

# Play Therapy for Children with Anxiety Disorders

Wa Ode Nursanaa University of Muhammadiyah Malang waodenursanaa@gmail.com Intan Novantin Citra Ady University of Muhammadiyah Malang intan.nca@gmail.com

Abstract: This study uses a literature review to study the effects of play therapy used as an intervention in children with anxiety disorders. The literature consists of 15 international journals published from 2015-2018. The review covers the subject, the design, and the setting of the therapy, as well as the type of game applied. Based on the results of the review, it is known that play therapy is effective in reducing anxiety in children with vulnerable ages ranging from 3-16 years old using various materials and different settings. In addition to reducing anxiety, play therapy can also reduce negative emotions, aggression and can improve the social abilities and academic performance of children with anxiety disorders. Play therapy is often applied to children who experience anxiety disorders while undergoing treatment in the hospital. The results of this research review are expected to be a reference for further research, especially research conducted in Indonesia.

Keywords: anxiety disorder, children, play therapy

#### Introduction

The world mental health survey found that anxiety disorders are among the disorders with the highest prevalence (Auerbach et al., 2018; Merikangas et al., 2010). The prevalence of mental disorders in children and adolescents in the world reaches 13.4%, with the highest percentage of anxiety disorders of 6.5% compared to other mental disorders (Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). The onset of this disorder occurs on average between the ages of 6 and 17 years old (Auerbach et al., 2018; Lo et al., 2017; Merikangas et al., 2010; Polanczyk et al., 2015). Anxiety disorders in children can occur in various forms, such as separation anxiety, social phobia, generalized anxiety disorder, panic disorder with or without agoraphobia, obsessive-compulsive disorder, and specific phobias (Bulbena-Cabre et al., 2019; Canadian Mental Health Association, 2002; Rahmani & Moheb, 2010).

Anxiety disorders in childhood have a significant influence on the functioning of a child's life if not treated early on. Anxiety in Children tends to develop and become comorbid with other mental disorders that are at risk of inhibiting the function and development of children. Conditions that can accompany the anxiety include affective disorders, behavior, substances, and social disorders, as well as obstacles in completing daily tasks. It is also found that there are risks that can interfere with the welfare or happiness of children (Broeren, Muris, Diamantopoulou, & Baker, 2013; Ip et al., 2019; Merikangas et al., 2010; Stulmaker & Ray, 2015; Waite & Creswell, 2015; Wehbe et al., 2016). Behavioral disorders often found in anxious children include pressure/withdrawal from social situations, especially with peers and also behavior to feelings of depression (Bufferd, Dougherty, & Olino, 2019; Draghi, Cavalcante Neto, Rohr, Jelsma, & Tudella, 2019). If children do not get proper treatment, the disorder often lasts into adulthood and is closely related to a variety of long-term negative outcomes (Gordon-Hollingsworth et al., 2015).

Interventions in cases of anxiety more often use cognitive behavioral therapy (CBT), but not all are application effective for in some Demographic factors and clinical disorders such as the severity of symptoms, disparity in socioeconomic status (SES), diagnosis of comorbidity, mood and other behavioral disorders can affect anxiety in children (Compton et al., 2014; Hudson et al., 2015; Zhu et al., 2019). This condition indicates the need for research and other treatments related to anxiety in children as a form of prevention and intervention disorders. In addition to play therapy, there is an element of play that is characteristic of childhood and is a media that is very close to children's daily activities.

Play therapy is a clinical intervention that is widely used and effectively applied, especially to children. Play therapy is based on responsive developmental interventions but is often criticized for lack of an adequate research base to support its growth practices (Bratton, Ray, Rhine, & Jones, 2005). Research results show that play therapy in children with anxiety disorders has been proven to be effective in reducing anxiety levels in pre-school and school-age children (Rahmani & Moheb, 2010; SHoaakazemi, Javid, Tazekand, Rad, & Gholami, 2012). Besides being able to reduce anxiety, play therapy can also help improve social skills in children with anxiety disorders (Mollamohammadi & Yazdkhasti, 2017; Yadav, Raju, Mahaveer, Pradesh, & Pradesh, 2018). Play therapy is also effective in various ages, sexes, and current problems (Bratton & Dafoe, 2015; Bratton et al., 2005).

Although proven effective, play therapy ranks fourth among various anxiety treatments in children during the last 50 years before 2015. Play therapy is widely used in research settings. Further research is needed to improve the effectiveness of therapies compared to other therapies that have been widely used, such as CBT, family therapy, and group therapy (Higa-McMillan, Francis, Rith-Najarian, & Chorpita, 2016). Before conducting further research, it is important to review research related to play therapy used as an



intervention in children with anxiety disorders in the last five years. This review aims to provide an overview of the 15 studies published on international journals related to the subject, design, and setting of therapy, as well as the types of games used from the year 2015 to 2018. The results of the review are expected to give recommendations for further research so that it can contribute to the development of play therapy, especially related to anxiety disorders, both practically and theoretically.

#### Anxiety Disorders

Anxiety is one of the main reactions of children to the dangers that can develop into maladaptive. This is a normal reaction to stressful situations or new situations. Anxiety is often interpreted as fear, worry, or shame. Anxiety consists of three main symptoms, namely physiological symptoms, behavior, and cognition or mind. Fear is a child's general response to various situations and objects that might hurt them. Fear tends to be a healthy or adaptive reaction that protects children from danger and prepares them for threats, often by "fighting or running away." Fear or anxiety reactions can be very disturbing and inhibit the child at some level (Drewes & Schaefer, 2015, 2018).

The main categories of anxiety disorders are explained in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V). The category refers to several different disorders, including generalized anxiety disorder, panic disorder, phobia, social anxiety disorder, and separation anxiety. Anxiety disorders are inhibiting and disrupting daily functions. Anxiety can be caused by many factors, extends over a long period of time, and can interfere with daily functioning (American Psychiatric Association, 2013; Wehbe et al., 2016).

A large number of children experience excessive and/or persistent fear/anxiety responses that greatly disrupt their daily functioning. Anxiety disorders are associated with a variety of significant psychosocial disorders, including social, emotional, and academic difficulties. The therapists and parents or caregivers are significantly important to recognize anxiety disorders in children, as well as the potential long-term consequences of these disorders so that they can implement interventions that are most appropriate to the child's development (Drewes & Schaefer, 2018).

# Play Therapy

Play is the language of children. Through games, children express themselves, explore their world, and learn. Play can be used as a medium to help therapists and caregivers interact with children and help them express their feelings and emotions. Play therapy is the systematic use of theoretical models to build interpersonal processes in which therapists practice using the therapeutic power of games to help clients prevent or solve various psychological problems of children and achieve optimal growth and development (Frost, Wortham, & Reifel, 2012a; Naderi, Heidarie,

Bouron, & Asgari, 2010). Play therapy offers children a safe, natural, and non-intrusive method to be free from disturbing life events. This can be a useful intervention for children who exhibit various problematic behaviors such as regression, anxiety, extreme anger, aggression and fear (Sen, 2017). Play therapy is considered suitable for most children regardless of ethnic or cultural background. Besides, play therapy can be done individually or in groups. Play therapy can be given to children under five years old, preschool, up to school-age children (Brotherson, 2009; Frost et al., 2012).

Research shows that learning is very good in an atmosphere that encourages exploration, discovery, and play. Through play activities, children can develop knowledge and skills in various ways. Play contributes to the development of children by helping them gain confidence and mastery, giving them learning opportunities and enabling them to interact with the world. Play therapy helps children develop their confidence and self-skills; this is achieved through mastering fear, acquiring skills, and learning new tasks. Children release emotions through action, use creative thinking to solve problems, learn about themselves and get clarity about their lives, feelings and abilities (Brotherson, 2009; Frost et al., 2012b).

#### Method

Subjects Research

Children who are the subject of research are in preschool and school-age with various anxiety disorders. Anxiety disorders found include general anxiety disorders, social anxiety, separation anxiety, and specific phobias. Anxiety disorders are found in children who undergo treatment in hospitals with a number reaching 30 to 304 subjects. This was found from 9 studies that reviewed more involving children with medical situations such as cancer patients (Altay, Kilicarslan-Toruner, & Sari, 2017), heart (Coskuntürk & Gözen, 2018) or even patients who were hospitalized and preparing for surgery (preparation Al-Yateem & Rossiter, 2016; Aydın et al., 2017; Davidson, Satchi, & Venkatesan, 2017; Koolaee, Vazifehdar, Bahari, & Akbari, 2016; Li, Chung, Ho, & Kwok, 2016; Mon, 2017; Silva et al., 2017). Children with academic anxiety, social anxiety, separation anxiety, and specific phobias numbered 30 to 60 subjects in each study. The age of the subjects in these studies were five studies that used children with preschool age, namely between 3-6 years old and five other studies, each involving school-age children ranging from 6 years to adolescents aged 12/13 years old. While four other studies using both types of age and 1 study using subjects with a greater age than other research subjects, children aged 9 to 16 years old. There is no difference in therapy between boys and girls.

Both preschoolers and teenagers will experience anxiety when undergoing treatment in the hospital. Children who undergo nurses in hospitals have a fairly high level of anxiety when facing the treatment process



and are accompanied by the appearance of negative emotions that can hinder the treatment process. This anxiety can be caused by a long treatment process in a frightening imagination of pain, separation from parents, unpleasant new situations to anxiety that comes from their own environment such as parents (Altay et al., 2017; Davidson et al., 2017; Li et al., 2016; Silva et al., 2017). By providing play therapy or by providing a playroom for children, it can reduce the level of anxiety of children. In children with anxiety facing surgery, given play therapy both before and after surgery has proven to be effective in reducing anxiety, besides parents also get the same therapeutic effect (Coşkuntürk & Gözen, 2018). Play therapy can reduce anxiety in children during treatment at the hospital, while at the same time, the level of negative emotions and aggression that accompanies anxiety decreases significantly (Koolaee et al., 2016; Li et al., 2016). Other results show that there is no difference in the level of anxiety of children undergoing treatment in the hospital whether they are given play therapy or not. This could be due to the relatively small number of research subjects and the character of the subjects chosen were children who had low anxiety levels. In cases like this, play therapy is not effective, so it requires new research with a greater number of subjects and different situations (Silva, et al., 2017).

Social anxiety was found in 2 studies that were accompanied by low self-esteem problems. A child's anxiety level significantly decreases when given play therapy. Reduced social anxiety is also followed by an increase in self-esteem and social skills of children who develop during the play therapy process (Atayi, Hashemi Razini, & Hatami, 2018; Mollamohammadi & Yazdkhasti, 2017). High anxiety is also found in children with academic problems such as poor academic performance and learning disabilities (Mohammadinia, Fatemi, Nasiri, & Pirnia, 2018; Stulmaker & Ray, 2015).

Separation anxiety and specific phobias were only found in 1 study. Play therapy given to children with separation anxiety can reduce the symptoms of the disorder as a form of transfer to the mother as a close figure to the child (Nasab & Goudarzvand, 2015), whereas children with specific phobias experienced significant changes. Symptoms of phobia and anxiety of parents no longer meet the criteria for clinical diagnosis of specific phobias three months after therapy is given (Farrell, Kershaw, & Ollendick, 2018).

In addition, the articles that have been reviewed have not found any play treatment given to children with a number of single subjects. It seems that play therapy is more effective when conducted in the context of group play involving many subjects. Playing children can develop themselves by increasing other skills such as social skills and academic performance for school-age children, which are closely related to children's anxiety problems. Besides, play therapy can be carried out both in social, academic contexts and in the medical environment of children who experience

anxiety during treatment in the hospital. Based on the above explanation, it is known that play therapy is effective in reducing anxiety levels in children, but further research is still needed, especially with more specific subject variations.

#### Design and setting research

The dominant design used in research on play therapy in children with anxiety disorders is an experimental study with pre-test and post-test design using a control group. This study involved two groups: an experimental group that was given intervention in the form of play therapy and a control group that was not given an intervention. Through this design, researchers can see the effect of treatment by comparing the treatment results of the experimental group after being given therapy with a group that did not get any play therapy. The results obtained will be more accurate by comparing the results before and after being given therapy in each study group (Latipun, 2015). Research on play therapy for children with anxiety disorders has not yet found the use of qualitative case study research designs.

Based on this description, research on play therapy is mostly done in the form of experiments to see the effectiveness of play as one of the treatments used to treat children with anxiety disorders.

The play therapy settings used in research on anxiety disorders are generally categorized as school settings, playrooms, and patient halls. Therapy can involve many parties such as therapists, teachers, parents, peers, or other children with the same problems placed in the control group. Play therapy is given as a form of intervention in the form of play treatment, which is carried out in several sessions with different frequency and duration of time. Generally, the play therapy session is carried out more than two sessions with a duration of 30-60 minutes for several days. In certain cases, one can be done with a longer duration of time or with many sessions with the same time duration. In the case of separation anxiety, play therapy was carried out for one session for 10 hours. Children who experience high anxiety during their stay in the hospital undergo therapy sessions 1 to 10 sessions during the treatment period. In children with social and academic anxiety problems, 8-10 sessions are conducted for one week by combining children's games and subjects or activities.

## The Types of Play

The play used in the administration of therapy in children with anxiety disorders is quite diverse to suit the child's development. The play uses puppets, clay, sand, and figures of children and animals widely used in children of preschool age. Whereas in school-aged children up to teenagers, the paly uses games such as drawing, ball games, fairy tales, drawing and writing, card games, and games. The various types of playing used indicate that many types of play can be used as therapeutic tools.



The function of the game in conducting play therapy is as a medium and symbol for children to express themselves and learn. Play gives children a sense of being able and able to solve problems and master new experiences and ideas so that they can help to build self-confidence and achievement (Drewes & Schaefer, 2015, 2018). This shows that play therapy can also be used in children who experience anxiety associated with poor academic performance. Various types of play that help support the development of children with a variety of skills obtained through play activities. Playing that involves physical and sensory activity help develop children's sensorimotor abilities. Physical games include balls, jump rope, rickshaws, scooters, and boxes, while sensory games (touching, listening, seeing, smelling, or tasting) comprise water toys, musical instruments, bubble pipes, beads and ropes, and puzzles. Games to enhance creativity contain clay or crayons, paint, colored paper, paste, and scissors. Social games consist of dolls with washable clothes, adult clothes, cars, airplanes, and dollhouses, while constructive games involve blocks and boxes. Each game also has different benefits according to the characteristics of the game (Bratton & Dafoe, 2015; Frost et al., 2012; Naderi et al., 2010).

The game used in play therapy can be used as an intervention medium that is suitable for the child's world, which is synonymous with play activities. Playing has been proven to be effective in reducing anxiety in children and helping to develop a variety of skills that support children's development.

#### Conclusion

Effective play therapy is used as an intervention to reduce anxiety disorders in children. The types of games used are quite varied depending on the type, age, and level of development of the child. Playing various types of therapeutic games can be given to children in various discussions such as social, academic, to medical. In addition to reducing feelings of addiction, play therapy can also reduce negative intelligence, increase efficiency, increase self-esteem, and improve the academic performance of children with anxiety disorders.

## References

- Al-Yateem, N., & Rossiter, R. C. (2016). Unstructured play for anxiety in pediatric inpatient care. *Journal for Specialists in Pediatric Nursing*, 22(1), 1–7. https://doi.org/10.1111/jspn.12166
- Altay, N., Kilicarslan-Toruner, E., & Sari, Ç. (2017). The effect of drawing and writing technique on the anxiety level of children undergoing cancer treatment. *European Journal of Oncology Nursing*, 28,1–6.

https://doi.org/10.1016/j.ejon.2017.02.007

American Psychiatric Association. (2013). *Diagnostic* and statistical manual of mental disorders: DSM-5.—5th ed (5th ed.). Washington, DC, London, England: American Psychiatric

- Publishing.
- Atayi, M., Hashemi Razini, H., & Hatami, M. (2018). Effect of cognitive-behavioral play therapy in the self-esteem and social anxiety of students. *Journal of Research and Health*, 8(3), 278–285. https://doi.org/10.29252/jrh.8.3.278
- Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J.,
  Benjet, C., Cuijpers, P., ... Kessler, R. C. (2018).
  WHO world mental health surveys international college student project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology*, 127(7), 623–638. https://doi.org/10.1037/abn0000362
- Aydın, G. B., Yüksel, S., Ergil, J., Polat, R., Akelma, F. K., Ekici, M., ... Odabaş, Ö. (2017). The effect of play distraction on anxiety before premedication administration: a randomized trial. *Journal of Clinical Anesthesia*, *36*, 27–31. https://doi.org/10.1016/j.jclinane.2016.04.044
- Bratton, S. C., & Dafoe, E. C. (2015). Play therapy. *Encyclopedia of Mental Health: Second Edition*, 3(1942), 278–283. https://doi.org/10.1016/B978-0-12-397045-9.00072-0
- Bratton, Sue C., Ray, D., Rhine, T., & Jones, L. (2005). The efficacy of play therapy with children: A meta-analytic review of treatment outcomes. *Professional Psychology: Research and Practice*, 36(4), 376–390. https://doi.org/10.1037/0735-7028.36.4.376
- Broeren, S., Muris, P., Diamantopoulou, S., & Baker, J. R. (2013). The course of childhood anxiety symptoms: Developmental trajectories and childrelated factors in normal children. *Journal of Abnormal Child Psychology*, *41*(1), 81–95. https://doi.org/10.1007/s10802-012-9669-9
- Brotherson, S. (2009). Young Children and The Importance of Play. *Bright Beginnings*, 23(August).
- Bufferd, S. J., Dougherty, L. R., & Olino, T. M. (2019). Mapping the frequency and severity of anxiety behaviors in preschool-aged children. *Journal of Anxiety Disorders*, 63(August 2018), 9–17. https://doi.org/10.1016/j.janxdis.2019.01.006
- Bulbena-Cabre, A., Duñó, L., Almeda, S., Batlle, S., Camprodon-Rosanas, E., Martín-Lopez, L. M., & Bulbena, A. (2019). Joint hypermobility is a marker for anxiety in children. *Revista de Psiquiatria y Salud Mental*, *12*(2), 68–76. https://doi.org/10.1016/j.rpsm.2019.01.004
- Canadian Mental Health Association. (2002). Visions: BC's mental health journal anxiety disorders in children and youth. *BC's Mental Health Journal*, (14), 1–36. https://doi.org/10.1007/978-3-319-55721-2\_9
- Compton, S. N., Peris, T. S., Almirall, D., Birmaher, B., Sherrill, J., Kendall, P. C., ... Albano, A. M. (2014). Predictors and moderators of treatment response in childhood anxiety disorders: Results from the CAMS trial. *Journal of Consulting and Clinical Psychology*, 82(2), 212–224.



- https://doi.org/10.1037/a0035458
- Coşkuntürk, A. E., & Gözen, D. (2018). The effect of interactive therapeutic play education program on anxiety levels of children undergoing cardiac surgery and their mothers. *Journal of Perianesthesia Nursing*, 33(6), 781–789. https://doi.org/10.1016/j.jopan.2017.07.009
- Davidson, B., Satchi, N. S., & Venkatesan, D. L. (2017). Effectiveness of play therapy upon anxiety among hospitalised children. International Journal of Advanced Research, Ideas and Innovations in Technology, 3(5), 441–444. Retrieved from https://www.ijariit.com/manuscripts/v3i5/V3I5-1295.pdf
- Draghi, T. T. G., Cavalcante Neto, J. L., Rohr, L. A., Jelsma, L. D., & Tudella, E. (2019). Symptoms of anxiety and depression in children with developmental coordination disorder: a systematic review. *Jornal de Pediatria*, (xx). https://doi.org/10.1016/j.jped.2019.03.002
- Drewes, A. A., & Schaefer, C. E. (2015). The Therapeutic Powers of Play. *Handbook of Play Therapy: Second Edition*, 35–60. https://doi.org/10.1002/9781119140467.ch3
- Drewes, A. A., & Schaefer, C. E. (2018). *Play-based interventions for childhood anxieties, fears, and phobias*. New York: The Guilford Press.
- Farrell, L. J., Kershaw, H., & Ollendick, T. (2018). Play-modified one-session treatment for young children with a specific phobia of dogs: A multiple baseline case series. *Child Psychiatry and Human Development*, 49(2), 317–329. https://doi.org/10.1007/s10578-017-0752-x
- Frost, J. L., Wortham, S. C., & Reifel, S. (2012b). *Play and child development fourth edition*. Retrieved from www.pearsonhighered.com
- Gordon-Hollingsworth, A. T., Becker, E. M., Ginsburg, G. S., Keeton, C., Compton, S. N., Birmaher, B. B., ... March, J. S. (2015). Anxiety disorders in caucasian and African American children: a comparison of clinical characteristics, treatment process variables, and treatment outcomes. *Child Psychiatry and Human Development*, 46(5), 643–655. https://doi.org/10.1007/s10578-014-0507-x
- Higa-McMillan, C. K., Francis, S. E., Rith-Najarian, L., & Chorpita, B. F. (2016). Evidence base update: 50 years of research on treatment for child and adolescent anxiety. *Journal of Clinical Child and Adolescent Psychology*, 45(2), 91–113. https://doi.org/10.1080/15374416.2015.1046177
- Hudson, J. L., Rapee, R. M., Lyneham, H. J., McLellan,
  L. F., Wuthrich, V. M., & Schniering, C. A.
  (2015). Comparing outcomes for children with different anxiety disorders following cognitive behavioural therapy. *Behaviour Research and Therapy*, 72, 30–37. https://doi.org/10.1016/j.brat.2015.06.007
- Ip, K. I., Liu, Y., Moser, J., Mannella, K., Hruschak, J., Bilek, E., ... Fitzgerald, K. (2019). Moderation

- of the relationship between the error-related negativity and anxiety by age and gender in young children: A preliminary investigation. *Developmental Cognitive Neuroscience*, 39(August 2018), 100702. https://doi.org/10.1016/j.dcn.2019.100702
- Koolaee, A. K., Vazifehdar, R., Bahari, F., & Akbari, M. Esmaeil. (2016). Impact of painting therapy on aggression and anxiety of children with cancer. *Caspian Journal of Pediatrics*, 2(2), 135–141. https://doi.org/10.22088/acadpub.BUMS.2.2.135
- Li, W. H. C., Chung, J. O. K., Ho, K. Y., & Kwok, B. M. C. (2016). Play interventions to reduce anxiety and negative emotions in hospitalized children. *BMC Pediatrics*, 16(1), 1–9. https://doi.org/10.1186/s12887-016-0570-5
- Lo, S. L., Schroder, H. S., Fisher, M. E., Durbin, C. E., Fitzgerald, K. D., Danovitch, J. H., & Moser, J. S. (2017). Associations between disorder-specific symptoms of anxiety and error-monitoring brain activity in young children. *Journal of Abnormal Child Psychology*, 45(7), 1439–1448. https://doi.org/10.1007/s10802-016-0247-4
- Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., ... Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the national comorbidity survey replication-adolescent supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry*, 49(10),980–989. https://doi.org/10.1016/j.jaac.2010.05.017
- Mohammadinia, N., Fatemi, F., Nasiri, M., & Pirnia, B. (2018). The effectiveness of cognitive-behavioral play therapy on anxiety and academic achievement among children with ld. International Journal of Applied Behavioral Sciences, 5(1),41-48. https://doi.org/10.22037/ijabs.v5i1.23334
- Mollamohammadi, F., & Yazdkhasti, F. (2017). Effect of play therapy on reduction of social anxiety and increasing social skills in preschool children in Omidiyeh. *International Journal of Educational and Psychological Researches*, *3*(2), 128. https://doi.org/10.4103/2395-2296.211644
- Naderi, F., Heidarie, A., Bouron, L., & Asgari, P. (2010). The efficacy of play therapy on ADHD, anxiety and social maturity in 8 to 12 years aged clientele children of Ahwaz metropolitan counseling clinics. *Journal Of Applied Sciences*, 10(3), 189–195.
- Nasab, H. M., & Goudarzvand, R. (2015). The effect of play therapy on symptoms of oppositional defiant disorder in boys aged 5 to 10 years old. *International Journal of Learning and Development*, 5(2), 48–55. https://doi.org/10.5296/ijld.v5i2.7468
- Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide



- prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 56(3), 345–365. https://doi.org/10.1111/jcpp.12381
- Rahmani, P., & Moheb, N. (2010). The effectiveness of play therapy and narrative therapy on anxiety of pre-school children: a comparative study. 5(2), 23–27.
  - https://doi.org/10.1016/j.sbspro.2010.07.044
- Sen, S. (2017). A study to assess the effectiveness of play therapy on anxiety among hospitalized children. *International Journal of Advanced Research* (*IJAR*), 8(5), 1540–1546. https://doi.org/10.9790/1959-03531723
- 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(Iceepsy), 95–103. https://doi.org/10.1016/j.sbspro.2012.11.387
- Silva, S. G. T. da, Santos, M. A., Floriano, C. M. de F., Damião, E. B. C., Campos, F. V. de, & Rossato, L. M. (2017). Influence of therapeutic play on the anxiety of hospitalized school-age children: clinical trial. *Revista Brasileira de Enfermagem*, 70(6), 1244–1249. https://doi.org/10.1590/0034-7167-2016-0353
- Stulmaker, H. L., & Ray, D. C. (2015). Child-centered

- play therapy with young children who are anxious: A controlled trial. *Children and Youth Services Review*, *57*, 127–133. https://doi.org/10.1016/j.childyouth.2015.08.005
- Waite, P., & Creswell, C. (2015). Observing interactions between children and adolescents and their parents: The effects of anxiety disorder and age. *Journal of Abnormal Child Psychology*, 43(6),1079–1091.
  - https://doi.org/10.1007/s10802-015-0005-z
- Wehbe, R. R., Watson, D. K., Tondello, G. F., Ganaba, M., Stocco, M., Lee, A., & Nacke, L. E. (2016). ABOVE WATER: An educational game for anxiety. CHI PLAY 2016 Proceedings of the Annual Symposium on Computer-Human Interaction in Play Companion, 79–84. https://doi.org/10.1145/2968120.2971804
- Yadav, P., Raju, S. K., Mahaveer, T., Pradesh, U., & Pradesh, U. (2018). Effectiveness of play therapy on improve social skill among preschool children: A narrative review. 40–42.
- Zhu, Y., Chen, X., Zhao, H., Chen, M., Tian, Y., Liu, C., ... Qin, S. (2019). Socioeconomic status disparities affect children's anxiety and stress-sensitive cortisol awakening response through parental anxiety. *Psychoneuroendocrinology*, 103(19),96–103.
  - https://doi.org/10.1016/j.psyneuen.2019.01.008