

Literature Review: Determinants of Knowledge, Attitude, Social Support, and Nutritional Awareness on Premarital Screening Compliance among Prospective Brides in Indonesia

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Article Info	Abstract
Article History Submitted, 2025-11-02 Accepted, 2025-11-30 Published, 2026-06-30 Keywords: Premarital screening, knowledge, attitude, social support, preconception nutrition	Premarital screening is an essential step in preventing reproductive health risks and improving preconception readiness among prospective brides. However, compliance with premarital screening in Indonesia remains low. This study aims to identify the determinants of knowledge, attitude, social support, and nutritional awareness influencing premarital screening compliance among prospective brides in Indonesia. A narrative synthesis method was applied to relevant national and international studies published between 2018 and 2024 in midwifery and public health journals. The findings revealed that good knowledge and positive attitudes, along with social support from partners, families, and healthcare providers, play an important role in improving compliance with premarital screening. Moreover, nutritional awareness related to anemia prevention and folic acid intake contributes to preconception readiness. Digital-based education has been proven effective in enhancing understanding and participation among prospective brides. In conclusion, compliance with premarital screening is influenced by cognitive, social, and nutritional factors. Therefore, integrating nutrition education and digital approaches into premarital programs is essential to strengthen reproductive health readiness.

Introduction

Premarital screening aims to detect genetic diseases, infections, and nutritional deficiencies before marriage, which can significantly affect the reproductive health of couples and their future children. The World Health Organization (WHO) emphasizes that reproductive readiness before conception is crucial for reducing maternal and infant morbidity and mortality (World Health Organization, 2023). In Indonesia, the Ministry of Health has implemented the Guidance for Prospective Brides program and the Elsimil app to provide premarital and preconception counseling, aiming to prepare prospective brides and grooms physically, mentally, emotionally, and socially, and to promote optimal reproductive health before marriage and pregnancy. However, compliance remains low, particularly in rural areas, where social norms and limited awareness influence participation rates.

Several studies have shown that individual knowledge, positive attitudes, and social support are important factors influencing health behaviors, including health screenings (Harper et al., 2017). Nutritional awareness-particularly regarding anemia prevention and folic acid supplementation—is also a crucial but often overlooked factor (WHO, 2012). Therefore, this study is important to further examine the factors influencing compliance with premarital screening in Indonesia to strengthen future reproductive health interventions.

Methods

This study employed a narrative synthesis approach by integrating findings from qualitative and quantitative studies related to premarital screening and preconception readiness

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among prospective brides and grooms in Indonesia. The reviewed literature was obtained from Google Scholar, ProQuest, and Garuda Ristekdikti databases using the keywords “premarital screening,” “knowledge,” “attitude,” “social support,” and “preconception nutrition.” The selected articles were published between 2018 and 2025 in national and international journals, conference proceedings, and reproductive health publications related to midwifery and public health.

The inclusion criteria were: (1) studies related to premarital screening and preconception care, (2) studies discussing knowledge, attitudes, social support, and nutritional awareness among prospective brides and grooms, and (3) articles published in peer-reviewed journals or scientific proceedings. Articles that were not relevant to premarital health preparation or lacked complete full-text access were excluded from the review.

Data analysis was conducted using a thematic synthesis approach. The findings were grouped into three major domains: (1) individual factors, including knowledge, attitudes, and nutritional awareness; (2) social factors, including support from partners, families, and healthcare providers; and (3) system-related factors, including access to healthcare services and digital innovations such as educational videos, premarital counseling programs, and the ELSIMIL application. The synthesis process involved comparing and interpreting findings across studies to identify determinants that consistently influence compliance with premarital screening among prospective brides in Indonesia.

The narrative synthesis revealed that knowledge, attitudes, social support, and nutritional awareness are the major determinants influencing premarital screening compliance. These findings highlight the importance of integrating reproductive health education, nutritional counseling, and digital-based interventions into premarital healthcare programs to improve reproductive health readiness in Indonesia.

Results and Discussion

There are 14 research articles and sources included for the systematic review on determinants of knowledge, attitude, social support, and nutritional awareness that influence premarital screening compliance among prospective brides in Indonesia.

Table 1. Article Research

No	Researchers	Research methods	Results
1.	Putri TW, Maretta MY, Widyastuti DE. (2025). The Effect of Video-Based Preconception Nutrition Counseling on Knowledge and Attitudes of Prospective Brides at Sukadamai Public Health Center, South Lampung.	Quasi-experimental	Video-based preconception nutrition counseling significantly improved knowledge and attitudes regarding reproductive health and preconception readiness.
2.	Yulivantina EV, Gunarmi, Maimunah S. (2022). The Urgency of Preconception Care as Preparation Before Pregnancy: A Systematic Review.	Systematic review	Preconception care plays an important role in improving reproductive health readiness and preventing pregnancy-related risks.
3.	Sidabutar, N. H. T., & Hadi, E. N. (2024). Premarital Screening: A Catalyst for Achieving Good Health and Well-Being. Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education	Literature review	Premarital screening supports early detection of reproductive health risks and improves premarital health awareness.
4.	Amizuar YF, Serudji J, Oktova R, et al. (2024). Knowledge and Health Attitudes of Pre-Marital Education Brides: A Quasi-Experimental Study.	Quasi-experimental	Premarital education improved knowledge and positive attitudes toward premarital health examinations.
5.	Aryuni AM, et al. (2023). The Effectiveness of Reproductive Health Rights Counseling in the Gender Perspective of the Bride and Groom	Counseling intervention	Reproductive health counseling improved understanding and participation in premarital health services.
6.	Sari NK. (2025). Preventing Stunting from the Source: A Study of Premarital Preconception Care.	Cross-sectional study	Nutritional awareness and preconception care contributed to reproductive readiness and stunting prevention.
7	Setianing Fifit, K. I., Sofiyanti, I., Mustika, V., Nashita, C., Diens Nanda Ela Permana, D. N., Fathul, & Rahmadhani, T. D. (2022).	Quasi-experimental	Preconception nutrition counseling significantly improved the knowledge and

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8	Mulyaningsih EA, Anggraeni N, Amalia A. (2024). Optimizing Pregnancy Outcomes: The Importance of Pre-Marital and Preconception Care.	Literature review	Premarital and preconception education improved healthy pregnancy preparation and reproductive health awareness.
9	World Health Organization. (2013). Preconception Care: Maximizing the Gains for Maternal and Child Health.	Guideline review	WHO emphasizes the importance of preconception care in reducing maternal and neonatal risks
10	Nugraheni, S. A., Indraswari, R., Kartasurya, M. I., Aruben, R., Kartini, A., Fatmasari, E. Y., et al. (2023). Implementation of Premarital Counseling Description in Bride Candidates. <i>Amerta Nutrition</i> , 7(1), 70–78	Descriptive study	Premarital counseling increased awareness of reproductive health screening and premarital readiness.
11	Rahmawati D, et al. (2023). Screening Education Premarital With Behavior Preparation. <i>International Conference on Business, Education, Nursing, and Health Sciences (ICBENHS)</i> .	Educational intervention	Premarital education influenced reproductive health behavior preparation before marriage.
12	Handayani, R., & Handayani, Y. (2023). Implementation of Pre-Marital Check Up in Catin Couples as a Healthy Preconception and Preparation Effort. <i>Blambangan Journal of Community Service (BJCS)</i>	Community-based study	Premarital health check-ups facilitated early detection of reproductive health and infectious disease risks.
13	Kusumawardani PA. (2024). Literature Review Factors Influencing Preconception Screening in Indonesia.	Literature review	Knowledge, attitudes, social support, and education influenced compliance with preconception screening in Indonesia.
14	Ambarwati WN. (2024). Exploring the Concept and Nature of Premarital Preconception Care in Indonesia: A Qualitative Comparative Case Study Design.	Qualitative comparative case study	Preconception care implementation in Indonesia is influenced by social, cultural, educational, and healthcare access factors.

Analysis shows that knowledge and attitudes significantly influence participation in premarital screening. Studies by Putri et al. (2025) and Amizuar et al. (2024) revealed that individuals who received preconception counseling and premarital education had better awareness of reproductive health risks and were more likely to comply with premarital screening recommendations. Positive attitudes toward preventive health practices also encouraged proactive behavior, including premarital laboratory testing.

Social support emerged as another important determinant. Encouragement from partners, family, and healthcare providers played a central role in motivating prospective brides and grooms to participate. Findings from Aryuni et al. (2023) confirmed that reproductive health counseling involving both prospective brides and grooms increased willingness to undergo screening and strengthened participation in premarital health services. Open communication and emotional support also contributed to stronger motivation to access reproductive health programs.

Nutritional awareness plays a key role in improving reproductive readiness and ensuring better pregnancy outcomes. Several studies reported that education focused on anemia prevention, folic acid consumption, and balanced preconception nutrition significantly improved the preparedness of prospective brides and grooms to undergo health screening ((Setianing Fifit et al., 2022; Sari, 2025). Integrating nutrition education into premarital counseling was proven to enhance knowledge and preventive behavior related to reproductive health and stunting prevention. Moreover, the utilization of digital media—such as educational videos and mobile health applications—has expanded access to reproductive health information and increased engagement in preconception services among young adults.

Furthermore, studies on premarital counseling and health check-up implementation demonstrated that support from healthcare providers and family members significantly influenced compliance with premarital screening. Continuous education and counseling provided by health professionals were effective in encouraging positive health-seeking behaviors and improving awareness regarding reproductive health readiness.

Finally, the World Health Organization (2013) emphasized the importance of preconception care in improving maternal and child health outcomes. Findings from this review indicate that knowledge, attitudes, social support, and nutritional awareness are important determinants influencing premarital screening compliance in Indonesia.

Conclusion and Recommendations

Compliance with premarital screening among prospective brides and grooms in Indonesia is influenced by four main factors: knowledge, attitude, social support, and nutritional awareness. Increasing knowledge and fostering positive attitudes through health education and counseling programs has been shown to increase participation in premarital screenings. Social support from partners, families, and health professionals also plays a crucial role in motivating prospective brides and grooms to comply with recommended premarital health screenings. Efforts to increase compliance can be achieved through the integration of nutrition education and digital programs based on reproductive health into preconception services.

Optimizing the use of the ELSIMIL application and community-based health education campaigns needs to be expanded to reach a wider population, particularly the younger generation. Furthermore, cross-sector collaboration between health workers, educational institutions, and religious institutions is needed to strengthen premarital health promotion on an ongoing basis. Improving nutritional and reproductive health literacy through digital approaches and integrated counseling is a key strategy in supporting national premarital readiness and creating a generation of healthy, quality families.

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