



Original Research

The Influence of Traditional Games on the Development of Preschool

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ABSTRACT *Preschool-aged children are in the pre-operational stage, where they begin to demonstrate symbolic thinking skills, namely the ability to use symbols, images, or words to represent objects and events in their environment. Children are able to use language to express ideas and feelings, although their thinking patterns are still egocentric and they are not yet able to see other people's perspectives. Delays in development during this period can impact subsequent stages of development, particularly when children enter school age, which requires cognitive, social, and emotional readiness. This study aims to assess the influence of traditional games on the development of preschool-aged children at TK Pertiwi 1 Kantor Gubernur of Padang City.*

Background: *The study used a quantitative approach with a pre-experimental one-group pre-post test design, involving 49 children, KPSP instrument, traditional game intervention, and univariate analysis with Wilcoxon test*

Results: *Data collection was conducted using the Pre-Screening Development Questionnaire (KPSP). The statistical test used was the Wilcoxon test. The results showed that the average development of children before playing traditional games was 5.37 and after playing traditional games was 8.51. There was a significant effect on the development of preschool-aged children before and after being given traditional games, with a mean difference of 3.14 and a p-value of 0.000.*

Conclusion: *The recommendation of this study is that nurses should monitor the development of preschool-aged children and provide stimulation by implementing traditional games such as "Long Snake and How Many ABCs."*

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INTRODUCTION

Preschool-aged children are individuals between the ages of 3 and 6 who generally attend preschool education programs. At this stage, children experience rapid cognitive development, although their physical growth tends to be slower compared to previous stages. Children are unique individuals with diverse needs that vary according to their developmental stage. In meeting these needs, children remain highly dependent on the role of adults. Especially in terms of health, children require optimal protection and support from their families and the surrounding community. Common problems in child development include delays in gross motor skills, fine motor skills, language, and social skills. Motor development delays can be influenced by environmental factors and individual characteristics of the child, such as limited

opportunities for exploration, for example, due to being carried too often or using a baby walker.

Meanwhile, language development disorders can be caused by genetic factors, hearing impairments, low intelligence levels, insufficient environmental stimulation, delayed maturation, and unsupportive family conditions. In addition to emotional and social disorders during the developmental stage, children may also experience various disorders related to psychiatry. Anxiety is one form of disorder that can arise in children and requires special intervention if it hinders social interaction and disrupts the child's overall developmental process.

According to the World Health Organization (WHO) in 2023, more than 200 million children under the age of five worldwide do not reach their optimal developmental potential, especially children living in Asia and Africa. In Indonesia, the prevalence of developmental disorders in five-year-old children reached 7.51% or around 7,512 per 100,000 population based on 2018 data. In Indonesia, the percentage of children aged 3-4 years who undergo developmental monitoring according to child standards is 22.8%, while for children aged 4-5 years it is 15.9%. In West Sumatra, the percentage of children aged 3-4 years who undergo developmental monitoring according to child standards is 17.8%, while for children aged 4-5 years it is 10.9%.

According to the 2023 health department data for the city of Padang, the city has 24 community health centers (Puskesmas) located in 11 districts. Out of the 24 Puskesmas in Padang City, there are several Puskesmas that do not meet the national target (95%), one of which is the Andalas Puskesmas, which has a target of 4,193 infants, with 76.53% monitored for growth and development, and 76.09% of infants served through the SDIDTK program. The service area of the Andalas Puskesmas includes 7 villages, one of which is Jati Baru Village, with 228 preschool-aged children, of whom only 88 were screened for development, representing 38.60%.

Preschool-aged children need control and power over their environment by taking the initiative to plan activities, complete tasks, and face challenges. Children who fail to develop a sense of initiative at this stage may develop a fear of trying new things. The causes of developmental delays in children generally include genetic disorders such as Down syndrome, autism spectrum disorders, fetal exposure to alcohol or illegal drugs during pregnancy, brain trauma such as complications during childbirth or head injuries in infants, and environmental factors such as gadget addiction in children. Dependence on gadgets can reduce a child's interest in interacting with their social environment, potentially leading to psychological impacts such as decreased self-confidence.

Data from Susenas and BPS (2023) shows that more than 30% of preschool children in Indonesia use gadgets, with the highest percentage among children aged 5–6 years. In West Sumatra, 87.31% of children over the age of 5 use gadgets. A survey by the Indonesian Child Protection Commission (KPAI) found that 71.3% of children own gadgets and 79% use them outside of educational purposes. Excessive use poses risks of sleep disorders, decreased academic performance, as well as social and emotional issues.

Research conducted by Dini (2024) reveals various negative impacts of gadget use on early childhood. The findings show that gadget use in children is a serious concern because it has the potential to cause addiction that negatively affects developmental aspects, particularly language, mental, and social development. Children who are addicted to gadgets generally show difficulty concentrating, delayed language development, and motor skill impairments.

One intervention to address child development issues is through stimulation in play activities. Play is a basic need for children that is not only recreational but also supports development. Traditional games such as Ular Naga Panjang (Long Snake) and ABC Ada Berapa (How Many ABCs) have the potential to stimulate motor, language, and social skills.

Therefore, the application of traditional games can be an effective educational strategy in supporting the overall growth and development of preschool-aged children.

Research conducted by Al-Fitrah (2024) shows that there is a significant influence between the traditional game of Snake and Ladder and the social and emotional development of early childhood. Of the 21 children in the sample, a positive increase in social and emotional abilities was found after participating in the game. Through this activity, children learn to communicate with peers, collaborate in groups, and manage emotions such as joy, anxiety, and fear within the context of the game. Children are also trained to interact, build cooperation, and behave courteously toward others. Quantitatively, the impact of the Snake and Ladder game on the social and emotional development of 5–6-year-old children at TK IT Al-Fitrah was recorded at 87.1%.

Traditional games that can stimulate development, such as “Ular Naga Panjang” (Long Dragon Snake) and “ABC Ada Berapa” (How Many ABCs), have great potential in stimulating various aspects of child development. Through the physical activities and social interaction they involve, these games can help improve fine motor skills, gross motor skills, language development, and social skills in children. Therefore, incorporating traditional games into preschool-aged children's learning activities can serve as an effective educational strategy to support their overall development. This study aims to investigate the impact of traditional games on the development of preschool-aged children.

MATERIALS AND METHOD

This study uses quantitative research, and the research design used in this study is a preexperimental design using a one-group pre-post-test. In this research design, an initial observation (pre-test) was conducted before the intervention was administered, enabling more accurate assessment of the intervention's effects by comparing them with the pre-intervention conditions. The study was conducted at TK Pertiwi 1 Kantor Gubernur of Padang City. Data collection took place from December 2024 to June 2025.

This study uses the Developmental Screening Questionnaire (KPSP), which has been tested for validity and reliability and is widely used in health care practice as a tool for early detection of child development. There are 9-10 questions about the developmental abilities that the child has achieved. The questionnaire has two response options: yes and no. There are three categories for assessing children using the KPSP: 9–10 developmental milestones achieved according to the child's developmental stage (S), 7–8 developmental milestones questionable (M), and 6 or fewer developmental milestones achieved, indicating a possible deviation (P). The intervention in this study used traditional games such as “long snake” and “ABC how many.” The games were conducted over two consecutive days, each session lasting 45 minutes. Data were analyzed univariately to describe or explain the mean, minimum, maximum, and standard deviation values before and after the intervention. Bivariate analysis used the Wilcoxon test.

RESULTS

This study involved 49 preschool children aged 3 to 6 years at Pertiwi 1 Kantor Gubernur. The average age of the children was 68.65 months, with a minimum age of 38 months and a maximum age of 77 months. For developmental assessment, the Pre Screening Developmental Questionnaire (KPSP) was used, specifically the KPSP versions for ages 36, 48, 60, 66, and 72 months. The participants in this study included 26 boys and 23 girls. The results of the study are presented in the table below.

Tabel 1. The effect of traditional games on the development of preschool children at Pertiwi 1 Kantor Gubernur, Padang City before and after intervention (N = 49)

	Mean	Beda Mean	SD	Min-Max	95% CI	P
Pre-Test	5.37	3.14	2.289	2-10	4.71-6.02	P = 0.000
Post-Test	8.51		1.244	5-10	8.15-8.87	

Table 1 shows that the average development of children before the traditional game intervention was 5.37. After the intervention, the average increased to 8.51. The difference in the average before and after the treatment showed an increase of 3.14. The results of the analysis using the Wilcoxon test showed a p-value of 0.000, which is less than 0.05. Therefore, H_0 is rejected and H_1 is accepted, indicating that there is a significant effect of traditional games on the development of preschool-aged children.

DISCUSSION

The most dominant developmental problems before intervention were fine motor skills and gross motor skills, with presentation scores below 50%, indicating a lack of stimulation in children. It is suspected that children are not developing in accordance with their age, and that family and social environmental factors have a significant impact on child development. The child's language and communication development was hindered due to insufficient verbal stimulation and social interaction. After the intervention, the child's presentation showed that the previous issues with fine and gross motor skills, which were below 50%, improved to above 80% post-intervention. This indicates an improvement in development following the implementation of traditional play-based interventions for the child.

Wong (2017) states that play is not only a recreational activity, but also contributes significantly to supporting children's overall development. Through play, children can develop various important aspects of themselves, such as gross and fine motor skills, language skills, logical and creative thinking (cognitive), as well as the ability to interact socially and manage emotions.

The results of this study are consistent with the findings of Nurul (2023), who investigated the effectiveness of the long snake game in stimulating gross motor development in children in group B at the Cinta Ananda Early Childhood Education Center. The study showed significant results at a certain confidence level with degrees of freedom ($df = (k - 3) \rightarrow (4 - 3 = 1)$), so based on the chi-square table, the chi-square value was 12.70. The analysis results showed that the calculated chi-square value of $12.788 \geq$ chi-square table (12.70). Therefore, H_a is accepted, meaning that the long snake game has an effect on stimulating gross motor development in children aged 5–6 years.

Baiti's (2022) study entitled "How Does the ABC Lima Dasar Game Improve Parent and Children Communication?" shows an increase in the effectiveness of communication between children and parents from the first cycle to the second cycle. These findings indicate that the ABC Lima Dasar game can be used as an alternative practical method to improve parent-child interaction and can be implemented in early childhood education activities with the active involvement of parents.

Playing with a long snake toy can improve children's gross motor skills, train their agility and dexterity, teach them to be disciplined, helpful, and cooperative, teach them to appreciate what they have and respect others, teach them to be good leaders, train them to socialize with other children, foster democratic attitudes, and cultivate a sense of responsibility (Yulita, 2017).

Researchers assume that the traditional games of Long Snake and ABC How Many are very influential as effective stimuli in supporting the development of preschool-aged children. These two games are considered capable of stimulating various aspects of child development, ranging from gross motor skills, fine motor skills, to social and language skills. Additionally,

traditional games have the advantage of using an enjoyable and non-intimidating approach, making them easier for children to accept and enjoy. This statement indicates that the traditional games “Long Snake” and “ABC How Many” can enhance children's development, as evidenced by a p-value of 0.000. The research findings show that children are able to play these traditional games, thereby enabling them to utilize them for developmental stimulation and as a form of entertainment, particularly at TK Pertiwi 1 Kantor Gubernur in Padang City.

Children who receive appropriate, regular, and age-appropriate developmental stimuli tend to experience optimal growth and development. These stimuli can support children's motor, cognitive, language, social-emotional, and adaptive skills development. Children will respond more quickly to their environment, be more active, confident, and have good learning and socialization skills.

Intervention through the dragon snake game can stimulate children's gross motor development, especially through the movement of circling the dragon snake gate. This game also trains children's agility and dexterity as they try to avoid the gate that is about to close. In addition, this game teaches values of discipline, such as being patient and not pushing friends while walking. Children also learn about cooperation and mutual assistance through the movement of keeping the dragon gate line intact. Other social values that can be instilled include self-respect and respect for others, as well as learning to be a good leader when guarding the dragon gate. This game also helps children develop social skills, democratic attitudes, and responsibility, for example, when tasked with catching the dragon snake when the gate is closed (Yulita, 2017).

The game “ABC Ada Berapa” can strengthen children's social and emotional skills through various movements performed with friends. In addition, this game stimulates children's cognitive intelligence by encouraging them to think to find answers that match the selected letters of the alphabet. Children are also encouraged to use their creativity and imagination when naming animals or objects according to certain letters. This game helps improve motor skills and coordination, for example through finger pointing movements. Moreover, children learn to collaborate toward a common goal, respect game rules, and tackle challenges with a high spirit of perseverance (Yulita, 2017).

Traditional games have actually been introduced by teachers to students at Pertiwi 1 Kantor Gubernur, but they are still rarely played in daily activities. Routine activities commonly carried out at school include gymnastics, playing musical instruments, and learning processes in the classroom. Efforts can be made to enhance the development of preschool-aged children by introducing and practicing traditional games such as “Long Snake and ABC How Many” as an intervention to stimulate children's development. It is hoped that these traditional games can be consistently applied by teachers in their teaching activities for their students. This is also supported by this study, which shows that traditional games can enhance the development of preschool-aged children and are expected to prevent developmental delays.

CONCLUSION

Traditional games are effective stimuli in supporting the development of preschool children. These games are considered capable of stimulating various aspects of child development, ranging from gross motor skills, fine motor skills, to social and language skills. In addition, traditional games have the advantage of being fun and non-intimidating, and do not require any costs, making them more acceptable and appealing to children. By incorporating elements of movement, interaction, and simple yet educational rules, these games can enhance children's active engagement in the learning process. The conclusion is that there is an impact on the development of preschool-aged children at TK Pertiwi 1 Kantor Gubernur of Padang City. It is recommended that the government and educational institutions develop training

programs for teachers and parents to effectively utilize traditional games as a medium for stimulating children's development.

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