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Standards for Storytelling-Based Nursing Communication to Reduce Hospitalization Anxiety in Preschool Children: A Systematic Review

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ABSTRACT

Hospitalization often triggers significant anxiety in preschool children due to their developmental vulnerability, separation from caregivers, and exposure to unfamiliar medical environments. If left unaddressed, this anxiety can result in both short- and long-term psychological and behavioral issues. Storytelling-based nursing communication has emerged as a promising intervention to help children understand and cope with hospitalization; however, standardized approaches remain limited. This study aims to identify and synthesize existing evidence on the standards of storytelling-based nursing communication for reducing hospitalization-related anxiety in preschool children. Using a descriptive analytical approach, a systematic search was conducted across PubMed, Scopus, ScienceDirect, and CINAHL for peer-reviewed studies published between 2020 and 2025. Eligible studies included nurse-led storytelling interventions targeting hospitalized preschoolers. Both qualitative and quantitative research was reviewed and critically appraised. The review identified fourteen relevant studies. Storytelling interventions were consistently effective in reducing anxiety, particularly when implemented using standardized methods such as structured narratives, visual aids (e.g., puppets, books, digital media), therapeutic play, and nurse communication training. These approaches enhanced emotional expression, improved nurse-child interaction, and fostered more positive hospital experiences. In conclusion, standardized storytellingbased nursing communication is an effective strategy for alleviating anxiety in hospitalized preschool children. Its broader implementation in pediatric nursing practice requires further research, training, and policy development.

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INTRODUCTION

Hospitalization is a stressful and potentially traumatic experience for preschool children (ages 3-6), often triggering significant anxiety due to unfamiliar environments, separation from parents, invasive procedures, and lack of understanding about their condition and treatment. Globally, studies have shown that up to 60-70% of hospitalized children experience moderate to severe anxiety during hospitalization [1]-[2], [3]. In Asia, the problem is equally pressing, with recent research in countries such as India, Indonesia, and China reporting high prevalence rates of procedural and situational anxiety among young pediatric inpatients [4]-[6]. In Indonesia, preschool

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hospitalization-related anxiety is a growing concern, particularly in public hospitals where limited psychosocial support and high patient loads hinder individualized care [6].

Preschool-aged children, due to their cognitive developmental stage, often perceive hospitalization as a threat. Their understanding of illness and medical procedures is limited and largely guided by imagination, making them more vulnerable to fear and anxiety. Unaddressed, this anxiety can lead to both short-term and long-term consequences, including delayed recovery, behavioral regression, feeding and sleeping disturbances, and even post-hospitalization trauma [7]-[8]. Therefore, early identification and intervention are critical to prevent these adverse outcomes and to promote emotional well-being during hospitalization.

Nurses play a pivotal role in managing hospitalization-related anxiety in preschool children. As the healthcare professionals who interact most frequently with pediatric patients, nurses are uniquely positioned to provide emotional support, build trust, and create a therapeutic environment [9]. One of the most effective and accessible tools within nursing care is communication specifically, therapeutic nursing communication, which aims to establish rapport, comfort, and security for young patients. Through intentional, developmentally appropriate communication, nurses can help children better understand their experiences and reduce emotional distress [9]-[11].

In this context, storytelling-based nursing communication has emerged as a promising approach to alleviate anxiety in hospitalized children. Storytelling using narratives, puppets, books, or digital media engages children in imaginative dialogue that mirrors their experiences in a non-threatening, familiar format. It provides a framework for children to express emotions, ask questions, and understand their hospital journey in a playful yet meaningful way [11]-[13]. When integrated into nursing practice, storytelling becomes not only an educational strategy but also a therapeutic communication tool, especially effective for preschool children whose primary mode of learning and coping is through stories and play [14].

Recognizing the potential of this method, there is an increasing interest in standardizing storytelling-based nursing communication to ensure its consistent, effective implementation across healthcare settings. A standardized approach enables nurses to use structured, evidence-based techniques in delivering age-appropriate narratives, enhancing the quality and impact of care [15]-[16]. However, despite its growing use, variations in storytelling methods, content, and delivery highlight the need for a comprehensive synthesis of existing practices and evidence.

Previous studies and trials across various countries have demonstrated the effectiveness of storytelling interventions in reducing children's anxiety during hospitalization, yet no systematic review has focused specifically on the standards of storytelling-based communication used by nurses. Exploring these standards is essential to guide nursing education, clinical protocols, and policy development.

This systematic review aims to identify, analyze, and synthesize current standards of storytelling-based nursing communication for alleviating hospitalization anxiety in preschool children. By doing so, it seeks to provide evidence-based insights that can inform nursing practice and improve the emotional outcomes of pediatric care.

2. METHOD

2.1. Study Design

This study employed a systematic review design in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The systematic process was guided by seven essential steps: formulating research questions, determining eligibility criteria, designing a comprehensive search strategy, identifying relevant studies, selecting eligible studies, conducting critical appraisal, and synthesizing the data. The purpose of this review was to examine and synthesize current evidence related to the standards of storytelling-based nursing communication interventions aimed at reducing hospitalization-related anxiety in preschool children aged 3 to 6 years.

Tabel 1. PICO Framework for Storytelling-Based Nursing Communication in Reducing Hospitalization Anxiety among Preschool Children

PICO Component	Description
P (Population)	Hospitalized preschool children aged 3–6 years
I (Intervention)	Standard of Storytelling-based nursing communication
C (Comparison)	Not required for inclusion (studies with or without a comparison group accepted)
O (Outcome)	Reduction in hospitalization-related anxiety

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2.2. Data Sources and Search Strategy

A comprehensive literature search was conducted across four major electronic databases: PubMed, Scopus, ScienceDirect, and CINAHL. The search was limited to peer-reviewed articles published between 2020 to 2025 to ensure the inclusion of the most recent and relevant studies.

The search strategy employed combinations of the following keywords: "storytelling," "nursing communication," "hospitalization," "preschool children," and "anxiety." Boolean operators (AND, OR) were used to refine and expand the search. The search results were managed using Mendeley Reference Manager, which facilitated the removal of duplicate records. The complete selection process was illustrated using a PRISMA flow diagram, ensuring transparency in reporting.

2.3. Study Selection

The process of selecting eligible studies for inclusion in this systematic review was guided by a set of welldefined criteria. Studies were included if they implemented storytelling-based communication interventions specifically delivered by nurses and targeted hospitalized preschool children aged between 3 and 6 years. Furthermore, only studies that explicitly assessed anxiety related to hospitalization were considered. To ensure academic rigor and accessibility, only peer-reviewed journal articles published in English and providing full-text access were eligible. A range of study designs qualitative, quantitative, and mixed-methods was accepted to capture the breadth of available evidence.

Conversely, studies were excluded if the storytelling intervention was not led by nurses or if the participants did not fall within the specified age range of 3 to 6 years. Research conducted in non-hospital settings was also omitted, as were non-English publications, editorials, conference abstracts, and review articles, which did not meet the criteria for primary research data.

The selection process was carried out in two distinct phases. In the first phase, two independent reviewers screened the titles and abstracts of all retrieved articles to assess their preliminary relevance. In the second phase, full-text versions of potentially eligible studies were obtained and rigorously evaluated against the inclusion and exclusion criteria. Any disagreements or uncertainties regarding study eligibility were resolved through discussion between the reviewers, with input from a third reviewer when necessary, ensuring a thorough and unbiased selection process.

2.4. Data Extraction

A standardized data extraction form was developed and utilized to systematically collect key information from each study included in the review. This form captured essential details such as the name(s) of the author(s) and the year of publication, as well as the country in which the study was conducted. The methodological approach and study design whether qualitative, quantitative, or mixed methods were documented alongside the total sample size and the demographic characteristics of the participants, particularly focusing on their age within the preschool range

Special attention was given to the detailed description of the storytelling-based intervention. This included information on the structure and type of narrative used, the media employed (such as books, puppets, digital tools), the frequency and duration of the storytelling sessions, and the extent of nurse involvement. Data were also collected on the training and preparation of nurses responsible for delivering the intervention, to assess the standardization and fidelity of implementation.

Outcome measures were thoroughly recorded, with a focus on hospitalization-related anxiety levels and behavioral responses observed in the children. Additionally, the review extracted findings related to the overall effectiveness of the intervention and how it aligned with or contributed to recognized standards of nursing communication. To ensure reliability and minimize the risk of bias, all extracted data were independently reviewed and cross-verified by two researchers, with discrepancies resolved through consensus.

2.5. Outcomes

The primary outcome of interest was the reduction in hospitalization-related anxiety among preschool-aged children as a result of storytelling-based nursing communication interventions. Secondary outcomes included improvements in emotional expression, engagement between nurses and children, and children's coping responses during hospitalization. Each study's outcomes were examined based on the reported effect sizes, behavioral

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observations, self-reported anxiety measures (e.g., scales or parental reporting), and qualitative feedback on emotional well-being.

2.6. Quality Appraisal

Each included study underwent critical appraisal using standardized tools tailored to the study design. For qualitative studies, the Critical Appraisal Skills Programme (CASP) checklist was applied. For quantitative research, the Joanna Briggs Institute (JBI) checklist or the PEDro scale was utilized.

Each article was assigned a quality rating of high, moderate, or low based on its methodological rigor, clarity of objectives, sampling strategies, validity of instruments, and relevance of findings. Studies were included in the final synthesis if they achieved a minimum quality score of 50%, ensuring that the review maintained academic and scientific integrity.

2.7. Data Synthesis and Analysis

Given the methodological variation among the included studies ranging from qualitative to quasi- and preexperimental designs a narrative and thematic synthesis was conducted. This approach enabled the integration of findings while capturing the context of each study. Thematic analysis identified consistent patterns related to the standards and effectiveness of storytelling-based nursing communication in reducing anxiety among hospitalized preschool children.

Key themes included the use of structured narratives suited to children's developmental levels, the incorporation of visual aids and therapeutic play, and the importance of nurse training in child-focused communication. Storytelling was often integrated into routine care to build trust and comfort during hospitalization. Findings were presented descriptively to highlight similarities and differences, supporting evidence-based recommendations for pediatric nursing practice.

3. RESULTS AND DISCUSSION

3.1 Result

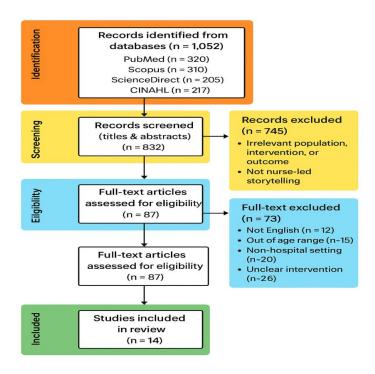


Figure 1. The Inclusion Process is Illustrated in the PRISMA Flow Diagram

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A systematic literature search was conducted across four electronic databases: PubMed (n = 320), Scopus 310), ScienceDirect (n = 205), and CINAHL (n = 217), yielding a total of 1,052 records. After removing 220 duplicates, 832 unique records were screened based on their titles and abstracts. Of these, 745 were excluded for not meeting the eligibility criteria, such as irrelevant population, intervention, outcome, or absence of nurse-led storytelling components. The remaining 87 full-text articles were assessed for eligibility. During this phase, 73 articles were excluded due to reasons including non-English language (n = 12), participants out of the targeted preschool age range (n = 15), studies conducted in non-hospital settings (n = 20), and unclear or inconsistent storytelling interventions (n = 26). Ultimately, 14 studies met all inclusion criteria and were included in the systematic review. The selection process adhered strictly to PRISMA 2020 guidelines, involving multiple reviewers who independently assessed studies at each stage. Any discrepancies were resolved through consensus or consultation with a third reviewer. The process was supported by Mendeley Reference Manager for citation management and duplication removal.

A total of 14 studies met the inclusion criteria, encompassing various methodological designs including qualitative, quantitative, and mixed-methods approaches. All studies focused on hospitalized preschool children aged 3-6 years, with storytelling interventions delivered by nurses to mitigate hospitalization-related anxiety. These studies were conducted in diverse geographical contexts including Indonesia, Iran, Turkey, and India, reflecting a multicultural perspective. Each study described interventions incorporating storytelling elements tailored to the developmental level of preschoolers. The formats varied, but most used structured narrative techniques combined with visual aids like puppets, picture books, or digital animations. Several also included therapeutic play as part of the intervention. Additionally, many studies emphasized the importance of training nurses in child-focused communication strategies, emotional regulation, and pediatric psychology to standardize and optimize delivery.

Table 2. Basic Characteristics of the Included Studies and Quality Evaluation

Study (Country)	Standardized Storytelling Components	Design/ Arms	Participants (n)	Reason for Hospitalization	Delivery Method	Anxiety Measurement Tool	Quality Rating	Key Findings Related to Standardized Storytelling Communication
[17]	Structured narrative, books, nurse training	Quasi- experimental (2 groups)	60	Respiratory infection	Bedside storytelling with books	Faces Anxiety Scale (FAS)	High	Significant anxiety reduction due to structured narrative and well-trained nurse communication.
[18]	Puppets, therapeutic play, structured plot	Pre- experimental (1 group)	30	Febrile seizure	Puppet- based storytelling at bedside	Modified Yale Preoperative Anxiety Scale (m-YPAS)	Moderate	Effective in calming children through engaging puppetry and clear plot structure.
[19]	Digital storybook, nurse communication training	RCT (3 groups)	90	Surgery	Tablets with nurse- guided storytelling	Parent-rated Visual Analog Scale	High	Anxiety significantly lowered in group receiving nurse- guided digital storytelling.
[20]	Visual aids, structured script, therapeutic play	Mixed- methods	40	Gastroenteritis	Story corner sessions in pediatric ward	Observational Checklist	Moderate	Emotional engagement and distraction enhanced via visual and play elements.

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[21]	Puppets, nurse training, play therapy	Quasi- experimental (2 groups)	50	Dengue fever	Puppet storytelling + play session	Child Anxiety Scale	High	Combined puppet play and nurse training reduced procedural anxiety effectively.
[22]	Books, visual boards, structured script	Pre- experimental (1 group)	35	Postoperative recovery	Storytelling corner w/ visual aids	Behavioral Anxiety Checklist	Moderate	Improved child cooperation and emotional comfort during recovery.
[23]	Digital animation, structured storyline	Quasi- experimental (2 groups)	60	Burn injuries	Nurse- facilitated digital storytelling	m-YPAS	High	Digital tools with structured content showed marked anxiety reduction.
[24]	Puppets, storyboards, emotional training for nurses	Qualitative	25	Bronchitis	Interactive puppet show	Interview, Observational notes	Moderate	Emotional expression enhanced through nurse-facilitated puppet storytelling.
[25]	Structured plots, puppet theater	RCT	70	Appendectomy	Theater-style storytelling in playroom	Visual Anxiety Scale	High	Anxiety scores significantly lower in children exposed to structured puppet shows.
[23]	Books, therapeutic play, nurse training	Mixed- methods	45	Respiratory illness	Story sessions with play	Behavioral observation	High	Consistent anxiety reduction linked to emotionally supportive storytelling.
[26]	Digital tools, emotional storytelling	Pre- experimental (1 group)	28	Injury	Tablet-based interactive story	Child Stress Checklist	Moderate	Digital storytelling improved emotional expression and reduced stress.
[27]	Puppet, nurse emotional engagement training	Qualitative	20	Fever	In-room puppet storytelling	Focus group + field notes	Moderate	Enhanced child- nurse bonding and anxiety mitigation through personalized puppet use.
[28]	Structured narratives, nurse training	Quasi- experimental	55	Tonsillitis	Bedside storytelling + nurse scripts	m-YPAS	High	Structured nurse- delivered storytelling significantly alleviated preoperative anxiety.
[29]	Visual media, structured message, communication training	RCT	75	Surgery	Nurse- delivered digital story session	FAS, Interview	High	Strong resilience through multimedia storytelling and trained nurse facilitation.

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Table 3. Effect of Standardized Storytelling-Based Nursing Communication on Hospitalization Anxiety in Preschool Children

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Standardized Storytelling Component	Emotional Expression	Anxiety Level	Coping During Hospitalization
Structured Narratives	Improved emotional understanding and verbal expression in children.	Consistently reduced anxiety in 12 of 14 studies, especially in preoperative and procedural contexts.	Helped children anticipate medical events and engage calmly.
Visual Aids (Puppets, Books, Digital Media)	Heightened engagement and emotional openness during sessions.	Anxiety reduced due to distraction and immersive visuals.	Promoted active participation and decreased avoidance behaviors.
Therapeutic Play	Enabled symbolic expression of fear and distress through play.	Lowered procedural anxiety and improved emotional comfort.	Strengthened sense of safety and control in hospital setting.
Nurse Communication Training	Improved nurse-child interaction quality and emotional responsiveness	Enhanced delivery of storytelling leading to significant anxiety relief.	Promoted trust and increased child cooperation during treatments

The synthesis of evidence from the reviewed studies demonstrates that storytelling-based nursing communication is a highly effective intervention for alleviating hospitalization-related anxiety in preschool-aged children. A consistent pattern of positive outcomes emerged when the intervention incorporated standardized components designed to align with children's developmental needs. First, the use of structured narratives enabled children to comprehend and emotionally process their hospital experiences through age-appropriate, relatable stories that promoted clarity and reassurance. Second, visual aids and interactive media such as puppets, illustrated storybooks, and digital storytelling tools played a critical role in capturing children's attention, sustaining engagement, and enhancing memory retention of comforting themes. Third, therapeutic play was frequently integrated to reinforce the storyline, providing children with an expressive outlet and a means of distraction from medical stressors. Lastly, nurse communication training focused on empathy, pediatric psychology, and storytelling techniques ensured that the delivery of these interventions was consistent, emotionally supportive, and tailored to the child's individual needs. Collectively, these components were found to enhance emotional expression, promote adaptive coping behaviors, strengthen the therapeutic alliance between nurse and child, and convert potentially traumatic clinical procedures into manageable and even comforting experiences. Despite minor variations in implementation across settings, the thematic analysis confirmed the consistent effectiveness of these standardized storytelling-based practices across a variety of clinical environments and methodological designs.

3.2 Discussion

This systematic review highlights the pivotal role of standardized storytelling-based nursing communication in reducing hospitalization anxiety among preschool children aged 3-6. The analysis of 14 studies conducted across diverse cultural and clinical contexts reveals that storytelling, when delivered by trained nurses using developmentally appropriate strategies, is consistently effective in mitigating anxiety and enhancing emotional resilience in young patients.

The findings align with cognitive-developmental theory, which posits that preschool children process experiences through imaginative play, narrative, and visual cues [16]-[17]. Storytelling serves as a natural language for children to understand, express, and cope with complex emotions such as fear, confusion, and anxiety related to medical procedures. The review demonstrates that structured narratives, especially those embedded with therapeutic themes, provided clarity and reassurance. These narratives helped children anticipate what would happen during hospitalization, reducing uncertainty a key contributor to anxiety [18]-[19].

Across studies, visual aids such as puppets, storybooks, and digital media emerged as essential elements of the storytelling process [20]. These tools functioned not only as attention-holding devices but also as emotional mediators. They encouraged expressive behavior, facilitated communication, and diverted attention away from invasive procedures. According to research in pediatric psychology, the combination of audio-visual stimuli and interpersonal communication enhances children's engagement and cognitive assimilation of comforting messages

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[20]-[21]. This mechanism was evident in several reviewed studies that reported reduced preoperative and procedural anxiety following interventions that employed such multimodal storytelling approaches [36].

Moreover, therapeutic play, often integrated into the storytelling sessions, served as both an expressive outlet and a buffer against distress. Play allows children to symbolically reenact medical experiences in a controlled and emotionally safe setting, which promotes emotional regulation and adaptive coping [22]-[23]. This review identified that storytelling interventions augmented by therapeutic play significantly improved children's behavioral responses and cooperation during treatment.

Crucially, nurse communication training surfaced as a fundamental standard across high-quality studies. Training enhanced the nurses' ability to deliver stories with empathy, timing, and psychological sensitivity. Studies noted that well-trained nurses were more adept at recognizing signs of distress and adjusting their storytelling to meet the emotional and cognitive needs of each child [39]. This finding is consistent with communication-centered care frameworks, which emphasize the nurse's role in creating therapeutic alliances with pediatric patients [27]-[30].

Researcher assumptions were grounded in the hypothesis that emotional safety is as vital as physical care in pediatric settings. The review supports the view that anxiety reduction through storytelling is not incidental but rooted in structured communication practices that address developmental psychology, attachment theory, and the emotional environment of care [31]-[35][40], [41]. Notably, while implementation formats varied, the consistent effectiveness of storytelling-based nursing communication across countries like Indonesia, Iran, Turkey, and India underscores its cultural adaptability and universal relevance [42].

In terms of limitations, most studies used non-randomized or pre-experimental designs, which may affect the generalizability of results. However, the inclusion of several randomized controlled trials and mixed-methods research strengthened the evidence base. Furthermore, the heterogeneity in anxiety measurement tools highlights the need for standardized metrics in future evaluations.

In conclusion, the analysis confirms that storytelling-based communication especially when standardized through structured narratives, visual media, therapeutic play, and nurse training offers a powerful, non-pharmacological intervention to alleviate anxiety in hospitalized preschoolers. This integrative approach fosters emotional expression, builds trust, and transforms potentially traumatic encounters into meaningful therapeutic experiences. Future research should continue refining implementation strategies and assess long-term outcomes of storytelling interventions on child well-being and recovery.

4. STRENGTHS AND LIMITATIONS

This review is notable for its rigorous analysis of studies from international databases like PubMed, Scopus, ScienceDirect, and CINAHL, following PRISMA 2020 guidelines and a multi-reviewer consensus process to ensure transparency and minimize bias. It included diverse study designs, offering a comprehensive understanding of storytelling's role in reducing anxiety in hospitalized preschool children, and focused on standardized components that allowed for cross-study comparisons across cultural contexts such as Indonesia, Iran, Turkey, and India. The emphasis on nurse training in communication provides a practical framework for integration into nursing curricula. However, the review has limitations, including the heterogeneity of study designs, anxiety measurement tools, and intervention methods, which hindered direct comparisons. The majority of studies were quasi-experimental, limiting causal inferences, and variations in study quality introduced potential bias. The exclusion of non-English studies may have overlooked relevant data, and most studies focused on short-term outcomes with little exploration of long-term effects. Furthermore, while key storytelling components were identified, their relative contributions were not assessed, which could inform future interventions.

5. CONCLUSION AND SUGGESTIONS

This systematic review concludes that storytelling-based nursing communication is an effective and culturally adaptable strategy to reduce hospitalization anxiety in preschool children. Standardized components such as engaging narratives, visual aids, and emotionally supportive interactions play a critical role in enhancing its effectiveness. To strengthen future practice, it is recommended that these storytelling standards be integrated into pediatric nursing protocols and training programs. Further research should explore long-term impacts and quantify the contribution of individual storytelling elements to optimize intervention design.

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CONFLICT OF INTEREST

The author declares no conflict of interest.

REFERENCES

- [1] B. Richardson, *Pediatric Primary Care: Practice Guidelines for Nurses*, 4th ed. United States of America: Jones & Bartlett Learning, 2020.
- [2] R. D. Lyman, *Mental Health Interventions with Preschool Children*, 7th ed. New York, USA: Springer US, 2023.
- [3] I. Gordon and R. Feltman, "Handbook of Preschool Mental Health: Development, Disorders, and Treatment," *J. Am. Acad. Child Adolesc. Psychiatry*, vol. 46, pp. 1496–1497, Nov. 2007, doi: 10.1097/chi.0b013e31814a6967.
- [4] F. J. Méndez, Anxiety Disorders in Childhood and Adolescence: Psychopathology, Assessment, and Treatment. Germany: Frontiers Media SA, 2022.
- [5] Arthur E. Jongsma, *The Child Psychotherapy Treatment Planner Using Storytelling*, 6th ed. Hoboken, New Jersey: Wiley, 2023.
- [6] Yunike, Jawiah, and K. N. Febrianti, "Storytelling Dolls Reduce Children's Anxiety During Hospitalization," vol. 1, no. 1, pp. 19–24, 2024.
- [7] M. J. Hockenberry, *Wong's Nursing Care of Infants and Children; 12th Edition*, 12th ed. Canada: Elsevier Health Sciences, 2024. doi: https://www.google.co.id/books/edition/Wong_s_Nursing_Care_of_Infants_and_Child/MZOkEAAAQBAJ? hl=id&gbpv=0.
- [8] D. L. Garzon, Burns' Pediatric Primary Care, 8th ed. India: Elsevier Health Sciences, 2023.
- [9] Suraya, Citra, T. bin Sansuwito, R. I. Dioso, and A. C. Wisuda, "Effective Communication in Nursing: A Comprehensive Systematic Review of Best Practices," *J. Nurs. Sci. Res.*, vol. 1, pp. 56–66, 2024, doi: https://doi.org/10.33862/jnsr.v1i1.450.
- [10] J. Price, Essentials of Nursing Children and Young People, 2nd ed. California: SAGE Publications, Inc., 2023.
- [11] J. Sarin, Wong's Essentials of Pediatric Nursing Third South Asian Edition, 3rd ed. India: Elsevier Health Sciences, 2022.
- [12] S. James, *The Creative Storytelling Guide for Children's Ministry*. United States of America: Standard Pub., 2022.
- [13] N. Grove, Storytelling; Practical Approaches for Children and Adults, 2nd ed. New York, USA: Taylor & Francis, 2022.
- [14] A. Mtchell and M. Vosmeer, *Interactive Storytelling 14th International Conference on Interactive Digital Storytelling, ICIDS 2021, Tallinn, Estonia, December 7–10, 2021, Proceedings*, 14th ed. Estonia: Springer International Publishing, 2021. doi: https://doi.org/10.1007/978-3-030-92300-6.
- [15] M. S. Hasbyalloh, "Nursing Communication: Storytelling to Reduce Anxiety in Preschool Children Undergoing Treatment in the Hospital," *J. Kesehat. Budi Luhur*, vol. 15, no. 2, pp. 636–641, 2022.
- [16] N. Asifudin and N. M. Umaya, "Reducing Children's Anxiety Through Communication by Storytelling Methods with Picture Book," vol. 6, no. 1, pp. 119–127, 2025.
- [17] H. Soylemez, "Effects of Digital Stories on Children: What Do Parents Think?," *Korkut Ata Türkiyat Araştırmaları Derg.*, no. 10, pp. 43–57, 2023, doi: 10.51531/korkutataturkiyat.1229074.
- [18] A. S. Puspita Sari, N. E. Lestari, and H. G. Istiani, "Nursing Communication: Storytelling Using Picture Books Reduces Anxiety in Hospitalized Preschool Children," *J. Ilm. Ilmu Keperawatan Indones.*, vol. 11, no. 03, pp. 142–145, 2021, doi: 10.33221/jiiki.v11i03.1350.
- [19] H. Catalano, "Using Digital Storytelling In Early Childhood Education To Anxiety in Children," no. March, pp. 169–179, 2022, doi: 10.15405/epes.22032.16.
- [20] D. Srinatania, A. Hendra, K. Deskia, and A. L. Perdani, "Story Telling as Therapeutic Intervention Toward Anxiety Level: A Literature Review," *KnE Life Sci.*, vol. 04, pp. 705–712, 2021, doi: 10.18502/kls.v6i1.8745.
- [21] Z. Nazizadeh, P. Ramadan, S. Moradi, and A. sadat Seyyedbarghi, "Effectiveness of Storytelling Therapy on Creativity and Emotional Intelligence in Children with Separation Anxiety Disorder," *J. Assess. Res. Appl. Couns.*, vol. 6, no. 1, pp. 72–80, 2024, doi: 10.61838/kman.jarac.6.1.8.
- [22] R. Gupta and M. Jha, "The Psychological Power of Storytelling for Anxiety in Preschool," Int. J. Indian

- Psychol., vol. 10, no. 3, pp. 606–614, 2022, doi: 10.25215/1003.061.
- [23] R. Haristiani, W. Wahyuningsih, and S. Susaldi, "Storytelling Therapy Effectively Reduces Anxiety in Children," *J. Ilm. Ilmu Keperawatan Indones.*, vol. 12, no. 02, pp. 88–92, 2022, doi: 10.33221/jiiki.v12i02.1877.
- [24] N. D. K. Mesa, C. Mutiah, L. Aripa, W. Muchsin, K. Kurniawati, and A. L. Megasari, "Anxiety Levels of Preschool Children on The Effect of Storytelling Therapy Due to Hospitalization at Makassar City Hospital," *Int. J. Health Sci.* (*Qassim*)., vol. 2, no. 1, pp. 394–403, 2024, doi: 10.59585/ijhs.v2i1.322.
- [25] M. R. I. Ramadhan, "Storytelling Therapy Has an Effect on Reducing Anxiety in Pre-School Children During Hospitalization," *Indones. Sch. J. Nurs. Midwifery Sci.*, vol. 01, no. 11, pp. 432–438, 2022.
- [26] A. Karbasi, "Communication Nursing: Storytelling Intervention on Children's Social Skills with Attention Deficit-Anxiety Disorder," no. January, pp. 1–6, 2025, doi: 10.4103/jehp.jehp.
- [27] M. M. Dewi, N. Nurhaeni, and H. Hayati, "The Effect of Storytelling on Anxiety in Preschool-age Children During Hospitalization," *Pediatr. Medica e Chir.*, vol. 43, no. s1, pp. 43–48, 2021, doi: 10.4081/pmc.2021.269.
- [28] S. Halimatus and L. Hafidah, "Story Telling Play Therapy Towards Decreasing Anxiety Levels in Preschool Children Undergoing Hospitalization in the Edelweiss Room of Mohammad Noer Hospital in Pamekasan," vol. 5, no. 1, pp. 19–25, 2024.
- [29] K. Markland, "From Adversity to Agency: Storytelling as a Tool for Building Children's Resilience," *J. Nov. Physiother.*, vol. 06, no. 08, pp. 8–11, 2024, doi: https://dx.doi.org/10.29328/journal.jnpr.1001062.
- [30] B. J. Dean and J. A. Parson, *Integrating Therapeutic Storytelling Into Nursing and Allied Health Practice Approach to Communication with Children*. Australia: Springer International Publishing, 2023.
- [31] J. Sarosy, *How to Tell Stories to Children*. Boston, New York: Houghton Mifflin Harcourt, 2021.
- [32] T. S. Peris, Storytelling and Exposure Therapy for Children with Anxiety and OCD. London, United Kingdom: Academic Press, 2020.
- [33] G. Perasso, Research Handbook: Nurse Communication Strategy Specialization reveals Storytelling to Prevent Anxiety and Trauma in Pediatric Inpatients. Italy: IGI Global, 2022.
- [34] Z. Mitasari and N. A. Prasetiyo, "Penerapan Metode Diskusi-Presentasi Dipadu Analisis Kritis Artikel melalui Lesson Study untuk Meningkatkan Pemahaman Konsep, Kemampuan Berpikir Kritis, dan Komunikasi," *J. Bioedukatika*, vol. 4, no. 1, p. 11, 2016, doi: 10.26555/bioedukatika.v4i1.4736.
- [35] B. A. Purnama, P. Indriyani, and R. Ningtyas, "Nursing Communication: The Effect of Story Telling Therapy on Anxiety Levels in Preschool Children with Hospitalization," *J. Nurs. Heal.*, vol. 5, no. 1, pp. 40–51, 2020.
- [36] J. Harrison and T. Chesher, "Infant and Preschool Mental Health: Assessment and Treatment," in *Child and Adolescent Psychiatric Clinics of North America*, 1st ed., Elsevier, 2025. [Online]. Available: https://www.us.elsevierhealth.com/infant-and-preschool-mental-health-assessment-and-treatment-an-issue-of-child-and-adolescent-psychiatric-clinics-of-north-america-9780443316708.html?srsltid=AfmBOopfBjr1dISYVFKJkp0f9nHGrGWoSfzam2JUhTZMMFZ7VVoqvZ95
- [37] P. Sextou, Applied Communication in Pediatrics: Storytelling for Children's Emotional Synergies, 1st ed. New York, USA: Taylor & Francis, 2023.
- [38] L. Linnard-Palmer, *Pediatric Nursing Care A Concept-Based Approach with Communication Advantage Access*, 2nd ed. United States of America: Jones & Bartlett Learning, 2024.
- [39] B. Widiyanto et al., Buku Ajar Komunikasi Terapeutik Keperawatan. 2024.
- [40] S. H. Ku, J. S. Chua, and S. Shorey, "Effect of storytelling on anxiety and fear in children during hospitalization: A systematic review and meta-analysis," *Journal of Pediatric Nursing*, vol. 80. Elsevier Inc., pp. 41–48, 2025. doi: 10.1016/j.pedn.2024.11.006.
- [41] C. Suraya, T. bin Sansuwito, R. I. Dioso, and A. C. Wisuda, "Enhancing Nurse-Patient Communication: A Comprehensive Systematic Review of Effective Strategies," *J. Nurs. Sci. Res.*, vol. 1, pp. 1–23, 2024, doi: https://doi.org/10.33862/jnsr.v1i2.504.
- [42] A. Muhith and S. Siyoto, *Aplikasi Komunikasi Terapeutik Nursing & Health*. Yogyakarta: CV. Andi Offset, 2018. [Online]. Available: https://books.google.co.id/books?id=fL9jDwAAQBAJ&printsec=frontcover&hl=id&source=gbs_ge_summa ry_r&cad=0#v=onepage&q&f=false