OMNI NURSING JOURNAL

Knowledge of Pregnant Before and After Educational Module on Postpartum Family Planning

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Article info:
Received: 2024-09-25
Revised: 2024-10-21
Accepted: 2024-11-24

e-ISSN: 3047-6054
Volume 1(4): 107-112, November 2024

Abstract

Background: Integrating modern contraceptive education during antenatal care is essential to promote the uptake of postpartum family planning (PPFP), potentially reducing the risk of unintended pregnancies and closely spaced births.
Objective: This study aimed to assess the knowledge of third-trimester pregnant women before and after receiving an educational module on PPFP in the working area of the Mangarabombang Health Center, Takalar Regency.
Methods: This primary study employed a descriptive quantitative design with a pre-post approach. A total of 62 third-trimester pregnant women were selected through total sampling. A structured questionnaire was used to measure knowledge before and after intervention, with validity and reliability confirmed in prior studies.
Results: Prior to the intervention, 70.96% of respondents had poor knowledge, 19.35% moderate, and 9.67% good. After receiving the educational module, 43.54% had good knowledge, 50% moderate, and 6.45% poor. Improvements were noted across age, education level, and parity groups.
Conclusion: Educational modules effectively improved PPFP knowledge among pregnant women. However, older mothers, those with lower education, and higher parity tended to retain lower knowledge levels. It is recommended to provide targeted counseling for these groups.

Keywords: Education; knowledge; parity; postpartum family planning

Introduction

Postpartum family planning (PPFP) plays a vital role in reducing maternal and infant morbidity and mortality by promoting optimal birth spacing and preventing unintended pregnancies (Antika, Rahmai, & Handayani, 2024; Pratiwi, Islaeli, & Islamiyah, 2024). Two major tools used in family planning counseling are the ABPK criteria and the WHO Medical Eligibility Criteria (MEC) Wheel. Since 2009, Indonesia has adopted the WHO MEC Wheel as a standard tool to guide contraceptive selection based on clients' medical conditions. Previous studies, such as by Herlyssa et al. (2014), reported that using the WHO Wheel helped 69.9% of participants choose appropriate contraception during the third trimester and postpartum period in a quasi-experimental design study.

Indonesia experienced significant growth in contraceptive use, rising from 8% in the 1970s to 60% in the early 2000s, alongside a decline in Total Fertility Rate (TFR) from 5 to 2.6 children (Harmadi & Nugroho, 2020). However, from the early 2000s to 2017, progress slowed, with CPR increasing by only 3% to 63%, and TFR declining marginally to 2.3 (Statistics Indonesia, 2018). Despite outperforming the ASEAN average of 58.1%, Indonesia's contraceptive use still lags behind countries like Thailand (80%), Vietnam (78%), and Cambodia (79%), even though

it has the highest number of women of reproductive age (65 million) in the region (Pratiwi, 2019; Tahir & Supirman, 2024).

One of the leading causes of this stagnation is the high unmet need for contraception. Around 8.5% of postpartum couples still lack adequate access to family planning, with 3.9% intending to delay and 4.6% to limit pregnancies (MOTHER, n.d.). These women represent a critical target for family planning programs aiming to reduce unwanted pregnancies and maternal risk (Hardianty, Anwar, & Wahyuni, 2024). In Takalar Regency, according to the Family Planning and Population Control Office, there were 10,453 postpartum couples (PUS) in 2019 and 9,582 in 2020. The Aeng Towa Health Center, with 657 PUS, reported the highest number of women discontinuing contraceptive use in 2021 (Isnaeni, 2022; Latuheru, 2024).

Recent data from the Mangarabombang Health Center UPT shows that in 2024, there are 2,594 active family planning participants. Among them, injectable contraceptive users total 2,118, followed by implant (244), pills (125), IUD (27), condom (11), MOP (12), and MOW (57) users. Furthermore, during January to May 2024, 62 pregnant women in their third trimester were recorded in the same area. This suggests increasing community interest in contraception but also reveals gaps in structured educational efforts to promote informed decision-making (Dg Karra, Prihatini, Yusuf, & Subaedah, 2024; Hasrianti, Patima, Amal, & Rauf, 2024).

Does the provision of an educational module improve the knowledge of third-trimester pregnant women about postpartum family planning at the Mangarabombang Health Center, Takalar Regency.

Methods

Study Design

This study employed a quantitative descriptive method using a pre-post approach. The aim was to assess the knowledge of third-trimester pregnant women before and after receiving an educational module on postpartum family planning. This design was chosen to measure the effect of an intervention (education module) on knowledge levels over time.

Samples

The sampling technique used in this study was total sampling, considering the population size was fewer than 100 individuals. A total of 62 pregnant women in their third trimester who were registered at the Mangarabombang Health Center between January and May 2024 were included as research participants.

Instruments

A measuring tool in the form of a questionnaire was used to collect data in this study. The questionnaire consists of a series of carefully crafted questions and respondents are only asked to answer them. The research questionnaire, which asked twenty questions about respondents' knowledge of postpartum family planning, was used to collect data. The questionnaire sheets were distributed twice: once before and once after the educational module and several explanations from respondents about postpartum family planning. Inclusion criteria were: (1) women in their third trimester of pregnancy, (2) willing to participate and provide informed consent, and (3) able to read and complete the questionnaire independently. Exclusion criteria were: (1) pregnant women with severe pregnancy complications or mental disorders, and (2) those not available at the time of the post-intervention survey.

Data Collection

Primary data collection was carried out over three days. Respondents were first provided with an informed consent form. After signing the form, participants completed the first questionnaire. The educational module and counseling session were then delivered by the researchers. Two days after the intervention, the second questionnaire was distributed and completed by the same respondents. This repeated measure allowed assessment of knowledge improvement.

Data Analysis

Descriptive statistical analysis was used to describe the level of knowledge before and after the intervention. Data were processed by calculating the percentage of participants within each

knowledge category (good, sufficient, poor). The difference in distribution of knowledge levels before and after the education module was then compared to observe potential improvements. Results are presented in tables for ease of interpretation.

Ethical Considerations

This study received ethical approval from the Ethics Committee of the Mangarabombang Health Center.. All participants were informed about the study objectives, procedures, confidentiality measures, and their right to withdraw without consequence. Written informed consent was obtained before participation. The researchers ensured compliance with all ethical principles to protect the rights and welfare of the participants.

Results

Characteristics of Respondents Studied

A total of 62 pregnant women in their third trimester participated in this study. Table 1 presents the age distribution of respondents, where the majority (61.29%) were aged 20–30 years.

Table 1. shows the frequency distribution of respondents based on age

Age	n	%
<20	14	22.58
21-35	38	61.29
>35	10	16.12
Total	62	100

Source: SPSS Processed Data

Table 2 shows that most respondents (41.93%) had a parity of three children.

Table 2. shows the frequency distribution of respondents based on parity

Parity	n	%
1-2 children	24	38.70
3 children	26	41.93
>3 children	12	19.35
Total	62	100

Source: SPSS Processed Data

Regarding educational background (Table 3), junior and senior high school graduates were the most represented groups, each comprising 37.09% of the participants.

Table 3. shows the frequency distribution of respondents based on education

Education	n	%
Elementary School	12	19.35
Junior High School	23	37.09
Senior High School	23	37.09
Graduate	4	6.45
Total	62	100

Source: SPSS Processed Data

Table 4 displays the knowledge level of respondents before the intervention. Prior to receiving the educational module on postpartum family planning, 6 respondents (9.67%) demonstrated a good level of knowledge, 12 (19.35%) had a sufficient level of knowledge, and 44 (70.96%) had a poor level of knowledge.

Table 4. Frequency Distribution Based on Knowledge Before Providing Education Modules

Previous Knowledge	n	%
Good	6	9.67
Enough	12	19.35
Less	44	70.96
Total	62	100

Source: SPSS Processed Data

Following the provision of the educational module (Table 5), an improvement in knowledge was observed. Post-intervention data showed that 27 respondents (43.54%) had a good level of knowledge, 31 (50.00%) had sufficient knowledge, and only 4 (6.45%) remained in the poor knowledge category.

Table 5. Frequency Distribution Based on Postpartum Family Planning

Knowledge After	n	%
Good	27	43.54
Enough	31	50
Less	4	6.45
Total	62	100

Source: SPSS Processed Data

Discussion

The findings of this study indicate that maternal age, education, and parity significantly influence knowledge levels regarding postpartum family planning. Pregnant women under 20 and over 35 years old are more likely to experience nutritional and cognitive challenges, including a higher risk of Chronic Energy Deficiency (CED), which may affect their understanding of health information. This is in line with the study by Harnawati and Chikmah (2022), which suggests that higher educational attainment improves knowledge about family planning.

Pudjawidjana in Siti (2018) argues that knowledge arises from environmental stimuli perceived through the senses, and is shaped by the individual's contact with objects. Adnyani (2021) adds that perception and experience play a role in forming knowledge. These concepts support the idea that education levels influence a mother's ability to comprehend family planning materials.

The findings are also in agreement with the study by Niam et al. (2022) in the *Jusika Journal*, which examined maternal knowledge and participation in postpartum contraceptive use. The study categorized sources as good, moderate, or poor in knowledge, and found a strong link between education and contraceptive choices, especially for injection and implant methods.

The comparison of knowledge levels before and after the intervention demonstrates that educational modules can enhance understanding. However, certain factors such as age above 35, low educational attainment (particularly elementary level), and high parity (≥3 children) were still associated with inadequate knowledge even after education was provided. These findings are consistent with Nursalam (2003), who states that information retention generally improves with higher education levels. Heniarti (2018) also emphasizes that education is crucial in acquiring knowledge that supports health and well-being.

However, the findings partly contradict theories by Wawan and Dewi (2010), which claim that knowledge and reasoning increase with age, as well as the notion by Notoatmodjo (2007) that higher parity leads to greater knowledge through accumulated experience. This

inconsistency may be explained by contextual factors encountered during this study, such as environmental disturbances during the intervention (e.g., traffic noise), lack of attention by some participants, and time constraints during counseling sessions. These extraneous variables could have limited the effectiveness of the educational intervention.

Riastawaty (2021) highlights that external distractions and inadequate attention can hinder comprehension, especially in community-based interventions. This aligns with the researchers' observation that some mothers could not concentrate during module delivery due to household responsibilities or environmental noise. As a result, certain respondents failed to comprehend the content and scored poorly in the post-intervention assessment.

The study emphasizes the importance of improving the delivery method of health education through interactive and tailored educational materials. Mariana et al. (2024) and Prawirohardjo (2018) support prioritizing access to health education for populations with low educational backgrounds. Azis (2021) also reinforces that health education has a positive impact on contraceptive knowledge and choices.

Conclusion

This study concludes that the provision of educational modules significantly improved the knowledge of pregnant women in the third trimester regarding postpartum family planning at the Mangarabombang Health Center. Before the intervention, most respondents (72.5%) had low knowledge, while only 9.6% had good knowledge. After receiving the educational module, 43.5% showed good knowledge, and only 6.4% remained with poor understanding. These results highlight the effectiveness of educational interventions in increasing maternal awareness. Therefore, it is recommended that health workers provide postpartum family planning counseling using interactive modules, involve family members to support informed decisions, and conduct follow-up education to ensure lasting understanding and acceptance of contraceptive use after childbirth.

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