



The Role of Midwives in Reproductive Health Education as an Effort to Delay Early Marriage Among Adolescents at the Dambalo Community Health Center

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Abstract. Early marriage is a reproductive health issue that remains a challenge in various regions of Indonesia, requiring effective educational interventions for adolescents. This study aims to analyze the role of midwives in reproductive health education as an effort to delay early marriage among adolescents at the Dambalo Community Health Center (UPTD Puskesmas Dambalo). The study used an analytical observational design with a cross-sectional approach and involved 30 adolescents selected through total sampling. The variables examined included the role of midwives, knowledge, attitudes, and intentions to delay marriage. Data were collected through a standardized questionnaire and analyzed using Spearman's and Chi-square tests. The results showed that the role of midwives was significantly associated with an increase in adolescents' knowledge ($r = 0.579$; $p = 0.0008$). However, no relationship was found between the role of midwives and adolescent attitudes ($r = 0.264$; $p = 0.158$). Regarding the variable of intention, all respondents (100%) expressed a desire to delay marriage until the age of ≥ 20 years, so statistical analysis could not be performed. These findings confirm that midwife education is effective in increasing adolescent knowledge, but changes in attitudes and intentions are influenced by other social factors that have been established previously. A collaborative approach between midwives, families, and schools is needed to strengthen comprehensive prevention of early marriage.

Keywords: Adolescent Attitudes; Adolescent Knowledge; Intention to Delay Pregnancy; Reproductive Health Education; Role of Midwives.

1. INTRODUCTION

The issue of early marriage remains a major concern in public health in Indonesia, especially in rural areas facing various socioeconomic constraints. Although the national trend shows a decline, the prevalence remains alarming. Data from the Central Statistics Agency (2022) reports that 6.2% of women aged 20–24 were married before the age of 18, with a much higher rate in rural areas. This is in line with a UNICEF report (2021) that ranks Indonesia as one of the ten countries with the highest absolute number of child marriages in the world. Globally, one in five women aged 20–24 has been married at a young age, a picture that confirms that this practice remains a major challenge for the reproductive health of young women.

From a health perspective, the risks posed by early marriage cannot be ignored. Pregnancy in adolescence increases the likelihood of obstetric complications such as anemia, preeclampsia, premature birth, and maternal death, as explained by the WHO (2020). These findings are reinforced by research by Kassa et al. (2018) and Lenders et al. (2020), which shows that early pregnancy is associated with low access to health services, loss of social support, and the risk of malnutrition. A recent study by Yaya et al. (2019) even mentions that teenage pregnancy increases the risk of depression and postnatal stress, showing that the impact

of child marriage is not only physical but also mental. In addition, research by Malhotra and Elnakib (2021) confirms that child marriage reduces educational opportunities, limits economic independence, and widens gender gaps throughout women's lives.

The need for adolescents to obtain accurate reproductive health information is increasing, but in reality, their literacy is still low. Research by Suryani et al. (2019) shows that most adolescents do not have an adequate understanding of the risks of pregnancy, the reproductive process, or the social consequences of early marriage. Adolescents more often rely on information from peers or social media, which is often inaccurate. A recent study by Putri & Larasati (2022) also found that lack of access to information is one of the factors driving adolescents' decision to marry early. In these circumstances, midwives play a vital role as a trusted source of information that can bridge this knowledge gap.

The role of midwives as educators and reproductive health counselors is not only supported by their professional authority, but also by their closeness to the community. A study by Fadila and Rahayu (2021) proves that reproductive education provided by midwives significantly increases knowledge and strengthens adolescents' negative attitudes towards early marriage. Research by Fitriyani et al. (2022) also shows that adolescents feel more comfortable discussing sensitive issues, such as sexuality and early marriage, with midwives because of their empathetic approach and gender-based perspective. Another study by Widyawati et al. (2020) confirms that midwives' interpersonal communication is very effective in strengthening reproductive health literacy among adolescents in remote areas.

In a theoretical framework, changes in adolescent behavior in making decisions related to marriage can be explained through Ajzen's *Theory of Planned Behavior* (1991). This theory states that a person's intentions are influenced by knowledge, attitudes, subjective norms, and perceptions of self-control. Thus, comprehensive reproductive health education is not only aimed at increasing knowledge, but also changing attitudes and strengthening the intention to delay marriage. Wahyuningsih et al. (2021) showed that good reproductive literacy is significantly associated with an increased intention to delay marriage. Meanwhile, a meta-analysis by Svanemyr et al. (2015) shows that continuous educational interventions can reduce the risk of early marriage by up to 30%.

At the Dambalo Community Health Center, midwives play an important role through various forms of education, ranging from counseling at the Adolescent Health Center, UKS programs, individual counseling, to collaboration with schools and health cadres. Although various efforts have been made, research specifically examining the relationship between the role of midwives, increased knowledge, attitude change, and the intention to delay early

marriage among adolescents in rural areas is still limited. Therefore, this study is important to provide empirical evidence on the effectiveness of midwife education in helping adolescents make healthier, future-oriented decisions that are focused on preventing early marriage. The results of this study are expected to strengthen the development of adolescent reproductive health programs in primary health care services.

2. RESEARCH METHOD

This study used a quantitative approach with a cross-sectional analytical observational design. This design was chosen because it was able to describe the relationship between the role of midwives in reproductive health education and knowledge, attitudes, and intentions to delay early marriage among adolescents at a single measurement point. The study was conducted at the Dambalo Community Health Center (UPTD Puskesmas Dambalo). This area is a rural area with limited access to reproductive health information, so midwives play an important role in bridging the gap in adolescent education. The entire research process, from preparation to data processing, was carried out from July to September 2025. The research population consisted of all adolescents who participated in reproductive health education activities conducted by midwives in the health center's working area. From this population, a sample of 30 adolescents was obtained. Because all adolescents who met the criteria were included, the sampling technique used was total sampling. The respondents included were adolescents aged 11–18 years who attended the education activities and were willing to complete the research instrument. Adolescents who did not complete the questionnaire were excluded from the analysis.

The independent variable was the role of midwives in reproductive health education, which was assessed through five indicators: direct education, use of educational media, personal counseling, involvement of cadres and teacher- , and follow-up monitoring. Each indicator was scored from 1 to 4, resulting in a total score ranging from 5 to 20, with a score of ≥ 15 indicating a good role. The dependent variables included adolescents' knowledge, measured by the difference between pretest and posttest scores; attitudes toward early marriage, measured using a Likert scale ranging from 10 to 40; and the intention to delay marriage, reported categorically (1 for adolescents who intended to marry at ≥ 20 years of age and 0 for those who intended to marry < 20 years of age). The instruments used consisted of a midwife role questionnaire, a pretest-posttest knowledge sheet, an attitude scale, and one item related to the intention to delay marriage. The instruments underwent content validation by midwifery and reproductive health experts and were tested for reliability using Cronbach's Alpha

coefficient to ensure internal consistency. The language and structure of the questions were kept simple so that they would be easily understood by adolescents, given the age characteristics and literacy levels of the respondents. Data collection was carried out in several stages. Before the education session, the researchers administered a pretest to the adolescents. Next, midwives provided education through lectures, discussions, the use of print and audiovisual media, and counseling sessions when necessary. After the education was completed, respondents took a post-test to measure their knowledge improvement. The attitude and intention questionnaires were then filled out in the same session. All answer sheets were rechecked to ensure data completeness before being coded and input into statistical software.

The data were analyzed using univariate and bivariate analyses. Univariate analysis was used to describe the distribution of respondent characteristics, midwife role scores, knowledge, attitudes, and intentions to delay marriage. The relationship between variables was analyzed using Spearman's correlation test for ordinal variables, while the relationship between midwife roles and the intention to delay marriage was tested using the Chi-Square or Fisher's Exact Test when small cell frequencies were found. All statistical tests used a significance level of $p < 0.05$.

3. RESULTS AND DISCUSSION

Results

Respondent Characteristics

Table 1. Distribution of Respondent Characteristics.

Characteristics	Category	n	
Age	11–14 years	5	16.7
	15–17 years	21	70
	18 years	4	13.3
Gender	Male	10	33
	Female	20	66.7
Education	Elementary	3	10
	Junior High School	8	26.7
	High School	19	63.3

Table 1 presents the distribution of respondent characteristics based on age, gender, and education level. The majority of respondents were in the 15–17 age group (70%), followed by those aged 11–14 (16.7%) and 18 (13.3%). In terms of gender, most respondents were female (66.7%), while males accounted for 33.3%. Based on education level, the majority of respondents were in high school (63.3%), followed by junior high school (26.7%) and elementary school (10%). These findings indicate that the research respondents were

predominantly high school adolescents who were at an important stage of development in terms of forming knowledge and attitudes related to reproductive health.

The Role of Midwives in Reproductive Health Education

Table 2. Distribution of Midwife Role Scores.

Category	Score Range	n	%
Less	< 15	1	3.3
Good	≥ 15	29	96.7

Average midwife role score: 17.3 ± 1.7

Table 2 shows the distribution of midwife role scores based on respondent assessments. Most respondents (96.7%) rated the midwife's role in reproductive health education as good (score ≥ 15), while only 3.3% rated it as poor. The average midwife role score was 17.3 ± 1.7 , indicating a positive perception of the quality of education provided. Overall, these results show that the majority of adolescents rated the midwife's role as well-executed in reproductive health education activities.

Improvement in Adolescent Knowledge (Pretest–Posttest)

Table 3. Improvement in Adolescent Knowledge After Education (n = 30).

Δ Knowledge	n	%
4–5 points	11	36.7
6–7 points	13	43.3
8–10 points	6	20.0

Average increase in knowledge (Δ): 6.4 points

The results of the study show that all respondents experienced an increase in knowledge after participating in reproductive health education by midwives. Of the 30 adolescents, 11 respondents (36.7%) experienced an increase in knowledge in the range of 4–5 points, then 13 respondents (43.3%) experienced an increase of 6–7 points, and 6 respondents (20.0%) obtained the highest increase in the range of 8–10 points. Overall, the knowledge improvement score (Δ) ranged from 4 to 10 points, with an average improvement of 6.4 points, indicating consistent and positive knowledge changes among all adolescents who participated in the education program.

Adolescents' Attitudes toward Early Marriage

Table 4. Respondents' Attitudes toward Early Marriage (n = 30).

Attitude Score	Category	n	%
38	Reject	1	3.3
40	Strongly disagree	29	96.7

Average attitude score: 39.9 ± 0.37

The results of the study show that adolescents' attitudes toward early marriage are dominated by the strongly reject category. Of the 30 respondents, 29 adolescents (96.7%) scored 40, which is the highest score on the attitude instrument, while 1 respondent (3.3%) scored 38, which is still in the reject category. There were no respondents with scores below 38, indicating that all adolescents in this study had a negative attitude toward child marriage. Overall, the average attitude score was 39.9, indicating an almost maximal level of rejection and a highly homogeneous attitude pattern among adolescents.

Intention to Postpone Marriage

Table 5. Distribution of Intent to Postpone Marriage.

Intention to Postpone	n	%
Yes (≥ 20 years)	30	10
No (< 20 years old)	0	0

The results of the study show that all respondents intend to delay marriage until adulthood. Of the 30 adolescents involved, 100% stated "Yes", meaning they intended to marry at the age of ≥ 20 years, and none of the respondents stated that they wanted to marry at the age of < 20 years. This completely homogeneous distribution shows that all adolescents in the study had the same behavioral orientation regarding the decision to delay marriage, with no variation in responses to the intention variable.

Statistical Analysis Results

Table 6. Summary of Statistical Analysis Results.

Variable Relationships	Statistical Test	Statistical Value	p-value	Description
The role of midwives vs. Δ knowledge	Spearman	$r = 0.579$	0.0008	Significant
The role of midwives vs. attitudes	Spearman	$r = 0.264$	0.158	Not significant
The role of midwives vs. intention	Chi-square	–	–	Cannot be tested (homogeneous data)

The statistical analysis results summarized in Table 7 show that the relationship between the role of midwives and increased knowledge among adolescents produced a Spearman correlation value of 0.579 with a significance value of 0.0008, so that the relationship between the two was significant at the 0.05 test level. Conversely, the relationship between the role of midwives and adolescents' attitudes toward early marriage shows a Spearman correlation value of 0.264 with $p = 0.158$, indicating that there is no statistically significant relationship. Meanwhile, the analysis of the relationship between the role of midwives and the intention to

delay marriage could not be performed using the Chi-square test because all respondents gave the same answer (100% intended to delay marriage), so there was no data variation that allowed for statistical testing. Thus, only two relationships could be assessed through correlation analysis, and one variable could not be tested due to the homogeneous nature of the data.

Discussion

The findings of this study show that the role of midwives contributes significantly to increasing adolescents' knowledge about reproductive health. The consistent increase in knowledge after the midwife education session shows that adolescents respond well to a structured, interactive, and repetitive educational approach. This situation supports the results of previous studies which confirm that health worker-based reproductive health education is able to increase adolescents' cognitive capacity more effectively than other sources of information (Rahayu et al., 2021; Susanti & Nurhalimah, 2020). However, increased knowledge does not necessarily lead to changes in attitudes and behavior, so a deeper understanding of the underlying psychosocial dynamics is needed. Upon further review, the pattern of knowledge improvement in this study explains that midwives can play an optimal role when using interpersonal approaches and individual counseling. This approach is also considered an effective education method in communities with limited access to information, as is common in rural areas (Arfiani et al., 2023). This is in line with the views of Hasanah & Fitriani (2022), who state that adolescents have the highest level of acceptance of information conveyed by trusted authoritative figures, such as midwives. Thus, the interpersonal communication aspect of midwives is a key element that strengthens the success of increasing adolescent knowledge.

On the other hand, statistical analysis shows that increased knowledge is not directly proportional to changes in adolescents' attitudes towards early marriage. The insignificant relationship is not unrelated to the homogeneity of attitude scores, which are almost entirely in the strongly reject category. This condition indicates that adolescents' attitudes may have been strongly formed before the intervention was given. According to Dewi & Sari (2019), adolescents' attitudes toward early marriage are greatly influenced by family values, cultural norms, and educational preferences. In other words, midwife education serves as a reinforcer, not the main shaper, of attitudes that have already been instilled. Furthermore, the phenomenon of homogeneity seen in the variable of intention to delay marriage shows that all adolescents have a similar awareness not to marry at a young age. Of course, this type of data makes statistical testing impossible because there is no category variation. However, this homogeneity illustrates that adolescents have fairly clear future aspirations. These findings are in line with

the studies by Mardiana et al. (2023) and Sugiarto & Prabowo (2021), which show that adolescents with a higher education orientation are more likely to delay marriage until they achieve personal stability.

Given that changes in attitudes and intentions involve more complex psychological dimensions, this is in line with the Theory of Planned Behavior framework, which states that attitudes, subjective norms, and perceived behavioral control are factors that work together in shaping intentions (Ajzen, 2020). In the context of this study, increased knowledge is one aspect that has changed, but social norms and environmental expectations appear to be stable and uniform, thus not providing sufficient variation to statistically observe the influence of midwives on attitudes and intentions. In addition to psychosocial factors, the findings of this study also clarify that midwives cannot act alone in preventing early marriage. Research by Pratiwi et al. (2023) and Kumalasari et al. (2022) emphasizes that effective strategies for preventing child marriage must involve families, schools, community leaders, and government policy support. Thus, although midwives are key actors in reproductive health education, the impact of education will be more significant if supported by a social ecosystem that supports adolescents' decisions to delay marriage.

Looking at the overall findings, this study reinforces the importance of consistent health education based on health workers. A meaningful increase in knowledge shows the success of midwives as educators, but transforming attitudes and intentions requires a comprehensive approach that combines education, family involvement, school guidance, and community support. This perspective aligns with the WHO (2023) guidelines on the need for a multisectoral approach in preventing child marriage.

4. CONCLUSION

This study shows that the role of midwives is significantly related to an increase in adolescent knowledge, with all respondents experiencing an increase in knowledge scores after education. However, the role of midwives is not related to adolescents' attitudes towards early marriage, as almost all respondents (96.7%) already had a very negative attitude before the intervention. The intention to delay marriage could not be analyzed statistically because all adolescents (100%) expressed the same desire. This homogeneity indicates that midwife education has a greater impact on increasing understanding than on changing attitudes or intentions that have been formed by social and environmental factors. Based on these findings, midwives are advised to continue strengthening reproductive health education with interactive and consistent methods, especially to expand adolescents' knowledge. Efforts to shape attitudes

and strengthen the intention to delay marriage need to involve families, schools, and communities for more comprehensive results. Further research is recommended using a larger sample size and adding a longitudinal approach to examine changes in attitudes and intentions more deeply over time.

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