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Play-Based Emotional Training and Engagement for Normalizing Distress (Pretend) in Preschool Children at Provincial General Hospital of North Sulawesi

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Abstract

Hospitalization can trigger emotional distress in preschool children due to separation, unfamiliar surroundings, and invasive procedures. This study aimed to determine the effectiveness of Play-Based Emotional Training and Engagement for Normalizing Distress (PRETEND) in reducing emotional distress. A quasi-experimental design with a pretest-posttest control group involved 44 children aged 3–5 years at the North Sulawesi Provincial Hospital (2025), divided into intervention (n=22) and control (n=22) groups. Distress was measured using the OSBD-R, as well as questionnaires on child involvement, parental satisfaction, and perceived benefits. The results showed a significant decrease in distress scores in the intervention group from 6.77 ± 1.27 to 0.45 ± 0.67 , while the control group remained high (5.36 ± 1.56). Child involvement was classified as moderate–high, parental satisfaction was very high, and program perceptions were very positive. It was concluded that PRETEND was effective in reducing emotional distress and increasing parental involvement and satisfaction. This intervention is recommended as part of child closure practice, with further research to assess long-term effects.

Keywords: *distress, emotional regulation, pediatric nursing, play therapy, preschool children, pretend play*

Abstrak

Hospitalisasi dapat memicu distress emosional pada anak pra-sekolah akibat perpisahan, lingkungan asing, dan tindakan invasif. Penelitian ini bertujuan mengevaluasi efektivitas *Play-Based Emotional Training and Engagement for Normalizing Distress (PRETEND)* dalam menurunkan distress emosional. Desain kuasi-eksperimen dengan pretest-posttest kelompok kontrol melibatkan 44 anak usia 3–5 tahun di RSUD Provinsi Sulawesi Utara (2025), yang dibagi menjadi kelompok intervensi (n=22) dan kontrol (n=22). Distress diukur menggunakan OSBD-R, serta kuesioner keterlibatan anak, kepuasan orang tua, dan persepsi manfaat. Hasil menunjukkan penurunan signifikan skor distress pada kelompok intervensi dari $6,77 \pm 1,27$ menjadi $0,45 \pm 0,67$, sementara kelompok kontrol tetap tinggi ($5,36 \pm 1,56$). Keterlibatan anak tergolong sedang–tinggi, kepuasan orang tua sangat tinggi, dan persepsi program sangat positif. Disimpulkan bahwa PRETEND efektif menurunkan distress emosional dan meningkatkan keterlibatan serta kepuasan orang tua. Intervensi ini direkomendasikan sebagai bagian praktik keperawatan anak, dengan penelitian lanjutan untuk menilai efek jangka panjang.

Kata Kunci: anak prasekolah, bermain peran, keperawatan pediatrik, kecemasan, regulasi emosi, terapi bermain



Introduction

Hospitalization is a critical experience for preschool children, often accompanied by fear, anxiety, and emotional distress due to unfamiliar environments, separation from parents, invasive procedures, and loss of control. Globally, millions of children are hospitalized every year, and a substantial proportion experience psychological distress during medical treatment and hospitalization. Studies show that hospitalization can trigger maladaptive behaviors such as crying, withdrawal, and aggression, which may interfere with medical procedures and recovery (Godino-Iáñez et al., 2020). Preschool children, aged 3–5 years, are particularly vulnerable because they are in the developmental stage where imagination and symbolic play are key tools for emotional understanding and expression (Richard et al., 2021).

Play therapy, particularly pretend play, provides opportunities for children to express feelings, reenact experiences, and gain a sense of mastery over stressful situations (Abdi et al., 2025). Through role-playing, storytelling, and emotional labeling, children can process hospital experiences in a safe and controlled manner, fostering adaptive coping mechanisms. Evidence suggests that structured therapeutic play significantly reduces anxiety, fear, and distress in pediatric patients (Aranha et al., 2024; Hüzmeli et al., 2024). However, in Indonesia, structured pretend play interventions led by nurses remain underutilized in hospital settings, often limited by lack of training and institutional support.

Nurses play a vital role in addressing not only physical but also psychosocial needs of hospitalized children. Integrating nurse-led play-based emotional training aligns with holistic care principles, emphasizing emotional well-being as part of recovery. The novelty of this study lies in implementing a structured nurse-led pretend play program (PRETEND) in an Indonesian hospital context, providing empirical evidence where such interventions are scarce. The PRETEND (Play-Based Emotional Training and Engagement for Normalizing Distress) program was developed as an evidence-based intervention focusing on emotional education, guided pretend play, and parental involvement to reduce behavioral distress and promote positive adaptation during hospitalization.

Therefore, this study aimed to evaluate the effectiveness of the PRETEND program in reducing emotional distress among hospitalized preschool children using the Observational Scale of Behavioral Distress-Revised (OSBD-R). Secondary objectives included assessing child engagement, parental satisfaction, and perceived benefits of the intervention. The findings are expected to inform pediatric nursing practice in Indonesia by emphasizing the importance of integrating structured play interventions to improve emotional well-being and support holistic pediatric care during hospitalization.

Methods

This study employed a quasi-experimental design with a pretest–posttest control group to evaluate the effectiveness of the PRETEND (Play-Based Emotional Training and Engagement for Normalizing Distress) program in reducing emotional distress among hospitalized preschool children. The research was conducted in 2025 at the Provincial General Hospital of North Sulawesi, involving children aged 3–5 years. A total of 44 participants were recruited using purposive sampling, with 22 assigned to the intervention group and 22 to the control group.



The intervention consisted of the PRETEND program, delivered over three sessions of 30 minutes each, featuring structured activities such as storytelling, role-playing, emotional labeling, and guided reflection facilitated by trained nurses. Emotional distress was measured using the Observational Scale of Behavioral Distress–Revised (OSBD-R), in which higher scores indicate more severe distress. Children’s participation in the program was assessed with the Engagement Scale, where higher scores reflect greater attention and active involvement. Parental satisfaction was evaluated through the Parent Satisfaction Questionnaire, with higher scores indicating greater satisfaction with the intervention, while the Perceived Benefit Questionnaire assessed parents’ perception of program benefits, with higher scores representing more positive perceived outcomes.

Data were analyzed using descriptive statistics, the Wilcoxon Signed-Rank Test to examine pre–post changes within the intervention group, and the Mann–Whitney U Test to compare outcomes between groups. Ethical approval was obtained from the Hospital Research Ethics Committee, and informed consent was secured from all participating parents prior to data collection. Ethical approval was obtained from the Hospital Research Ethics Committee, and informed consent was secured from all participating parents prior to data collection.

Results

Table 1. Distress Scores (OSBD-R)

Group	N	Mean ± SD	Min	Max	Category
Pre-Intervention	22	6.77 ± 1.27	4	8	High Distress
Post-Intervention	22	0.45 ± 0.67	0	2	Low Distress
Control Group	22	5.36 ± 1.56	3	8	High Distress

Table 1. The OSBD-R scores showed a significant reduction in distress for the intervention group. Pre-intervention, the mean score was 6.77 ± 1.27 (range 4–8, high distress), which decreased to 0.45 ± 0.67 (range 0–2, low distress) post-intervention. The control group remained high, with a mean score of 5.36 ± 1.56 (range 3–8). These results suggest that the PRETEND play-based intervention effectively lowers distress in preschool children.

Table 2. Non-Parametric Test Results

Test	Comparison	Statistic	p-value	Interpretation
Wilcoxon Signed-Rank	Pre vs Post (Intervention)	Z = 4.10	< 0.001	Significant decrease in distress
Mann-Whitney U	Post-Intervention vs Control	U = 0	< 0.001	Significant group difference

Table 2. Non-parametric analysis demonstrated a significant reduction in distress following the intervention. The Wilcoxon signed-rank test showed a significant decrease in distress scores from pre- to post-intervention ($Z = 4.10$, $p < 0.001$). Furthermore, the Mann-Whitney U test revealed a significant difference between the post-intervention and control groups ($U = 0$, $p < 0.001$), indicating that the intervention group experienced lower distress compared to the control group.



Table 3. Engagement, Satisfaction, and Perceived Benefits

Variable	Mean \pm SD	Max Score	Interpretation
Child Engagement	10.86 \pm 2.95	15	Moderate–High Engagement
Parental Satisfaction	32.77 \pm 2.93	35	Very High Satisfaction
Perceived Benefit	14.09 \pm 1.11	15	Very Positive Perception

Table 3 shows the evaluation of the PRETEND intervention indicated positive responses from both children and parents. Child engagement during the sessions was 10.86 ± 2.95 out of 15, reflecting moderate to high engagement. Parental satisfaction was very high, with a mean score of 32.77 ± 2.93 out of 35. Similarly, perceived benefits of the program were rated very positively, with a mean score of 14.09 ± 1.11 out of 15. These findings suggest that the intervention was well-received and perceived as beneficial by participants and caregivers.

Discussions

Child Engagement

Child engagement during the PRETEND intervention was recorded in the Moderate–High category, with an average score of 10.86 ± 2.95 . This finding indicates that most children were able to actively participate in each intervention session. Theoretically, this aligns with Piaget's cognitive development theory, which states that preschool children (aged 3–5) are in the preoperational stage, where imagination, symbolic play, and exploration are the primary tools for understanding the world and expressing emotions (Piaget, 1962). Furthermore, Vygotsky's theory of socio-cognitive development emphasizes that interactions with adults and a play-supportive environment enable children to internalize emotional control and social skills through guided learning (Vygotsky, 1978). In the context of PRETEND, activities such as role-playing, storytelling, and emotional labeling provide stimulation appropriate to children's cognitive abilities, enabling them to engage actively and enjoyably.

Previous research supports these findings. Aranha et al. (2024) found that structured guided play interventions increased children's active participation during medical procedures, reduced anxiety, and improved emotional regulation skills. Hüzmele et al. (2024) also reported that children engaged in guided pretend play demonstrated higher levels of attention and concentration than the control group, and were more able to express their feelings and discomfort during hospitalization. Field data from this study are consistent with these findings; during PRETEND sessions, many children enthusiastically participated in role-playing and storytelling, waited their turn to play, and expressed their emotions both verbally and non-verbally. For example, some children who initially appeared anxious upon entering the inpatient room, after engaging in play, displayed calmer facial expressions and were able to follow the nurse's instructions.

This high level of engagement is important because research shows that children's active participation is key to the success of therapeutic interventions. Richard et al. (2021) stated that pretend play allows children to symbolically process the hospital experience, thereby reducing their fear and improving their coping skills. Thus, the PRETEND results confirm that play-based interventions tailored to a child's developmental stage can significantly increase engagement, which in turn supports emotional regulation and a child's readiness for medical procedures.



Parental Satisfaction

The results of the study showed that parental satisfaction with the PRETEND intervention was in the Very High category, with an average score of 32.77 ± 2.93 . Parental satisfaction is an important indicator because parents not only act as companions but also determine the success of their child's interaction with the hospital environment. Theoretically, this aligns with family-centered care theory, which emphasizes the importance of involving parents in the child's care process to support emotional well-being and overall health (Zgambo, 2025). Through participatory interventions, parents can directly observe changes in their child's behavior, strengthen their trust in medical staff, and feel an active role in their child's care (White-Traut R, 2025).

Furthermore, attachment and emotional security theories also explain the relationship between parental involvement and satisfaction. When children face stressful situations such as medical procedures or hospitalization, parental presence and positive interactions through play help build a sense of security (Godor, 2024). This also improves parents' perceptions of the intervention's effectiveness, as they can witness their child expressing emotions, following instructions, and interacting positively with nurses. In other words, parental satisfaction is influenced not only by the final outcome (reduced child distress), but also by the intervention process, which actively involves them (Ding D, 2025).

Previous research supports these findings. Day et al. (2024) reported that a family-based play intervention increased positive interactions between children and parents, strengthened trust in healthcare professionals, and increased parental satisfaction with the overall hospital experience. Furthermore, Romito et al. (2021) emphasized that the nurse's role in facilitating structured play can strengthen collaboration between nurses and families, resulting in a more enjoyable hospitalization experience for both children and parents.

Field observations in this study showed that parents responded positively during and after the PRETEND intervention. Many parents reported that their children became calmer, more cooperative, and able to express their feelings openly. Some parents also mentioned that they felt more prepared to support their children in dealing with medical procedures after seeing how their children successfully channeled their emotions through role-playing. This suggests that interventions not only provide direct benefits to children, but also enhance parental experiences, which in turn may support successful treatment and child recovery.

Perceived Benefits

Perceived benefits, measured through a questionnaire, showed an average score of 14.09 ± 1.11 , which falls into the Very Positive category. Perceived benefits reflect the extent to which parents perceive the intervention to have a tangible impact on their children, both in terms of emotional well-being, ability to cope with medical procedures, and social skills. In theory, Erikson's (1950) concept of psychosocial development suggests that positive experiences during early childhood help build a sense of security, self-control, and the ability to face challenges. The PRETEND intervention provides safe and structured play experiences, allowing children to express emotions, learn coping strategies, and gain control over stressful hospital situations.

Perceived benefits are not only related to reduced distress but also to short- and long-term impacts on children (Padillo-Andicoberry, 2025). For example, parents reported that their children adapted more easily to the hospital environment, were more cooperative during



procedures, and exhibited positive behaviors after participating in the program. This supports the findings of Verhoeven et al. (2025) showed that nurse-based and family-involved interventions increased parents' perceptions of benefits, helped children cope with the hospital experience, and strengthened parents' confidence in their children's abilities. Other studies have also shown that the use of therapeutic play helps children process fear, reduces anxiety before procedures, and increases emotional readiness, which directly increases perceptions of benefits from a parental perspective (Pangalila, 2024; Israeli et al., 2023).

Furthermore, perceived benefits are influenced by active parental involvement during the intervention. The PRETEND program emphasizes parental participation through mentoring and emotional reflection, allowing them to directly observe how children express their feelings and learn coping strategies. Field observation data shows that parents actively provide support when children participate in storytelling and role-playing. Many parents expressed joy and relief when seeing their children express fears or anxieties in a healthy way through play. This suggests that perceived benefits are multidimensional, encompassing the child's emotional outcomes, the quality of child-parent interactions, and parental belief in the intervention's effectiveness.

From a nursing practice perspective, a high perceived benefit indicates that the PRETEND intervention is accepted not only by the child but also by the parents as an integral part of holistic care (Francis, G, 2022). Parents who recognize the program's benefits are more likely to support the intervention's continuation, facilitate child engagement, and strengthen the relationship between the family and healthcare providers. This aligns with the principles of family-centered care, where positive parental experiences contribute to successful care and the child's adaptation (Day et al., 2024; Romito et al., 2021).

Furthermore, perceived benefits can be an indicator of the program's long-term potential. When children and parents experience positive and rewarding play experiences, they are better prepared for subsequent medical procedures and better able to cope with stress in the hospital or other clinical setting (Jensen M, 2025). Several parents in this study even reported that their children demonstrated increased independence, improved emotional expression, and ability to follow instructions, confirming the program's sustained impact. Thus, perceived benefits are not simply quantitative scores but reflect real changes in children's behavior and emotional experiences, providing empirical evidence of PRETEND's effectiveness.

Overall, high perceived benefits support the findings of reduced child distress and improved engagement and provide further evidence that this intervention is feasible for routine implementation in hospitals. Play-based interventions like PRETEND not only benefit children individually but also strengthen family interactions, increase parental satisfaction, and support holistic pediatric nursing practice. These results confirm that perceived benefits are an important indicator of program success and inform recommendations for integrating PRETEND into broader pediatric care protocols.

Conclusions

The Play-Based Emotional Training and Engagement for Normalizing Distress (PRETEND) program was proven effective in reducing emotional distress among hospitalized preschool children, enhancing child engagement during the intervention, and achieving very high levels of parental satisfaction and perceived benefits. These findings indicate that nurse-led



play-based interventions can serve as an effective non-pharmacological strategy to support children's emotional well-being during hospitalization. Therefore, it is recommended that the PRETEND program be integrated into routine pediatric nursing practice, supported by nurse training, provision of adequate play facilities, and the development of guidelines and training modules to facilitate its broader implementation across hospitals.

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