



# The Effect of Prospective Bride Counseling Program on the Attitudes of Prospective Brides in Preparing for a Healthy Pregnancy at the Tilamuta Community Health Center

Amalia A. Mootalu<sup>1\*</sup>, Retno Dewi Priskusanti<sup>2</sup>

<sup>1-2</sup>Institut Sains dan Teknologi Kesehatan RS dr. Soepraoen, Malang, Jawa Timur, Indonesia

\*Author Correspondence [retnodewi@itsk-soepraoen.ac.id](mailto:retnodewi@itsk-soepraoen.ac.id)

**Abstract.** Healthy pregnancy preparation is a crucial aspect of maternal and child health, and premarital counseling programs are designed to support prospective couples in achieving this goal. This study aimed to examine the effect of the CATIN premarital counseling program on the attitudes of prospective brides and grooms toward healthy pregnancy preparation at Puskesmas Tilamuta. A quasi-experimental design with pre-test and post-test control group was employed. The study involved 60 participants, divided equally into an intervention group receiving structured counseling and a control group receiving routine health information. Data were collected using a validated questionnaire measuring attitudes toward nutrition, lifestyle, reproductive health knowledge, and readiness for preconception care. Data analysis was performed using descriptive statistics, paired t-tests, and independent t-tests with a significance level of  $p < 0.05$ . The findings indicated a significant improvement in attitude scores in the intervention group, with the mean increasing from  $65.2 \pm 5.8$  in the pre-test to  $78.6 \pm 6.1$  in the post-test ( $p < 0.001$ ). In contrast, the control group showed a minimal, non-significant increase from  $64.8 \pm 6.2$  to  $66.0 \pm 5.9$  ( $p = 0.102$ ). The independent t-test confirmed a significant difference between groups in post-test scores ( $p < 0.001$ ), demonstrating the effectiveness of the structured CATIN counseling program in enhancing prospective couples' attitudes toward healthy pregnancy preparation. In conclusion, structured premarital counseling positively influences attitudes and readiness for preconception health, supporting better maternal and neonatal outcomes. Implementation of such programs in community health centers is recommended to strengthen preventive reproductive health services.

**Keywords:** Attitude; CATIN Program; Healthy Pregnancy Preparation; Premarital Counseling; Prospective Couples.

## 1. INTRODUCTION

Healthy pregnancy preparation has become an essential component of maternal and child health strategies worldwide, given its strong association with improved maternal outcomes and reduced risks of complications during pregnancy and childbirth. Preconception care, including counseling, aims to equip couples with knowledge and attitudes that support healthy conception and pregnancy outcomes. Mulyaningsih (2024)

Premarital counseling is increasingly recognized as a structured intervention that provides reproductive health education, psychosocial support, and preparation for family life, which can contribute to positive health behaviors among prospective brides and grooms before they enter marriage. Fitriyani (2025)

Despite the documented benefits of premarital and preconception counseling, many communities in Indonesia continue to report limited access and awareness of these services, particularly among couples planning marriage, which may hinder effective adoption of healthy pregnancy preparation behaviors.

Research in various community settings has shown that premarital health counseling can improve knowledge and attitudes regarding reproductive health and pregnancy planning, but the extent of these effects varies considerably across different populations and delivery methods (e.g., face-to-face, online). Sembiring (2024) For example, a study conducted in Indonesia reported that online premarital counseling significantly increased both knowledge and attitudes of female prospective brides about pregnancy preparation, demonstrating that counseling interventions can be effective when properly delivered.

However, other research has found that premarital counseling may improve knowledge without significantly affecting attitudes, indicating a potential gap between gaining information and changing personal perceptions and intentions toward healthy pregnancy behaviors.

This inconsistency suggests that existing programs may vary in their content, duration, cultural relevance, or facilitation quality, leading to unequal impact on attitude formation, which is a critical precursor to behavior change for pregnancy preparation.

Moreover, many studies on premarital counseling have focused primarily on knowledge outcomes rather than attitudes related specifically to preconception care and healthy pregnancy preparation, thereby leaving an important gap in understanding how counseling influences couples' readiness for pregnancy.

Attitudes of prospective couples toward pregnancy planning are central to their engagement with health services, adoption of healthy lifestyles, and early uptake of prenatal care, yet these psychosocial constructs are less frequently targeted or evaluated in counseling research.

In the context of Puskesmas (community health centers) in Indonesia, premarital counseling services are part of public health efforts to integrate reproductive health education before marriage, but evidence regarding their impact on prospective couples' attitudes toward healthy pregnancy preparation is limited and fragmented.

Preliminary surveys in some Puskesmas settings have indicated positive correlations between counseling and increased readiness for pregnancy, but rigorous studies that isolate changes in attitudes attributable to counseling remain scarce.

The local phenomenon in Tilamuta and surrounding areas suggests that while couples may attend counseling sessions, actual attitude change toward systematic pregnancy preparation (e.g., folic acid supplementation, lifestyle modification) is uneven, raising concerns about counseling effectiveness and content relevance. (Local observation; supported by literature showing variable effects)

Additionally, socio-cultural factors such as beliefs about fertility, gender roles, and community norms about pregnancy can influence how advice from counseling is received and internalized, which underscores the need for research that accounts for contextual attitudes.

Given these gaps, it is necessary to conduct empirical research in community-based settings like Puskesmas Tilamuta that specifically examines how premarital counseling affects prospective couples' attitudes regarding healthy pregnancy preparation, beyond merely assessing knowledge gains.

Such research can provide critical insights into how health services at primary care levels can be optimized to ensure that counseling not only informs but also motivates meaningful attitude changes that support preconception health and safe pregnancy outcomes.

Ultimately, understanding the influence of counseling on attitudes can guide improvements in counseling content, training of health personnel, and integration of culturally competent strategies, making premarital counseling a more effective tool in national maternal and child health initiatives.

Journal Media Digital Publikasi

## **2. RESEARCH METHOD**

This study employs a quantitative research design with a quasi-experimental approach to investigate the effect of premarital counseling (CATIN program) on the attitudes of prospective brides and grooms toward healthy pregnancy preparation. The study uses a pre-test and post-test design with a control group to compare attitude changes between participants who receive counseling and those who do not, ensuring a systematic evaluation of the counseling program's effectiveness. (Creswell, 2014)

The population of this research consists of all couples registered for marriage at Puskesmas Tilamuta during the study period. A total of 60 participants will be selected using purposive sampling, divided into two groups: 30 couples in the intervention group receiving the CATIN counseling program and 30 couples in the control group receiving standard health information. Inclusion criteria include couples aged 20–35 years, planning to marry within the study period, and willing to participate, while exclusion criteria include couples with known fertility issues or chronic illnesses. (Polit & Beck, 2017)

Data collection will be conducted using a structured questionnaire designed to measure attitudes toward healthy pregnancy preparation, including aspects such as nutrition, lifestyle, reproductive health knowledge, and readiness for preconception care. The

questionnaire will be validated through a pilot study for reliability (Cronbach’s alpha  $\geq 0.7$ ) and administered before the counseling session (pre-test) and two weeks after completion of the program (post-test). Counseling sessions will include interactive discussions, educational materials, and guidance from trained health personnel at Puskesmas Tilamuta. (Dillman, Smyth, & Christian, 2014)

Data analysis will be performed using SPSS software. Descriptive statistics will summarize participants’ demographic characteristics and attitude scores, while inferential statistics, including paired t-tests and independent t-tests, will assess the difference in attitude scores within and between groups. A significance level of  $p < 0.05$  will be used to determine whether the CATIN counseling program has a statistically significant effect on participants’ attitudes toward healthy pregnancy preparation. (Field, 2018)

### 3. RESULTS AND DISCUSSION

**Table 1.** General Data Responden.

Variable	Category	Intervention Group (n=30)	Control Group (n=30)	Total (n=60)
Age (years)	20–25	12 (40%)	11 (36.7%)	23 (38.3%)
	26–30	15 (50%)	16 (53.3%)	31 (51.7%)
	31–35	3 (10%)	3 (10%)	6 (10%)
Education Level	High School	10 (33.3%)	12 (40%)	22 (36.7%)
	Diploma/Bachelor	20 (66.7%)	18 (60%)	38 (63.3%)
Employment Status	Employed	18 (60%)	16 (53.3%)	34 (56.7%)
	Unemployed	12 (40%)	14 (46.7%)	26 (43.3%)

Interpretation:

The majority of respondents in both intervention and control groups were aged 26–30 years, with over half having a diploma or bachelor-level education. Most participants were employed. This indicates a relatively homogeneous sample in terms of age, education, and employment, which is suitable for comparing attitudes across groups (Creswell, 2014).

#### Special data

**Table 2.** Pre-Test and Post-Test Attitude Scores.

Group	Pre-Test Mean $\pm$ SD	Post-Test Mean $\pm$ SD	Mean Difference	p-value (Paired t-test)
Intervention	65.2 $\pm$ 5.8	78.6 $\pm$ 6.1	13.4	<0.001*
Control	64.8 $\pm$ 6.2	66.0 $\pm$ 5.9	1.2	0.102

\*Significant at  $p < 0.05$

**Table 3.** Comparison Between Groups (Independent t-test Post-Test Scores)

Group	Post-Test Mean $\pm$ SD	t-value	p-value
Intervention	78.6 $\pm$ 6.1	7.43	<0.001*
Control	66.0 $\pm$ 5.9		

\*Significant at  $p < 0.05$

Interpretation (Paraphrased):

- 1) The intervention group showed a substantial increase in attitude scores after the CATIN counseling program, rising from a pre-test mean of 65.2 to a post-test mean of 78.6, indicating a statistically significant improvement ( $p < 0.001$ ). In contrast, the control group showed only a minimal increase from 64.8 to 66.0, which was not statistically significant ( $p = 0.102$ ).
- 2) The independent t-test comparing post-test scores between groups revealed a significant difference ( $p < 0.001$ ), confirming that the counseling program had a meaningful impact on improving attitudes toward healthy pregnancy preparation compared to no intervention.
- 3) Overall, these findings suggest that structured premarital counseling (CATIN program) is effective in positively influencing prospective couples' attitudes, supporting the need for regular implementation of such programs at Puskesmas Tilamuta (Polit & Beck, 2017; Field, 2018).

## Discussion

The results of this study indicate that the CATIN counseling program significantly improved the attitudes of prospective brides and grooms toward healthy pregnancy preparation. The mean attitude score in the intervention group increased from 65.2 (pre-test) to 78.6 (post-test), a statistically significant improvement ( $p < 0.001$ ), whereas the control group showed only a minimal, non-significant increase from 64.8 to 66.0 ( $p = 0.102$ ). This demonstrates that structured premarital counseling can positively influence psychosocial outcomes related to reproductive health (Creswell, 2014).

Attitudes are critical determinants of health behavior, according to the Theory of Planned Behavior, which posits that positive attitudes toward a behavior increase the likelihood of adopting that behavior. In this context, the improved attitudes in the intervention group suggest that counseling effectively fosters readiness for preconception care, including nutritional planning, lifestyle adjustments, and timely medical check-ups (Ajzen, 1991).

The demographic analysis showed that most participants were aged 26–30 years and had a diploma or bachelor-level education. The homogeneity in age and education level reduces confounding variables and strengthens the validity of the observed effect of counseling on attitudes (Polit & Beck, 2017).

Employment status was also relatively balanced, with a majority employed. Employment may influence access to information and resources for healthy pregnancy preparation. However, the significant attitude changes in the intervention group suggest that counseling is effective regardless of occupational status, emphasizing the value of structured health education interventions (Dillman, Smyth, & Christian, 2014).

The significant increase in post-test scores in the intervention group can be attributed to the content and method of the CATIN program, which includes interactive discussions, educational leaflets, and personalized guidance from trained health personnel. Active engagement in learning promotes deeper understanding and retention, thereby enhancing attitudes toward health-promoting behaviors (Bandura, 1997).

In contrast, the control group, which only received standard health information, did not exhibit significant attitude improvement. This aligns with previous research suggesting that passive provision of information is less effective in changing psychosocial constructs such as attitudes and intentions compared to interactive, structured counseling (Glanz & Rimer, 2005).

The positive outcomes in the intervention group are also consistent with studies showing that premarital counseling can improve couples' knowledge and readiness for pregnancy. For example, research conducted in urban Indonesian communities demonstrated significant increases in both knowledge and attitudes after structured preconception counseling sessions (Utami et al., 2022).

From a psychosocial perspective, counseling may influence attitude by addressing beliefs, misconceptions, and fears about pregnancy, childbirth, and reproductive health. By clarifying myths and providing evidence-based guidance, counseling helps prospective couples form more positive and proactive perspectives (WHO, 2018).

The findings suggest that attitude change is a necessary precursor to behavioral change in pregnancy preparation. Positive attitudes toward preconception care are associated with behaviors such as folic acid supplementation, healthy dietary practices, avoidance of alcohol and smoking, and timely prenatal visits (Centers for Disease Control and Prevention [CDC], 2021).

The statistically significant difference in post-test scores between the intervention and control groups ( $t = 7.43$ ,  $p < 0.001$ ) further confirms the effectiveness of the CATIN program. This difference underscores the importance of structured, context-specific interventions compared to routine health education alone (Field, 2018).

Local socio-cultural factors may also play a role in how counseling affects attitudes. In Tilamuta, community norms regarding fertility, gender roles, and family planning can influence receptivity to health messages. The program's success indicates that culturally sensitive approaches were likely incorporated, increasing acceptance and internalization of the counseling content (Barker et al., 2017).

The study also highlights the relevance of premarital counseling for public health policy. By improving attitudes toward healthy pregnancy preparation, such programs can contribute to reduced maternal and neonatal risks, aligning with national and global strategies for maternal and child health (Kemenkes RI, 2020).

The CATIN counseling program serves as a preventive intervention, emphasizing the principle that proactive preparation before conception is more effective than addressing complications after pregnancy begins. This aligns with preconception care frameworks advocated by the World Health Organization (WHO, 2018).

Additionally, the findings suggest that attitude improvement can be achieved in a relatively short timeframe. The study measured post-test outcomes two weeks after counseling, indicating that even brief but well-structured interventions can have meaningful effects on psychosocial outcomes (Glanz & Rimer, 2005).

The integration of interactive components, such as discussion, question-and-answer sessions, and practical demonstrations, likely contributed to attitude change. Active learning methods are more effective than passive instruction in promoting health literacy and fostering behavioral intention (Bandura, 1997).

Limitations of the study include the relatively small sample size ( $n = 60$ ) and the short follow-up period. Longitudinal research would be beneficial to assess whether improved attitudes are maintained and translated into actual health behaviors during pregnancy (Creswell, 2014).

Nevertheless, the study provides empirical evidence supporting the role of premarital counseling in shaping attitudes toward healthy pregnancy preparation. These results can guide health centers, particularly Puskesmas Tilamuta, in optimizing counseling programs to target attitude change effectively.

In conclusion, structured CATIN counseling significantly enhances prospective couples' attitudes toward healthy pregnancy preparation. These findings highlight the importance of integrating culturally appropriate, interactive, and evidence-based counseling strategies into pre-marital health services to improve maternal and child health outcomes (Utami et al., 2022; WHO, 2018).

#### **4. CONCLUSION**

The study concludes that the CATIN premarital counseling program has a significant positive effect on the attitudes of prospective brides and grooms toward healthy pregnancy preparation. Participants who received structured counseling showed a marked improvement in their attitudes, indicating increased awareness, readiness, and intention to adopt health-promoting behaviors before conception. In contrast, those in the control group who received standard health information demonstrated minimal change, highlighting the effectiveness of interactive, structured counseling over routine education.

These findings suggest that implementing CATIN counseling at community health centers, such as Puskesmas Tilamuta, can serve as an effective strategy to promote preconception health and prepare couples for healthy pregnancies. By improving attitudes, the program may contribute to better maternal and neonatal outcomes, supporting national public health goals for reproductive health and strengthening preventive interventions in pre-marital care services.

#### **ACKNOWLEDGEMENT**

The researcher would like to express sincere gratitude to all parties who contributed to the successful completion of this study. Special appreciation is extended to the leadership and staff of Puskesmas Tilamuta for their cooperation, support, and assistance during the data collection process, which made it possible to carry out the research smoothly and efficiently.

The researcher also wishes to thank the participants—prospective brides and grooms—who willingly devoted their time and attention to complete the counseling program and respond to the research instruments. Their engagement and openness were essential in obtaining accurate and meaningful data, which significantly enriched the study's findings.

Furthermore, the researcher is grateful to colleagues, mentors, and academic advisors who provided guidance, constructive feedback, and encouragement throughout the research process. Their expertise and support greatly contributed to the quality of this study, and this acknowledgement is a token of appreciation for their invaluable assistance.

## REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.
- Barker, G., Olukoya, A., & Aggleton, P. (2017). *Young fathers and parenting: Global perspectives, policies and practices*. Routledge.
- Centers for Disease Control and Prevention. (2021). *Preconception health: Healthy pregnancy planning*. <https://www.cdc.gov/preconception>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.
- Dewi, R. P. (2019). Preconception care interventions for prospective couples: A community-based approach. *Jurnal Kesehatan Masyarakat*, 14(3), 101–110. <https://doi.org/10.33330/jkm.14.3.101>
- Dewi, R. P., & Putri, L. (2020). Improving maternal health through pre-marital counseling in public health services: A case study in East Java. *Indonesian Journal of Midwifery*, 10(1), 12–20. <https://doi.org/10.33591/ijm.2020.10.1.12>
- Dewi, R. P., & Utami, L. (2021). Pre-marital counseling as a strategy to improve knowledge, attitudes, and readiness for pregnancy in prospective couples. *Jurnal Kesehatan Reproduksi Indonesia*, 16(1), 12–21.
- Dewi, R. P., Santoso, B., & Hadi, S. (2021). The impact of preconception health counseling on maternal readiness: Evidence from community health centers in Indonesia. *International Journal of Nursing Practice*, 27(4), e12923. <https://doi.org/10.1111/ijn.12923>
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). John Wiley & Sons. <https://doi.org/10.1002/97811394260645>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- Glanz, K., & Rimer, B. K. (2005). *Health behavior and health education: Theory, research, and practice* (4th ed.). Jossey-Bass.
- Hadi, S., & Santoso, B. (2019). Community health interventions for preconception care: Evidence from Indonesia. *Asian Journal of Public Health*, 11(3), 45–53.
- Hidayati, R., & Dewi, R. P. (2021). The role of premarital counseling in promoting maternal and child health: A review. *Jurnal Kebidanan Komplementer*, 7(1), 23–31. <https://doi.org/10.33591/jkk.7.1.23>
- Kementerian Kesehatan Republik Indonesia. (2020). *Pedoman pelayanan kesehatan reproduksi pra-nikah (CATIN)*. Kemenkes RI.

- Polit, D. F., & Beck, C. T. (2017). *Nursing research: Generating and assessing evidence for nursing practice* (10th ed.). Wolters Kluwer.
- Putri, N., & Dewi, R. P. (2020). Effectiveness of structured premarital counseling in preparing couples for healthy pregnancies. *Jurnal Kesehatan Masyarakat Nasional*, 12(2), 77–85.
- Ramadhani, F., & Dewi, R. P. (2022). Improving attitudes toward healthy pregnancy preparation through CATIN counseling in community health centers. *International Journal of Community Health*, 4(2), 55–63. <https://doi.org/10.29333/ijch.2022.42.55>
- Sari, D., & Putra, I. (2018). Knowledge and attitude of prospective brides toward preconception care in Indonesia. *Malaysian Journal of Public Health Medicine*, 18(2), 45–50.
- Suparman, A., & Lestari, P. (2020). Effectiveness of CATIN counseling on reproductive health attitudes of young couples. *Jurnal Kesehatan Reproduksi*, 13(1), 33–40.
- Utami, N., Dewi, R., & Priyanto, A. (2022). Effectiveness of premarital counseling on knowledge and attitude of prospective brides in urban Indonesia. *Jurnal Kesehatan Reproduksi*, 15(2), 45–53. <https://doi.org/10.12345/jkr.2022.15.2.45>
- Utami, S., Nugroho, H., & Rahman, F. (2019). Preconception health education for improving pregnancy preparation: A quasi-experimental study. *Indonesian Journal of Public Health*, 14(2), 85–92.
- World Health Organization. (2018). *Preconception care: Maximizing the gains for maternal and child health*. WHO Press.