


The Effect Of Peer Education On Knowledge About The Dangers Of Early Marriage In Mimika Regency, Papua Province

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Article Info	ABSTRACT
Keywords: Peer Education, Adolescents, Child Marriage, Knowledge	This study aims to evaluate the effectiveness of the Community Empowerment program through the peer education method in preventing child marriage among adolescents in Mimika Regency. The research employs a quantitative approach with a quasi-experimental study design. The population consists of adolescents aged 15-18 years in Mimika Regency. A purposive sampling technique was used to select 65 respondents who participated in the community empowerment program through peer education for three months. The program's impact was assessed by measuring changes in adolescents' knowledge, attitudes, and intentions to delay marriage. The study found that the mean knowledge score about child marriage increased from 31.20 before the intervention to 39.28 after the intervention. The statistical analysis showed a significant effect (p -value = 0.000, $\alpha < 0.05$). The study is limited to a small sample size within Mimika Regency, which may affect the generalizability of the findings. Furthermore, the quasi-experimental design lacks a control group, which could influence the robustness of the conclusions. This research contributes to public health and adolescent development studies by highlighting the potential of peer education as an effective method to improve knowledge regarding the prevention of child marriage. The findings provide a framework for policymakers and community organizations aiming to reduce child marriage rates in similar regions.
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INTRODUCTION

Child marriage in Indonesia has become a widespread issue, deeply rooted in cultural norms that influence societal behaviors, including early marriage practices. The prevalence of child marriage across various ethnic groups highlights the urgent need for intervention. Globally, Indonesia ranks 37th for the highest number of underage marriages and holds the second position in Southeast Asia. This ranking reflects a concerning trend, as early marriage contributes to population growth and increased birth rates. Child marriage in Indonesia remains a significant challenge, deeply entrenched in cultural traditions and socio-economic realities. Despite efforts to address the issue through legal and policy measures, the practice continues to persist across different regions and ethnic groups. Cultural norms often dictate

early marriages as a means to uphold family honor or alleviate economic pressures, particularly in rural areas where poverty and limited access to education are prevalent.

Child marriage is defined as marriage at an adolescent age, where individuals are considered underage based on Law Number 16 of 2006, which stipulates that the minimum age for marriage, for both males and females, is 19 years. Early marriages are frequently observed among vulnerable adolescent groups (Pradana et al., 2022). According to Hanifah et al. (2022), vulnerable adolescents are those who find themselves in situations or conditions that make them more susceptible to social, health, or psychological issues. Vulnerability implies a higher likelihood of experiencing negative impacts from various challenges or factors in their lives. Adolescents who fall into this category often include those involved in romantic relationships. These adolescents are at risk of engaging in premarital sexual behaviors, exacerbated by negative peer influences and low self-efficacy regarding premarital sexual behavior. Numerous efforts have been made to address this issue, including education and counseling on the dangers of early marriage (Rosamali & Arisjulyanto, 2020).

The occurrence of child marriage is influenced by several factors, including cultural and social norms, economic status, and education levels. Cultural and social norms, particularly those tied to traditional beliefs and practices, significantly impact the age at which girls marry. Economic status also plays a role, especially in rural areas. Factors such as poverty and education contribute to the perception that marriage can protect girls and preserve family honor. Other contributing factors include social norms, religious laws that permit early marriage, and weak national legal frameworks regulating child marriage (Marcelina et al., 2021).

Reproductive health issues often become social and clinical concerns that pose risks to adolescent reproductive health. These issues include free sexual behavior, unwanted pregnancies, and a lack of knowledge about reproductive health among adolescents (Kusmiran, 2014; Rosdarni et al., 2015; Umaroh, 2015). According to Rosamali & Arisjulyanto (2020), child marriage occurs due to adolescents' limited understanding of reproductive health and the dangers of early marriage. This lack of knowledge leads to high rates of premarital sexual behavior, a direct factor contributing to out-of-wedlock pregnancies and child marriage.

The impacts of child marriage affect maternal health and nutrition before, during, and after pregnancy, influencing fetal growth and increasing the risk of stunting. Pregnancies and childbirth at a young age (under 20 years old) pose significant risks, such as giving birth to low birth weight (LBW) infants. LBW accounts for approximately 20% of stunting cases. Therefore, it is essential to provide education and empower adolescents to enhance their knowledge about reproductive health and the risks of child marriage (Kemenkes RI, 2018).

Indonesia's high global and regional ranking in underage marriages underscores the urgent need for comprehensive strategies to combat this issue. Early marriages not only hinder the personal development of young individuals but also contribute to broader societal challenges, including high population growth, economic instability, and strained public resources. Tackling child marriage is essential for advancing gender equality, improving

educational outcomes, and fostering sustainable development in Indonesia (Kiwe, 2017; KP3A, 2023).

The consequences of child marriage significantly impact maternal health and nutrition, affecting fetal development and increasing the likelihood of stunting. Adolescent pregnancies are particularly high-risk, with young mothers more likely to deliver low birth weight (LBW) babies. LBW is associated with around 20% of stunting cases and contributes to Indonesia's maternal mortality rate. To address these challenges, educating and empowering adolescents to understand reproductive health and the dangers of early marriage is crucial (Kemenkes RI, 2018).

Indonesia's maternal mortality rate remains high, at approximately 305 deaths per 100,000 live births, far above the target of 183 deaths per 100,000 live births set for 2022. Research indicates that adolescent pregnancies have higher maternal mortality rates than those among adults, primarily due to socioeconomic factors such as poverty, inadequate knowledge, and limited access to medical care. Adolescent pregnancies also lead to a higher incidence of preterm births, which further contributes to the infant mortality rate (Zhang et al., 2020).

Infant and maternal mortality rates are critical indicators of local government performance, particularly in the health sector. These rates remain alarmingly high in Indonesia, underscoring the need for urgent action. Addressing maternal and infant health is integral to achieving the Sustainable Development Goals (SDGs), which aim to reduce the infant mortality rate to 23 per 1,000 live births by 2030 (Winoto & Rachmawati, 2017; Latifah, 2021).

Peer education has emerged as an effective strategy for reducing early marriage and teenage pregnancies. This approach, grounded in community-based interventions, has shown success in raising awareness and providing reproductive health education in communities with shared socioeconomic and cultural contexts (Mehra et al., 2018). Peer education covers topics such as menstruation, puberty, contraception, sexually transmitted infections (STIs), HIV, pregnancy, abortion, sexual violence, gender issues, and early marriage, making it a comprehensive tool for educating adolescents (Siddiqui et al., 2020). Peer education is an educational method that is beneficial as it can positively change behavior through knowledge transfer techniques conducted among peer groups. This approach is effective because peers have closer relationships, use the same language, and can engage in discussions anytime and anywhere in a relaxed manner. It provides a more comfortable environment for discussing issues, including sensitive topics such as child marriage (Astari & Fitriyani, 2019).

According to Kadafi et al. (2022), peer education has a positive impact on increasing adolescents' knowledge about child marriage. Education provided by peers enables more effective two-way communication, making the information delivered easier to understand and accept. Additionally, peer education is an innovative activity believed to change adolescent behavior, as the empowerment process involves adolescents as direct partners in the program. This approach ensures that the educational process positively influences behavior and actions among adolescents (Yusuf & Ilmiyani, 2023).

In light of these challenges, the researcher proposes a study titled *"The Effect of Peer Education on Knowledge about the Dangers of Early Marriage in Mimika Regency, Papua Province."* The research aims to prevent adolescent marriage by employing peer education as an intervention strategy, emphasizing its potential to create lasting behavioral and societal change.

METHODS

The type of research used is Quasi-Experimental, also known as pseudo-experiment. The research design applied is the one-group pretest-posttest design. In this design, the relationship between cause and effect is examined without involving a control group, by measuring before and after the intervention is conducted on the study group (Nursalam, 2021). The research will be conducted in Mimika Regency from July to October 2024. The intervention group will be given treatment by providing education through peer education on early marriage. The group will first take a pre-test, and after the intervention, a post-test will be administered.

The population in this study consists of adolescents in Mimika Regency, totaling 580 respondents. The sampling technique used is proportional probability sampling, where samples are selected randomly, meaning that the total number of samples in this study is 65 respondents. Data analysis will be conducted using SPSS 22 software, starting with the editing stage. All questionnaires filled out by respondents will be collected, then coded to assign specific numbers for easier data entry. The third stage is scoring, where the values or scores for each variable are calculated. The fourth stage is data entry or tabulation, where all data is entered into tables according to the predetermined codes. The fifth stage is data analysis using descriptive analysis to describe the characteristics of the respondents and research variables. A paired t-test will be conducted if the data is normally distributed, and a Wilcoxon sign-rank test will be applied if the data is not normally distributed.

RESULTS AND DISCUSSION

Result

Respondent Characteristics

The characteristics of the respondents in this study can be seen in the following table:

Table 1. Respondent Characteristics

Variabel	N	%
Sex		
Male	37	56.9
Female	28	43.1
Age		
15 Year	9	13.8
16 Year	39	60.0
17 Year	13	20.0
18 Year	4	6,2

Variabel	N	%
Education Level		
Elementary School	16	24.6
Junior High School	12	18.5
Senior High School	32	49.2
Bachelor's Degree	4	6.2
Master's Degree	1	1.5
Job		
Private Employee	44	67.7
Civil Servant/Military/Police	8	12.3
Farmer	9	13.8
Laborer	4	6.2
Information		
Pernah	63	96.9
Tidak Pernah	2	3.1
Source Of Information		
Health Workers	23	35.4
Teacher	5	7.7
Parent	9	13.8
Friends	11	16.9
Internet	17	26.2

Based on the data in the table above, the majority of respondents are male adolescents, making up 56.9% of the total. The most common age group is 16 years old, accounting for 60%. The majority of respondents' parents have a high school education, at 49.2%, the majority of respondents are employed in the private sector, making up 67.7% of the total, and the most common occupation among parents is working in the private sector. Regarding exposure to reproductive health information, 96.9% of respondents reported having received information, with the largest source being healthcare workers, at 35.4%.

Description of Adolescents' Knowledge Levels Before and After the Intervention Through Peer Education

The distribution of respondents' knowledge levels before and after the intervention can be seen in the following table:

Table 2. Description of Adolescents' Knowledge Levels Before and After the Intervention Through Peer Education

Knowledge	N	Min	Max	Mean	SD
Pretest	65	26	41	31.20	3.284
Posttest	65	34	48	39.28	2.625

Based on the data in Table 2, the mean score for adolescents' knowledge about early marriage before the intervention was 31.20, with a minimum score of 26 and a maximum score of 41. After the Community Empowerment Through Peer Education intervention, the

mean knowledge score increased to 39.28, with a minimum score of 34 and a maximum score of 48.

Analysis of the Effect of Peer Education on Adolescents' Knowledge About Marriage in Mimika Regency

Table 3. Analysis of the Effect of Peer Education on Adolescents' Knowledge

Knowledge	N	Mean	SD	P Value
Pretest	65	31.20	3.284	0,000
Posttest	65	39.28	2.625	

Based on the data in Table 3, the mean score for adolescents' knowledge about early marriage before the intervention was 31.20, which changed to 39.28 after the Community Empowerment Through Peer Education intervention. The results of the statistical analysis showed a p-value of 0.000, indicating significance at $\alpha=0.05$.

Discussion

The analysis of the Effect of Peer Education on adolescents' knowledge about marriage in Mimika Regency.

Based on the data presented in Table 3, the average score of adolescents' knowledge about early marriage increased from 31.20 before the intervention to 39.28 after the Community Empowerment Through Peer Education intervention. Statistical analysis showed a p-value of 0.000, indicating a significant improvement at $\alpha=0.05$.

The findings highlight the effectiveness of community empowerment programs using peer education to enhance adolescents' awareness about marriage in Mimika Regency. This intervention successfully increased knowledge about the risks of early marriage, the advantages of postponing marriage until reaching maturity, and the negative consequences of early marriage on reproductive health and social well-being.

These results are consistent with the study by Arisjulyanto & Suweni (2023), which found that community empowerment significantly impacts the prevention of early marriage. By engaging adolescents as active participants, this approach improves the acceptance of educational messages compared to other techniques. Empowering families, especially mothers, further enhances adolescents' understanding, as shown by previous initiatives that emphasize family-based education (Suhariyati & Rahmawati, 2023).

The effectiveness of peer education in raising awareness of marriage-related issues has been supported by various studies. For instance, research in Cirebon reported a 90% increase in knowledge about the appropriate age for marriage, with pre-test scores improving from 34 to 65 following peer education (Rohmana & Ati, 2024). Similarly, Wardhani et al. (2024) Peer education has proven to be an effective method for enhancing adolescents' knowledge about early marriage. Various studies highlight the positive impact of peer-led initiatives in improving understanding of the risks associated with early marriage and reproductive health. A study conducted at SMA Negeri 15 Surabaya demonstrated that over 54% of participants showed significant knowledge improvement after peer counseling training, underscoring the effectiveness of this approach. In another study, 80% of adolescents improved their knowledge about the risks of early marriage after receiving reproductive health education, highlighting the role of structured educational interventions (Srininta et al., 2024). A study in

Singkawang documented a rise in knowledge scores from 47.3 to 97.3 due to targeted educational interventions (Asmariana et al., 2024).

In Cilegon, peer education significantly enhanced young women's understanding and attitudes about early marriage, underscoring the importance of partnerships between schools and health institutions (Nurfazriah & Hartati, 2023). This method has shown effectiveness in addressing gaps in knowledge about the consequences of early marriage, such as reproductive and mental health risks, and empowering adolescents to act as change agents in their communities. While peer education has shown promising results in increasing knowledge about child marriage, challenges remain in ensuring sustained engagement and broader societal impact. Following the implementation of the peer education program, it was found that adolescents' knowledge levels increased significantly. Before the intervention, many adolescents lacked a proper understanding of early marriage and its consequences, particularly regarding reproductive and mental health aspects. However, after the intervention, adolescents became more aware of risks such as pregnancy complications, high maternal and infant mortality rates, and the psychological impacts that can arise from early marriage (Siddiqui et al., 2020; Tang et al., 2022). The study involving 62 students at SMKN 1 Pringgasela reported an average knowledge increase from 15.10 to 31.90 after education on early marriage, highlighting the substantial benefits that can be achieved through targeted education. Similarly, peer education in Cirebon resulted in a 90% increase in knowledge scores among participants, further supporting the effectiveness of peer-led educational programs (Taufandas et al., 2023).

The peer education approach is used as a common source for providing information among peer groups, led by one of the group members. Peer education in this activity refers to a concept of socialization through health education conducted by peers of the same age group. This approach is considered highly effective for adolescents and young adults, as it aligns with their developmental phase of self-discovery. This stage typically spans from elementary to high school education. Peer educators are viewed as effective because this method employs language and communication styles easily understood by their peers, ensuring that health-related information is accurately delivered. This approach is closely linked to the Health Promoting Model (HPM) theory, which aims to involve and encourage active participation in the process of improving health status (Fanaqy et al., 2020).

According to Pratiwi et al. (2019), peer educators can influence adolescents' social behavior by serving as credible role models or innovators within their groups. Thus, peer education becomes a strategic tool for disseminating health communication knowledge and fostering effective behavioral changes, including adherence to health protocols. Therefore, designing peer education activities with approaches tailored to adolescents' values and needs is essential.

From the perspective of the Health Promotion Model (HPM) theory, peer education represents an interaction between adolescents and their physical and interpersonal environments, viewed across multiple dimensions. This model highlights a paradigm shift in health services from curative to promotive and preventive approaches. Key components of this concept include the Expectancy Value Theory, which examines adolescents' aspirations

for a better future, and the Social Cognitive Theory, which views humans holistically within a nursing perspective. Adolescents are seen as a unique group requiring specific techniques and approaches for education, one of which is the peer education technique.

Despite its success, the program faces challenges, including social and cultural norms that support early marriage in certain areas of Mimika Regency and limited access to education and facilities. Overcoming these obstacles requires more intensive community engagement, particularly involving local leaders. Factors contributing to early marriage include economic constraints, traditions, limited education, and rural living conditions (Yelni et al., 2019). These factors often lead to adverse outcomes such as domestic violence, health issues, psychological stress, and reduced school attendance for children. Addressing these challenges calls for interventions like education campaigns, peer education, and collaboration with religious and social leaders.

The findings suggest that integrating community empowerment programs into formal education and strengthening partnerships among schools, communities, and local authorities can sustain efforts to prevent early marriage. Expanding the program's reach could further support public policy initiatives aimed at reducing early marriage rates in Mimika Regency.

CONCLUSION

The Community Empowerment program through the peer education method has been proven effective in increasing adolescents' knowledge and attitudes regarding the dangers of early marriage in Mimika Regency. The study results show a significant increase in the knowledge and attitude scores of adolescents after participating in this program intervention. These findings suggest that the peer education method can be an effective strategy in preventing early marriage, particularly in areas with high rates of early marriage. This program can serve as a reference for policymakers and community organizations to develop similar interventions to support adolescent empowerment and prevent early marriage.

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