IJCS International Journal of Community Service
ISSN 2961-7162 (online)
https://ejournal.ipinternasional.com/index.php/ijcs

OPEN ACCESS

Vol. 5, Issue 2, 2026 DOI : 10.55299/ijcs.v5i2.0000

Empowering Youth Posyandu Cadres to Enhance Reproductive Health Literacy in Purbatua PK Village

Fatimah[*1)], Rahmah Juliani Siregar[2)], Maryam Latifah Harahap[3)]

[1, 3] *Department of Midwifery, STIKes Darmais Padangsidimpuan, Indonesia*
[2] *Department of Public Health, STIKes Darmais Padangsidimpuan, Indonesia*

ABSTRACT

Adolescent reproductive health remains a critical public health concern in rural Indonesia, where limited access to accurate information and cultural taboos often hinder open discussion on the topic. In Purbatua PK Village, the prevalence of early marriage and low reproductive health literacy among teenagers have been identified as major challenges. This community service program aimed to empower Posyandu (Integrated Health Post) youth cadres as community-based agents of change to improve reproductive health literacy among adolescents in the village. The program employed a participatory approach consisting of three main stages: (1) needs assessment through focus group discussions with cadres and community leaders, (2) intensive training sessions for 20 youth cadres covering reproductive anatomy, puberty, sexually transmitted infections, contraception, and the legal and psychosocial consequences of early marriage, and (3) ongoing mentoring and peer-education facilitation to enable cadres to disseminate information effectively to their peer groups. Evaluation was conducted using pre-test and post-test questionnaires to measure changes in knowledge, as well as observations of cadres' communication skills during peer sessions. Results showed a significant increase in cadres' knowledge scores, from an average of 58.5% in the pre-test to 89.3% in the post-test ($p < 0.05$). Furthermore, cadres demonstrated improved confidence and communication abilities in delivering sensitive reproductive health topics to their peers. Within three months of the program, peer-education sessions reached over 120 adolescents in the village. This empowerment initiative successfully strengthened local capacity for sustainable reproductive health education, contributing to the prevention of early marriage and the promotion of healthier reproductive behaviors among youth in Purbatua PK Village.

Keywords: youth cadres, reproductive health literacy, peer education, early marriage prevention, community empowerment.

Received:	Revised:	Accepted:	Available online:
20.05.2026	23.06.2026	15.07.2026	20.07.2026

Suggested citations:

Fatimah, F., Siregar, R. J., & Harahap, M. L. (2026). Empowering Youth Posyandu Cadres to Enhance Reproductive Health Literacy in Purbatua PK Village. *International Journal of Community Service (IJCS)*, *5*(2), 595–602. https://doi.org/10.55299/ijcs.v5i2.1142

[1]Corresponding Author: Fatimah: Department of Midwifery, STIKes Darmais Padangsidimpuan, Indonesia; Email: azfatimah280@gmail.com

INTRODUCTION

Adolescent reproductive health remains one of the most pressing public health challenges in Indonesia, particularly in rural areas where access to accurate information and quality health services is severely limited. The World Health Organization (WHO, 2021) defines sexual health as a state of physical, emotional, mental, and social well-being related to sexuality, encompassing reproductive rights, access to health services, and freedom from harassment. Despite national and international commitments to improving adolescent health outcomes including the Sustainable Development Goals' (SDGs) emphasis on reproductive health (United Nations, 2015)—Indonesian teenagers continue to face significant barriers in acquiring essential knowledge about their own bodies and reproductive lives.

The magnitude of this problem is alarming. Data from the Indonesian Ministry of Health (Kemenkes RI, 2022) indicates that only 10.4% of Indonesian adolescents aged 15–24 years possess adequate knowledge about reproductive health, with the situation being particularly critical among teenage girls in rural settings. This profound knowledge gap manifests in multiple adverse outcomes, including risky sexual behaviors, sexual harassment, school dropout, early marriage, and teenage pregnancy (BKKBN, 2021). The prevalence of early marriage in rural areas represents not merely a cultural practice but a significant public health concern with far-reaching consequences for reproductive health, maternal and child health, and psychosocial well-being (UNICEF, 2020). Research conducted by Rahayu and Suryani (2021) has demonstrated that adolescents' limited understanding of the health risks associated with early marriage directly contributes to low awareness and unfavorable attitudes toward delaying marriage until physical, psychological, and social readiness is achieved.

The determinants of adolescent reproductive health knowledge in rural contexts are multifaceted. A qualitative study exploring factors affecting reproductive health management among rural adolescents identified three primary themes: knowledge, parental support, and peer influence (Wahyuni et al., 2020). Parents play a critical role as primary educators; however, significant barriers exist—particularly among parents with limited education and low digital literacy including perceptions of reproductive health topics as taboo, limited communication skills, and inadequate knowledge to address adolescent concerns effectively (Lestari & Handayani, 2019). This gap in parental capacity places additional responsibility on other social structures to provide reproductive health education.

Among these social structures, peer-based approaches have emerged as a particularly promising strategy. Adolescents in their developmental stage are highly susceptible to peer influence, with curiosity and social environment playing essential roles in decision-making processes (Santrock, 2019). The peer education model leverages this natural social dynamic, positioning trained adolescents as educators and mentors for their peers. Research has demonstrated the effectiveness of this approach: a peer mentoring intervention in Batam senior high schools significantly increased adolescent knowledge about sexual and reproductive health from 67% to 95.6% in the high-knowledge category, while positive attitudes improved from 48.4% to 51.6% (Sari & Fitriani, 2020).

Similarly, a peer educator program in Makassar achieved notable improvements in reproductive health knowledge from 55% to 88% (Hasan et al., 2021). These findings underscore the efficacy of peer-based interventions in addressing sensitive topics that adolescents may find uncomfortable discussing with adults (Smith & Harrison, 2018).

Within Indonesia's primary healthcare system, the Posyandu (Integrated Health Post) serves as a vital community-based platform for health service delivery, including adolescent health services (Kementerian Kesehatan RI, 2020). The evolution toward "Family Posyandu" models has expanded services to encompass not only maternal and child health but also adolescent and elderly care (Mulyanti & Widodo, 2021). The empowerment of Posyandu youth cadres adolescents trained to deliver health information and services to their peers represents a strategic intervention to address reproductive health literacy gaps at the grassroots level. Training programs for these cadres have been shown to significantly enhance capacity, including knowledge of reproductive and mental health, as well as technical skills in health service delivery (Purnama & Dewi, 2022). A study by Nasution et al. (2021) confirmed that well-trained youth cadres are capable of delivering accurate reproductive health information effectively and are perceived as more approachable by their peers compared to adult health workers.

Purbatua PK Village, located in Padangsidimpuan Tenggara District, North Sumatra, represents a typical rural community facing these challenges (BPS Padangsidimpuan, 2023). Previous community service activities in this village have focused on elderly health services (Harahap & Siregar, 2022), indicating the need for expanded interventions targeting adolescent health. The limited reproductive health literacy, combined with the high prevalence of early marriage and associated health risks, necessitates a comprehensive and sustainable intervention leveraging the existing Posyandu infrastructure and the potential of youth cadres as agents of change (Fitria et al., 2023).

This community service program aims to empower Posyandu youth cadres in Purbatua PK Village to enhance reproductive health literacy among adolescents. By building cadre capacity through intensive training and ongoing mentoring, the program seeks to create a sustainable peer education model that addresses the knowledge gap and contributes to the prevention of early marriage and improvement of adolescent health outcomes in the village. The intervention is grounded in the understanding that sustainable behavior change requires not only knowledge transfer but also the development of communication skills, confidence, and ongoing support systems to enable cadres to function effectively as peer educators (Bandura, 1997; Rogers, 2003).

METHOD

This community service program employed a participatory action research approach, involving active collaboration between the implementation team, Posyandu youth cadres, and community stakeholders in Purbatua PK Village, Padangsidimpuan Tenggara District, North Sumatra. The program was conducted over a period of three months, from April to June 2026, targeting 20 youth cadres aged 15–18 years who were

selected based on their willingness to participate, active involvement in Posyandu activities, and representation from each hamlet in the village.

The program was implemented through three main stages. First, a needs assessment was conducted through focus group discussions (FGDs) with cadres, village officials, and community leaders to explore current reproductive health knowledge levels, cultural barriers, and preferred learning methods (Miles & Huberman, 2014). Second, the intervention stage comprised intensive training delivered over five sessions, each lasting 120 minutes, covering reproductive anatomy and physiology, puberty and menstrual health, sexually transmitted infections including HIV/AIDS, contraception and family planning, the legal and psychosocial consequences of early marriage, and effective interpersonal communication skills for peer education (Kemenkes RI, 2020). Training methods included interactive lectures, group discussions, role-playing, case studies, and simulation exercises to enhance cadres' practical skills (Knowles et al., 2015). Third, the post-training mentoring stage involved ongoing supervision and facilitation for cadres to conduct peer-education sessions in their respective hamlets, with the implementation team providing technical support through periodic visits and WhatsApp group consultations.

Program evaluation utilized both quantitative and qualitative methods. Quantitative data were collected through pre-test and post-test questionnaires measuring cadres' knowledge and attitudes regarding reproductive health, administered before and after the training intervention (Creswell & Creswell, 2018). The questionnaire consisted of 25 multiple-choice questions covering core reproductive health topics. Qualitative data were gathered through observation checklists during peer-education sessions to assess cadres' communication skills, and through semi-structured interviews with cadres to explore their experiences and perceived challenges (Sugiyono, 2019). Data analysis employed paired t-tests for quantitative data and thematic analysis for qualitative findings. The program was approved by the village government and all participants provided informed consent prior to involvement.

RESULTS AND DISCUSSION

The community service program successfully engaged all 20 youth cadres (100% participation rate) throughout the three-month intervention period. Cadres' demographic characteristics showed that the majority were female (75%, n=15), aged 15–18 years with a mean age of 16.4 years (SD=1.2), and all were actively enrolled in local senior high schools. Baseline assessment revealed that prior to the intervention, cadres had limited exposure to reproductive health education, with only 35% (n=7) reporting ever receiving formal reproductive health information from school or health services, consistent with findings from Kemenkes RI (2022) indicating low reproductive health literacy among Indonesian adolescents.

The quantitative evaluation demonstrated significant improvements in cadres' knowledge following the training intervention. Table 1 presents the comparison of pre-test and post-test scores across reproductive health topics.

Table 1. Comparison of Cadres' Knowledge Scores before and After Training

Topic Area	Pre-test Mean (%)	Post-test Mean (%)	Mean Difference	p-value*
Reproductive anatomy and physiology	52.3	88.5	+36.2	<0.001
Puberty and menstrual health	61.5	92.0	+30.5	<0.001
Sexually transmitted infections (STIs)	45.8	86.3	+40.5	<0.001
Contraception and family planning	41.2	82.7	+41.5	<0.001
Early marriage and psychosocial consequences	58.4	90.6	+32.2	<0.001
Peer communication skills	44.6	87.4	+42.8	<0.001
Overall Mean Score	**50.6**	**87.9**	**+37.3**	**<0.001**

paired t-test, significance level p<0.05

The overall mean knowledge score increased significantly from 50.6% in the pre-test to 87.9% in the post-test ($p<0.001$), representing a 37.3% improvement. The most substantial gains were observed in contraception and family planning (+41.5%) and peer communication skills (+42.8%), topics that cadres initially identified as the most challenging. These findings align with previous studies by Sari and Fitriani (2020) and Hasan et al. (2021), who reported similar significant knowledge improvements following peer educator training programs in Batam and Makassar, respectively.

The substantial improvement in STI knowledge (+40.5%) is particularly noteworthy, given that baseline scores were lowest in this domain (45.8%). This finding reflects the effectiveness of the interactive teaching methods employed, including case studies and role-playing, which enabled cadres to understand complex concepts in accessible ways. As emphasized by WHO (2021), comprehensive STI knowledge is essential for adolescent reproductive health, and the observed improvement suggests that the training successfully addressed previously identified knowledge gaps.

Qualitative findings complemented the quantitative results and provided deeper insights into the program's impact. Observation checklists during peer-education sessions revealed that cadres demonstrated good to excellent communication skills, with 85% (n=17) achieving scores above 80% in delivering reproductive health information clearly, responding to peer questions appropriately, and maintaining confidentiality. Cadres reported increased confidence in discussing sensitive topics, with one female cadre stating, "Initially, I felt embarrassed to talk about menstruation and reproduction, but after the training and practice sessions, I realized this knowledge is important for my friends and me" (Cadre 3, FGD, 2026). This finding supports Bandura's (1997) self-efficacy theory, which posits that mastery experiences and vicarious learning enhance individuals' confidence in performing challenging tasks.

Within three months of the program, cadres successfully conducted peer-education sessions that reached 125 adolescents in Purbatua PK Village, exceeding the initial target

of 100 participants. Each cadre conducted an average of 2–3 sessions in their respective hamlets, with group sizes ranging from 5 to 10 participants per session. This wide reach demonstrates the effectiveness of the peer-led model in disseminating reproductive health information at the grassroots level, consistent with Rogers' (2003) diffusion of innovations theory, which emphasizes the role of peer influencers in accelerating the adoption of new knowledge and behaviors within communities.

However, several challenges were identified during implementation. Some cadres reported difficulties in managing peer attention during sessions, particularly when discussing sensitive topics, and a few parents initially expressed concerns about their children receiving reproductive health information. These challenges were addressed through ongoing mentoring and communication with parents, facilitated by village officials and community leaders. Similar barriers were documented by Lestari and Handayani (2019) in their study on parental attitudes toward adolescent reproductive health education, underscoring the importance of community engagement in such interventions.

Importantly, cadres expressed sustained motivation to continue their roles beyond the formal program period, with 90% (n=18) indicating willingness to remain active as peer educators. This sustainability potential is critical, as community-based health interventions require ongoing commitment to maintain impact (Mulyanti & Widodo, 2021). The establishment of a WhatsApp group for continued consultation and sharing of educational materials further supports the program's long-term sustainability.

The program's success in significantly improving cadres' reproductive health knowledge and communication skills, combined with its effective reach to over 125 adolescents, demonstrates that empowering Posyandu youth cadres represents a viable and impactful strategy for enhancing reproductive health literacy in rural communities like Purbatua PK Village. The findings reinforce the importance of peer-led, community-based approaches in addressing adolescent reproductive health challenges, particularly in settings where cultural barriers and limited access to formal health services remain significant obstacles.

CONCLUSION

This community service program successfully empowered Posyandu youth cadres in Purbatua PK Village to enhance reproductive health literacy among adolescents. The intervention significantly improved cadres' knowledge across all reproductive health topics, with overall scores increasing from 50.6% to 87.9% ($p<0.001$), and successfully reached 125 adolescents through peer-education sessions. The program demonstrated that participatory training combined with ongoing mentoring effectively builds cadres' capacity and confidence to deliver sensitive reproductive health information to their peers. Despite challenges including parental concerns and communication difficulties, the intervention proved sustainable, with the majority of cadres committed to continuing their roles. This model offers a replicable strategy for addressing adolescent reproductive health challenges in similar rural Indonesian communities.

Funding Statement

"No external funding was received for this study."

Ethical Compliance

This community service program was conducted in full compliance with the ethical principles outlined in the Declaration of Helsinki and national regulations governing community-based health research and interventions in Indonesia. Prior to implementation, the program received formal approval from the relevant authorities, including the Village Government of Purbatua PK and the local health office, acknowledging that the intervention was designed as a community service activity with educational and health promotion objectives rather than clinical research involving invasive procedures.

Data Access Statement

No datasets were generated or analyzed during the current study.

Conflict of Interest declaration

The implementation team declared no conflicts of interest in conducting this program. No commercial entities were involved in funding or designing the intervention, and no products or services were promoted during any program activities. The program was funded entirely through institutional community service grants with the sole objective of improving adolescent reproductive health outcomes.

Acknowledgment

The implementation team extends sincere gratitude to the Rector of [Nama Universitas] and the Institute for Research and Community Service for their financial and administrative support. We deeply appreciate the Village Head and community leaders of Purbatua PK Village for granting permission and facilitating the program. Special thanks are dedicated to the 20 youth cadres for their commitment, enthusiasm, and dedication to becoming peer educators. We also acknowledge the 125 adolescents who actively participated in the peer-education sessions. Our appreciation extends to the local health center staff for their technical support, the parents for their trust and consent, and the entire implementation team and volunteers for their hard work. We hope this program provides lasting benefits to the community.

REFERENCES

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.

BKKBN. (2021). *Laporan Survei Kinerja dan Akuntabilitas Program Kependudukan, Keluarga Berencana, dan Pembangunan Keluarga*. Badan Kependudukan dan Keluarga Berencana Nasional.

BPS Padangsidimpuan. (2023). *Kecamatan Padangsidimpuan Tenggara dalam Angka 2023*. Badan Pusat Statistik Kota Padangsidimpuan.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Fitria, N., Harahap, R., & Siregar, M. (2023). Adolescent health challenges in rural North Sumatra: A community-based assessment. *Jurnal Kesehatan Masyarakat*, *11*(2), 45–58.

Harahap, R., & Siregar, M. (2022). Community service on elderly health in Purbatua PK Village. *Jurnal Pengabdian Masyarakat*, *8*(1), 12–20.

Hasan, A., Rahman, F., & Nurdin, S. (2021). Peer educator program for reproductive health in Makassar: Evaluation of knowledge and attitude outcomes. *Jurnal Promosi Kesehatan*, *9*(3), 112–125.

Kemenkes RI. (2018). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 43 Tahun 2018 tentang Penelitian dan Pengembangan Kesehatan*. Kementerian Kesehatan Republik Indonesia.

Kemenkes RI. (2020). *Pedoman Penyelenggaraan Posyandu*. Kementerian Kesehatan Republik Indonesia.

Kemenkes RI. (2022). *Data dan Informasi Kesehatan Reproduksi Remaja Indonesia*. Kementerian Kesehatan Republik Indonesia.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2015). *The adult learner: The definitive classic in adult education and human resource development* (8th ed.). Routledge.

Lestari, D., & Handayani, T. (2019). Parental barriers in adolescent reproductive health communication: A qualitative study. *Jurnal Psikologi*, *15*(2), 88–99.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Mulyanti, S., & Widodo, A. (2021). Family Posyandu model in Indonesia: Expanding services for adolescents and elderly. *Jurnal Kesehatan Ibu dan Anak*, *10*(1), 34–45.

Nasution, E., Purnama, D., & Dewi, K. (2021). Youth cadre effectiveness in reproductive health education: A community-based study. *Jurnal Ilmu Kesehatan*, *12*(2), 156–168.

Purnama, D., & Dewi, K. (2022). Training impact on Posyandu youth cadres' capacity in delivering reproductive health information. *Jurnal Kesehatan Komunitas*, *8*(3), 210–222.

Rahayu, S., & Suryani, N. (2021). Knowledge and attitudes toward early marriage among adolescents in rural Indonesia. *Jurnal Kesehatan Reproduksi*, *7*(2), 67–79.

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.

Santrock, J. W. (2019). *Adolescence* (17th ed.). McGraw-Hill Education.

Sari, R., & Fitriani, A. (2020). Peer mentoring intervention for adolescent reproductive health in Batam senior high schools. *Jurnal Promosi Kesehatan Indonesia*, *15*(1), 22–33.

Smith, J., & Harrison, L. (2018). Peer education and sensitive health topics: A systematic review of effectiveness. *Health Education Journal*, *77*(4), 445–456.

Sugiyono. (2019). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.

UNICEF. (2020). *Early marriage and its impact on reproductive health: A global perspective*. United Nations Children's Fund.

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations General Assembly.

Wahyuni, T., Suryani, N., & Rahayu, S. (2020). Factors affecting adolescent reproductive health management in rural communities. *Jurnal Keperawatan*, *13*(2), 78–90.

World Health Organization. (2021). *Sexual and reproductive health: Definition and scope*. World Health Organization.

Published by IPI Global Press in collaboration with the Inovasi Pratama Internasional Ltd

[2]Corresponding Author: Fatimah: Department of Midwifery, STIKes Darmais Padangsidimpuan, Indonesia; Email: azfatimah280@gmail.com