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The Application of Play Therapy Using Colored Paper Stickers to Improve Fine Motor Skills in Children Hospitalized at UNS Hospital in Sukoharjo

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Abstract

Hospitalization may restrict children's opportunities for play and developmental stimulation, potentially affecting their fine motor engagement during treatment. This study aimed to describe changes in fine motor skills following the application of colored-paper sticker play therapy among preschool children hospitalized at UNS Hospital in Sukoharjo. A descriptive quantitative design was conducted in the Kreativa Ward of UNS Hospital involving three preschool children aged 5–6 years selected according to predetermined inclusion criteria. Data were collected using an observation sheet administered before and after the intervention, covering paper grasping, glue application, hand-eye coordination, attachment accuracy, finger use, and concentration. Data were analyzed descriptively by comparing the observed conditions before and after the intervention across the assessed indicators. The findings showed positive changes in all observed aspects of fine motor performance, including more skilled use of the thumb and index finger, greater independence in applying glue, improved hand-eye coordination, more accurate attachment according to the picture pattern, increased finger activity and flexibility, and greater concentration. The children also demonstrated increased interest, cooperation, participation, and independence during the activity. These findings indicate that colored-paper sticker play can provide a simple and developmentally appropriate activity for integrating fine motor stimulation with therapeutic play during pediatric hospitalization. Further research with larger samples and standardized measurement instruments is recommended.

Keywords: Colored Paper, Fine Motor Skills, Hospitalization, Play Therapy, Preschool Children.



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INTRODUCTION

Children undergoing hospitalization frequently experience anxiety, boredom, unfamiliar environmental conditions, and restrictions on ordinary play activities, creating a developmental context in which opportunities for spontaneous stimulation are substantially reduced. Hospital routines dominated by medical procedures may limit children's engagement in activities requiring purposeful manipulation, visual attention, and coordinated use of the small muscles of the hands and fingers, even though these capacities remain important components of preschool development. Play therapy has increasingly been incorporated into pediatric healthcare as a developmentally appropriate approach that integrates psychological support with meaningful activity rather than positioning play merely as entertainment during periods of waiting. Evidence from a randomized controlled trial demonstrates that play therapy and storytelling can reduce anxiety among hospitalized children, indicating that structured play can modify children's responses to hospitalization and facilitate more adaptive experiences of care (Abdi et al., 2025). Medical play has similarly been shown to reduce hospitalization-related anxiety among preschool children, supporting the incorporation of play-based approaches into nursing interventions for children facing unfamiliar clinical procedures (Andriastuti et al., 2025). From a developmental perspective, fine motor abilities involving grasping, manipulation, finger control, and visual-motor coordination remain essential because preschool children are progressively developing greater independence in everyday activities and purposeful interaction with their environment (Hurlock, 2018). The restriction of ordinary play during hospitalization therefore raises not only a psychosocial

concern but also a developmental concern regarding the continuity of stimulation required during early childhood.

The developmental role of play becomes particularly important when children must remain in an inpatient environment because illness and treatment can interrupt ordinary opportunities for movement, exploration, and creative activity. Pediatric nursing frameworks emphasize that nursing care should consider children's developmental characteristics and provide interventions appropriate to their age, emotional needs, and capacity for active participation (Nursalam, 2020). Therapeutic play can create structured opportunities for children to remain engaged while providing a more familiar and controllable activity within an unfamiliar healthcare environment. Research involving therapeutic puppet play has demonstrated reductions in anxiety among hospitalized children, indicating that play can function as a meaningful component of supportive care rather than merely a recreational diversion (Ningrum & Wanda, 2024). Similarly, puzzle-based play has been applied to reduce anxiety among young children undergoing hospitalization for serious illness, illustrating the adaptability of play interventions across clinical populations and developmental circumstances (Patrianto et al., 2025). These findings suggest that the therapeutic value of play is partly determined by the characteristics of the activity and the extent to which it provides children with active, age-appropriate participation.

Fine motor stimulation within therapeutic play warrants particular attention because many activities that appear recreational require children to perform controlled and coordinated movements involving the fingers, hands, and eyes. Evidence from preschool settings demonstrates that LEGO-based play can improve fine motor skills, supporting the proposition that structured manipulation of tangible materials can generate measurable developmental stimulation (Afriana et al., 2026). Research using augmented-reality cards has similarly reported improvements in memory and fine motor skills, although technologically mediated activities may require equipment and environmental conditions that are not consistently available in routine pediatric wards (Hamdani et al., 2022). A meta-analysis of exercise interventions further indicates that activities designed to enhance hand-eye coordination can contribute to improvements in fine motor performance, emphasizing the importance of coordinated visual and manual engagement in children's motor development (Shi et al., 2025). Evidence from creative movement and seated play interventions suggests that different forms of structured activity can produce distinct effects on children's motor performance, highlighting the importance of selecting play activities according to the intended developmental outcome rather than assuming that all forms of play provide equivalent stimulation (Su et al., 2024). Collage activities are particularly relevant because tearing, holding, positioning, pressing, and attaching small pieces of paper require repeated controlled movements that directly involve visual-motor coordination and finger dexterity. Such activities may provide a practical bridge between therapeutic play and purposeful fine motor stimulation during periods when children's usual developmental activities are disrupted by hospitalization.

Despite the expanding evidence base, important limitations remain concerning the application of simple creative play specifically to fine motor development among hospitalized preschool children. A substantial proportion of hospital-based play research continues to evaluate interventions primarily through anxiety, fear, or behavioral outcomes, leaving developmental outcomes comparatively underexamined. Paper-based Kokoru play has been investigated primarily in relation to hospitalization-related anxiety rather than changes in fine motor performance, although its use demonstrates that accessible paper materials can be integrated into therapeutic activities for preschool children (Khasanah & Oktarina, 2024). Likewise, collage therapy using origami paper has been associated with reduced anxiety among preschool children, but the motor demands embedded within the activity have received less explicit empirical attention (Khoirunisa et al., 2025). A systematic review of play therapy among hospitalized children with cancer indicates potential benefits for psychological outcomes while also revealing heterogeneity in intervention types, outcome measures, and clinical populations (Nazari et al., 2025). This imbalance creates a conceptual gap because an intervention may simultaneously reduce distress and stimulate development, whereas research designs focused primarily on anxiety can overlook the developmental mechanisms embedded in children's active participation. National guidance emphasizing continuous stimulation, detection, and early intervention for child development further supports the importance of maintaining developmental opportunities when children's ordinary environments are disrupted by hospitalization (Kementerian Kesehatan Republik Indonesia, 2022).

The issue carries scientific and practical importance because hospitalization temporarily changes the physical and social environment in which children ordinarily acquire and consolidate

developmental skills. Pediatric care that focuses predominantly on disease management may unintentionally provide fewer opportunities for children to perform age-appropriate activities involving exploration, manipulation, concentration, and creative expression. Play offers a mechanism for maintaining such engagement while remaining compatible with children's psychological need for comfort and predictability during medical treatment. Research on play as a mediation approach in hospitalized children emphasizes its broader potential to support adaptation to the hospital environment, positioning play as an important element of child-centered care (Saputra et al., 2023). Psycho-educational play has also been reported to support occupational activity and fine motor skills among children with acute lymphoblastic leukemia during hospitalization, providing evidence that developmental outcomes can be incorporated into hospital-based play interventions (Taverna et al., 2019). Creative play has been conceptualized as a means of supporting children's cognitive, emotional, social, and motor development through activities that encourage active participation and expression (Suryani, 2021). The implementation of developmentally oriented play approaches in special-school settings further illustrates the importance of translating structured play models into real-world service environments rather than limiting them to controlled research contexts (Wadley & Stagnitti, 2024).

Within this landscape, the present research positions colored-paper sticker play therapy as a developmentally oriented nursing intervention that connects the psychosocial function of therapeutic play with the physical demands of fine motor activity. The intervention is particularly relevant to hospitalized preschool children because it uses simple materials while requiring actions such as grasping, manipulating, positioning, pressing, and coordinating visual information with controlled hand and finger movements. The approach retains the established therapeutic function of play while directing greater attention toward an outcome directly related to children's developmental functioning. Its use also provides a practical alternative to technology-dependent interventions because colored paper stickers can be prepared and implemented with relatively limited material and environmental requirements. The Kreativa Ward at Sebelas Maret University Hospital provides a relevant clinical setting for examining how such an activity can be integrated into pediatric inpatient care while maintaining attention to developmental needs. This study aims to examine the application of play therapy using colored paper stickers to improve fine motor skills among children hospitalized at UNS Hospital in Sukoharjo. The study is expected to contribute theoretically by strengthening the conceptualization of therapeutic play as a multidimensional component of pediatric care and methodologically by extending play-therapy research toward fine motor outcomes within an actual inpatient setting, while practically providing evidence for a simple, accessible, and developmentally appropriate nursing intervention.

RESEARCH METHODS

This study employed a descriptive quantitative design to examine changes in fine motor skills following the implementation of colored-paper sticker play therapy among hospitalized preschool children. The study was conducted in the Kreativa Ward of Sebelas Maret University Hospital (UNS Hospital) in Sukoharjo. The subjects consisted of three preschool children aged 5–6 years who were selected according to predetermined inclusion criteria. The inclusion criteria comprised children who were conscious, clinically stable, able to follow simple instructions, and able to participate in the play activity with parental or guardian consent. Children with conditions that directly restricted hand or finger movements, decreased consciousness, or an inability to complete the activity were excluded. The intervention used colored origami paper, picture patterns, and non-toxic paper glue as the primary materials, with the children instructed to select colors, pick up small paper pieces, apply glue, and attach the pieces according to the designated pattern. The activity was conducted under direct supervision to ensure that the children could participate safely and receive assistance when required.

Data were collected using an observation sheet administered before and after the implementation of colored-paper sticker play therapy. The observation sheet assessed six aspects of fine motor performance, namely the ability to pick up paper, the ability to use glue, hand-eye coordination, accuracy in attaching paper according to the pattern, finger use, and concentration during the activity. Each indicator was observed directly during the children's participation and documented according to the conditions demonstrated before and after the intervention. The collected data were analyzed quantitatively using descriptive analysis by comparing the observed conditions across the six indicators before and after the intervention. The results were presented in the form of frequency and percentage

distributions where applicable, accompanied by descriptive comparisons of the children's observed performance. This analytical approach was appropriate for the small number of participants and the observational nature of the collected data, while allowing changes in fine motor performance to be identified systematically. Ethical considerations included obtaining informed consent from parents or legal guardians, maintaining participant confidentiality, ensuring voluntary participation, and discontinuing the activity if a child experienced fatigue, discomfort, distress, or a change in clinical condition.

RESULTS AND DISCUSSION

Participant Characteristics and Baseline Fine Motor Performance

The descriptive quantitative study involved three preschool children aged 5–6 years who participated in colored-paper sticker play therapy while hospitalized in the Kreativa Ward of Sebelas Maret University Hospital (UNS Hospital) in Sukoharjo. The participants were selected according to predetermined inclusion criteria and were considered clinically suitable to participate in the intervention. As presented in Table 1, two participants were female and one was male, while all three participants were within the targeted age range. Female participants represented 66.7% of the sample, whereas male participants represented 33.3%. The concentration of participants within the 5–6-year age group was relevant because preschool children at this stage continue to develop finger control, object manipulation, and hand-eye coordination (Hurlock, 2018). The participant characteristics provide a descriptive profile of the children included in the intervention rather than a basis for comparing motor performance according to sex or age.

Table 1. Frequency Distribution of Participant Characteristics

Participant Characteristics	Frequency	Percentage (%)
Children participating in play therapy	3	100.0
Male	1	33.3
Female	2	66.7
Participant age (5–6 years)	3	100.0

The homogeneous age range provided a relatively consistent developmental context for examining the children's fine motor performance. Fine motor abilities develop progressively during the preschool period and involve increasingly controlled manipulation of objects. Hospitalization may interrupt children's usual play routines and limit opportunities for developmental stimulation because of illness, medical procedures, unfamiliar surroundings, and activity restrictions (Hockenberry & Wilson, 2020). The characteristics in Table 1 therefore describe the clinical context of the intervention rather than demographic factors associated with differences in motor skills. Developmentally appropriate play remains relevant in pediatric nursing because children continue to require opportunities for active participation and stimulation during treatment (Supartini, 2021). The participants' similar developmental stage also allowed the before-and-after observations to be examined within a relatively comparable age group.

The pre-intervention observations showed that the children experienced limitations in several aspects of fine motor performance. Difficulty was observed when the children attempted to pick up small pieces of paper, with their hand movements appearing stiff and their grasp requiring greater effort. The children also required substantial assistance when applying glue, indicating limited independence in manipulating the materials. Hand-eye coordination was less stable because paper pieces were not consistently directed toward the intended areas of the picture pattern. The accuracy of attaching the paper was similarly limited, with pieces frequently deviating from the designated lines. These findings indicate that the initial condition involved several interconnected components of fine motor performance, including grasp control, finger movement, visual guidance, and precision. Such components are closely related to hand-eye coordination and controlled motor performance in children (Shi et al., 2025).

The baseline observations further showed limitations in finger activity and concentration during the activity. The children's finger movements appeared relatively restricted when they handled the small

paper materials. Their concentration was also limited, as they were easily distracted by the surrounding hospital environment. This condition is relevant because hospitalization can interfere with children's normal patterns of play and reduce opportunities to engage in familiar developmental activities (Whaley & Wong, 2018). A structured activity can provide children with a defined sequence of actions that directs their attention toward a specific task. The baseline condition therefore provided a descriptive reference for examining changes in fine motor performance and participation after the colored-paper sticker activity.

The post-intervention observations indicated changes across the assessed fine motor indicators. As shown in Table 2, the children demonstrated more skilled use of the thumb and index finger when picking up small paper pieces after participating in the activity. Their ability to use glue also changed from requiring full assistance toward more independent and even application. Hand-eye coordination became more controlled, with greater precision in directing paper pieces toward the intended pattern. The children also demonstrated improved accuracy when attaching paper pieces according to the designated lines. Finger movements appeared more active and flexible during the activity, while concentration increased as the children became more interested in completing the picture. These descriptive changes are consistent with evidence that manipulative play can provide repeated opportunities for preschool children to practice controlled hand movements and fine motor coordination (Afriana et al., 2026).

Table 2. Evaluation of Fine Motor Skills Before and After Therapy

Fine Motor Indicator	Before Therapy	After Therapy
Ability to pick up paper	Stiff / difficulty holding small pieces	Skilled use of the thumb and index finger
Ability to use glue	Required full assistance from the team	Able to apply glue independently and evenly
Hand-eye coordination	Poor focus, unstable placement	More precise in directing paper toward the pattern
Accuracy of attaching according to the pattern	Paper pieces often deviated substantially	Attached more neatly according to the lines
Use of fingers	Limited / stiff hand movements	Fingers became more active and flexible
Concentration during the activity	Easily distracted by the hospital environment	Focused and interested in completing the picture

The comparison in Table 2 shows that the changes were distributed across several dimensions of fine motor performance rather than being limited to one movement. Picking up small paper pieces required controlled grasping, while glue application required regulation of hand movement and pressure. Attaching the pieces according to the picture pattern added a visual-motor demand because the children needed to coordinate hand movement with a specific spatial target. The increased finger activity and flexibility are consistent with findings that collage activities can provide repeated opportunities for children to manipulate small materials through purposeful tasks (Setyowati & Sukinah, 2025). The change in concentration also has relevance to task performance because accurate placement requires sustained visual attention and continuous monitoring of hand movements. Taken together, the descriptive findings show a positive pre–post pattern in the observed fine motor indicators, although the small sample and descriptive analysis do not establish statistical significance.

Changes in Fine Motor Skills Following Colored-Paper Sticker Play Therapy

The descriptive comparison before and after the intervention showed a positive pattern in the children's fine motor performance. Colored-paper sticker play required the children to select materials, pick up small paper pieces, apply glue, and place the pieces according to a predetermined pattern. Each stage involved controlled movements of the fingers and hands that were repeated throughout the activity. Before the intervention, several actions required greater assistance and showed less stable control. After the activity, the children demonstrated greater independence and precision in performing the same sequence of actions. The changes were particularly visible in grasping, glue application, hand-

eye coordination, placement accuracy, finger movement, and concentration. Creative play activities can provide children with opportunities to develop fine motor abilities through active manipulation of materials and purposeful movement (Suryani, 2021).

The ability to pick up small paper pieces was an important component of the intervention because the material required the children to use differentiated finger movements. Initially, the children had difficulty holding the small pieces and demonstrated relatively stiff movements. After the activity, they were able to use the thumb and index finger more effectively to grasp the paper. The repeated grasping and releasing actions provided opportunities to practice controlled finger movement throughout the task. Similar findings have been reported in LEGO-based play interventions, where manipulation of small components provides repeated practice for fine motor control in preschool children (Afriana et al., 2026). The observed change suggests that colored paper can function as a simple manipulative material for stimulating controlled grasping within a play-based activity.

The application of glue represented another component of fine motor performance that changed during the intervention. At the beginning, the children required full assistance from the implementation team to use the glue appropriately. Following participation in the activity, they were able to apply glue more independently and evenly. This change required the children to control the position and movement of the hand while regulating the amount and direction of the adhesive. The subsequent process of moving the glued paper toward the picture pattern further required coordination between visual information and hand movement. Evidence concerning interventions involving movement and motor practice indicates that structured activities can support hand-eye coordination and fine motor performance through repeated controlled actions (Shi et al., 2025). The present observations show a similar pattern within a simple collage activity conducted in a hospital setting.

The changes in the six indicators are summarized in Table 3. The children demonstrated improved grasp control, greater independence in applying glue, more precise hand-eye coordination, and more accurate placement of paper pieces after participating in the activity. Finger movements also appeared more active and flexible, while concentration shifted from being easily disrupted toward greater focus on completing the picture. These changes indicate that the intervention incorporated several fine motor demands within one continuous activity. Rather than practicing isolated movements, the children were required to coordinate different motor actions to achieve a visible and meaningful outcome. Collage activities have been described as useful contexts for developing fine motor skills because children manipulate small materials while following a specific visual structure (Setyowati & Sukinah, 2025). The observed pattern therefore supports the use of colored-paper sticker play as a practical form of fine motor stimulation.

Table 3. Observed Changes in Fine Motor Skills Following Play Therapy

Fine Motor Indicator	Initial Condition	Condition After Therapy	Observed Change
Ability to pick up paper	Stiff / difficulty holding small pieces	Skilled use of the thumb and index finger	Improved grasp control
Ability to use glue	Required full assistance from the team	Able to apply glue independently and evenly	Increased independence
Hand-eye coordination	Poor focus, unstable placement	More precise in directing paper toward the pattern	Improved visual-motor control
Accuracy of attaching according to the pattern	Paper pieces often deviated substantially	Attached more neatly according to the lines	Improved placement accuracy
Use of fingers	Limited / stiff hand movements	Fingers became more active and flexible	Increased finger mobility
Concentration during the activity	Easily distracted by the hospital environment	Focused and interested in completing the picture	Increased task engagement

The pattern in Table 3 can be interpreted in relation to the repetitive structure of the activity. Each piece of paper required the child to perform a sequence of grasping, moving, positioning, and

attaching actions. The sequence provided repeated opportunities to adjust hand movements according to the location and orientation of the target. Such purposeful manipulation differs from passive entertainment because the child must actively control materials to produce the desired picture. Research involving digital augmented-reality cards has also demonstrated the potential of play-based activities to engage fine motor functions while children participate in structured tasks (Hamdani et al., 2022). The present activity used simpler materials but retained the principle of combining engagement with repeated motor manipulation. The observed changes therefore suggest that the therapeutic value of the activity may be related to the interaction between repetition, purposeful movement, and children's active participation.

The findings are also consistent with evidence concerning play therapy as a means of providing motor stimulation during hospitalization. Hamed et al. (2026) identified play therapy as a method for fine motor stimulation among hospitalized children with acute lymphoblastic leukemia. Taverna et al. (2019) likewise reported that psycho-educational play during hospitalization could support occupational activity and fine motor skills among children receiving treatment for acute lymphoblastic leukemia. The current activity differs in materials and implementation but shares the principle of embedding motor practice within an engaging activity that can be performed during hospitalization. The descriptive pre–post pattern therefore provides supporting evidence for the practical use of colored-paper sticker play as a fine motor stimulation activity. However, the findings should not be interpreted as statistical evidence of treatment effectiveness because only three children participated and the analysis was descriptive. A larger quantitative study with standardized scoring and a comparison group would provide stronger evidence concerning the magnitude and consistency of the observed changes.

Clinical and Behavioral Responses to Play Therapy During Hospitalization

In addition to changes in fine motor performance, the children demonstrated positive behavioral responses while participating in colored-paper sticker play therapy. The activity attracted their attention through the use of colorful materials and a picture pattern that provided a clear visual objective. As the activity progressed, the children became more involved in selecting, handling, and attaching the paper pieces. Their participation was accompanied by greater willingness to follow instructions and continue working toward completion of the picture. These responses are relevant because hospitalization can disrupt children's normal routines and expose them to unfamiliar situations that may affect their participation in everyday activities (Nursalam, 2020). Therapeutic play can provide a structured and developmentally appropriate activity through which children remain actively involved during hospitalization.

Concentration was one of the behavioral indicators that showed a notable change during the activity. Initially, the children were easily distracted by the hospital environment and required greater direction to remain involved in the task. As they continued manipulating the paper and following the pattern, their attention became more focused on the activity. The visual result of each completed section provided an immediate task-related stimulus that encouraged continued participation. Play interventions have been used to support children's engagement during hospitalization by providing activities that are familiar, meaningful, and appropriate to their developmental level (Ningrum & Wanda, 2024). The observed increase in concentration therefore complements the motor changes because sustained attention was required for the children to place the paper accurately.

The behavioral responses observed during the intervention are summarized in Table 4. The children showed greater interest in completing the picture, increased willingness to follow instructions, and more active participation as the activity progressed. Their need for assistance also appeared to decrease during several stages of the task, particularly when they became more familiar with handling the materials. This pattern indicates that the activity provided both a motor challenge and a manageable behavioral structure. The combination of simple instructions, colorful materials, and a visible final product may have helped maintain children's involvement during the session. Play-based activities have been identified as useful approaches for supporting children's participation and adjustment within healthcare environments (Saputra et al., 2023). The observed behavioral pattern therefore provides additional context for the role of colored-paper sticker play as a supportive pediatric activity.

Table 4. Observed Behavioral Responses During Colored-Paper Sticker Play Therapy

Behavioral Indicator	Initial Observation	Observation During/After Therapy
Attention	Easily distracted by the hospital environment	More focused on the activity
Interest	Limited and required encouragement	Interested in completing the picture
Cooperation	Required greater guidance	More willing to follow instructions
Participation	Dependent on assistance	More actively involved in the activity
Independence	Required substantial assistance	Demonstrated greater independence in several tasks
Task Completion	Easily diverted from the activity	Continued working toward completion

The responses shown in Table 4 demonstrate that the activity involved more than simple occupation of the children's time. The children were required to make choices, follow a sequence of instructions, manipulate materials, and maintain attention until the picture was completed. This type of participation is relevant to therapeutic play because it allows children to remain active in an environment where ordinary activities may be restricted. Studies involving medical play have reported positive changes in children's responses to hospitalization and treatment-related situations (Andriastuti et al., 2025). Paper-based play has also been used as a therapeutic activity for hospitalized preschool children, including Kokoru paper play and origami collage activities (Khasanah & Oktarina, 2024). These findings support the broader relevance of structured play as a component of child-centered care, while the current study specifically documents behavioral engagement rather than measuring anxiety with a standardized instrument.

The increased cooperation and participation observed during the activity can also be considered in relation to the developmental characteristics of preschool children. At this stage, children benefit from activities that allow simple choices, active manipulation, and achievement of a concrete outcome. Colored-paper sticker play incorporates these characteristics by allowing children to select colors, handle materials, and observe the gradual formation of a picture. Similar therapeutic play approaches have been applied to address children's responses to hospitalization and medication-related experiences (Sabila et al., 2026). Creative play has also been recognized as a medium through which children can engage in developmentally meaningful activities while receiving care (Suryani, 2021). The present findings indicate that the activity can support active engagement while simultaneously providing opportunities for fine motor stimulation. This combination may be particularly relevant in inpatient settings where developmental activities need to be simple, safe, and adaptable to children's clinical conditions.

From a pediatric nursing perspective, colored-paper sticker play represents an accessible activity that can integrate developmental stimulation with supportive engagement during hospitalization. The materials are inexpensive and relatively easy to prepare, while the activity can be adjusted according to the child's motor ability, concentration, and clinical condition. The observed changes in attention, cooperation, participation, and independence indicate that the intervention created a structured opportunity for children to remain actively involved during their care experience. Evidence from a systematic review has shown that play therapy has been investigated as a supportive intervention for psychological difficulties among hospitalized children with cancer, although intervention formats and measured outcomes vary across studies (Nazari et al., 2025). The current findings should therefore be understood as descriptive evidence of behavioral and developmental responses rather than as proof of a statistically established therapeutic effect. The combination of behavioral engagement and fine motor stimulation nevertheless indicates the practical potential of colored-paper sticker play within pediatric nursing care. Further quantitative research with larger samples, standardized behavioral measures, and numerical fine motor scores would be useful for examining the consistency and magnitude of these changes.

CONCLUSION

The implementation of colored-paper sticker play therapy in the Kreativa Ward of UNS Hospital was associated with positive changes in the fine motor performance of hospitalized preschool

children aged 5–6 years. The descriptive quantitative findings showed improvements in the ability to pick up small paper pieces using the thumb and index finger, apply glue more independently, coordinate hand and eye movements, and attach paper pieces more accurately according to the designated pattern. The children's finger movements also became more active and flexible during the activity, indicating greater engagement in controlled hand and finger manipulation. Concentration during the activity improved as the children became more focused and interested in completing the picture despite the surrounding hospital environment. The activity provided repeated opportunities to practice grasping, manipulating, positioning, and attaching small materials through a meaningful and developmentally appropriate play task. These characteristics indicate that colored-paper sticker play can be incorporated as a simple fine motor stimulation activity within pediatric nursing care for hospitalized preschool children. The intervention is particularly practical because it uses accessible materials and can be adapted to the child's developmental ability and clinical condition.

In addition to supporting fine motor stimulation, colored-paper sticker play created a more engaging and enjoyable activity for children during the hospitalization period. The children demonstrated greater attention, interest, cooperation, participation, and independence as they progressed through the activity and worked toward completing the picture. The structured sequence of selecting colors, handling paper, applying glue, and following a picture pattern provided children with opportunities to remain actively involved rather than passively experiencing the hospital environment. The activity also offered a constructive alternative to boredom and limited opportunities for ordinary play that may occur during hospitalization. Although the observations suggest positive behavioral responses, the study did not employ a standardized anxiety scale, so changes in anxiety or fear cannot be established as measured outcomes. The findings should also be interpreted within the context of the small sample of three children and the descriptive quantitative design, which limits generalization beyond the observed participants. Further research involving larger samples, standardized measurement instruments, and comparative designs is needed to examine the magnitude, consistency, and longer-term relevance of colored-paper sticker play for fine motor development and children's adaptation during hospitalization.

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