



# Effectiveness of Bubble Breaths Relaxation to Reducing Anxiety in Early Childhood

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## ABSTRACT

Children often struggle to express their emotions effectively. When experiencing anxiety, they may show behaviors such as startling easily, crying, or throwing tantrums. This study investigated the effectiveness of Bubble Breaths relaxation in reducing anxiety in early childhood. A quasi-experimental design with a one-group pretest-posttest design was employed. The participants were 18 Play Group students in Playgroup X, aged 3 to 5 years old. Saturated sampling was used to select the participants. Data analysis using a paired samples t-test revealed a significant difference between the pretest and posttest scores. The analysis showed a significant decrease in students' anxiety scores after the test compared to the pre-test scores, indicating that bubble breaths relaxation was effective in reducing anxiety levels in early childhood. In conclusion, bubble breath relaxation is effective for minimizing anxiety in early childhood. This is an effort to stimulate children so that their feelings of anxiety, sadness, and tantrums can be minimized. This research provides an impact for teachers and parents to identify children's feelings/emotions. From this, teachers can determine strategies to stimulate children to be able to express their emotions effectively, so that children feel comfortable with the approach the teacher takes.

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## 1. INTRODUCTION

The early years of childhood, spanning ages 3-5, lay the foundation for an individual's future attitudes, values, behavior, and personality. Despite this critical period's significance, it often lacks optimal attention. Even though this "golden age" demands focused support, both parents and teachers often fall short in providing necessary emotional stimulation. This lack may stem from limited access to relevant resources. Moran-Ellis (2013) defined early childhood as the period where children start encountering a broader social world, typically marked by formal pre-school years. In Indonesia, most children at this age attend Play Groups (KB) and Kindergartens (TK). As Feldman (2018) highlighted, preschool age marks a period of expanding social opportunities for children, exposing them to a wider world beyond their immediate family. However, this broader environment also presents its own challenges, demanding adaptation to a new, often-limited social circle of teachers and peers.

According to Erikson at the age of 3-5 years, children enter the stage of "initiative versus guilt" (Hussain, 2021), where they develop a sense of purpose and initiative. However, without trust and support, they may experience unpleasant feelings of guilt and anxiety. Unlike adults, early childhood anxiety often manifests through tantrums due to children's limited ability to express their emotions (Ogundele, 2018).

Understanding childhood anxiety is crucial, as it can significantly impact a child's life. Anxiety is a state of tension resulting from both real and perceived threats to safety. This tension can disrupt interpersonal relationships and cloud thoughts (McCormack, 2017). As Hebert & Dugas (2019) explained, more than just a feeling of worry, anxiety manifests as an unpleasant emotional experience often characterized by uncertainty and fear of potential negative outcomes. Anxiety arises from various internal and external threats perceived as harmful to personal safety or well-being, triggering physiological changes in the body (Rachman, 2012). It manifests as a complex mix of emotions, including worry, fear, and apprehension about potential negative outcomes (Paulus & Stein, 2006). These feelings can stem from diverse sources, such as external dangers, internal bodily sensations, guilt associated with violating internal values, and even a lack of parental compassion during childhood.

Ignoring children's anxiety at school can have detrimental consequences. Early childhood's limited ability to express themselves makes it crucial to recognize other signs of anxiety, such as strong attachment to parents, ease of being startled, crying, tantrums, sleep disruptions, headaches, or stomach aches. Anxiety in children at school can manifest at any time, triggered by transitions like returning after breaks, moving schools, losing a loved one, or recovering from illness (Amaludin, 2018).

Building upon Safithry's (2015) research on play therapy for improving school behavior in children with school refusal, this study investigates its effectiveness in a broader context. Our research involved six play therapy sessions with a follow-up, demonstrating a significant improvement in children's school behavior after just one session. This finding strengthens the evidence for play therapy as an effective intervention for various childhood challenges.

Addressing anxiety in children requires effective interventions, and play therapy has stood the test of time as a well-established and popular approach. As Kaduson & Schaefer (2001) highlighted, play therapy has been successfully applied for over 60 years in clinical settings. Its effectiveness stems from the unique challenges children face in expressing their emotions, thoughts, and behaviors due to their limited development of abstract reasoning and verbal skills. This is why play therapy, which allows children to express themselves through play

rather than words, has proven so useful. One specific technique within play therapy that can be particularly effective in reducing anxiety is relaxation with bubble breaths.

Play therapy is a highly effective technique for children of early childhood due to its playful nature. This approach caters to children's interests and enjoyment, fostering learning in a pressure-free environment. As Hall et al., (2002) pointed out, play therapy's effectiveness lies in its ability to directly reveal children's feelings, thoughts, and behaviors regardless of their verbal and reasoning limitations. One specific technique proven to reduce anxiety in children is Bubble Breath relaxation (Sridhar et al., 2019). Emphasized the importance of immediate intervention when children start experiencing anxiety, aiming to minimize physical reactions before they manifest as maladaptive behaviors like tantrums (Sukhodolsky et al., 2016). In this context, Bubble Breath relaxation emerges as a valuable tool due to its accessibility and ease of use in any setting.

Bubble Breath relaxation uses deep breathing techniques and soap bubbles to help children manage anxiety. By focusing on taking deep breaths through the nose and blowing bubbles slowly, children learn to regulate their breath and become more aware of the connection between their body and mind. This fun, inexpensive, and easily implemented technique can be used individually or in groups to help children reduce anger, anxiety, and tension (Hall et al., 2002).

Research on the effectiveness of Bubble Breath relaxation is particularly important for early childhood, who require appropriate emotional stimulation during their early years. Studies suggest that playful relaxation techniques like this can decrease anxiety, tantrums, and other emotional challenges in children.

## 2. METHODS

This quantitative research employed a quasi-experimental design with a single group pretest-posttest approach. The dependent variable, anxiety, was measured before and after the bubble breaths relaxation intervention. The difference between pretest and posttest scores reflects the intervention's effect (Valente & MacKinnon, 2017). The study involved 18 Play Group students aged 3-5 years from Playgroup X, selected through non-probability saturated sampling (encompassing all students).

This research utilized two instruments: (1) a Bubble Breaths Relaxation Module for Early Childhood, developed by the researchers and reviewed by three psychologists, academics, and Early Childhood Education teachers, and (2) a Behavioral Checklist compiled by the researchers based on Nevid's (2016) anxiety theory.

### 2.1. Data collection methods

Data collection utilized observation techniques with an anxiety behavioral checklist. This Behavioral Checklist compiled by the researchers based on Nevid's (2016) anxiety theory. Participants will have their anxiety measured using an anxiety behavioral checklist before and after bubble breaths relaxation. Then the data will be analyzed. The difference scores between before and after intervention can determine the effectiveness of the intervention (Pham et al., 2016).

### 2.2 Implementation procedures

The intervention, Bubble Breaths relaxation, was conducted at School X for two days. Two psychologists guided the program, assisted by four psychology assistants: two undergraduates and two students. These assistants served as observers, completing the behavioral checklist before (pretest) and after (posttest) the intervention.

The intervention consisted of four distinct stages:

**Activity 1: Opening and Introduction**

- a. A psychologist facilitator introduced themselves.
- b. The facilitator created a friendly atmosphere through games.

**Activity 2: Understanding Anxiety and Relaxation**

The facilitator explained anxiety and relaxation using simple, age-appropriate visuals to aid children's comprehension. Facilitator use book of emotion to explain anxiety and also about the importance of bubble breaths relaxation to children. Beside that, the facilitator also uses flash card so that children better understand anxiety and relaxation.

**Activity 3: Bubble Breaths Relaxation Practice**

Participants were guided by the facilitator in practicing bubble breaths relaxation techniques. Each participants was given a bottle of soap and a blower to make a bubble. After that, participants were asked to take a deep breath and exhale by slowly blowing soap bubble. This bubble breaths relaxation is carried out several times.

**Activity 4: Conclusion and Summary**

The facilitator summarized the key takeaways and conclusions from the training session.

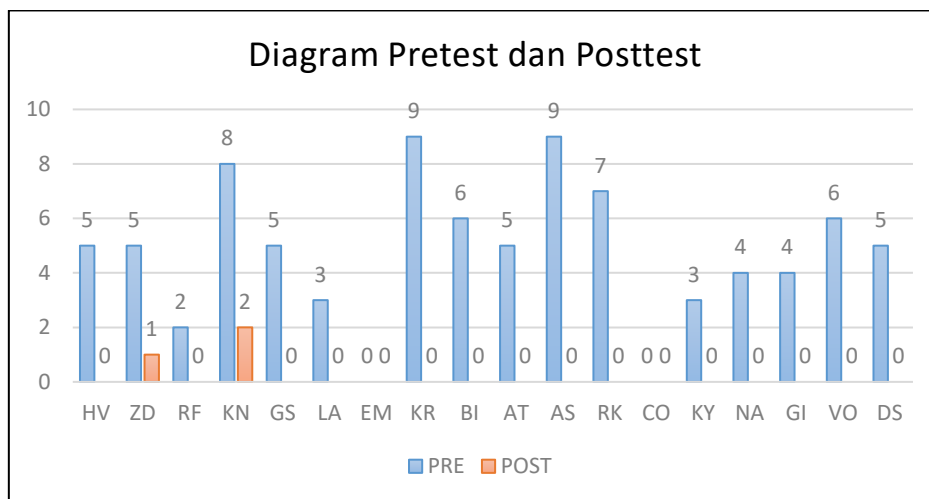
### 3. RESULTS AND DISCUSSION

Analyzing the pretest and posttest scores revealed a decrease in anxiety levels for all participants. The specific data for each participant are presented as follows. In **table 1** we can see the result of effectivity bubble breaths relaxation in early childhood children. After bubble breaths relaxation was carried out, all participants's anxiety scores decreased.

**Table 1.** Pretest and Posttest Anxiety Scores

No	Name	Pretest	Posttest	Description
1	HV	5	0	Decreasing
2	ZD	5	1	Decreasing
3	RF	2	0	Decreasing
4	KN	8	2	Decreasing
5	GS	5	0	Decreasing
6	LA	3	0	Decreasing
7	EM	0	0	Decreasing
8	KR	9	0	Decreasing
9	BI	6	0	Decreasing
10	AT	5	0	Decreasing
11	AS	9	0	Decreasing
12	RK	7	0	Decreasing
13	CO	0	0	No change
14	KY	3	0	Decreasing
15	NA	4	0	Decreasing
16	GI	4	0	Decreasing
17	VO	6	0	Decreasing
18	DS	5	0	Decreasing

**Figure 1** show that after bubble breaths relaxation, the majority of participants experienced a significant reduction in anxiety. The diagram visually demonstrates a significant decrease in anxiety levels for almost all participants who participated in the bubble breath relaxation training.



**Figure 1.** Pretest and Posttest Anxiety Scores

These result of **Figure 1** prove that after do bubble breaths relaxation, participants become calmer an are better able to control their emotions, especially negative emotions. Managing emotions in children can reduce their anxiety.

**Furthermore, table 2** will explain the results of the paired sample t-test analysis. This finding is further supported by the statistical analysis using a t-test. The p-value obtained (0.000) is significantly smaller than the predetermined alpha level of 0.05, indicating a statistically significant difference between the pretest and posttest anxiety scores. This conclusive evidence suggests that bubble breath relaxation is an effective intervention for reducing anxiety in early childhood.

**Paired Samples Test**

	Paired Differences						t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1 Pre test - Post test	4.61111	2.50033	.58933	3.36773	5.85449	7.824	17	.000	

**Table 2.** Result of data analysis

Children in ealy childhood, by the age of 3-5 years, they can more easily express and manage their emotion through play (Richard et al., 2021). Play therapy emerges as a particularly effective approach for reducing anxiety in children. Its effectiveness goes beyond its fun and engaging nature, as it also fosters crucial skill development. The improvement of skill in children contributes to their further development (Williams & Berthelsen, 2017).

Research by Sadeghi et al., (2022) demonstrates that play therapy can enhance these skills, leading to a decrease in anxiety.

Through fun games, it is easier for children to manage their emotions, including negative emotions such as anxiety. The use of play media as an intervention is particularly suitable for children of early childhood due to their natural inclination towards play as a means of exploring themselves and their surroundings. Feldman (2018) emphasizes that play in early childhood, especially during the preschool years, is not simply a way to pass time, but it serves as a vital tool for developing physical, emotional, social, and cognitive abilities. This means that play therapy can equip children with the necessary tools to manage their emotions effectively, thereby leading to a reduction in anxiety.

Play is the key of the relaxation for children because it will make them happy and relaxed at the same time (Cooke et al., 2020). This research employed bubble breaths relaxation as the play therapy intervention. Bubble breaths relaxation is relaxation that involves fun play for children. As Hall et al., (2002) explained, this technique uses soap bubbles to help children manage anxiety by focusing on deep breathing. The research observations confirmed this, suggesting that children became calmer by concentrating on their breath. Relaxation techniques can reduce of the negative physical and emotional symptoms of anxiety (Ali & Hasan, 2010)

Furthermore, research by Azher et al., (2020) demonstrates a decrease in anxiety after bubble breaths relaxation, as evidenced by lowered heart rates, which is an indicator of a calmer state. Bubble breaths relaxation, a form of play therapy, utilizes the playful act of blowing soap bubbles to teach children deep breathing techniques, empowering them to regulate their breaths and connect their body and mind (Kaduson & Schaefer, 2001). This fun, easy, and readily accessible activity, requiring no complex reasoning or verbal skills, makes it a particularly effective intervention for reducing anxiety in children, especially those who may struggle with traditional methods (Deshpande & Shah, 2019). When children routinely do bubble breaths relaxation, it will be easier for them to manage their emotion, including anxiety.

#### **4. CONCLUSION**

This research investigated the effectiveness of bubble breaths relaxation in reducing anxiety among children of early childhood. Drawing upon previous research indicating its potential, this research aimed to replicate and extend these findings. The analysis revealed a significant decrease in students' post-test anxiety scores compared to their pre-test scores, suggesting that bubble breaths relaxation is indeed effective in reducing anxiety levels in this population. Building upon this positive outcome, future research could explore its effectiveness in wider age groups, such as elementary school students.

#### **5. AUTHORS' NOTE**

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

## 6. REFERENCES

- Ali, U., and Hasan, S. (2010). The effectiveness of relaxation therapy in the reduction of anxiety related symptoms (a case study). *International journal of psychological studies*, 2(2), 202-208.
- Amaludin., D. S., and Nasir, M. S. (2018). Character education early childhood: Brain based teaching approach. *International journal of Pure and Applied mathematics*, 119(18), 1229-1245.
- Azher, U., Srinath, S. K., and Nayak, M. (2020). Effectiveness of bubble breath play therapy in the dental management of anxious children: A pilot study. *The Journal of Contemporary Dental Practice*, 21(1), 17-21.
- Cooke, E., Thorpe, K., Clarke, A., Houen, S., Oakes, C., and Staton, S. (2020). "Lie in the grass, the soft grass": Relaxation accounts of young children attending childcare. *Children and Youth Services Review*, 109, 104722, 1-8.
- Deshpande, R., and Shah, M. R. (2019). Effectiveness of play therapy on pain and anxiety in children post surgery. *International Journal of Health Sciences and Research*, 9(4), 84-89.
- Feldman, R. S., (2018). *Development across the life span, eighth adition*. Harlow: Pearson Education Limited.
- Hall, T. M., Kaduson, H. G., and Schaefer, C. E. (2002). Fifteen effective play therapy techniques. *Professional Psychology: Research and Practice*, 33(6), 515-522.
- Hebert, E. A., and Dugas, M. J. (2019). Behavioral experiments for intolerance of uncertainty: Challenging the unknown in the treatment of generalized anxiety disorder. *Cognitive and Behavioral Practice*, 26(2), 421-436.
- Hussain, A. (2021). Social and emotiomnal development of children. *IOSR Journal of Humanities and Social Science*, 26(5), 48-53.
- Kaduson, H. G., and Schaefer, C. E. (2001). *101 More favorite play therapy techniques*. USA: Rowman and Littlefield Publishers. Inc.
- McCormack, D. P. (2017). The circumstances of post-phenomenological life worlds. *Transactions of the Institute of British Geographers*, 42(1), 2-13.
- Moran-Ellis, J. (2013). Children as social actors, agency, and social competence: Sociological reflections for early childhood. *Neue Praxis*, 43(4), 323-338.
- Nevid, J. S., Jeffrey S. Rathus, S. A., and Greene, B. (2016). *Psikologi abnormal Jilid 2*. Jakarta: Erlangga.
- Ogundele, M. O. (2018). Behavioural and emotional disorders in childhood: A brief overview for paediatricians. *World journal of Clinical Pediatrics*, 7(1), 9-26
- Paulus, M. P., and Stein, M. B. (2006). An insular view of anxiety. *Biological Psychiatry*, 60(4), 383-387.
- Pham, Q., Khatib, Y., Stansfeld, S., Fox, S., and Green, T. (2016). Feasibility and efficacy of an mhealth game for managing anxiety:"flowy" randomized controlled pilot trial and design evaluation. *Games for health journal*, 5(1), 50-67.



- Rachman, S. (2012). Health anxiety disorders: A cognitive construal. *Behaviour research and therapy*, 50(7-8), 502-512.
- Richard, S., Baud-Bovy, G., Clerc-Georgy, A., and Gentaz, E. (2021). The effects of a 'pretend play-based training' designed to promote the development of emotion comprehension, emotion regulation, and prosocial behaviour in 5-to 6-year-old Swiss children. *British Journal of Psychology*, 112(3), 690-719.
- Sadeghi, F., Mousavi, S., Goudarzi, A., & Shahsavari, M. R. (2022). The effect of cognitive-behavioral play therapy on emotion regulation and separation anxiety: A quasi-experimental study in elementary-school children in Isfahan. *Caspian Journal of Pediatrics*, 8(2), 730-738.
- Safithry, E. A. (2015). Penerapan play therapy untuk meningkatkan perilaku bersekolah pada anak dengan school refusal behavior (SRB). *Anterior Jurnal*, 15(1), 30-38.
- Sridhar, S., Suprabha, B.S., and Shenoy, R. (2019). Effect of a relaxation training exercise on behaviour, anxiety, and pain during buccal infiltration anaesthesia in children: Randomized clinical trial. *Wiley International Journal of Pediatric Dentistry*, 29(5), 596-602.
- Sukhodolsky, D. G., Smith, S. D., McCauley, S. A., Ibrahim, K., and Piasecka, J. B. (2016). Behavioral interventions for anger, irritability, and aggression in children and adolescents. *Journal of Child and Adolescent Psychopharmacology*, 26(1), 58-64.
- Valente, M. J., and MacKinnon, D. P. (2017). Comparing models of change to estimate the mediated effect in the pretest-posttest control group design. *Structural Equation Modeling: A Multidisciplinary Journal*, 24(3), 428-450.
- Williams, K. E., and Berthelsen, D. (2017). The development of prosocial behaviour in early childhood: Contributions of early parenting and self-regulation. *International Journal of Early Childhood*, 49, 73-94.