611*	0.544
	Posttest	1.956	0.725	2.307	0.785	1.804*	0.076
	p and t values	t=1.106*	p=0.001	t=3.910*	p=0.278		

SD=Standard deviation, \*Independent samples t test.

A statistically significant decrease was found in the experimental group after training based on separation anxiety score ( $p=0.000$ ). However, the change occurred in the control group after training was not found to be statistically significant compared to the separation anxiety score before training (Table 3,  $p=0.581$ ). In the experimental group, the decrease in specific fear score was found to be significantly

greater than the decrease before the training ( $p=0.000$ ) whereas the change occurred after the training was not statistically significant in the control group (Table 3,  $p=0.278$ ).

## DISCUSSION

The study was carried out to evaluate the effect of play therapy on separation anxiety among preschool

children who were aged between 3-5 and experienced separation anxiety.

No statistically significant differences were found in total mean scores of the Separation Anxiety Scale for Kindergarten Children (Teacher Form) between the children in study and control groups included in the study at pretest (before training) ( $p=0.149$ ). However, a significant decrease was observed between both groups at posttest (after training) although there was not a statistical difference ( $p=0.060$ ). In the study by Milos and Reiss (1982) which was performed by using 3 types of play therapy on 32 female and 32 male children aged between 2-6, it was concluded that play therapy was effective in eliminating separation-anxiety treatments and speech disorders and in alleviating anxiety among young children (Milos & Reiss, 1982). Trawick-Smith et al. (2015) examined the effect of nine toys on the games of preschool children who were within 3-4 year-old group and had different cultural characteristics; and each toy was recorded as a video for 240 hours in 4 different classes. In the same study, 828 children played with those toys and significant differences were noted in the effects of toys on game quality. They concluded that appropriate choice of toys and use of toys in the classroom by the teachers had significant benefits on children and contributed to the self-expression, game participation and socialization of the children (Trawick-Smith et al., 2015). In the extensive population-based examination of Battaglia et al. (2017), consisting of 1933 families between the ages of 1.5-6, the severity of anxiety and the rating of separation anxiety by teachers in the period from infancy to kindergarten and school age were investigated and the children were divided into 4 groups. Among these groups, severity of anxiety was found to be high among preschool children, and teachers were reported to be effective in the identification of it (Battaglia et al., 2017). When the results of the study carried out were compared with the literature, the study result that play therapy methods used by the teachers to decrease the children's separation anxiety were efficient was found to be similar to the literature (Battaglia et al., 2017; Milos & Reiss, 1982; Trawick-Smith et al., 2015). In the formation of this result, it has been thought that the child adapts to the environment with the play and peer relationship is related to the child's adaptation to the environment over time.

According to the total mean scores of the Revised Preschool Anxiety Scale, there was a statistically significant decrease in separation anxiety among the children in the experimental group ( $p=0.000 < 0.05$ ); however, there was no statistically significant decrease in separation anxiety in the control group after training ( $p=0.962$ ). In the quasi-experimental study by Shoaakazemi et al. (2012) which was performed with a total of 20 children aged 7-9 years in order to determine the effect of group play therapy on separation anxiety, the experimental group was

applied for 9 sessions of therapy and a significant decrease was found in the separation anxiety of children who were applied for group play therapy at posttest (Shoaakazemi et al., 2012). Fliet et al. (2015) also investigated the relationship between rough-and-tumble play and preschool anxiety in their study with 105 anxious preschool children aged 2-6 years, and it was reported that fathers mostly participated in this play and mothers were more focused on care. In addition, it was reported that the anxiety and overprotective attitudes of the mothers were effective on the anxiety of the children, anxious fathers were more oriented to these games, and the anxiety and distress of the parents affected children negatively (Fliet et al., 2015). When the results of this study were compared with the literature, changes in the scale made for the parents to express and define separation anxiety of their children were found to be similar to the studies in the literature (Fliet et al., 2015; Shoaakazemi et al., 2012). It was also determined that the parents' anxiety played a significant role in the children's anxiety, and that providing interaction with this age group of children through games would be effective in overcoming anxiety. Based on the results of this and other relevant studies, it has been understood that play therapy helps to decrease the anxiety of the child and the family.

In the study, no statistically significant differences were found in the Revised Preschool Anxiety Scale mean scores of social anxiety, generalized anxiety, separation anxiety, and specific fear items between the children in the study and control groups after training ( $p > 0.05$ ). The decreases after training were found to be statistically significant compared to the mean scores of social anxiety, generalized anxiety, separation anxiety, and specific fears in the experimental group before training ( $p < 0.05$ ). However, the decreases found in the same subscales after training were not found to be significant compared to the scores before training ( $p > 0.05$ ). In the study by Paulus et al. (2015) which was conducted to examine the effects of anxiety disorders on the behavior of 1342 children who were aged between 4-7, it was reported that the total prevalence was 22.2% for anxiety disorders, 10.7% for social phobia, 9.8% for specific phobias, and 7% for separation anxiety, and depression/common anxiety was reported to affect 3.4% of the children (Paulus et al., 2015). In the study by Waters et al. (2018), which was conducted with 205 anxious children aged between 4-12, the effect of cognitive behavioral therapy on social phobia, separation anxiety, common anxiety disorder, and specific phobia was investigated. In this study, it was reported that therapy, which was treated for 6-12 months, was more effective on children having specific phobias and separation anxiety compared to other types of anxiety (Waters et al., 2018). In the prospective randomized and controlled study by Sezici et al. (2017), which was carried out with 79 children aged 4-5 years, it was concluded that play

therapy was effective on the social, emotional, and behavioral skills of preschool children during the nursing process. Again in the study, play therapy was reported to be effective in eliminating fears and anxiety (Sezici et al., 2017).

When the study results were compared with the literature, the presence of anxieties in preschool children in Revised Preschool Anxiety Scale sub-items and scale changes of play therapy in sub-items in the post-test were found to be similar to the studies in the literature (Paulus et al., 2015; Sezici et al., 2017; Waters et al., 2018). Separation anxiety, which is the leading cause of anxiety among preschool children, results in various problems depending on the age of the child. Play therapy was found to be effective in eliminating anxiety problems seen among preschool children, and these results appeared to be similar to the results of previous relevant studies in the literature.

#### Limitation of the Study

The limitations of this research were that the sample was limited by the children aged 3-5, and it was made in a town in Zonguldak province.

#### CONCLUSIONS

At the end of the study, play therapy was found to be effective in alleviating separation anxiety seen among preschool children. Both teachers and parents of the children included in the study reported that play therapy is an effective method for reducing separation anxiety.

One of the most common problems in children just starting preschool is separation anxiety. Separation anxiety is the state of anxiety in the event of separation from the mother or attachment figure of the child. In addition to the increase in anxiety of children separated from their mothers or attachment figures, adaptation to the environment becomes difficult and the development of a sense of trust is prevented. For this reason, the play therapy method helps preschool children develop their emotional, social, and behavioral skills while reducing separation anxiety. It also helps children to reduce their anxiety and fear levels, increase their self-esteem, improve their coping, and communication skills. Finally, play therapy is important in the profession of pediatric and psychiatric nurses and is among the basic requirements of nursing.

#### Acknowledgement

The authors would like to extend their sincere thanks to anyone who contributed to this study.

#### Conflict of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

#### Author Contributions

**Plan, design:** ÖYD, AT; **Material, methods and data collection:** ÖYD, AT; **Data analysis and comments:** ÖYD, AT; **Writing and corrections:** ÖYD, AT.

#### REFERENCES

- Abazaoglu, İ., Yıldırım, O., & Yıldızhan, Y. (2015). An overview on the early childhood education. *Journal of Research in Education and Teaching*, 4(1), 411-423.
- Akman, Y. (1987). *The effect of different play techniques on the separation anxiety seen in kindergarten children*, [Hacettepe University]. Ankara, Turkey.
- APA. (2013). *Highlights of Changes from DSM-IV-TR to DSM-5*. www.psychiatry.org.
- Arslan, A. (2017). The Investigation of the effects of children's toys on the development areas of children in the contemporary context (Sivas province sampling). *Journal of Social Sciences*, 7(13), 35-47.
- Battaglia, M., Garon-Carrier, G., Côté, S. M., Dionne, G., Touchette, E., Vitaro, F., Tremblay, R. E., & Boivin, M. (2017). Early childhood trajectories of separation anxiety: Bearing on mental health, academic achievement, and physical health from mid-childhood to preadolescence. *Depression and Anxiety*, 34(10), 918-927. <https://doi.org/10.1002/da.22674>.
- Battaglia, M., Touchette, É., Garon-Carrier, G., Dionne, G., Côté, S. M., Vitaro, F., Tremblay, R. E., & Boivin, M. (2016). Distinct trajectories of separation anxiety in the preschool years: persistence at school entry and early-life associated factors. *Journal of Child Psychology and Psychiatry*, 57(1), 39-46. <https://doi.org/10.1111/jcpp.12424>.
- Bowlby, J. (1959). Separation anxiety. *International Journal of Psychoanalysis*, 41, 1-25.
- Can, A. (2015). *Challenges during pre-school go to school children living with mother levels of trait anxiety attachment styles investigation of the relationship between İstanbul Arel University*. İstanbul, Turkey.
- Çetin, S. B. (2017). *Separation anxiety of children and separation anxiety of parents and their attitude towards parenting Hacettepe Üniversitesi*. Ankara, Turkey.
- Davidson, B., Satchi, N. S., & Venkatesan, L. (2017). Effectiveness of play therapy upon anxiety among hospitalised children. *International Journal of Advance Research, Ideas and Innovations in Technology*, 3(5), 441-444.
- Edwards, S. L., Rapee, R. M., Kennedy, S. J., & Spence, S. H. (2010). The assessment of anxiety symptoms in preschool-aged children: the revised preschool anxiety scale. *Journal of Clinical Child & Adolescent Psychology*, 39(3), 400-409. <https://doi.org/10.1080/15374411003691701>.
- Fliet, L., Daemen, E., Roelofs, J., & Muris, P. (2015). Rough-and-tumble play and other parental factors as correlates of anxiety symptoms in preschool children [journal article]. *Journal of Child and Family Studies*, 24(9), 2795-2804. <https://doi.org/10.1007/s10826-014-0083-5>.
- Gökşen, C. (2014). Contributions of games in child development and Gaziantep children's games. *Journal of Turkish Researches Institute*, 52, 229-259.

- Güler, M. (2016). *Okul öncesi dönem 4-6 yaş çocukları için yeniden düzenlenen okul öncesi kaygı ölçeğinin geçerlik ve güvenilirlik çalışması*, [Adnan Menderes University]. Aydın.
- Kılınç, F.E., Saltık, N. (2020). Kadın konukevlerinde kalan çocukların problem davranışları üzerinde oyun terapisinin etkisinin incelenmesi. *ACU Sağlık Bilimleri Dergisi*, 11:27-34.
- Koçyiğit, S., Tuğluk, M. N., & Kök, M. (2007). Çocuğun gelişim sürecinde eğitsel bir etkinlik olarak oyun. *Atatürk Üniversitesi Kazım Karabekir Eğitim Fakültesi Dergisi* (16), 324-342.
- Küçüködük, C. (2015). *The relationship between the separation anxiety and attachment styles of mothers who have preschool children between the ages of 3 - 5 and the behavior of their children: The mediator factor of cognitive flexibility*, [Hacettepe University]. Ankara, Turkey.
- Malak, M. Z., & Khalifeh, A. H. (2018). Anxiety and depression among school students in Jordan: Prevalence, risk factors, and predictors. *Perspectives in Psychiatric Care*, 54(2), 242-250. <https://doi.org/https://doi.org/10.1111/ppc.12229>
- MEB. (2013). *Ministry of National Education, General Directorate of Basic Education, Preschool Education Program*. Retrieved 07.02.2018 from <http://tegm.meb.gov.tr/dosya/okuloncesi/ooproram.pdf>.
- Milos, M. E., & Reiss, S. (1982). Effects of three play conditions on separation anxiety in young children. *Journal of Consulting and Clinical Psychology*, 50(3), 389-395. <https://doi.org/10.1037/0022-006X.50.3.389>.
- Oktay, A. (1990). Türkiye'de okul öncesi eğitim. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, 2(2), 151-160.
- Patel, K., Suresh, V., & Ravindra, H. (2014). A study to assess the effectiveness of play therapy on anxiety among hospitalized children. *IOSR Journal of Nursing and Health Science*, 3(5), 17-23.
- Paulus, F. W., Backes, A., Sander, C. S., Weber, M., & von Gontard, A. (2015). Anxiety disorders and behavioral inhibition in preschool children: a population-based study [journal article]. *Child Psychiatry & Human Development*, 46(1), 150-157. <https://doi.org/10.1007/s10578-014-0460-8>
- Ramdaniati, S., & Hermaningsih, S. (2016). Comparison study of art therapy and play therapy in reducing anxiety on pre-school children who experience hospitalization. *Open journal of nursing*, 6(1).
- Seven, S. (2014). *Okul Öncesi Eğitime Giriş* (1. baskı ed.). Pegem Akademi.
- Sezici, E., Ocakci, A. F., & Kadioglu, H. (2017). Use of play therapy in nursing process: a prospective randomized controlled study. *Journal of Nursing Scholarship*, 49(2), 162-169. <https://doi.org/10.1111/jnu.12277>
- Shoaakazemi, M., Javid, M. M., Tazekand, F. E., Rad, Z. S., & Gholami, N. (2012). The effect of group play therapy on reduction of separation anxiety disorder in primitive school children. *Procedia - Social and Behavioral Sciences*, 69, 95-103. <https://doi.org/10.1016/j.sbspro.2012.11.387>
- Trawick-Smith, J., Wolff, J., Koschel, M., & Vallarelli, J. (2015). Effects of toys on the play quality of preschool children: influence of gender, ethnicity, and socioeconomic status [journal article]. *Early Childhood Education Journal*, 43(4), 249-256. <https://doi.org/10.1007/s10643-014-0644-7>
- TTB. (2012). *Developmental processes of children and starting school* (1st ed.). Türk Tabipler Birliği Yayınları.
- Warren, S.L., Zhang, Y., Duberg, K., Mistry, P., Cai, W., Qin, S. et al. (2020). Anxiety and stress alter decision-making dynamics and causal amygdala-dorsolateral prefrontal cortex circuits during emotion regulation in children. *Biol Psychiatry*, 88:576-586.
- Waters, A. M., Groth, T. A., Purkis, H., & Alston-knox, C. (2018). Predicting outcomes for anxious children receiving group cognitive-behavioural therapy: Does the type of anxiety diagnosis make a difference? *Clinical Psychologist*, 22(3), 344-354. <https://doi.org/10.1111/cp.12128>
- Yati, M., Wahyuni, S., & Islaeli, I. (2017). The effect of storytelling in a play therapy on Anxiety level in pre-school children during hospitalization in the general hospital of Buton. *Public Health of Indonesia*, 3(3), 96-101.