ORIGINAL ARTICLE

THE EFFECTIVITY OF MATCHING PAIRS MEMORY TWIST BLOCK ON KNOWLEDGE AND ATTITUDES TOWERDS ANTIKESAL (ANTICIPATING SEXUAL VIOLENCE) IN FEMALE ADOLESCENT

Triyana Puspa Dewi[1], Desak Made Serinadi[2]

[1,2]STIKes Kesdam IX/Udayana, Bali Indonesia

***Corresponding Author**
Triyana Puspa Dewi
Jl. Taman Kanak-Kanak Kartika, Dauh Puri, Kec. Denpasar Bar., Kota Denpasar, Bali 80232
Email : nurseana63@gmail.com

Indonesian Nursing Journal of Education and Clinic (INJEC)

Volume 11 Issue 1, April 2026
DOI: 10.24990/injec.v11i1.1035
injec.aipni-ainec.org/index.php/INJEC/index
Received : 2025-10-29
Accepted : 2026-04-28

ABSTRACT

Introduction: Sexual violence as a worldwide issue nowadays has become an alarming condition among adolescents. Female adolescents as the common victims experienced traumatized situations that indicate the need for anticipatory intervention. This research aims to prove the effectiveness of matching pairs memory twist block on knowledge and attitude towards ANTIKESAL (Anticipation of Sexual Violence) in female adolescent.
Method: This research is a quasi-experimental study using a one group pre-post design which involved 63 female students aged 14-17 years from SMK Kesehatan PGRI Denpasar. The sampling technique used is total sampling and analyzed by the paired t-test and Wilcoxon signed-rank test.
Results: The results are displayed in this study: 66.7% are in the tenth grade, 92.1% live with their biological families, 58.7% have parents who earn less than the regional minimum wage, 50.8% of parents work in the private sector, 69.8% are not dating, and 81% have no history of violence or sexual violence. An increase in average scores following the intervention and a p-value < 0.05 demonstrate the effectiveness of the matching pairs memory twist block in raising knowledge (p-value = 0.001) and attitudes (p-value = 0.020) on ANTIKESAL in adolescent girls.
Conclusions: The matching pairs memory twist block as a media of game is proven to effectively enhance the knowledge and attitudes toward anticipating sexual violence. The benefits of this research can be enhanced by modifying educational and interactive games based on local wisdom and incorporating sexual violence prevention education into the learning curriculum.

Keywords: Adolescent; Anticipation; Female; Sexual violence; Matching Pairs Memory Twist Block

INTRODUCTION

Sexual violence is a crucial issue that has a significant negative impact on a person's health and well-being. The cases of sexual violence that are widely discussed globally nowadays involve not only direct physical violence but also online violence that relies on technology (CDC, 2024). The emerging situation is the perpetrators are often those closest to the victim, who should be trusted to provide a sense of security. Sexual violence can lead to profound trauma, increased risk of sexually transmitted infections, substance abuse, social isolation, and difficulty establishing healthy relationships in the future (UNICEF, 2024). UNICEF reports that the peak age with a significant spike in sexual violence cases is between 14 to 17 years (UNICEF, 2024). This age group indicates that adolescents who are in a relationship are at risk of experiencing sexual violence due to unwanted physical or non-physical coercion or attempts. Data from the CDC in 2021 found that 1 in 10 adolescents in a relationship experience sexual violence, with women being the highest victims (CDC, 2025). This concerning situation also occurs in Indonesia, data from the Indonesian Child Protection Commission in 2022 stated that violence against children could reach 2,133 cases, of which 834 cases were sexual violence, the highest number (KPAI, 2023).

ORIGINAL ARTICLE

Sexual violence is a result of several risk factors that are poorly understood by adolescents. Adolescents with a history of childhood violence report experiencing repeated incidents of sexual violence (Sølvberg et al., 2024). A related study on female adolescents found higher rates of sexual violence in persons with alcohol addiction and inadequate financial support (Ajayi, Mudefi and Owolabi, 2021). Based on the primary perpetrator, sexual violence against adolescents is most often perpetrated by ex-boyfriends or friends. Those from lower socioeconomic backgrounds were also found to experience higher rates of sexual violence (Moreira et al., 2022).

Eradicating sexual violence has become a challenge for all levels of society and the government, especially in Indonesia, which has entered a state of emergency. The Central Government has issued Government Regulation No. 78 of 2021 concerning Special Protection for Children, mandated by Article 71C of Law No. 35 of 2014 concerning Child Protection (KemenPPPA, 2021). The Balinese government, through the Traditional Villages, responds to sexual violence, especially against children and women, through the existence of "Awig-Awig". Awig-awig is a rule/law established by "Krama Desa Adat" which refers to Article 17 of Regional Regulation No. 4 of 2014, which emphasizes that traditional villages have a role in preventing acts of violence against children.

This study aims to prove the effectiveness of matching pairs memory twist block on knowledge and attitudes of ANTIKESAL (anticipation of sexual violence) in female adolescents.

METHOD

Study Design

This research is quantitative research with a descriptive, quasi-experimental design using the one group pre-post test design approach.

Population, Samples, and Sampling

The population in this study was all 77 female students majoring in nursing at the SMK Kesehatan PGRI Denpasar, in grades X and XI. The sample size in this study used the total sampling formula, resulting in 77 students being sampled in the study. However, 14 students were absent during the study. The sample size in this study became 63 students. The independent variable in this study was the matching pairs memory twist block. The knowledge and attitude towards ANTIKESAL as the dependent variables.

Instruments

The instrument for measuring knowledge and attitudes in this study was developed based on theories and research findings related to sexual violence and anticipating sexual violence in female adolescents. The knowledge assessment consisted of 30 questions, and the attitude assessment consisted of 20 questions. The distribution of knowledge assessment items contained 14 positive questions and 16 negative questions, covering the assessment domains of the concept of sexual violence, demographic factors, impacts, lifestyle, sociopsychology, institutional factors, and efforts to anticipate sexual violence. The distribution of attitude assessment items contained 10 positive and 10 negative questions each. Validity testing of the instrument was conducted on 30 female students majoring in pharmacy, which found that all items in the knowledge questionnaire were valid with a calculated r value of 0.406-0.761 > r table (0.361). All items in the attitude questionnaire were valid with a calculated r value of 0.440-0.788 > r table (0.361). The reliability test of the knowledge and attitude instruments had a value of *Chronbach Alpha*>0.60, namely 0.909 and 0.889 respectively, so that both instruments are declared reliable.

The instrument used as an educational medium to anticipate sexual violence was created by researchers with originality. The game's originality as an educational medium is evidenced by the fact that similar media has never been used as an educational medium for high school students. Matching pairs, which are currently developed using digital media, in this study used non-digital educational media in the form of blocks whose position can be randomly positioned to divert adolescents' attention from using gadgets and social media. Furthermore, in the process of determining correct or incorrect answers, there will be active interaction between researchers and adolescents, resulting in mutual communication. The changeable position of the blocks will minimize boredom in the game. It will feel more interactive when played in groups. The shape of the tool used in this study can be seen in Figure 1.



Figure1. The Matching Pairs Memory Twist Block

ORIGINAL ARTICLE

Procedure

After obtaining permission to conduct the research, data collection was conducted with the involvement of one researcher and a teacher as the student's guardian. The research was explained by providing directions regarding the research procedures, and the signing of informed consent was followed by providing answers on the questionnaire. This study involved four students from Stikes Kesdam IX/Udayana as research assistants whose task was to assist and accompany the students in completing the instruments and documenting the research activities. All participating respondents then received a gift in the form of a tote bag promoting ANTIKESAL and stationery.

Data Analysis

The data collected through the questionnaire was checked for completeness to conduct inferential analysis in the form of descriptive analysis to determine the frequency distribution of the characteristics of each variable. Inferential analysis to assess the effectiveness of the intervention on knowledge (normal distribution) used the paired t-test and the Wilcoxon signed-rank test to assess the effectiveness of the intervention on attitudes (abnormal distribution) using SPSS version 27.

Ethical Clearance

This research has been declared ethically appropriate by the Ethics Commission of STIKes Buleleng with No: 1001/EC-KEPK-SB/VIII/2025 dated August 28, 2025.

RESULTS

Respondent Characteristics

The characteristics of the research respondents were analyzed based on class level, who they lived with, parents' income, parents' occupation, relationship status, and history of violence, as presented in Table 1

Tabel 1 Respondent Characteristics

Respondent Charactiristics	Frequency (f)	Percentage (%)
Grade Level		
Grade X	42	66.7
Grade XI	21	33.3
Living With		
Biological Family	58	92.1
Step Family	5	7.9
Perents' Income		
Minimum Wage	26	41.3
Below the minimum wage	37	58.7
Perents' Job		
Civil servant	2	3.2
Privat	32	50.8
Self-employed	29	46.0
Relationship Status		
In a relationship	19	30.2
Not daring	44	69.8
History of Violence		
Once	12	19.0
Never	51	81.0

Characteristics

Based on the results of the analysis of the characteristics of the respondents, it is known that the majority of students who were the subjects of the study came from class X- as many as 42 people (66.7%). Almost all respondents lived with their biological families, namely 58 people (92.1%), 37 respondents (58.7%) had parents with incomes below the minimum wage,and most worked in the private sector- as many as 32 people (50.8%), followed by self-employed, as many as 29 people (46.0%), and only 2 people (3.2%) who worked as civil servants. The characteristics of the respondents also showed that most were not in a relationship- as many as 44 people (69.8%), and the majority of respondents admitted that they had never experienced violence- as many as 51 people (81.0%).

The Distribution of Knowledge and Attitude towards ANTIKESAL of Female Adolescents

Table 1. Frequency distribution of knowledge and attitudes of ANTIKESAL female adolescents

Variables	Before intervention		After the intervention	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Knowledge				
Enough	22	34.9	8	12.7

Good	41	65.1	55	87.3
Attitude				
Negative	10	15.9	4	6.3
Positive	53	84.1	59	93.7

Based on the descriptive analysis in Table 2, it can be seen that in the knowledge variable before the intervention, most respondents had good knowledge, as many as 41 people (65.1%), while 22 people (34.9%) had sufficient knowledge. After the intervention, there was an increase in the number of respondents with good knowledge to 55 people (87.3%), while sufficient knowledge decreased to 8 people (12.7%). This indicates that the intervention was able to improve respondents' knowledge. Assessment of the attitude variable, before the intervention, the results showed that 10 respondents (15.9%) had a negative attitude and 53 respondents (84.1%) had a positive attitude. After the intervention, the number of respondents with a positive attitude increased to 59 people (93.7%), while those with a negative attitude decreased to 4 people (6.3%). This finding indicates a shift in respondents' attitudes towards a more positive direction after the intervention.

Data Normality Test

Table 3 Analysis of Data Normality

Variable	Time	*Shapiro-Wilk*		
		Statistics	Sig.	Interpretation
Knowledge	Before	0.970	0.131	Normal
	After	0.965	0.070	Normal
Attitude	Before	0.984	0.000	Abnormal
	After	0.977	0.000	Abnormal

Based on the table above, it can be seen that for the knowledge variable, the Sig. value was 0.131 before the intervention and 0.070 after the intervention, so both data were normally distributed. For the attitude variable, the Sig. value before the intervention was 0.000, and after the intervention was 0.000. This significance value is less than 0.05. The knowledge data before and after the intervention met the assumption of normality. Therefore, it was suitable for further analysis with a parametric test (paired t-test). The attitude research data both before and after the intervention did not meet the assumption of normality, therefore it was further analyzed with a non-parametric test (Wilcoxon).

Analysis of The Effectiveness of Matching Pairs Memory Twist Block on Knowledge and Attitude towards ANTIKESAL in Female Adolescents

Table 2 Analysis of The Effectiveness of Matching Pairs Memory Twist Block on Knowledge and Attitude towards ANTIKESAL in Female Adolescents

Variable	*Mean*±SD		*Mean*	*Statistics*	*p-value*
	Before intervention	After intervention			
Knowledge	77.1429 ± 7.77961	81.1640 ± 6.90848	4.02116	3.433[a]	0.001
Attitude	74.4444 ± 9.70497	77.4603 ± 5.67344	3.01587	-2.326[b]	0.020

Note : [a]paired t test; [b]Wilcoxon

Based on the test results in table 4, it shows that there is a significant difference between the scores before and after the intervention on both research variables. In the knowledge variable, the average score increased from 77.14 ± 7.78 before the intervention to 81.16 ± 6.91 after the intervention, with an average difference of 4.02 points. The t-test produced a value of t = 3.433 with p = 0.001 (p < 0.05), which means there was a significant increase in knowledge after the intervention. In the attitude variable, the average score increased from 74.44 ± 9.70 before the intervention to 77.46 ± 5.67 after the intervention, with an average difference of 3.02 points. The Wilcoxon test showed a z value of -2.326 with p = 0.020 (p < 0.05). This indicates that the intervention also had a significant effect in improving respondents' attitudes in a more positive direction.

Based on these results, it can be concluded that the matching pairs memory twist block intervention provided was effective in

improving both knowledge and attitudes towards ANTIKESAL (Anticipation of Sexual Violence) in female adolescents.

DISCUSSION

Respondent characteristics

The age characteristics of the respondents in this study were that the majority were in the X grade, aged 15-16. A similar study on sexual violence incidents involving victims referred to Trakya University Faculty of Medicine in Turkey also involved predominantly adolescents aged 15-18 (Bozatlı, 2025). However, a study involving a larger population of adolescents in China found that 17 years of age was more dominant, with 16 years of age following (Fu et al., 2023).

Respondent characteristics based on the presence of family members they live with are that almost all respondents live with their biological families, namely 58 people (92.1%). This research is in line with cross-country research by Zaborskis et al., (2022) which found that adolescents predominantly lived with their biological families, with both their mothers and fathers living together. Only a few families living with stepfamilies in this study examined adolescents' views of family. Research on adolescents regarding family structure, social relationships, and their relationship to the level of substance use also found that adolescents predominantly lived with their biological families, with both their mothers and fathers living together (Hoffmann, 2022).

Based on parental income, 37 respondents (58.7%) had parents with income below the minimum wage. When viewed from the type of parental occupation, the majority worked in the private sector, as many as 32 people (50.8%). In a similar study on sexual violence against adolescents, it was found that the majority of adolescent parents worked as farmers, although the parents' occupations varied with almost the same number, namely as self-employed, private and civil servants, and laborers, respectively (Suparyanto and Musvita Ayu, 2023). The relationship between parental income and work is discussed in research by Ajayi et al., (2021) that female adolescents with low financial support in her research were associated with higher incidences of sexual violence.

The characteristics of the respondents also show that the majority are not currently in a relationship, namely 44 people (69.8). Research in Indonesia on premarital sexual behavior in adolescents found that the majority of adolescents had never been in a relationship before, while those who were in a relationship were less than a third of the respondents involved (Ningsih, 2022). Based on their history of violence, the majority of respondents, 51 (81.0%), admitted never having experienced violence. Previous research on the history of violence in adolescents, which focused on relationship-related violence, also included respondents with a history of violence, most of whom had never experienced violence before (Persram et al., 2021).

Knowledge and Attitudes of ANTIKESAL (Anticipation of Sexual Violence) in Female Adolescents Before Administering Matching Pairs Memory Twist Block

The average ANTIKESAL knowledge of adolescents in this study was 77.14 ± 7.78 before the intervention. Adolescents predominantly had good knowledge, followed by those with sufficient knowledge. Research in Indonesia on sexual violence prevention behavior in adolescents found that adolescents predominantly had poor knowledge regarding sexual violence, followed by those with good knowledge (Yamin et al., 2024). Similar research found that most adolescent respondents with sufficient knowledge about sexual violence were more dominant (Dewi et al., 2024). Teenagers gain knowledge through interactions with the physical and social world, which sparks interest and stimulates them to explore further. The process of deepening knowledge through discussion will help adolescents increase their literacy (Jamison, 2023). Research on sexual violence has been conducted among adolescents in Indonesia. The study of 150 students showed that adolescents still have limited knowledge about sexual violence and are often unaware that they have been perpetrators or victims. This has resulted in adolescents' low attitudes toward supporting sexual violence prevention efforts (Hidayah, 2023). Knowledge is significantly related to efforts to anticipate sexual violence. It was found in research that the lower the level of knowledge, the lower the efforts to anticipate the risk of sexual violence (Fadliyah et al., 2024). Researchers believe that adolescents' adequate knowledge is related to their exposure to information from various sources as they age. This knowledge will make it easier for adolescents to identify and prevent sexual violence. Sources of knowledge

about sexuality and basic guidance on avoiding violence should come from their own homes or from their parents.

The attitudes of adolescents in this study had an average score of 74.44 ± 9.70 before the intervention. Adolescents predominantly had positive attitudes, with only a few having negative ones. Attitude, in theory, is a measurable variable based on levels considered most appropriate/beneficial to least appropriate/unbeneficial (Jaccard and Jacoby, 2020; Maio et al., 2025). Attitude formation allows a person to quickly assess a new situation when few familiar people are involved (Waite-Jones and Rodriguez, 2022). Attitudes in adolescents are greatly influenced by the attitudes of their peers because this will influence a person's acceptance in their group, especially at school (Kite, Whitley and Wagner, 2022). Attitudes regarding violence are usually formed in the nuclear family, as the place where a person first has openness regarding their gender by following norms and perceptions about principles according to gender (Enaifoghe, A., & Idowu, 2021).

Attitudes require a longer process to change. Attitudes are part of the development of behavior, requiring interaction and observation until adolescents are able to determine whether to adopt a positive, negative, or even neutral attitude. Based on research findings prior to the intervention, improving attitudes requires interactive communication and education, enabling adolescents to develop perceptions that guide their subsequent attitudes toward the stimuli they receive in a more engaging manner.

Knowledge and Attitudes of ANTIKESAL (Anticipation of Sexual in Female Adolecents After Giving Matching Pairs Memory Twist Block

Knowledge of ANTIKESAL after the administration of matching pairs memory twist blocks was found to have increased compared to before the intervention, with an average difference of 4.02 points. When associated with knowledge about anticipation, anticipation guides can increase interest, build motivation, and increase student engagement, which allows students to express opinions, form connections with core knowledge, and make predictions about the topics discussed (Bowers, 2023). In this study, matching pairs memory twist blocks were used as an interactive educational game designed to guide adolescents in understanding how to anticipate sexual violence. From the perspective of games as an educational medium, a systematic review suggests that memory-based games can have a positive effect on interactive information retention (Abd-Alrazaq et al., 2022).

ANTIKESAL attitudes after administration of matching pairs memory twist block were found to increase compared to before the intervention, with an average difference of 3.02 points. Attitudes in adolescents, also known as the affective domain, are a continuation of the cognitive or knowledge domain. Attitudes have five levels, starting with acceptance, responding, appreciating, organizing, and then forming a lifestyle (Swarjana, 2022). The formation of attitudes involves a complex process, so the right attitudes need to be instilled from an early age. Attitudes are something that continues to grow because they involve experiences and ways of responding, which will become better and more positive if the development of attitudes is based on positive reinforcement (Sudaryono, 2022). In this study, positive attitudes were reinforced by utilizing educational learning media with games. Another widely used medium for educating adolescents is online games. One previous study utilized virtual reality, which depicted violence in an interactive format, allowing students to assume the perspective of a victim of violence. This resulted in increased emotional understanding, leading to more positive attitudes (Bowman, Ahn and Mercer Kollar, 2020). Similar research on games for adolescents using digital media positively influenced adolescent attitudes and also improved academic achievement. Implementing the games for a month gradually improved adolescents' attitudes, leading to them actively participating in violence prevention, correcting misconceptions about violence (Taghipour, Vizeshfar and Zarifsanaiey, 2023).

Research utilizing digital media is easier to implement but has the disadvantage that children are more easily distracted by other activities using the same media. Currently, digital game media is not possible to implement, especially in Indonesia, if the use of digital media cannot be achieved equitably. This research uses game media in the form of wooden blocks, which will provide adolescents with the opportunity to focus attention and actively interact, accompanied by additional explanations related to the material presented. Therefore, adolescents will develop better

attitudes from what is read, heard, and understood together with their peers through non-digital game media.

The Effectiveness of Matching Pairs Memory Twist Block on Knowledge and Attitudes of ANTIKESAL (Anticipation of Sexual Violence) in Female Adolescents

Bivariate testing with paired t-test found that the intervention effectively increased knowledge as evidenced by a t-value of 3.433 with p = 0.001 (p < 0.05), meaning there was a significant increase in knowledge after the intervention. Bivariate testing with Wilcoxon found that the intervention effectively increased attitudes as evidenced by a z-value of -2.326 with p = 0.020 (p < 0.05), meaning there was a significant increase in attitudes in a more positive direction.

Previous research has shown that using similar games, known as board games, involving teenagers can improve their knowledge of the topics being taught. The game mechanics allow teenagers to expand their knowledge of how to play, fostering curiosity and enthusiasm in the learning process. Card games provide experiences in memory and logic (Gallardo-Masa et al., 2024). Research by Sivakumar, (2022) proves that memory games are included in brain teaser games that can improve concentration, train visual memory, increase attention to detail and improve short-term memory.

Attitudes are a form of evaluative judgment about a stimulus object. Attitudes help a person express their values, identify people they like, and protect themselves from negative feedback. For this reason, attitudes help a person understand how opinions are formed, changed, and measured (Maio et al., 2025). The use of print media as an educational medium is still able to improve the ability of teenagers to understand sexual education as proven in research by Mansur et al., (2023).

The Matching Pairs Memory Twist Block media has the advantage of originality, a game that has never been used before as a learning media for high school students to provide education related to anticipating sexual violence. Teenagers can see the game in real form. The game is made with attractive colors and positioning that can be changed so it doesn't get boring for them. This media is able to help teenagers build better knowledge and attitudes through an interactive process that involves participants with their peers and fosters discussions to remind each other of questions and the correct answer pairs. This game can simultaneously improve focus and memory, thereby enhancing knowledge as a building block of attitudes.



Figure 2 Providing education using Matching Pairs Memory Twist Block media

CONCLUSION

The conclusions of this study showed that the majority of respondents were students in grade X (66.7%), lived with their biological families (92.1%), had parents with incomes below the regional minimum wage (58.7%), and had parents working in the private sector (50.8%). In addition, most respondents were not dating (69.8%) and had never experienced violence (81.0%). The study also demonstrated that the matching pair memory twist block intervention was effective in improving ANTIKESAL knowledge and attitudes. The paired t-test results for knowledge showed a significant increase after the intervention (t = 3.433; p = 0.001, p < 0.05). Furthermore, the Wilcoxon test results for attitudes indicated a significant positive improvement among respondents after the intervention (z = -2.326; p = 0.020, p < 0.05).

Acknowledgement

Researchers thank the Association of Indonesian Nursing Education Institutions for funding this research from the beginning to the end in 2025. In addition, we appreciate all participants and related institutions for helping us during the research process to carry out research well.

Conflict of Interest

All of the authors of this manuscript have no conflict of interest to declare.

REFERENCES

Abd-Alrazaq, A. *et al.* (2022) 'The Effectiveness of Serious Games in Improving Memory Among Older Adults With Cognitive Impairment: Systematic Review and Meta-analysis', *JMIR Serious Games*, 10(3), pp. 1–25. Available at: https://doi.org/10.2196/35202.

Ajayi, A.I., Mudefi, E. and Owolabi, E.O. (2021) 'Prevalence and correlates of sexual violence among adolescent girls and young women: findings from a cross-sectional study in a South African university', *BMC Women's Health*, 21(1), pp. 1–9. Available at: https://doi.org/10.1186/s12905-021-01445-8.

Bowers, E. (2023) *What the Science of Reading Says*. California: Shell Educcation.

Bowman, N.D., Ahn, S.J. and Mercer Kollar, L.M. (2020) 'The paradox of interactive media: The potential for video games and virtual reality as tools for violence prevention', *Frontiers in Communication*, 5(November), pp. 1–15. Available at: https://doi.org/10.3389/fcomm.2020.580965.

Bozatlı, L. (2025) 'Retrospective Evaluation in Child and Adolescent Victims of Sexual Abuse : Analysis of Gender and Age Differences', 10(4), pp. 250–257. Available at: https://doi.org/10.4274/cjms.2024.2024-99.

CDC (2024) *About Sexual Violence* , *Sexual Violence Prevention*. Available at: https://www.cdc.gov/sexual-violence/about/index.html (Accessed: 3 April 2025).

CDC (2025) *Teen Dating Violence*, *Intimate Partner Violence Prevention*. Available at: https://www.cdc.gov/intimate-partner-violence/about/about-teen-dating-violence.html (Accessed: 3 April 2025).

Dewi, I.R. *et al.* (2024) 'Gambaran Tingkat Pengetahuan Remaja Putri tentang Kekerasan Seksual di SMPN 1 Ruteng Cancar Kabupaten Manggarai', *MAHESA : Malahayati Health Student Journal*, 4(3), pp. 1070–1078. Available at: https://doi.org/10.33024/mahesa.v4i3.13992.

Enaifoghe, A., & Idowu, T.A. (2021) 'The Attitudes and Perceptions toward Sexuality and the Social Influence on Gender-Based Violence in South Africa', *African Journal of Public Affairs*, 12(1), pp. 153–170. Available at: https://hdl.handle.net/10520/ejc-ajpa_v12_n1_a10.

Fadliyah, L. *et al.* (2024) 'The Relationship Between Adolescents ' Knowledge Levels Of Sexual Development And Anticipation Of The Risk Of Sexual Table 1 . Characteristics respondent based on age , gender , caregiver , and source of knowledge at MTs Al Fatah Badas , Kediri Regency 20', *Journal of Vocational Nursing*, 5(2), pp. 125–129.

Fu, G. *et al.* (2023) 'Ecological factors associated with child sexual abuse among 15- to 17-year-old adolescents in mainland China: implications for intervention', *Frontiers in Public Health*, 11(October), pp. 1–12. Available at: https://doi.org/10.3389/fpubh.2023.1169669.

Gallardo-Masa, C. *et al.* (2024) '"Great times with board games". Promoting the right to play for adolescents in residential care', *Children and Youth Services Review*, 167(April 2024), p. 108025. Available at: https://doi.org/10.1016/j.childyouth.2024.108025.

Hidayah, V.R. (2023) 'Analysis Of The Level Of Adolescent Knowledge About Sexual Violence On Adolescent Attitudes In Sexual Violence Prevention', *Buana Gender: Jurnal Studi Gender dan Anak*, 8(2), pp. 19–27. Available at: https://doi.org/10.22515/bg.v8i2.6606.

Hoffmann, J.P. (2022) 'Family Structure, Unstructured Socializing, and Heavy Substance Use among Adolescents', *International Journal of Environmental Research and Public Health*, 19(14). Available at: https://doi.org/10.3390/ijerph19148818.

Jaccard, J. and Jacoby, J. (2020) *Theory Construction and Model-Building Skills: A Practical Guide for Social Scientists*. Unitec States of America: Guilford Publications.

Jamison, A. (2023) *Decentering Whiteness in Libraries: A Framework for Inclusive Collection Management Practices*. London: Bloomsbury Publishing PLC.

KemenPPPA (2021) *PP 78 Tahun 2021 Perkuat Layanan Perlindungan Khusus Anak*, *Layanan Perlindungan Khusus Anak*. Available at:

https://www.kemenpppa.go.id/index.php/page/read/29/3359/menteri-bintang-pp-78-tahun-2021-perkuat-layanan-perlindungan-khusus-anak (Accessed: 3 April 2023).

Kite, M.E., Whitley, B.E. and Wagner, L.S. (2022) *Psychology of Prejudice and Discrimination*. London: Taylor & Francis.

KPAI (2023) *Catatan Pengawasan Perlindungan Anak di Masa Transisi Pandemi; Pengasuhan Positif, Anak Indonesia Terbebas dari Kekerasan* , *Siaran Pers*. Available at: https://www.kpai.go.id/publikasi/catatan-pengawasan-perlindungan-anak-di-masa-transisi-pandemi-pengasuhan-positif-anak-indonesia-terbebas-dari-kekerasan (Accessed: 6 April 2025).

Maio, G. *et al.* (2025) *The Psychology of Attitudes and Attitude Change*. United Kingdom: SAGE Publications.

Mansur, A.R. *et al.* (2023) 'Enhancing Knowledge and Attitude with a Sex Educational Pop-up Book for Adolescents with Intellectual Disabilities', *Journal of Maternal and Child Health*, 8(3), pp. 363–369. Available at: https://doi.org/10.26911/thejmch.2023.08.03.11.

Moreira, W.C. *et al.* (2022) 'Analysis of cases of sexual violence in school adolescents', *Enfermeria Global*, 21(3), pp. 284–300.

Ningsih, E.S.B. (2022) 'Hubungan Pengetahuan Dan Sikap Berpacaran Terhadap Perilaku Seksual Pranikah Remaja', *Indonesian Journal for Health Sciences*, 6(1), pp. 28–34. Available at: https://doi.org/10.24269/ijhs.v6i1.4318.

Persram, R.J. *et al.* (2021) 'Development and Validation of the Teen Dating Aggression Measure Among Canadian Youth', *Frontiers in Psychology*, 12(December), pp. 1–12. Available at: https://doi.org/10.3389/fpsyg.2021.763210.

Sivakumar (2022) 'Effectiveness of Memory Game on Academic', *Global and Lokal Distance Education*, (April), pp. 0–3.

Sølvberg, N. *et al.* (2024) 'Risk factors for sexual harassment and abuse victimization among adolescent athletes and non-athletes: A one-year follow-up study', *Child Abuse and Neglect*, 147(November 2023). Available at: https://doi.org/10.1016/j.chiabu.2023.106592.

Sudaryono (2022) *Komunikasi Bisnis*. Jakarta: Prenada Media.

Suparyanto and Musvita Ayu, S. (2023) 'Hubungan Pola Asuh Orang Tua dengan Kejadian Kekerasan pada Anak(Studi di Sekolah Dasar Negeri Panggang I Gunungkidul, Yogyakarta)', *The Indonesian Journal of Public Health)*, 18(3), pp. 21–26. Available at: https://jurnal.unimus.ac.id/index.php/jkmi,jkmi@unimus.ac.id.

Swarjana, I.K. (2022) *Konsep pengetahuan, sikap, perilaku, persepsi, stres, kecemasan, nyeri, dukungan sosial, kepatuhan, motivasi, kepuasan, pandemi covid-19, akses layanan kesehatan – lengkap dengan konsep teori, cara mengukur variabel, dan contoh kuesioner*, *Andi*. Yogyakarta: Penerbit Andi.

Taghipour, E., Vizeshfar, F. and Zarifsanaiey, N. (2023) 'The effect of gamification-based training on the knowledge, attitudes, and academic achievement of male adolescents in preventing substance and internet addiction', *BMC Medical Education*, 23(1), pp. 1–9. Available at: https://doi.org/10.1186/s12909-023-04858-1.

UNICEF (2024) *Over 370 million girls and women globally subjected to rape or sexual assault as children*. Available at: https://www.unicef.org/eap/press-releases/over-370-million-girls-and-women-globally-subjected-rape-or-sexual-assault-children.

Waite-Jones, J.M. and Rodriguez, A.M. (2022) *Psychosocial Approaches to Child and Adolescent Health and Wellbeing*. Switzerland: Springer Nature.

Yamin, A. *et al.* (2024) 'Pengetahuan dan Sikap Remaja terhadap Kekerasan Seksual', *Journal of Telenursing (JOTING)*, 6(2), pp. 1763–1771. Available at: https://doi.org/10.31539/joting.v6i2.10621.

Zaborskis, A. *et al.* (2022) 'Family Structure through the Adolescent Eyes: A Comparative Study of Current Status and Time Trends over Three Decades of HBSC Study', *Societies*, 12(3). Available at: https://doi.org/10.3390/soc12030088.