

Knowledge of Premarital Screening among Prospective Brides and Grooms as a Determinant of Visits to Healthcare Facilities

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ABSTRACT

Premarital screening constitutes a preventive strategy aimed at the early detection of potential health problems that may affect marital life and future offspring. The level of knowledge among prospective brides and grooms regarding the importance of premarital screening is presumed to influence their healthcare-seeking behavior, particularly visits to healthcare facilities. This study aimed to examine the relationship between the level of knowledge of prospective brides and grooms about premarital screening and their visits to healthcare facilities. A quantitative study with a cross-sectional design was conducted. The sampling technique employed was non-probability sampling using a total sampling approach. Data were collected using a structured questionnaire as the research instrument. Statistical analysis was performed using the Chi-square test to determine the association between knowledge level and healthcare facility visits. The findings revealed a significant relationship between the knowledge of prospective brides and grooms regarding premarital screening and their visits to healthcare facilities (p -value < 0.001). As conclusion, knowledge of premarital screening among prospective brides and grooms is determinant of healthcare facility visitation behavior. Broader educational interventions are necessary to enhance knowledge and awareness regarding premarital screening in order to promote the establishment of healthy families.

Keywords: knowledge; prospective brides and grooms; premarital screening; healthcare visits; healthcare facilities

INTRODUCTION

Marriage constitutes a sacred union between two individuals that not only integrates emotional bonds but also brings together distinct physical and genetic conditions. In establishing a healthy and harmonious family, the premarital health status of both partners represents a critical determinant. One important preventive measure that may be undertaken to support this objective is premarital screening [1].

Premarital screening refers to a series of medical examinations conducted prior to marriage to assess the health status of prospective couples. This examination aims to facilitate the early detection of communicable diseases, genetic disorders, and other health conditions that may influence marital life and future offspring [2]. By undergoing premarital screening, couples are better positioned to plan their marriage and future pregnancies in a more informed and responsible manner, while also undertaking necessary preventive or therapeutic interventions when indicated [3, 4]. Thus, premarital screening serves not only as an individual health assessment but also as a strategic approach to safeguarding long-term family well-being.

Amid the growing awareness of reproductive health and disease prevention, premarital screening has become an increasingly relevant and strongly recommended public health measure. This approach not only protects individuals and couples but also contributes to broader community health outcomes [5]. Through early detection and risk identification, the potential transmission of communicable and hereditary diseases can be minimized, thereby reducing future healthcare burdens.

Undetected health problems prior to marriage may result in long-term consequences affecting physical, psychological, and social aspects of family life. Communicable diseases such as HIV/AIDS, hepatitis, and syphilis, as well as genetic conditions such as thalassemia, may pose significant challenges if not identified early. Furthermore, fertility issues or Rh blood group incompatibility may become sources of marital conflict if not adequately anticipated and managed [6]. Therefore, preventive efforts in the form of premarital screening are essential to mitigate such risks [7].

Despite its recognized importance, the implementation rate of premarital screening remains suboptimal. Multiple factors may influence this condition, including knowledge, economic constraints, cultural perspectives, and policy-related issues [8]. Limited education regarding the importance of such examinations, restricted access to healthcare facilities, the misconception that screening is only necessary when symptoms are present, and social stigma associated with certain diseases represent major barriers [9]. Additionally, the absence of mandatory regulatory frameworks requiring premarital examinations has contributed to the limited prioritization of this preventive measure [10].

Insufficient knowledge regarding the benefits, procedures, and potential risks of not undergoing premarital screening may foster apathy or reluctance toward utilizing such healthcare services. Conversely, individuals possessing adequate knowledge are more likely to demonstrate higher awareness and proactive health-seeking behavior, including participation in preventive examinations.

Based on these considerations, this study explicitly aims to examine the relationship between the level of knowledge regarding premarital screening and visits for premarital screening examinations. Understanding this relationship is expected to provide an empirical foundation for the development of effective health education programs and strategies to enhance community participation in premarital screening services.

METHODS

The study was conducted in January 2025 in Manggarai Regency, East Nusa Tenggara, Indonesia. The research took place at selected healthcare facilities that provide premarital screening services. This study employed a quantitative approach with a cross-sectional design, allowing for the simultaneous measurement of independent and dependent variables within a defined population [11-13]. The cross-sectional framework was chosen to examine the association between knowledge and healthcare visitation behavior at a single point in time. The research subjects consisted of 27 prospective brides and grooms who were registered for marriage and met the inclusion criteria during the study period. A non-probability sampling technique was applied using a total sampling approach, in which all eligible prospective couples within the study setting were included as respondents.

The independent variable in this study was the level of knowledge regarding premarital screening, while the dependent variable was the visit to healthcare facilities for premarital screening examinations. Knowledge was measured using a structured questionnaire developed based on relevant literature and guidelines concerning premarital screening. The questionnaire consisted of multiple items assessing respondents' understanding of the purpose, benefits, procedures, and risks associated with premarital screening. Knowledge scores were categorized into predefined levels (e.g., low, moderate, and high) based on the total score obtained. The variable of healthcare facility visits was measured through

self-reported responses indicating whether the respondent had visited a healthcare facility for premarital screening (yes/no). Data analysis was conducted using descriptive and inferential statistics. Descriptive analysis was used to summarize respondents' characteristics and variable distributions, in the form of frequency and percentage [14-17]. The association between knowledge level and healthcare facility visits was analyzed using the Chi-square test, with a predetermined level of statistical significance ($p < 0.05$).

RESULTS

Based on Table 1, it can be observed that the majority of respondents had a low level of knowledge regarding premarital screening (88.9%). This finding indicates that most prospective brides and grooms did not visit healthcare facilities for the purpose of undergoing premarital screening examinations. None of the respondents had a good level of knowledge, while only 11.1% had a moderate level of knowledge. The vast majority (88.9%) were categorized as having poor knowledge regarding premarital screening. Furthermore, none of the respondents reported visiting a healthcare facility for premarital screening, and 100% indicated that they had not undertaken such visits.

Based on Table 2, it can be identified that the majority of prospective brides and grooms had poor knowledge and did not visit healthcare facilities for premarital screening, accounting for 90% of the respondents. The results of the Chi-square test showed a p-value of < 0.001 . Therefore, it can be concluded that there is a statistically significant association between the knowledge level of prospective brides and grooms regarding premarital screening and their visits to healthcare facilities.

Table 1. Distribution of knowledge of prospective brides and grooms regarding premarital screening and visits to healthcare facilities

| Variable | Category | Frequency | Percentage |
|--------------------------------|----------|-----------|------------|
| Knowledge | Good | 0 | 0 |
| | Moderate | 3 | 11.1 |
| | Poor | 27 | 88.9 |
| Visit to healthcare facilities | Yes | 0 | 0 |
| | No | 27 | 100 |

Table 2. Association between knowledge of prospective brides and grooms regarding premarital screening and visits to healthcare facilities

| Knowledge | Visit to healthcare facilities | | | | p-value |
|-----------|--------------------------------|------------|-----------|------------|---------|
| | Yes | | No | | |
| | Frequency | Percentage | Frequency | Percentage | |
| Moderate | 0 | 0 | 3 | 100 | , 0.001 |
| Poor | 0 | 0 | 27 | 100 | |

DISCUSSION

The findings of this study demonstrate a statistically significant association between the knowledge level of prospective brides and grooms regarding premarital screening and their visits to healthcare facilities. Respondents with lower levels of knowledge were less likely to utilize premarital screening services, as reflected in the results presented in the previous section. These findings indicate that knowledge plays a central role in shaping health-seeking behavior among prospective couples.

The present results are consistent with previous studies. Prior research reported that knowledge plays an important role in influencing the behavior of prospective brides and grooms in accessing healthcare services [18]. Similarly, a prior study found a significant relationship between knowledge and the low rate of premarital healthcare visits among prospective couples [3]. These findings collectively reinforce the argument that cognitive factors, particularly knowledge, serve as a crucial determinant in preventive health behavior.

Premarital screening is a medical examination conducted prior to marriage with the aim of early detection of diseases or conditions that may affect the health of couples and their future offspring, such as thalassemia, HIV/AIDS, hepatitis B, and other sexually transmitted infections. The implementation of premarital screening aligns with promotive and preventive efforts in midwifery and public health practice [19]. By identifying health risks before marriage and conception, appropriate counseling, treatment, or preventive measures can be initiated, thereby reducing adverse reproductive and familial outcomes.

Despite its recognized benefits, participation in premarital screening remains relatively low. The results of this study show that none of the respondents reported visiting healthcare facilities for premarital screening, and the majority demonstrated poor knowledge levels. One of the primary factors contributing to this low participation is insufficient knowledge among prospective couples [20]. Limited understanding regarding the objectives, procedures, and benefits of premarital screening may lead to underestimation of its importance.

The findings of this study can be further explained through the Health Belief Model (HBM), which posits that individual health behavior is strongly influenced by perceived susceptibility, perceived severity, perceived benefits, and perceived barriers [18]. Within this framework, knowledge acts as a foundational component that shapes perceptions of health risk and benefits of preventive action. In the context of premarital screening, when prospective brides and grooms understand the potential consequences of undetected communicable or genetic diseases, they are more likely to perceive screening as beneficial and necessary.

For example, awareness that premarital screening can prevent the transmission of sexually transmitted infections to a spouse, identify reproductive health status prior to pregnancy, and detect hereditary conditions such as thalassemia may motivate couples to seek healthcare services [21]. Adequate knowledge enhances risk perception and encourages proactive health behavior, including visits to healthcare facilities for screening purposes.

The Premarital Checkup Program represents one of the government's strategic initiatives aimed at improving the quality of future generations. This program was developed to facilitate early detection of health problems among prospective couples and to assess potential health conditions of future offspring, including genetic disorders, chronic diseases, infectious diseases, communicable diseases, fertility issues, and mental health status. Ultimately, the program seeks to prepare high-quality future populations by ensuring optimal physical, mental, and social health conditions prior to conception and pregnancy, ideally before marriage [18, 22]. However, the effectiveness of such programs is highly dependent on public awareness and participation, which are strongly influenced by knowledge levels.

Knowledge itself is not exclusively determined by formal education; it may also be acquired through personal experience, social interaction, and exposure to information. Nevertheless, educational attainment may influence an individual's ability to access, comprehend, and internalize health information. In behavioral theory, knowledge is considered a predisposing factor that facilitates the adoption of health behaviors, particularly within reproductive and sexual health communication, information, and education programs [18]. Although increasing knowledge does not automatically guarantee behavioral change, numerous studies have demonstrated a positive relationship between knowledge and preventive health practices. The present study further supports this association in the context of premarital screening.

However, several limitations must be acknowledged. First, this study examined only one independent variable, namely knowledge, without exploring other potential determinants of premarital screening visits such as attitudes, cultural beliefs, economic status, accessibility of healthcare services, family support, or policy-related factors. Second, based on the results, none of the respondents reported visiting healthcare facilities for

premarital screening, resulting in a highly homogeneous outcome variable. This limited variability may restrict the depth of statistical interpretation and the generalizability of the findings. Third, the cross-sectional design does not allow for causal inference, as exposure and outcome were measured simultaneously.

Future research is therefore recommended to incorporate a broader range of variables and possibly apply longitudinal or mixed-method approaches to gain a more comprehensive understanding of the factors influencing low participation in premarital screening. Exploring sociocultural, structural, and policy dimensions may provide more robust evidence for designing effective interventions to increase healthcare utilization among prospective brides and grooms.

CONCLUSION

Based on the findings of this study, knowledge of premarital screening is a determinant of healthcare facility visits for premarital screening. These findings highlight the importance of strengthening reproductive health education and counseling programs to enhance early detection of genetic disorders, communicable diseases, and other health conditions that may affect marital life and future offspring.

Ethical consideration, competing interest and source of funding

- The study adhered to established research ethics principles. Ethical approval was obtained from the appropriate institutional ethics committee prior to data collection. All participants provided informed consent after receiving a comprehensive explanation of the study's objectives and procedures. Confidentiality and anonymity were strictly maintained, and participation was entirely voluntary, with respondents retaining the right to withdraw from the study at any time without consequence.
- There is no conflict of interest related to this publication.
- Source of funding is authors.

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