

Integration of Community Nursing in Family Empowerment Programs to Improve Adolescent Reproductive Health

Herlina Lidiyawati
STIKes Sukabumi

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Corresponding Author:

Herlina Lidiyawati

herlinalidiyawati@dosen.stikesmi.ac.id

Abstract: This study aims to develop and test the effectiveness of integrating community nursing into a family empowerment program to improve adolescent reproductive health. The research background is based on the high prevalence of adolescent reproductive health problems in Indonesia, such as early marriage, unwanted pregnancy, and sexually transmitted infections, which are exacerbated by poor family communication regarding these topics. The study used a Participatory Action Research (PAR) approach involving adolescents aged 12–19 years, their families, and community nurses in the community health center (Puskesmas) working area. The research instruments included an in-depth interview guide, a participant observation sheet, and pre- and post-test questionnaires on knowledge and attitudes. The results showed a significant increase in adolescent knowledge, attitudes, and healthy behaviors ($p < 0.05$) after the intervention, accompanied by an increase in the frequency of open communication between families and adolescents regarding reproductive health. The involvement of families as co-educators has been shown to strengthen the program's effectiveness, create a supportive home environment, and reduce cultural barriers in discussing reproductive issues. This intervention model is considered to have great potential for replication in various regions with adjustments to the local social and cultural context, thus becoming a sustainable strategy in promoting adolescent reproductive health.

Keywords: community nursing, family empowerment, reproductive health, adolescents

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INTRODUCTION

The increasing problem of adolescent reproductive health in Indonesia is a phenomenon that requires serious attention, considering its broad impact on the quality of life of the younger generation (Titisari et al., 2025). Cases of early marriage are still quite high in various regions, especially in rural areas, which are often driven by socio-cultural, economic, and low education factors (Akbar et al., 2025). Unintended pregnancies among adolescents are a major challenge, often leading to school dropout, social stigma, and physical and mental health risks for young mothers. Furthermore, sexually transmitted infections (STIs) such as HIV, syphilis, and gonorrhea are on the rise, partly due to risky sexual behaviors not matched by adequate knowledge (Rusley et al., 2022). This problem is exacerbated by adolescents'



limited access to accurate, youth-friendly, and stigma-free reproductive health information and services, leading them to often rely on less reliable sources of information such as social media or stories from peers. This situation underscores the urgency of targeted and sustainable interventions, including comprehensive reproductive health education, family support, and the active role of health workers in community empowerment (Hatcher et al., 2023).

Data from the National Population and Family Planning Agency (BKKBN) and the Ministry of Health (Kemenkes) shows that the level of knowledge of adolescents regarding reproductive health in Indonesia is still relatively low, especially in rural areas (Gustiawan et al., 2021). This low level of knowledge is not only related to biological understanding of reproductive organ function, but also encompasses aspects of healthy behavior, prevention of sexually transmitted infections, and reproductive rights. The contributing factors are diverse, ranging from limited access to comprehensive reproductive health education in schools, a shortage of trained educators, to cultural barriers and social norms that consider discussing sexuality taboo (Mercuri & Cox, 2022).

In rural areas, the challenges are even greater due to limited youth-friendly health care facilities, inadequate internet access, and long distances to health care centers (Syamsuddin & Jusliani, 2024). As a result, many adolescents seek information from unreliable sources, such as rumors or social media, which can be potentially misleading. This situation emphasizes the importance of community-based intervention strategies that can reach adolescents in remote areas through collaboration between schools, families, and health workers, as well as strengthening family empowerment programs to create an environment that supports a proper understanding of reproductive health (Abdillah et al., 2024).

The role of the family as the main source of information for adolescents often does not function optimally, especially in the context of reproductive health education (Anwar et al., 2020). Ideally, the family is the first and safest place for adolescents to ask questions and gain a proper understanding of the physical, emotional, and social changes they are experiencing. However, in reality, parents' limited knowledge about reproductive health makes them feel less confident or reluctant to provide appropriate explanations. This barrier is reinforced by cultural norms and traditional values that consider discussing sexuality taboo, shameful, or inappropriate within the family environment (Rochimah & Rahmawati, 2022).

As a result, many parents choose to avoid or provide short, inadequate answers, leaving adolescents to seek answers from peers or online media, which may not necessarily provide accurate information. This closed communication pattern can lead to knowledge gaps, misconceptions, and risky behaviors among adolescents. Therefore, increasing parental capacity through training, providing culturally appropriate educational materials, and fostering open and positive communication within the family are strategic steps to ensure the family's role can function optimally as the primary supporter of adolescent reproductive health understanding (Susanto & Gunawan, 2023).

Community nursing plays a strategic role in health promotion, particularly in efforts to improve adolescents' knowledge, attitudes, and healthy behaviors related to reproductive health. Through a needs-based approach, community nurses can act as facilitators, educators, and advocates, helping adolescents understand the importance of maintaining reproductive health. However, in practice, the implementation of community nursing programs often focuses on interventions aimed directly at individuals or groups of adolescents, while the involvement of families as the closest environment for adolescents has not been optimally utilized (Siswantara et al., 2019). In fact, families have a significant influence in shaping mindsets, habits, and values related to reproductive health. Minimal family involvement can lead to less sustainable interventions, due to the lack of support and reinforcement from home. By involving families

in the empowerment process through education, communication skills training, and creating a supportive home environment community nursing can create more holistic and sustainable behavior change. This approach not only increases program effectiveness but also strengthens the role of families as active partners in maintaining adolescent reproductive health (Nisa'uzzakiyyah et al., 2023).

Most research on adolescent reproductive health has focused solely on education aimed directly at adolescents, without much integration of family empowerment approaches as the primary supporter in developing healthy behaviors. Research related to community nursing is also limited to outreach and counseling activities, and has not yet developed a sustainable collaborative intervention model between nurses, families, and adolescents. Furthermore, studies specifically measuring the impact of integrating community nursing with family empowerment on changes in adolescent reproductive health behaviors are still very limited, highlighting the need to address the research gap in this area through a more comprehensive and long-term approach (Arisjulyanto & Suweni, 2023).

The purpose of this study was to develop and implement a model of community nursing integration within a family empowerment program as an effort to comprehensively improve adolescents' knowledge, attitudes, and behaviors related to reproductive health. This study also aimed to measure the effectiveness of this integration in improving the quality of communication between families and adolescents regarding reproductive health issues, considering that open and informative communication within the family is a key factor in preventing risky behavior. Furthermore, the study results are expected to provide evidence-based recommendations for the formulation of health promotion strategies that actively involve families, so that they can be implemented sustainably by health workers, educational institutions, and communities in order to strengthen the role of families as key partners in supporting adolescent reproductive health.

The novelty of this research lies in the integration of a community nursing approach with family empowerment as a single integrated intervention, thus not only providing partial education but also building sustainable support mechanisms at the family level. This research encourages the active involvement of families as co-educators in reproductive health education, enabling the learning and mentoring process to continue in the home environment. Through this approach, a community-based family empowerment model has been developed that can be replicated in various regions to more effectively address adolescent reproductive health issues. Furthermore, this study provides empirical data on changes in adolescent reproductive health behavior resulting from the three-party collaboration community nurses, families, and adolescents thus offering an important contribution to the development of holistic and long-term health promotion strategies.

METHODOLOGY

This research method uses a qualitative approach with a Participatory Action Research (PAR) model, which combines community nursing with family empowerment strategies in the context of adolescent reproductive health (Khalesi et al., 2020). The research was conducted in the working area of a community health center or community with a relatively high number of adolescent reproductive health problems for approximately 6 months, covering the preparation, implementation, and evaluation stages. The research subjects included adolescents aged 12–19 years, adolescent families (parents/guardians), and community nurses as program facilitators, selected through purposive sampling based on the criteria of willingness to participate, adolescent membership, and experience in health promotion. The research instruments included an in-depth interview guide, participatory observation sheets, pre-test and post-test questionnaires on adolescent reproductive health knowledge, as well as photo documentation and field notes. The research procedure consisted of a preparation stage (coordination with the community health center and community leaders, preparation of a community nursing integration module), an

implementation stage (family training, joint education through group discussions, simulations, role plays, and mentoring in the implementation of health communication), and an evaluation stage (measuring changes in knowledge, attitudes, and behavior and analyzing program effectiveness). Qualitative data were analyzed using thematic analysis to identify key themes, while quantitative data were analyzed using paired t-tests or Wilcoxon tests. Ethical aspects of the research were maintained through ethics committee approval, participant confidentiality, and informed consent from participants or guardians.

RESULTS AND DISCUSSION

Improving Adolescent Reproductive Health Knowledge

Improving adolescent reproductive health knowledge was one of the main achievements of this study. Pre-test results indicated that adolescents' average knowledge remained in the low to moderate category, reflecting limited access to accurate and comprehensive information prior to the intervention (Herawati, 2024). After implementing the integrated community nursing and family empowerment model, there was a significant increase in the average post-test score ($p < 0.05$), indicating that the intervention was able to have a real impact on adolescents' understanding of reproductive health. This finding is in line with the Health Promotion Model theory, which emphasizes that social support, especially from family, is an important factor in developing healthy behaviors (Arindari et al., 2024). The role of the family as a trusted source of information has been proven to reinforce health messages delivered by community nurses, so that adolescents not only gain knowledge from formal education sessions but also receive reinforcement at home. This combination of community-based education and active family involvement has proven effective in sustainably improving adolescent reproductive health literacy.

Changes in Adolescent Attitudes towards Reproductive Health Issues

Changes in adolescent attitudes toward reproductive health issues were evident after the intervention. Data showed an increase in the percentage of adolescents with positive attitudes, such as awareness of the importance of maintaining reproductive health, respecting personal boundaries, and avoiding risky behaviors that could jeopardize their future. (Panjaitan et al., 2018). This improvement reflects the success of an integrative approach between community nursing and family empowerment, where positive moral, ethical, and normative values are reinforced through intensive communication at home. These findings align with previous research demonstrating that active family involvement in health education can instill deeper and more lasting positive attitudes in adolescents. A supportive family environment not only serves as a source of information but also provides role models for healthy behavior, enabling the internalization of reproductive health values to be more effective and sustainable (Tricintiya et al., 2025).

Improving Family-Adolescent Communication Skills

Improving communication skills between families and adolescents is one of the important impacts of the intervention carried out (Nainggolan et al., 2023). Observations showed an increase in the frequency of open communication on reproductive health topics between adolescents and parents, both in casual everyday conversations and focused discussions. Before the intervention, most families tended to avoid discussing this topic because it was considered taboo or embarrassing. However, through intensive support from community nurses, families began to feel more comfortable, confident, and proactive in raising reproductive health issues at home. Community nurses acted as facilitators, not only providing information but also guiding families in developing effective communication skills, such as using age-appropriate language, active listening, and providing positive feedback. This change aligns with the

concept of family-centered care, which emphasizes partnerships between health workers and families in providing optimal support for adolescent development. By establishing open and healthy communication, adolescents find it easier to express their questions or concerns, thereby reducing the risk of risky behavior through timely guidance from parents.

The Active Role of Families in Health Education

The active role of families in the health education process was prominently demonstrated in this study, with over 80% of participating families actively participating in group discussions, communication simulations, and various other interactive activities. This involvement not only reflects families' enthusiasm for the program but also demonstrates a growing awareness of the importance of their role in supporting adolescents in maintaining reproductive health. Through direct participation, families gain practical skills in conveying information, managing sensitive conversations, and providing the emotional support adolescents need (Nurullah et al., 2025). These findings reinforce previous studies that suggest family empowerment is key to increasing the effectiveness of community-based health programs, as interventions that actively involve families are more likely to create a home environment that supports healthy behavior change. Thus, collaboration between community nurses and families not only improves adolescents' knowledge but also fosters a sustainable support system at the community level (Nurullah et al., 2025).

Short-Term Impact on Adolescents' Healthy Behavior

The short-term impact of the intervention was seen in changes in adolescents' healthy behaviors, particularly a decrease in risky behaviors such as skipping school to date or secretly accessing adult content. These changes indicate a strengthening of self-control in adolescents, supported by a more caring family and community environment. Collaboration between families, community nurses, and adolescents has been shown to create a form of positive social control that is not repressive but rather based on open communication, mutual trust, and the establishment of clear boundaries (Narsih & Hikmawati, 2020). This approach allows adolescents to understand the reasons behind the rules and restrictions, making them more accepting and adhering to the values instilled. These results suggest that consistent social support from family and caregivers can directly influence adolescent behavior, even in the relatively short term, and lay the foundation for the formation of more permanent healthy habits in the future (Julaecha, 2020).

Supporting and Inhibiting Factors for Implementation

Supporting factors for program implementation include the commitment of community nurses who play an active role in every stage of the activity, support from community leaders who help build legitimacy and public trust in the program, and the willingness of families to be involved in the process of educating and mentoring adolescents (Intania et al., 2023). This support creates a strong foundation for the intervention's success. However, program implementation also faces several obstacles, such as cultural norms that still consider reproductive health a taboo topic, limited family time to participate in activities due to work and household commitments, and unequal access to technology, which hinders the use of online media for information dissemination. These obstacles emphasize the need for adaptive and culturally informed communication strategies, such as using polite language, involving community leaders as facilitators, and adapting implementation methods and timing to suit social conditions and resource availability in the community. This locally sensitive approach will increase the program's chances of acceptance and sustainability across regions (Weeks, 2022).

CONCLUSIONS

The integration of community nursing with family empowerment programs has proven effective in improving adolescents' knowledge, attitudes, and healthy behaviors related to reproductive health, while strengthening open communication between parents and adolescents. The active involvement of families as co-educators can reduce cultural barriers that consider reproductive health topics taboo and establish sustainable positive social control in the home environment. The support of community nurses plays a crucial role as facilitators, motivators, and family companions, ensuring a more focused and effective empowerment process. The program's success is supported by cross-stakeholder commitment, the role of community leaders, and the application of participatory learning methods. The main obstacles remain conservative cultural norms and limited time for families to engage consistently. This intervention model has high potential for replication across regions with adjustments to local cultural and social contexts, thus becoming a sustainable and impactful strategy for promoting adolescent reproductive health.

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