

---

## SNAKES AND LADDERS EDUCATIONAL MEDIA FOR THE PREVENTION OF SEXUAL VIOLENCE IN PRE- ADOLESCENT CHILDREN

Tiara Citra<sup>1)\*</sup>, Ferina Ferina<sup>2)</sup>, Neneng Widaningsih<sup>3)</sup>, Riana Pascawati<sup>4)</sup>

<sup>1,2,3,4</sup>*Bachelor of Midwifery, Midwifery Department, Poltekkes Kemenkes Bandung,  
Bandung, Indonesia  
Email: tiaracitra0303@gmail.com*

### ABSTRACT

**Background:** Child sexual abuse is a serious and increasingly prevalent issue each year, with long-term physical, psychological, and social impacts on victims. Children aged 8–9 years are in the stage of concrete operational cognitive development, during which they begin to understand cause-and-effect relationships and think logically about concrete situations. Therefore, an interactive, enjoyable, and developmentally appropriate educational approach is essential. One alternative educational medium is the Snakes and Ladders game. This study aims to determine the effect of the Snakes and Ladders educational game on improving knowledge about sexual abuse among pre-adolescent children.

**Methods:** This study employed a quasi-experimental design with a one-group pretest-posttest approach. The study was conducted at SDN 209 Antapani, Bandung City, from April to May 2025. The sample consisted of 30 pre-adolescent children aged 8–9 years, selected using a probability sampling method with random sampling. Data were collected using a questionnaire and analyzed with the Wilcoxon statistical test.

**Results:** The intervention resulted in a significant increase in knowledge ( $p < 0.05$ ).

**Conclusion:** This indicates that the Snakes and Ladders game is effective in increasing children's knowledge about sexual abuse.

**Keywords:** knowledge, pre-adolescent children, sexual education, sexual violence, snakes and ladders

### INTRODUCTION

Cases of sexual violence have become increasingly prevalent over the past several years. Globally, as well as in Indonesia, sexual violence continues to be a major issue that occurs regardless of age or location. Children and adolescents are the most common targets of perpetrators. Numerous researchers have conducted surveys in Indonesia to reveal the alarming rise in sexual violence cases, which no longer differentiate between victims. The forms of reported cases have also become more varied. In addition to direct physical acts, sexual violence has evolved in disturbing ways, such as using children's photos as media for sexual gratification (Dewiani et al., 2020).

According to the World Health Organization (WHO) Global Status Report on Preventing Violence Against Children (2024), approximately 20% of women and 5–10% of men experience sexual abuse during childhood (WHO, 2024). Data from the Ministry of Women's Empowerment and Child Protection (PPPA) in 2022 recorded 9,588 out of 21,241 Indonesian children as victims of sexual violence (Open Data Jabar, n.d.). In Bandung City alone, 112 children were reported as victims, with 78.58% being girls and 21.43% boys. The age distribution of victims is deeply concerning, including children aged 0–5 years (7.1%), 6–12 years (20.7%), and 13–17 years (35.5%) (Simfomi, 2024).

---

The forms of violence include physical, verbal, and nonverbal acts, often driven by manipulation, gifts, or coercion (Khan & Akram, 2025).

The long-term impacts of sexual violence include psychological disorders (such as depression, PTSD, and suicidal ideation), physical health problems (such as somatization), and developmental disruption (Da Cruz et al., 2021). Contributing factors include cultural taboos surrounding sexual education, lack of parental supervision, and misuse of social media (Hafshah et al., 2021). Children with special needs, those who are naïve or dependent on adults, as well as children from divorced families, those living with stepparents, or those in dysfunctional households, are particularly vulnerable (Rohanachandra et al., 2023).

Sexual education is a crucial effort in preventing sexual violence (Dewi, 2022). However, many children and adolescents still lack adequate information; studies show that 96.3% of children have low levels of knowledge regarding sexual violence (Nurbaya et al., 2019). Midwives, as healthcare professionals, hold promotive and preventive roles, including providing sexual health education to children aged 8–9 years as an early prevention measure (Tekoa L King, Mary C Brucker, 2019). Considering the cognitive development of children at this age, as described in Piaget's theory, enables them to think in concrete logical terms and understand others' perspectives, creative media such as the Snakes and Ladders game is considered effective (Saul, 2024). This medium not only delivers information but also enhances children's active participation through a play-based learning approach (Khadijah, 2016).

Based on these conditions, innovative and engaging educational interventions are needed to help children better understand and prevent sexual violence. Therefore, this study aims to determine the effect of the Snakes and Ladders game on improving knowledge about sexual violence among pre-adolescent children as an effective and developmentally appropriate preventive strategy.

## RESEARCH METHOD

This study is a quantitative research employing a quasi-experimental one-group pretest–posttest design aimed at determining the effect of an educational Snakes and Ladders game on improving knowledge of sexual violence among pre-adolescent children aged 8–9 years. The study was conducted at SDN 209 Antapani, Bandung City, from April to May 2025, involving 30 students selected through random sampling. The inclusion criteria consisted of children aged 8–9 years who were able to read and write, obtained parental or guardian consent, and were willing to complete the questionnaire, while the exclusion criteria included children with disabilities or those absent during the intervention. The independent variable in this study was the educational snakes and ladders game, whereas the dependent variable was the children's knowledge of sexual violence. The snakes-and-ladders game used in this study was modified by the researcher and evaluated by media experts through expert assessment to assess its feasibility and suitability for educational media before implementation. The research instrument was a knowledge questionnaire that had undergone validity and reliability testing, with 15 out of 20 items deemed valid ( $r\text{-count} > r\text{-table } 0.279$ ) and a reliability score of Cronbach's Alpha = 0.829. Data collection was conducted twice, during the pretest and posttest. The Shapiro–Wilk normality test indicated that the data were not normally distributed; therefore, the Wilcoxon test was used for statistical analysis. This study received ethical approval with ethical clearance number 22/KEPK/EC/II/2025.

## RESULTS

The results of this study are presented by describing the characteristics of the respondents based on age, gender, and exposure to education, and by explaining the effects of the “Snakes and Ladders” media on increasing knowledge about sexual violence among pre-adolescent children.

Table 1. Characteristics of Respondents Based on Age, Gender, and Exposure to Education

Characteristics	Frequency (f)	Percentage (%)
Age category		
8 years	10	33.3
9 years	20	66.7
Gender		
Female	18	60.0
Male	12	40.0
Exposure to Education		
Yes	7	23.3
No	23	76.7

Based on Table 1, the characteristics of respondents in this study include age, gender, and exposure to information about sexual violence. The age distribution shows that the majority of respondents were 9 years old (66.7%). Regarding gender, 60.0% were female. Meanwhile, regarding exposure to information about sexual violence, only 23.3% had previously received such information. This indicates that most respondents had not yet received education related to sexual violence.

Table 2. The Effect of Snakes and Ladders Media on Increasing Knowledge About Sexual Violence Among Pre-Adolescent Children

Knowledge	N	Median	SD	Min - Max	<i>p-value</i>
<i>Pretest</i>	30	53.37	12.41	33.37 – 73.37	0.001
<i>Posttest</i>	30	66.67	10.64	60.00 - 86.67	

*\*Wilcoxon test*

Based on Table 2, The analysis results showed that the median knowledge score of respondents increased from 53.37 before the intervention to 66.67 after the intervention. The Wilcoxon test revealed a *p-value* of 0.001 (<0.05), indicating that the snakes and ladders game had a significant effect on improving knowledge about sexual violence among pre-adolescent children.

## DISCUSSION

### Characteristic of Respondent

Most respondents were 9 years old and were in Piaget’s concrete operational stage, during which children begin to think logically and understand social interactions. This developmental stage supports the use of interactive educational media such as Snakes and Ladders, which has been shown to enhance children’s understanding of complex issues, including sexual violence (Qurotul Ahyun et al., 2022).

The majority of respondents were female, consistent with literature indicating that girls often receive more guidance and stricter supervision related to self-protection due to perceptions of higher vulnerability. However, boys also face similar risks that are often

---

unreported due to stigma, highlighting the need for gender-inclusive education (Nugroho YW, 2020).

Most respondents had never received education about sexual violence, indicating limited access to crucial information. This lack of exposure increases children's vulnerability and aligns with Bandura's Social Learning Theory, which emphasizes that knowledge and behavior are acquired through observation, imitation, and direct experience (Mitasari, 2020), (Nabavi & Bijandi, 2024). Midwives play a strategic preventive role as community-based educators, helping improve awareness among children and parents through school and community programs, and providing developmentally appropriate information to enhance children's ability to recognize, avoid, and report sexual violence (Afiati et al., 2023).

### **The Effect of Snakes and Ladders Media on Increasing Knowledge About Sexual Violence Among Pre-Adolescent Children**

This study demonstrated that the Snakes and Ladders educational game significantly improved pre-adolescent children's knowledge regarding sexual violence. Statistical analysis showed that the median knowledge score increased from 53.37 before the intervention to 66.67 after the intervention, with a p-value of 0.001 (<0.05), indicating a statistically significant effect of the educational media. These findings are supported by previous studies showing that game-based educational interventions effectively improve children's knowledge and self-protection skills related to sexual violence prevention (Islamiyah et al., 2018), (Saul, 2024).

The game aligns well with the cognitive developmental stage of children aged 8–9 years, who are in the concrete operational phase and capable of understanding logical, cause-and-effect concepts (Khadijah, 2016). Active participation during gameplay enhances memory retention and fosters a positive learning experience. Interactive educational games also enable children to learn sensitive topics in a more enjoyable and non-threatening manner, thereby increasing their curiosity and engagement during the learning process.

These findings are consistent with Miller's Pyramid, in which children at this age are at the "knows" level, beginning to comprehend fundamental concepts related to body safety (Wetheridge et al., 2019). By integrating visual and verbal educational messages, such as examples of safe and unsafe touch, the game promotes both cognitive and affective learning, making the information easier to understand and remember (Wulansari et al., 2025).

Previous studies have also shown that repeated, interactive educational sessions are important for achieving a comprehensive understanding. Multi-session interventions using game-based media have been shown to significantly improve children's knowledge, particularly when supported by participatory learning methods (Islamiyah et al., 2018), (Saul, 2024). Active learning approaches, such as games and visual aids, also produce stronger educational effects compared to passive instruction (Ferragut et al., 2023)

Given the high level of engagement observed in this study, the Snakes and Ladders game is recommended for broader implementation in schools and community settings as an effective preventive strategy to enhance children's awareness and protection against sexual violence.

### **CONCLUSION**

Education using the Snakes and Ladders game proved to be effective in increasing pre-adolescents' knowledge about sexual violence. The findings of this study contribute

---

to the evidence supporting game-based learning as an effective educational strategy for improving children's awareness and self-protection regarding sexual violence.

### RECOMMENDATIONS

The government should make efforts to develop learning materials that are more engaging for adolescents, not only in the classroom setting within formal education but also in public spaces within the community. This is necessary to broaden adolescents' access to information sources so that positive information is not limited to what is available in the classroom.

### REFERENCES

- Afiati, E., Prabowo, A. S., Handoyo, A. W., Dalimunthe, Z., Nurmala, M. D., Konseling, J. B., Sultan, U., & Tirtayasa, A. (2023). *Edukasi pemahaman dan pencegahan kekerasan seksual pada anak sekolah dasar kota serang. 2023*, 207–213.
- Da Cruz, M. A., Gomes, N. P., Campos, L. M., Estrela, F. M., Whitaker, M. C. O., & Lirio, J. G. D. S. (2021). Impacts of sexual abuse in childhood and adolescence: An integrative review. *Ciencia e Saude Coletiva*, 26(4), 1369–1380. <https://doi.org/10.1590/1413-81232021264.02862019>
- Dewi, R. (2022). Pentingnya Pendidikan Seks Pada Anak Usia Dini di Era Digital. *Jurnal Al-Qayyaimah*, 6(1), 32–37.
- Dewiani, K., Purnama, Y., & Yusanti, L. (2020). Pendidikan Seks Dini Dan Kesehatan Reproduksi Anak Untuk Siswa Sekolah Dasar. *Dharma Raflesia : Jurnal Ilmiah Pengembangan Dan Penerapan IPTEKS*, 17(2), 1–6. <https://doi.org/10.33369/dr.v17i2.10061>
- Ferragut, M., Cerezo, M. V., & Ortiz-tallo, M. (2023). Effectiveness of child sexual abuse prevention programs on knowledge acquisition : A meta-analytical study. *Child Abuse & Neglect*, 146(October), 106489. <https://doi.org/10.1016/j.chiabu.2023.106489>
- Hafshah, H., Wardani, D. S., & Gumanti, K. A. (2021). Literature Review: Intervensi Kebidanan Terkini Peningkatan Sikap Orang Tua dalam Memberikan Pendidikan Seksual Pada Anak untuk Pencegahan Child Sexual Abuse. *Journal of Issues in Midwifery*, 5(2), 87–100. <https://doi.org/10.21776/ub.joim.2021.005.02.5>
- Islamiyah, N. I., Sholichah, R. P., & Zakiyah, S. (2018). Keefektifan Media Ular Tangga Untuk Meningkatkan Sikap Dan Perilaku Belajar Pada Siswa Kelas 7. 1910–1919.
- Khadijah. (2016). *Pendidikan Prasekolah (edisi pert)*. perdana publishing.
- Khan, A., & Akram, M. (2025). Understanding and addressing intimate partner violence: a comprehensive review. *Philosophy, Ethics, and Humanities in Medicine : PEHM*, 20(1), 43. <https://doi.org/10.1186/s13010-025-00175-1>
- Mitasari. (2020). Pengaruh Pendidikan Kesehatan Metode Permainan Ular Tangga terhadap Pengetahuan Pendidikan Seksual pada Siswa Kelas VI di SD Muhammadiyah 1 Jember.
- Nabavi, R. T., & Bijandi, M. S. (2024). A literature review on Bandura ' s Social Learning Theory & Social Cognitive Learning Theory. January 2012.
- Nugroho YW. (2020). Perlindungan Anak terhadap Kekerasan Seksual Ditinjau dari Gender. *Jurnal Hukum dan Peradilan*.
- Nurbaya, Nurhaedar, J., & Andi, A. (2019). Gambaran pengetahuan Tentang pencegahan kekerasan seksual pada anak Remaja awal di SD islam terpadu nurul fikri makassar. *Sinergitas Multidisiplin Ilmu Pengetahuan Dan Teknologi*, 2, 65–71.
- Open Data Jabar. (n.d.). Jumlah Korban Kekerasan Terhadap Anak Perempuan Berdasarkan Bentuk Kekerasan dan Kabupaten/Kota di Jawa Barat.

- Qurotul Ahyun, F., Solehati, S., & Prasetya, B. (2022). Faktor Penyebab Terjadinya Pelecehan Seksual Serta Dampak Psikologis Yang Dialami Korban. *Al-ATHFAL: Jurnal Pendidikan Anak*, 3(2), 92–97. <https://doi.org/10.46773/alathfal.v3i2.488>
- Rohanachandra, Y. M., Amarakoon, L., Alles, P. S., Amarasekera, A. U., & Mapatunage, C. N. (2023). Parental knowledge and attitudes about child sexual abuse and their practices of sex education in a Sri Lankan setting. *Asian Journal of Psychiatry*, 85, 103623. <https://doi.org/10.1016/J.AJP.2023.103623>
- Saul, M. (2024). Piaget ' s Theory and Stages of Cognitive Development. *Simply Psychology*, 1–34.
- Simfomi. (2024). Peta Sebaran Jumlah Kasus Kekerasan Menurut Provinsi.
- Tekoa L King, Mary C Brucker, K. O. C. (2019). *Varney Midwifery Sixth Edition*. 1–2327.
- WHO. (2024). First ever Global Report on Violence and Health released. Laura Sminkey.
- Witheridge, A., Ferns, G., & Scott-smith, W. (2019). Revisiting Miller ' s pyramid in medical education: the gap between traditional assessment and diagnostic reasoning. 191–192. <https://doi.org/10.5116/ijme.5d9b.0c37>
- Wulansari, I., Muhammad, R. W., Puspita, C., Haji, S., & Falah, F. (2025). Snakes And Ladder Games For Education Untuk Meningkatkan Pengetahuan Pencegahan Pelecehan Seksual Pada Anak Di. 5(01), 99–103.