

Original Article

Assessing Early Marriage with Adolescent Girls' Reproductive Health and Healthy Pregnancy Planning



Yessy Nur Endah Sary¹, Tri Iriyani¹, Retno Palupi Yonni Siwi², Umianita Risca Wulandari³, Putri Dewi Anggraini⁴, Rizka Fatmawati⁵

- ¹ Hafshawaty Zainul Hasan University, Probolinggo, East Java, Indonesia
- ² University of STRADA Indonesia, Kediri, East Java, Indonesia
- ³ Institute of Health Sciences Bhakti Wiyata, Kediri, East Java, Indonesia
- ⁴ Adiwangsa Jambi University, Jambi, Central Sumatera, Indonesia
- ⁵ Muhammadiyah PKU Surakarta University, Surakarta, Central Java Indonesia

ARTICLE INFO

Article History

Submit : June 26, 2025

Accepted : July 5, 2025

Published : July 8, 2025

Correspondence

Yessy Nur Endah Sary,
Hafshawaty Zainul Hasan
University, Probolinggo, East
Java, Indonesia.

Email

yessynurendahsari@gmail.com

Citation:

sary, yessy nur endah ., Iriyani, T., Siwi, R. P. Y. ., Wulandari, U. R. ., Anggraini, P. D. ., & Fatmawati, R. . (2025). Assessing Early Marriage with Adolescent Girls' Reproductive Health and Healthy Pregnancy Planning. *Journal of Applied Nursing and Health*, 7(2), 187-194. <https://doi.org/10.55018/janh.v7i2.367>

ABSTRACT

Background: Early marriage poses a health risk, especially if pregnancy occurs because the reproductive organs, especially the uterus and other reproductive organs, are not yet fully developed. The purpose of this study was to analyze the relationship between early marriage and adolescent girls' reproductive health and healthy pregnancy planning.

Methods: This research is quantitative research. The research design used in this study was cross-sectional. The sampling technique used was total sampling, all married adolescent girls in Kraksaan Wetan Village, Probolinggo Regency, Indonesia, totaling 37 people. This study used a research instrument in the form of a questionnaire to measure general data in the form of age, education, and occupation. In addition to questionnaires for general data, there were also questionnaires used to measure specific data, such as the variables of adolescent girls' reproductive health and pregnancy planning—univariate data analysis with frequency distribution, bivariate data analysis with chi-square.

Results: The results showed that the majority of respondents' reproductive health was in an unhealthy condition, with as many as 20 people (54.05%). The majority of respondents had poor pregnancy planning, as many as 23 people (62.16%). The results of data analysis with SPSS using chi square informed that the p value was 0.582 ($\alpha=0.05$).

Conclusion: The results showed that there is no correlation between early marriage and adolescent girls' reproductive health and healthy pregnancy planning in Kraksaan Wetan Village, Probolinggo Regency. Teenage girls should get enough information about reproductive health before marriage, and parents should delay early marriage before they are more than 19 years old.

Keywords: Adolescent girls; Early marriage; Pregnancy planning; Reproductive health.

Implications for Practice:

- Increase the knowledge of adolescent girls about the risks of pregnancy under the age of 19.
- Improve strategies for providing health education on reproductive health for midwives and other health workers to adolescent girls who have married early.
- Increase the knowledge of perpetrators who normalize early marriage to comply with the rules and laws regarding the minimum age for marriage for adolescents.



Introduction

The ideal marriage, according to existing laws and regulations, occurs when the man and woman are more than 19 years old ([Mahkamah Konstitusi](#), 2019). Early marriage is also defined as a marriage between a man and a woman who still do not have mental readiness, physical preparation, and material preparation ([Tirang & Iadamay](#), 2019). Despite the regulations, there are still parties, including parents of teenagers, who normalize marriage under the age of 19 so that it can be categorized as an early marriage.

High prevalence of early marriage is recorded in several countries such as Nigeria (79%), Kongo (74%), Afghanistan (54%), and Bangladesh (51%) ([Setyawan](#), 2018). Indonesia has the seventh highest rate of early marriage in the world, and the second highest rate in ASEAN after Cambodia ([Kartoningrat et al.](#), 2024). According to the Central Statistics Agency (BPS) through the Indonesian Demographic and Health Survey (SDKI), in 2021 the teenage pregnancy rate in the 15-19 age group reached 59,709 pregnancies ([Damara et al.](#), 2023). In urban areas, 21.75% of children under the age of 16 have been married off. In rural areas, the figure is much higher at 47.79%, which shows the simplicity of the mindset of the community, which ignores many aspects that should be a condition of marriage ([Harahap & Lubis](#), 2022). According to data from the Religious Court of Probolinggo in 2024, Probolinggo is one of the districts with a high rate of early marriage and teenage pregnancy in East Java, with 224 people.

In Theory, early marriage has negative impacts both physically and psychologically. The physical impact of early marriage is that it disrupts the reproductive health system, and it can cause various complications, especially in women. Early marriage poses a health risk,

especially if pregnancy occurs, because the reproductive organs, especially the uterus and other reproductive organs, are not yet fully developed ([Harahap & Lubis](#), 2022). The immaturity of the reproductive organs, as well as the physical maturity of an adolescent girl, will also affect the risk if a teenage girl carries her child. The possibility of disability in the child, the mother dying during childbirth, and other risks are also very large when early marriage occurs. In addition, the cervix of an adolescent girl is still sensitive. Therefore, if forced to get pregnant, there is a risk of cervical cancer in the future; even worse is the risk of death during childbirth, which is also high at a young age. Another thing that can happen when teenage girls get pregnant is that they will more easily suffer from anemia during pregnancy and childbirth ([Sekarayu & Nurwati](#), 2021).

Becoming a mother during adolescence makes the transition from teenager to parent very difficult due to the unfinished parental developmental tasks. Being a parent is not easy, let alone parenting is not as easy as turning your palm. Various plans must be prepared, both physically, mentally, and financially ([Damara et al.](#), 2023). Adolescent girls who are already married early need to know the dangers if pregnancy occurs at the age of less than 19 years because it will have an impact on their further reproductive health ([Holtman et al.](#), 2024).

The results of previous studies indicate that adolescent girls who have married early suffer from anemia in the process of pregnancy and childbirth and problems with the reproductive health system due to the unpreparedness of the female reproductive organs to accept pregnancy in early marriage ([Indriani et al.](#), 2023). Other studies have shown that adolescents who have married early and are pregnant are at risk of high blood pressure, which is a sign

of damage to other organs([Shanty Natalia et al., 2021](#)).

The similarity between this study and previous studies is that both examine early marriage in adolescent girls and the impact on reproductive health. However, the difference between this study and other studies is that the previous study examined knowledge about early marriage. In contrast, this study analyzed the relationship between the incidence of early marriage and reproductive health and pregnancy preparation. Another difference lies in the characteristics of the respondents; in this study, the respondents were young women who were married and not yet pregnant.

The researcher has conducted a preliminary study of 6 adolescent girls who were married in 2024 in Kraksaan Wetan, Probolinggo. The preliminary study was conducted in January 2025. The initial research informed that 4 young women were not ready to be married off, but could not refuse because their parents forced them. Two young women said that they were not prepared to start a family and were not prepared to get pregnant and give birth.

Based on the above background, the researcher is interested in conducting a study to analyze the relationship between early marriage and adolescent girls' reproductive health and healthy pregnancy planning in Kraksaan Wetan, Probolinggo.

Methods

Study Design

This research is quantitative. The research design used in this study was cross-sectional.

Participants

Respondents in this study were recruited through a collaboration between the researcher and the Village Midwife in Kraksaan Wetan, Probolinggo. The researcher and the Village Midwife looked at the list of married adolescents in Kraksaan Wetan Village by looking at the register book and found that there were 37 young women aged 15 to 19 years who had married in 2024. Researchers collected the telephone numbers of prospective respondents and contacted respondents via WhatsApp to ask if they were willing to be research respondents. For respondents who were willing to participate in the study, they were included in the WhatsApp group, and they were asked to gather at the Kraksaan Wetan Hall according to the predetermined day and time. The population of this study was 37 married adolescent girls in Kraksaan Wetan, Probolinggo.

The sampling technique used was total sampling. The inclusion criteria for respondents in this study were adolescent girls aged 15-19 years who were married, had an identity card domiciled in Kraksaan Wetan, and were willing to be research respondents. The exclusion criteria in this study are respondents who come from villages other than Kraksaan Wetan Village and respondents who are more than 19 years old when married for the first time. The sample used was all married adolescent girls in Kraksaan Wetan, Probolinggo, totaling 37 people. The dependent variable in this study is early marriage. The independent variables in this study are teenage girls' reproductive health and healthy pregnancy planning.

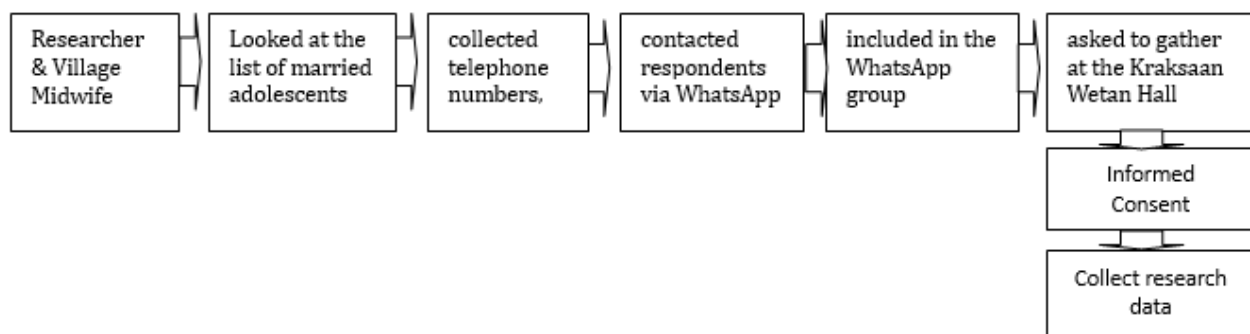


Figure 1. Research respondent recruitment process

Instruments

This study used a research instrument in the form of a questionnaire to measure general data in the form of age, education, and occupation. In addition to questionnaires for general data, there are also questionnaires used to measure specific data, which are variables of adolescent girls' reproductive health and pregnancy planning that have been tested for validity and reliability. The researcher adopted a reproductive health questionnaire totaling 25 questions from a previous study with the research title 'Correlation between Knowledge about Reproductive Health and Attitudes towards Pre Menstrual Syndrome in Adhi Luhur High School Class X and XI, Nabire, Papua'. The pregnancy planning questionnaire of 16 questions was adopted from research with the title 'Level of Knowledge of Prospective Brides About Healthy Lifestyles and Preparation for First Pregnancy at Health Center in 2021'. The research questionnaire has been tested for validity, and the corrected item correlation value obtained from the calculation is greater than 0.312, so it can be concluded that all items are valid. The questionnaire was tested for reliability, and the Cronbach's Alpha value was greater than 0.7, so the questionnaire is reliable.

Data Collection

Researchers have collaborated with the Local Midwife in the process of recruiting research respondents. Respondents who were willing to participate in the study were asked to attend the Kraksaan Wetan Hall on the day and time agreed upon. In this data collection process, the researcher was assisted by two midwifery undergraduate students and the Village Midwife. The researcher provided information related to the research data collection process, including time contracts, the benefits of this research for respondents, and explained that there was no risk that would be caused by the research process because it only involved filling out a questionnaire. Respondents were given two questionnaires, namely the adolescent girls' reproductive health questionnaire and pregnancy planning. Respondents were permitted to ask about the contents of the questionnaire that they did not understand. If there are respondents who feel that they do not want to continue the research process because it is not in line with the respondent's personality, they are allowed to leave the study. The researcher explained that the research data in the form of answers to questionnaires that had been filled in by respondents would be guaranteed confidentiality, and the data could only be accessed by researchers. At the end of the study, the researcher gave incentives to respondents in the form of

groceries for participating in the study (Figure 1).

Data Analysis

After the data collection process was complete, the researchers recapitulated the data and then processed it. General data was analyzed using frequency distribution, while specific data was analyzed using SPSS with the chi-square test.

Ethical Considerations

This study has gone through a review process and obtained permission from the health research ethics committee of Hahshawaty Zainul Hasan University with Proof of Ethical Feasibility, Number. 005/KEPK-UNHASA/01/2025.

Results

The results of data analysis with SPSS using chi square showed that the p value was 0.582 ($\alpha=0.05$), which means that there is no correlation between early marriage and adolescent girls' reproductive health and healthy pregnancy planning in Kraksaan Wetan, Probolinggo (Table 1).

Table 1. Distribusi Frekuensi Characteristics of Respondents and special data

Characteristics of Respondents	Amount	Percentage (%)
Age		
15 years old	5	13.51
16 years old	19	51.35
17 years old	3	8.81
18 years old	8	21.62
19 years old	2	5.40
Education		
Junior High School	29	78.37
Senior High School	8	21.62
Occupation		
Housewife	25	67.56
Merchant	4	10.81
Factory Worker	8	21.62
Reproductive health		
Healthy	17	45.94
Unhealthy	20	54.05
Pregnancy Planning		
Poor	23	62.16
Good	14	37.83

Discussion

According to the World Health Organization, adolescents are those who are in the age range of 10 to 19 years (Dávila et al., 2025). High sexual drive in adolescents due to being driven by an increasingly permissive environment and parents' decisions to marry off their children early can increase the rate of early marriage in adolescents (Ligit, 2016). Early marriage carries serious risks related to the reproductive health of adolescent girls. This risk is due to pelvic bones that are not strong enough when pregnancy occurs (Triadhari et al., 2023).

Adolescent girls who have been married young have limited ability to manage their reproductive health and also do not have the right to make decisions regarding sexual activities carried out with their partners (Kelecha et al., 2024). The results showed that the majority of the reproductive health of respondents who had married early was in an unhealthy condition. Unhealthy reproductive conditions are influenced by behavior in maintaining the cleanliness and health of the reproductive organs. Adolescent girls need sufficient knowledge about how to maintain the health of their reproductive organs, either before or after marriage, so that they will be able to avoid problems in their reproductive health. Lack of knowledge about reproductive health maintenance behavior is influenced by a young age, which is less than 19 years old. Low levels of education and limited access to information can affect awareness of reproductive health problems (Sinta et al., 2024).

Unhealthy reproductive organs affect the process of pregnancy and childbirth, which will be faced by young women who have married early, so careful pregnancy planning is needed. Maternal readiness to face pregnancy is a crucial factor that can affect the health of mothers and



babies([Pusparatri et al., 2024](#)). Although pregnancy is generally a physiological process, it can turn into a problem and lead to increased mortality and morbidity rates in pregnant women if not properly prepared. Mothers who are better prepared for pregnancy will strive for a healthy baby. Readiness is a level or state that must be achieved in the process of personal development at the level of mental, physical, social, and emotional growth([Dewi et al., 2024](#)).

The results of the study indicated that the majority of respondents had poor pregnancy planning. Healthy pregnancy planning can be determined by several indicators, including whether you have a pregnancy plan together with your partner, the desire to delay pregnancy until the age of 20, set a pregnancy interval of 2 to 4 years, whether you want to have more than four children, consultation with a doctor before getting pregnant, health checks before marriage, tetanus injections, upper arm circumference measurements, pelvic measurements, height measurements, weight measurements, personal hygiene of reproductive organs, consumption of instant food, smoking, prospective husband smokers and family smokers([Kusumaning Pertiwi et al., 2021](#)). Pregnancy needs to be prepared as well as possible which includes mental, followed by financial, emotional readiness, physical and intellectual([Diaris, 2024](#)). Pregnancy needs to be prepared by preparing for physical health, consuming folic acid and seeking information about healthy pregnancy([Carter et al., 2025](#)). Pre-pregnancy health screening, especially for adolescent girls, will reduce maternal and child morbidity and mortality([Heryanto et al., 2023](#)).

The results showed that there is a not correlation between early marriage and adolescent girls' reproductive health and healthy pregnancy planning in Kraksaan Wetan Village, Probolinggo Regency. This study is not in line with the study which

states that early marriage affects reproductive health, namely having an impact on the occurrence of anemia, narrow pelvis, low birth weight and hypertension([Sari et al., 2020](#)). Other studies state that early marriage is related to healthy pregnancy preparation. Factors that can cause inconsistencies between the current study and previous studies include the possibility of access to information obtained by research respondents. The presence or absence of health information and health facilities will affect a person's behavior including pregnancy planning ([Kusumaning Pertiwi et al., 2021](#)). So it is possible that good pregnancy planning can occur when respondents receive health education from health workers or get information from social media that is currently developing.

Relevance to Clinical Practice

Health workers need to provide continuous health education to adolescents and their parents by providing basic themes about the physical impacts of early marriage, which will later be more severe if adolescent girls experience pregnancy under the age of 20 years. Health workers also need to provide information that early marriage is not related to reproductive health and pregnancy preparation

Conclusion

The results showed that there is a not relationship between early marriage and adolescent girls' reproductive health and healthy pregnancy planning in Kraksaan Wetan Village, Probolinggo Regency. Adolescent girls should get enough information about reproductive health before marriage and parents need to delay early marriage before they are over 19 years old.

Funding

This research received no external funding.

CrediT Authorship Contributions Statement

Yessy Nur Endah Sary: Conceptualization, Methodology

Tri Iriyani: Validation, Formal Analysis

Retno Palupi Yonni Siwi: Supervision

Umianita Risca Wulandari: Writing - Original Draft

Putri Dewi Anggraini: Writing - Original Draft

Rizka Fatmawati : Review & Editing

Conflicts Of Interest

There is no conflict of interest.

Acknowledgments

The authors would like to express their sincere gratitude to all the teenagers who have married early who participated in this study. Special thanks are extended to the midwives and midwifery student who supported the data collection process. The authors also appreciate the contributions of colleagues who provided valuable insights and encouragement throughout the research process.

References

Carter, T., Schoenaker, D., Adams, J., & Steel, A. (2025). Pregnancy intention, preconception health, health behaviours, and information and health advice seeking among expectant male partners. *BMC Primary Care*, 26(1), 36. <https://doi.org/10.1186/s12875-025-02703-6>

Damara, M., Putriningrum, R., & Ernowati. (2023). Hubungan Kehamilan Usia Dini dengan Kesiapan Menjadi Seorang Ibu di Desa Panggungharjo Kabupaten Bantul. *Artikel Ilmiah Repository Universitas Kusuma Husada*, 05, 1–12. [https://eprints.ukh.ac.id/id/eprint/3856/1/Artikel Ilmiah Hubungan Kehamilan Usia Dini Dengan Kesiapan](https://eprints.ukh.ac.id/id/eprint/3856/1/Artikel%20Ilmiah%20Hubungan%20Kehamilan%20Usia%20Dini%20Dengan%20Kesiapan)

Menjadi Seorang Ibu Di Desa Panggungharjo.pdf

Dávila, F., Cala-Vitery, F., & Gómez, L. T. (2025). Determinants of Access to Sexual and Reproductive Health for Adolescent Girls in Vulnerable Situations in Latin America. *International Journal of Environmental Research and Public Health*, 22(2). <https://doi.org/10.3390/ijerph22020248>

Dewi, N. A., Diana, S., Lubis, N. A., & Siahaan, M. F. (2024). Analisis Faktor-faktor Yang Mempengaruhi Kesiapan Ibu Dalam Menjalani Kehamilan. *Jurnal Ilmu Kedokteran Dan Kesehatan*, 11(11), 2202–2210.

Diaris, N. M. (2024). Rencana Usia Menikah Dan Hamil Pada Remaja Putri Dilihat Dari Perspektif Kesehatan Reproduksi. *Jurnal Yoga Dan Kesehatan*, 7(2), 26–34.

Harahap, L. J., & Lubis, J. (2022). Dampak Pernikahan Dini Terhadap Kesehatan Reproduksi Remaja Di SMA Negeri 5 Kota Padangsidimpuan Tahun 2022. *Jurnal Pengabdian Masyarakat Darmas (JPMD)*, 1(2), 2–5.

Heryanto, M. L., Amelia, P. B., Khasanah, A. T., & Oktaviani, E. (2023). Penerapan Media Leaflet Sebagai Persiapan Perencanaan Kehamilan. *Jurnal Pemberdayaan Dan Pendidikan Kesehatan (JPPK)*, 2(02), 88–97. <https://doi.org/10.34305/jppk.v2i02.759>

Holtman, N., Bimerew, M., & Mthimunya, K. (2024). Adolescent girls' sexual and reproductive health information needs and barriers in Cape Town. *Health SA Gesondheid*, 29, 1–11. <https://doi.org/10.4102/hsag.v29i0.2650>

Indriani, F., Pratama, N. H., Sitepu, R. N. B., & Harahap, Y. A. (2023). Dampak Tradisi Pernikahan Dini Terhadap Kesehatan Reproduksi Pada Wanita: Literature Review. *Journal of Science and Social*

- Research*, 6(1), 1.
<https://doi.org/10.54314/jssr.v6i1.1150>
- Kartoningrat, R. B., Andayani, I., Info, A., Dini, P., & Perkawinan, H. (2024). Dampak perkawinan dini bagi masyarakat desa persiapan blogas dalam perspektif hukum perkawinan. *Berdaya: Jurnal Pengabdian Kepada Masyarakat*, 2(2), 10–18.
- Kelecha, Y. T., Mehamud, B. M., Goda, H. S., & Toma, T. M. (2024). Reproductive and sexual health literacy and associated factors among late-adolescent high school students in Arba Minch and Sawla towns, Southern Ethiopia, 2023: a cross-sectional study. *BMJ Open*, 14(8), e086034. <https://doi.org/10.1136/bmjopen-2024-086034>
- Kusumaning Pertiwi, N. A., Indraswari, R., & Husodo, B. T. (2021). Perencanaan Kehamilan Sehat Pada Calon Pengantin Perempuan Yang Berniat Menikah Usia Dini Di Kabupaten Semarang Tahun 2020. *Jurnal Kesehatan Masyarakat (Undip)*, 9(3), 360–367. <https://doi.org/10.14710/jkm.v9i3.29476>
- Ligit, M. (2016). Kontrol Diri dan Penyesuaian Diri dalam Pernikahan Remaja Putri yang Menjalani Pernikahan Dini Akibat Kehamilan Pra Nikah. *Psikoborneo: Jurnal Ilmiah Psikologi*, 4(3), 422–431. <https://doi.org/10.30872/psikoborneo.v4i3.4103>
- Mahkamah Konstitusi, R. I. (2019). *Undang-undang Republik Indonesia Nomor 16 Tahun 2019*.
- Pusparatri, E., Kartikasari, F., Hidayah, N., & Marisa, S. (2024). Pregnancy Planning Through Preconception Care Behavior. *Indonesia Jurnal Perawat*, 9(1), 1–7.
- Sari, L. Y., Umami, D. A., & Darmawansyah, D. (2020). Dampak Pernikahan Dini Pada Kesehatan Reproduksi Dan Mental Perempuan (Studi Kasus Di Kecamatan Ilir Talo Kabupaten Seluma Provinsi Bengkulu). *Jurnal Bidang Ilmu Kesehatan*, 10(1), 54–65. <https://doi.org/10.52643/jbik.v10i1.735>
- Sekarayu, S. Y., & Nurwati, N. (2021). Dampak pernikahan usia dini terhadap kesehatan reproduksi. *Jurnal Pengabdian Dan Penelitian Kepada Masyarakat (JPPM)*, 2(1), 37–45.
- Shanty Natalia, S. I., Rahmayanti, F., & Febriani, N. (2021). Journal of Community Engagement in Health Seks bebas dan pernikahan dini bagi kesehatan reproduksi pada remaja Shanty Natalia, Resiko. *Journal of Community Engagement in Health*, 4(1), 1–6. <http://jceh.orghttps://doi.org/10.30994/jceh.v4i1.113>
- Sinta, R., Syilva, A., Nss, S., & Nurazijah, W. (2024). Pengaruh Normalisasi Pernikahan Dini Terhadap Kesiapan Psikologi Calon Pengantin Masyarakat Pedesaan. *Indonesian Journal of Islamic Jurisprudence, Economic and Legal Theory*, 1534–1562.
- Tirang, Y., & Iadamay, I. (2019). Pernikahan Dini Akibat Pergaulan Bebas Remaja. *Prosiding Seminar Nasional Pendidikan Dan Pembelajaran Bagi Guru Dan Dosen*, 3, 42–49. <https://conference.unikama.ac.id/artikel/index.php/fip/article/view/177>
- Triadhari, I., Afridah, M., & Salsabila, H. H. (2023). Dampak Psikologis Pernikahan Dini (Studi Kasus Di KUA Kecamatan Kejaksaan Kota Cirebon). *Spiritualita*, 7(2), 89–100. <https://doi.org/10.30762/spiritualita.v7i2.1328>