



ARTICLE

DEVELOPING A PEER SUPPORT MODEL TO PREVENT NON-CONSENSUAL INTIMATE IMAGES AMONG ADOLESCENTS IN BALI

Fitria Dila Sari^{1*}, Ni Luh Putu Yunianti Suntari², I Dewa Ayu Ketut Surinati³, Ni Putu Dessy Parmitha Sari⁴, Ni Made Tariani⁵

^{1,2,3,4,5} Department of Nursing, Denpasar Health Polytechnic Denpasar, Bali, Indonesia

*Correspondence: fitriadilasari@poltekkes-denpasar.ac.id

ABSTRACT

Sexual violence including online gender-based violence is rising in Indonesia. Bali underreports Non-Consensual Intimate Images (NCII), an emerging form of OGBV. Teens are vulnerable to NCII but generally avoid help owing to stigma, embarrassment, and little trusted support. This study sought to create a peer support-based NCII prevention paradigm for Bali adolescents. A mixed-methods approach included quantitative and qualitative data. Pre- and post-test questionnaires during peer assistance training collected quantitative data, while school observations of peer-led instruction provided qualitative data. Trained students disseminated the paradigm after researcher-led peer support training. The intervention led to considerable knowledge improvement ($p < 0.001$) and increased passion, creativity, and initiative among peer supporters among teenagers. The strategy elevated teenagers' NCII prevention awareness, knowledge, and preparedness. Therefore, school-based adolescent health and protection initiatives should include peer support to sustain NCII prevention efforts.

Keywords: Peer Support; Assistance Services; Adolescence; NCII

АБСТРАКТ

Сексуальное насилие, включая онлайн-гендерное насилие, растет в Индонезии. Бали недооценивает количество случаев распространения неприемлемых интимных изображений (NCII), новой формы онлайн-гендерного насилия (OGBV). Подростки уязвимы к НКИ, но обычно избегают помощи из-за стигмы, смущения и недостатка доверенной поддержки. Это исследование стремилось создать парадигму профилактики NCII на основе взаимопомощи для подростков на Бали. Подход с использованием смешанных методов включал количественные и качественные данные. Анкеты до и после тестирования во время обучения помощи сверстников собирали количественные данные, в то время как наблюдения за обучением, проводимым сверстниками, предоставляли качественные данные. Обученные студенты распространили парадигму после тренинга по поддержке сверстников, проведенного исследователем. Вмешательство привело к значительному улучшению знаний ($p < 0,001$) и увеличению увлечения, креативности и инициативы среди сверстников-поддерживающих подростков. Стратегия повысила осведомленность, знания и готовность подростков к профилактике НЦП. Поэтому инициативы по охране здоровья и защите подростков в школах должны включать поддержку сверстников для поддержания усилий по предотвращению НЦП.

Ключевые слова: поддержка сверстников, подростки, NCII, онлайн-гендерное насилие, профилактика, Бали

INTRODUCTION

Indonesia is currently experiencing a sexual violence emergency, with sexual violence being the most frequently reported form of violence compared to physical and psychological violence. Data from the Ministry of Women's Empowerment and Child Protection indicate that out of a total of 19,593 reported cases of violence recorded in 2023, 8,585 cases involved sexual violence.¹

Adolescents aged 13–17 years represent the largest proportion of victims, accounting for approximately 38% of all reported cases, thereby positioning adolescents as a particularly vulnerable group to sexual violence.^{2,3} This vulnerability is closely associated with the developmental characteristics of adolescence, a period marked by significant physical, psychological, and social changes that may increase exposure to various forms of violence, including sexual violence.⁴

According to the World Health Organization, adolescence is a critical developmental phase involving identity formation and increasing independence.⁴ During this period, emotional instability and identity exploration may heighten adolescents' susceptibility to various forms of violence, including sexual violence.⁵ Exposure to sexual violence can lead to serious psychological consequences such as post-traumatic stress disorder, depression, anxiety, sleep disturbances, and prolonged mistrust of others, which may persist if not adequately addressed.^{4,6}

In the digital era, one emerging form of sexual violence is Non-Consensual Dissemination of Intimate Images (NCII), which falls under Online Gender-Based Violence. NCII refers to the distribution or threat of distribution of intimate images or videos without the consent of the individual depicted, either following consensual sharing or through content created without the victim's knowledge.^{7,8} Victims of NCII frequently experience psychological distress, social stigma, economic consequences, and

loss of control over personal privacy.^{9,10} In Bali, NCII cases reflect an iceberg phenomenon, where only a small proportion of incidents are formally reported, while many remain hidden due to stigma and fear of social repercussions.¹¹ The rapid growth of tourism and digital communication technologies in Bali may further increase adolescents' exposure to online exploitation and NCII risks.¹²

Previous studies and first-year research findings indicate that adolescent victims of NCII are often reluctant to disclose their experiences due to fear of stigma, victim blaming, and patriarchal social norms (13,14). External factors such as unsupportive environments, as well as internal factors including shame and the desire to protect personal identity, contribute to low reporting rates.^{14,15} As a result, many adolescents prefer to confide in peers rather than formal institutions, revealing a gap in existing counseling and assistance services that have not fully accommodated adolescents' needs for safety and trust.^{14,16}

Peer support has been identified as a potential strategy to bridge this gap. Peer-based assistance enables adolescents to receive support from individuals of similar age and social background, fostering empathy, trust, and openness.^{16,17} However, structured peer support models addressing NCII among adolescents in Bali remain limited. Therefore, this study aims to describe the NCII situation in Bali and to develop a peer support-based assistance model for adolescents at risk of NCII, with the goal of strengthening supportive environments and improving access to appropriate counseling services.

MATERIAL AND METHODS

This study employed a sequential explanatory mixed-methods design, integrating quantitative and qualitative approaches to obtain a comprehensive understanding of the development of a peer support model for the prevention of Non-Consensual Intimate Images (NCII) among

adolescents in Bali. The quantitative phase was conducted first to assess changes in participants' knowledge following the intervention, followed by a qualitative phase to explore participants' experiences and perceptions regarding the implementation of the program.

The quantitative component utilized a one-group pre-test-post-test design. Data were collected using a validated and reliable knowledge questionnaire. The instrument consisted of 20 items, including 10 true-false statements and 10 agree-disagree statements, designed to assess participants' knowledge of NCII, Online Gender-Based Violence (OGBV), and the role of peer support in its prevention.

The qualitative component involved in-depth interviews, Focus Group Discussions (FGDs), and observations conducted during peer support activities in school settings. This approach was used to explore adolescents' experiences, peer support dynamics, and factors that facilitate NCII prevention within the school environment.

The study was conducted in Bali Province, Indonesia, in 2024, specifically in Denpasar City and Buleleng Regency (Singaraja). Participants were recruited using purposive sampling based on the inclusion criteria of adolescents aged 10–24 years who were willing to participate and completed all stages of the study. A total of 83 adolescents participated in the study, comprising 45 participants from Denpasar (5 males and 40 females) and 38 participants from Singaraja (5 males and 33 females).

The intervention was implemented in two stages. The first stage consisted of peer support training and educational sessions delivered by the researchers in collaboration with professionals experienced in handling NCII cases. The second stage involved trained students acting as peer supporters who disseminated information to their peers within the school environment.

Quantitative data were analyzed using descriptive statistics and paired t-tests to determine differences in knowledge scores before and after the intervention, with statistical significance set at $p < 0.05$. Qualitative data were analyzed using thematic analysis to identify major themes related to participants' experiences, the role of peer support, and the use of digital educational media in NCII prevention.

This study received ethical approval from the Health Research Ethics Committee of Poltekkes Kemenkes Denpasar (Reference No. DP.04.02/F.XXXII.25/0487/2024). All participants provided informed consent prior to participation and were assured of the confidentiality and anonymity of the information provided.

RESULT

The quantitative analysis showed a significant increase in adolescents' knowledge following the peer support-based intervention on NCII prevention. As presented in Table 1, the mean knowledge score increased from 75.78 before the intervention to 81.92 after the intervention, with a mean difference of 6.14 points.

Table 1. Comparison of Adolescents' Knowledge Scores Before and After the Peer Support Intervention

Variabel	Before Training (Mean)	After Training (Mean)	Mean Difference	t-value	p-value
Knowledge regarding NCII prevention	75.78	81.92	6.14	-5.906	<0.001

Paired t-test analysis indicated a statistically significant difference between pre-test and post-test scores ($t = -5.906$; $p < 0.001$), indicating improved knowledge regarding NCII prevention. Qualitative analysis further identified three major themes related to the implementation of the peer support intervention.

Theme 1: Psychologically Safe Learning Environment Participants reported that the peer support approach fostered a psychologically safe environment for discussing sensitive topics related to NCII and Online Gender-Based Violence (OGBV). Adolescents expressed greater comfort in sharing opinions, asking questions, and discussing personal concerns when interacting with peers.

Theme 2: Increased Engagement Through Digital Educational Media The use of digital educational media, including pocketbooks, posters, and webtoon comics, enhanced participants' engagement during the intervention. Visual and narrative-based materials facilitated understanding of NCII-related risks, prevention strategies, and self-protection mechanisms.

Theme 3: Knowledge Dissemination Through Peer Support Networks Participants demonstrated the ability to disseminate information acquired during the intervention to their peers within the school environment. Peer supporters shared knowledge regarding NCII prevention, digital safety, and available support resources, contributing to broader information dissemination among adolescent social networks.

DISCUSSION

The peer support-based intervention significantly improved adolescents' knowledge regarding NCII prevention, as reflected by the increase in mean knowledge scores from 75.78 before the intervention to 81.92 after the intervention ($t = -5.906$, $p < 0.001$). This result indicates that peer-led

educational approaches can enhance adolescents' awareness of digital safety and online violence prevention. A similar outcome was reported by Pavarini et al. (2024), who found that peer-led interventions improved adolescents' wellbeing, engagement, and understanding of health-related issues through active participation and social support.¹⁸

The effectiveness of the intervention may be explained by the characteristics of peer-based learning, which emphasize shared experiences, trust, and social connectedness. Adolescents are more likely to accept and internalize information delivered by individuals whom they perceive as similar to themselves. Peer support creates opportunities for reciprocal learning and encourages greater participation in educational activities.¹⁹ Furthermore, adolescent involvement in peer-led programs has been associated with increased empowerment, self-efficacy, and ownership of health-related issues.²⁰ Social Learning Theory also suggests that individuals acquire knowledge and behaviors through observation and interaction with relevant social models. Among adolescents, peers often function as influential role models because they share similar experiences, social identities, and communication styles, thereby facilitating the adoption of new knowledge and preventive behaviors.²⁰

The qualitative analysis revealed that peer support fostered a psychologically safe learning environment. Participants reported feeling more comfortable discussing sensitive issues related to NCII and digital violence when interacting with peers. This finding is particularly important because fear, shame, and concerns about social judgment frequently prevent adolescents from disclosing experiences of abuse or seeking support.^{13,14} Similar observations have been reported by UNICEF (2023), which emphasized that supportive environments are essential for promoting help-seeking behavior among young people affected by online

violence.²¹ The findings also align with Jennifer et al. (2019), who identified trust and emotional safety as important factors influencing adolescents' willingness to disclose experiences of exploitation and victimization.¹⁷ Creating psychologically safe spaces may therefore play a crucial role in strengthening adolescents' resilience, increasing their willingness to discuss sensitive issues related to digital violence, and encouraging them to seek appropriate support when needed.

The study also highlighted the value of digital educational media in supporting adolescent learning. Participants demonstrated greater engagement when educational messages were delivered through visual and interactive formats, including pocketbooks, posters, and webtoon comics. Visual and narrative-based approaches appeared to facilitate comprehension of complex concepts related to NCII prevention and digital self-protection. Previous studies have shown that digital educational approaches can increase participation, improve information retention, and strengthen adolescents' understanding of health-related topics.²² Likewise, Henry et al. (2020) emphasized the importance of technology-based educational strategies in addressing emerging forms of digital and technology-facilitated violence.⁸ Given the increasing exposure of adolescents to online environments, digital educational media represent an important component of contemporary health promotion programs and are increasingly recommended within adolescent health frameworks.²³

Another important finding was the ability of trained adolescents to disseminate acquired knowledge to their peers within the school environment. This finding demonstrates that peer support can function not only as an educational method but also as a mechanism for knowledge diffusion within adolescent social networks.

Similar findings were reported by Susetyo et al. (2024), who found that peer-based training strengthened adolescents' capacity to act as peer counselors and agents of change.²⁴ Through peer-to-peer communication, health information may reach a wider audience and contribute to the sustainability of prevention programs (20,24). This highlights the potential of peer support interventions to extend the reach of health promotion efforts beyond the initial participants and foster long-term community engagement.

The relevance of this intervention is further supported by the growing prevalence of NCII and other forms of online gender-based violence among adolescents. Image-based sexual abuse has been associated with psychological distress, social stigma, and adverse mental health outcomes among young people.^{6,9} Educational initiatives that improve awareness of digital safety and encourage supportive peer networks may therefore contribute to improving adolescents' awareness of online risks and strengthening preventive knowledge related to online victimization. Furthermore, understanding the risks associated with NCII and non-consensual image sharing is essential for strengthening preventive behaviors among adolescents.¹⁰ As adolescents increasingly engage in digital environments, preventive interventions must address both technological risks and the social factors that influence online behavior.

From a community nursing and public health perspective, integrating peer support into school-based NCII prevention programs represents a promising strategy for addressing emerging forms of online gender-based violence. School-based health education has previously been shown to improve adolescents' knowledge and awareness regarding sexual violence prevention.³ In addition, online gender-based violence among adolescents requires collaborative prevention efforts involving schools, families, healthcare professionals, and peer groups.¹⁵

The findings of this study suggest that peer support interventions, combined with digital educational media, may provide a feasible and contextually relevant approach for strengthening adolescent digital safety and promoting healthier online environments.

CONCLUSIONS

The peer support-based intervention significantly improved adolescents' knowledge of NCII prevention, with mean knowledge scores increasing from 75.78 before the intervention to 81.92 after the intervention ($p < 0.001$). Qualitative analysis identified three key outcomes: the creation of a psychologically safe learning environment, increased engagement through digital educational media, and the ability of adolescents to disseminate knowledge to their peers.

These results indicate that peer support, supported by digital educational media, is a feasible and contextually relevant strategy for strengthening NCII prevention and promoting digital safety awareness among adolescents. The integration of peer support into school-based health promotion programs is therefore recommended to support sustainable violence prevention efforts in the digital era. Future studies are needed to evaluate the long-term effectiveness of peer support interventions on knowledge retention, behavioral change, reporting intentions, and digital safety practices among adolescents, as well as to examine their implementation in broader educational and community settings.

ACKNOWLEDGMENT

The authors would like to thank Poltekkes Kemenkes Denpasar for supporting this study. Appreciation is also extended to the participating schools in Denpasar and Singaraja and to all adolescents who took part in this research.

DECLARATIONS

All authors made substantial contributions to the conception and design of the study, including literature review, data synthesis, drafting the manuscript, and critical revision of the intellectual content. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work. The authors declare no conflicts of interest, and no additional information is available for this paper.

REFERENCES

1. Ministry of Women's Empowerment and Child Protection. Data on violence against women and children in 2023. 2023.
2. Muhamad N. There are 19 thousand cases of violence in Indonesia, the majority of victims are teenagers [Internet]. 2023 [cited 2024 Jan 25]. Available from: <https://databoks.katadata.co.id/>: <https://databoks.katadata.co.id/datapublish/2023/09/27/ada-19-ribu-kasus-kekerasan-di-indonesia-korbannya-mayoritas-remaja>
3. Wulandari EP, Bhwa DP, Tafuli Y, Keperawatan SI, Tinggi S, Kesehatan I, et al. The Effect Of Health Education On Sexual Violence On Students. 2023;6(2):1–8. DOI: <https://doi.org/10.48079/jika.v6i2.102>
4. World Health Organization. Adolescent health [Internet]. 2023. Available from: <https://www.who.int/health-topics/adolescent-health>
5. Ramadhani SR, Nurwati N, Seksual K, Keluarga DS. The Traumatic Impact Of Adolescent Victims Of Sexual Violence And The Role Of Social Family Support. 2023;0042:131–7. DOI: <https://doi.org/10.24198/share.v12i2.39462>
6. Bentivegna, Francesca; Patalay P. The impact of sexual violence in mid-adolescence on mental health: A UK population-based longitudinal study. The Lancet Psychiatry. 2022;9(11):874–83. DOI: [https://doi.org/10.1016/S2215-0366\(22\)00271-1](https://doi.org/10.1016/S2215-0366(22)00271-1)
7. Initiativ CCR. Nonconsensual intimate image abuse (NCII): Definition and impact. [Internet]. 2023. Available from: <https://cybercivilrights.org>
8. Henry N, Flynn A, Powell A. Technology-Facilitated Domestic and Sexual Violence: A Review. 2020; DOI: <https://doi.org/10.1177/1077801219875821>
9. Adrian NHCMFAFKJAP. Image-Based Sexual Abuse: A Study on the Causes and Consequences of Non-Consensual Nude or Sexual Imagery. Br J Soc Work [Internet]. 2024;54(4):1777–9. DOI: <https://doi.org/10.1093/bjsw/bcae003>
10. Techsafety.org. National Council Of Juvenile And Family Court Judges (NCJFCJ). 2022. Understanding Sexting & Non-Consensual Intimate Image Sharing.

- Available from: <https://www.techsafety.org/https://www.techsafety.org/understanding-sexting-and-ncii-sharing>
11. Women NC on VA. National Commission on Violence Against Women. 2023. Annual report on violence against women in 2022.
 12. UNICEF. Child online protection in the digital era [Internet]. 2023. Available from: <https://www.unicef.org>
 13. Vik Burmo O, Skilbrei Bøen K, Hysing M, Dovran A, Kjørstad K, Hafstad GS, et al. "I did not feel the need to disclose": identifying factors impeding the disclosure of child abuse experiences in a population with maltreatment history. *Nord Psychol* [Internet]. 2025;0(0):1–18. DOI: <https://doi.org/10.1080/19012276.2025.2502915>
 14. Mitchell KJ, Jones LM, Gewirtz-Meydan A, O'Brien J, Colburn D. Image-Based Sexual Abuse: Characteristics Linked to Different Reasons Why Youth Decide Not to Disclose. *Prev Sci* [Internet]. 2025;26(8):1157–68. DOI: <https://doi.org/10.1007/s11121-025-01853-4>
 15. Eko Winarti, Yeni Lufiana Novita Agnes, Indah Jayani, Irvan Maulana, Aim Matun Nadhiroh. Online Gender-Based Violence Among Adolescents In Kediri City. *Str J Ilm Kesehat*. 2025;14(1):85–96. DOI: <https://doi.org/10.30994/sjik.v14i1.1227>
 16. Lunde C, Dönmez AK, Valik A, Holmqvist-Gattario K, Skoog T. Disclosing peer sexual harassment in the transition from late childhood to early adolescence. *Scand J Educ Res* [Internet]. 2025;69(2):376–90. DOI: <https://doi.org/10.1080/00313831.2024.2308880>
 17. Jennifer, Lavoie; Kelli, Dickerson; Allison R. Overcoming Disclosure Reluctance in Youth Victims of Sex Trafficking: New Directions for Research, Policy, and Practice Jennifer. *Physiol Behav*. 2019;25(2):225–238. DOI: <https://doi.org/10.1037/law0000205>
 18. Pavarini G, Reardon T, Mawdsley G, Singh I. Online peer - led intervention to improve adolescent wellbeing during the COVID - 19 pandemic : a randomised controlled trial. *Child Adolesc Psychiatry Ment Health* [Internet]. 2024;1:1–12. DOI: <https://doi.org/10.1186/s13034-024-00723-1>
 19. Salvirania S, Fahrudin A. Hubungan Peer Group Support Dengan Kualitas Hidup Penderita Skizofrenia. *Khidm Sos J Soc Work Soc Serv* [Internet]. 2021;2(1):43–55. Available from: <https://jurnal.umj.ac.id/index.php/khidmatsosial/article/view/10429%0Ahttps://jurnal.umj.ac.id/index.php/khidmatsosial/article/download/10429/5903>
 20. Ross DA, Ch BMB, Ph D, Sc M, Kostecky SM, Sc M, et al. The 1 . 8 Billion Campaign : Adolescents and Their Well-Being Take Center Stage. *J Adolesc Heal* [Internet]. 2023;73(4):622–4. Available from: <https://doi.org/10.1016/j.jadohealth.2023.07.001> DOI: <https://doi.org/10.1016/j.jadohealth.2023.07.001>
 21. UNICEF. United Nations Children's Fund. 2023. Digital safety and online violence against children and adolescents: Global overview and recommendation. DOI: <https://doi.org/10.1093/heapro/daae172>
 22. Raeside R. Mike Daube Early Career Advocacy Series Advancing adolescent health promotion in the digital era. 2025;
 23. World Health Organization. WHO. 2023. Nurturing care for early childhood development. Available from: <https://www.who.int/publications/i/item/9789241514064>
 24. Susetyo YF, Supriyadi A, Setiyawati D, Hidayati K. Development of a training module for adolescent Peer Counsellors based on a systematic literature review. 2024;19(01):67–74.