



Original Research

Analysis Need Education for Postpartum Mothers

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ABSTRACT

Background: Postpartum mothers need education to maintain themselves and their babies. Only a little study about material education is based on what a mother and husband need. The study aims to explore the need for education for postpartum mothers and identify materials, methods, and educational media needed by postpartum mothers.

Methods: This study employed mixed methods with a sequential exploratory design. Stage 1 was done through a qualitative study with in-depth interviews with the seven participants using purposive sampling. Analyze the data with thematic deductive analysis. The quantitative phase used 300 postpartum mothers with a purposive sampling technique. An instrument study questionnaire was prepared by researchers, and a trial was conducted on 50 respondents with valid and reliable results. Quantitative data analysis with descriptive analysis

Results: It found six themes, namely "education to take care of a mother," "education needs to take care of a baby," "time-giving information," "methods of providing education," "educational media," and "sources of information." The most needed maternal care educational material is about breastfeeding (4.55 ± 0.531), breast care (4.46 ± 0.531), and mental health (4.45 ± 0.584). Material related to baby care that is mainly needed is immunizations (4.59 ± 0.493), signs and dangers of newborns (4.55 ± 0.685), and umbilical cord care (4.53 ± 0.557). The media chosen by the mother are online media and video. Direct education method by health workers. Timing of education during pregnancy.

Conclusion: Giving education should be customized with materials needed by the mother. Education will succeed if supported by educational media, appropriate methods, and time in education and carried out by healthcare professionals.

ARTICLE HISTORY

Received: November 4th, 2023

Accepted: November 16th, 2023

KEYWORDS

education, mother, needs, postpartum;

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Cite this as: Runiari, N., Ruspawan, D. M., & Suratiah, S. (2023). Analysis Need Education for Postpartum Mothers. *(JKG) Jurnal Keperawatan Global*, 8(2), 45–61. <https://doi.org/10.37341/jkg.v8i2.824>

INTRODUCTION

The maternal mortality rate indicates a successful effort to protect the mother. Nationally, the Maternal Mortality Rate (MMR) has decreased from 346 deaths per 100,000 KH in 2010 to 189 deaths per 100,000 KH in 2022. MMR in Indonesia is still

the highest in Southeast Asia as well. It is still far from global targets for reducing the MMR to 183 per 100,000 KH in 2024 and less than 70 per 100,000 KH in 2030 (Kementerian Kesehatan RI, 2022).

In 2020, the MMR in Bali Province was 83.8 per 100,000 live births. It increased compared to 2019, which was 67.6 per 100,000 births. The MMR in Badung Regency in 2020 exceeded the number in Bali Province, at 114 per 100,000 births. This is a significant increase from 2019; it was 28.15 per 100,000 births (Dinkes Kab. Badung, 2021). About 76% of deaths occur in the delivery phase and postpartum labor, with a proportion of 24% during pregnancy, 36% during the time of delivery, and 40% post-labor (Kemenkes RI, 2021).

The postpartum period is the period after labor until six weeks. Postpartum mothers are one of the vulnerable groups who experience mental disturbance because pregnancy experiences complex and fraught changes and challenges. The previous study (Suzuki, 2020) showed a lack of relationship between mother and baby after one month. Another study Fernandes et al., (2021) showed that mothers who gave birth during the pandemic showed awareness and low emotionality in children, which disturbed the bond between emotional mother and baby.

There are existing limitations in terms of mother, husband, and healthcare during the COVID-19 pandemic. Knowledge of postpartum mothers about postpartum care is still low (Wulandari et al., 2020). One is because they did not read the KIA book that was given to them. Research conducted by Maryam in 2021 proves this: there is still a lot of postpartum culture in the assessed community that is not in accordance with the principle of health or even has an impact on poor health, which is profitable for the postpartum mother and her baby (Maryam, 2021). According to Manurung (2021), mothers need information about prevention and treatment during pregnancy, childbirth, and postpartum (Manurung, 2021). The research results of Asmuji and Diyan, (2014) found that postnatal education becomes an alternative and the right choice for officer health to prepare mothers postpartum in adapting operating tasks for future developments (Asmuji & Diyan, 2014).

There is a lot of research on postpartum care, particularly maintenance breastfeeding, such as the study by Njakatara et al., (2021) about how education, health packages, and intelligent mother breastfeeding influence enhancement efficacy (Njakatara et al., 2021). According to the results of Nazari's research (2018) in Bojnourd, Iran needed necessary education for postpartum mothers, which included physical recovery and sexual and mental needs (Nazari et al., 2018). Allowing mothers to choose the topic to be discussed will help increase interest and satisfaction in the education provided, rather than topic education customized with the existing agenda (Rodrigues et al., 2014).

In Indonesia, there has been a lot of research done to increase the knowledge, attitudes, and actions of mothers about postpartum care. However, we have not yet found research that examines the required materials for postpartum mothers based on the perceptions of the mother and husband. Postpartum education materials, methods, and media are provided. Still, nature is general according to the house agenda, sick, and not yet by the need for necessary education. The study's goal is to examine the need for postpartum mothers to receive education and to identify the types of education they require-method education, educational media, time-giving education, and source information.

MATERIALS AND METHODS

The design study used *mixed methods* with *sequential exploratory design* (Amir-Behghadami & Sadeghi-Bazarghani, 2021). This approach can be widely employed in situations where a researcher possesses limited familiarity with the primary concepts under investigation, as well as in cases where a valid and reliable instrument for assessing the intended construct is unavailable. This approach entails the utilization of both qualitative and quantitative methodologies in conjunction to investigate intricate phenomena.

The integration of both qualitative and quantitative approaches enhances comprehension of the subject matter, and the findings derived from the qualitative method can contribute to the advancement of the quantitative method. The method must be designed in two distinct phases, with each phase consisting of multiple steps.

First Phase

Study design

A qualitative descriptive (Colorafi & Evans, 2016) study was done to dig into problems, ways of handling, and needs for education in the postpartum period. The principal investigator (PI) has experience in qualitative studies and has been an expert on maternal nursing for more than 20 years. Two research members have several years of experience in qualitative research.

Sampling

A total of seven participants were selected using the purposive sampling technique. Inclusion criteria were postpartum mothers and couples who live permanently in the South Kuta Public Health Center, postpartum mothers who can read and write, and postpartum mothers who are willing to be respondents. Postpartum mothers who experience psychological disorders were excluded.

Data Analysis

The data were analyzed using thematic deductive analysis (Braun & Clarke, 2012). The thematic analysis method developed by Braun and Clarke is a cyclical procedure that encompasses six distinct stages: (1) gaining familiarity with the data, (2) creating codes, (3) developing themes, (4) reviewing themes, (5) defining and labeling themes, and (6) identifying exemplars.

Rigor and Trustworthiness

The researchers employed specific guidelines to enhance the rigor and establish reliable criteria to ensure the methodological integrity of the study. The researchers employed the evaluation methods proposed by Guba and Lincoln, (1989) which involved establishing long-term communication with the participants and maintaining transparency regarding the study's objectives. Additionally, the researchers conducted a thorough analysis of the collected data, engaged in discussions with the participants regarding emerging themes, and made adjustments to the identified themes based on participant feedback (Polit & Beck, 2017).

The aforementioned procedures were recorded in Excel spreadsheets to guarantee the verifiability and reliability of the data. Additionally, the final report incorporated participant descriptions to exemplify the relevance and practicality of the study's

outcomes. In addition, to establish the study's credibility, participants were provided with a comprehensive summary and diagram of the research process, and member checks were carried out. Furthermore, the study incorporated the expertise of qualitative research and nursing leadership specialists to enhance the precision of the findings. Transferability was ensured through the provision of a comprehensive explanation of the study's context, background, and stage in the introduction. Additionally, participants were selected in a manner that maximized the potential for significant variance.

Pilot Testing

After the questionnaire was developed, a pilot study was carried out on 50 respondents at the Mengwi I Public Health Center, Badung Regency. The test results of the questionnaire found a mark validity p -value < 0.05 , so the questionnaire was declared valid. *Cronbach's alpha* value is 0.73 (>0.6), so the questionnaire stated reliability.

The questionnaire consists of characteristics of the respondent and husband, material education about maintenance mothers, maternal education about maintenance babies, source information, time-consuming information, information media, and methods of education. A Likert scale with 5 options: very important (5), important (4), unsure (3), not important (2), and very not important (1).

Second Phase

Study Design

A quantitative descriptive study was used to answer the second objective of the study with a *cross-sectional approach*. The population study consists of postpartum mothers in the work areas of the South Kuta and North Kuta Community Health Centers.

Sampling

A total of 300 respondents were recruited regarding sample size and calculation (Pourhoseingholi et al., 2013). A collection sample was taken with the technique of purposive sampling. The inclusion criteria for this study encompassed postpartum mothers and couples who are permanent residents of the South Kuta Public Health Center. Additionally, postpartum mothers were required to possess the ability to read and write, as well as express their willingness to participate as respondents. Mothers who undergo postpartum and encounter psychological disorders were not included in the study.

Data Collection

The data collection procedure was started after receiving ethics approval from the Commission Ethics Study Health Polytechnic Ministry of Health Denpasar with the number LB.02.03/EA/KEPK/0493/2023. PI contacted the head of the public health center to determine the purpose of the study. After getting a permit, the PI and research member coordinate with the Maternal Program Coordinator at each public health center. The coordinator helps the PI and research member distribute the questionnaire to the patient. The completed questionnaire was gathered by the research members. Data was collected from May 2023 to October 2023.

Data Analysis

Quantitative data analysis in a way that is descriptive To get the mean, median, mode, and standard deviation, we can determine material priority education according to the needs of postpartum mothers and husbands.

RESULTS

The results were divided into a qualitative study (phase 1) and a quantitative data analysis (phase 2).

1. Qualitative Results

Referring to the results of qualitative data analysis, we found six themes, namely "needs," "education about maintenance mothers," "necessity," "education about maintenance babies," "time-giving information," "method-giving education," "educational media" and "sources information."

Education needs to take care of the mother

Three participants stated that education about mental health for postpartum mothers is the most important thing.

"After giving birth, the most important thing is a mother's mental health. It is because her mother is mentally healthy and can take care of the baby properly." (R1, 26 years old, high school education, housewife job, primiparous, normal delivery)

Respondents 3 and 4 stated that, in addition to mental health, education about breast maintenance and breastfeeding is required.

"All important. Perhaps a mother who just had a child will have mental problems and others related to health, such as breast milk production or swollen or not. If it's something else, adapt, and just do it." (R3, 28 years old, bachelor's degree, private job, multiparous, normal delivery)

The labor section needs to educate mothers who have gone through it about baby maintenance and the operation.

"Just talked to avoid infection" (R6, 28 years old, high school education, housewife job, primiparous, gave birth to SC)

Education needs to take care, baby

Required educational materials about baby maintenance include maintenance of baby yellow (hyperbilirubinemia), treatment of the navel, and caring for the skin of babies.

"My baby Niki ever, just... like a bit yellow. When control is given to the doctor, it is just done. Simply do this. There was no phototherapy. They only checked blood after the doctor said they didn't need it; they were only given medicine and told to give breast milk every 2 hours because the baby was new, he said."

"I realized if the baby was yellow... recommended for sunbathing and giving breast milk every 2 hours." (R5, 36 years old, bachelor's degree, work as a housewife, multiparous, normal delivery).

Postpartum mothers require education about the maintenance rope center in addition to the maintenance baby yellow.

“My baby was a little yellow, but the doctor said nothing because it was still normal. If it were me, there wouldn't be one, maybe because of the second one. There was a lot of concern, but after consulting for some information, I was able to relax. It is important to take care of myself because I was scared the first time. I am scared of sudden dislodging or infection if we take care of it wrongly. The same possible education, baby yellow, you see, is rarely given, as I recall. If my second child did not turn yellow, maybe I don't know anything.” (R3, 28 years old, bachelor's degree, private job, multiparous, normal delivery)

Participants will also require information on baby skin care.

My baby got time spots yesterday because I put on powder that wasn't appropriate. I told the midwife not to use powder when I brought it to her because there were so many spots. The game is over if no powder is applied after that. (R2, 28 years old, last completed junior high school, housewife job, multiparous, normal delivery)

Time-giving information

Almost all participants agreed that the best time to educate is when they are pregnant.

“That was important to me even before I became pregnant. Let us prepare if you can so that later, you will not be in a rush like that after being pregnant. After giving birth, we can be mentally ready. So right, everything is safer.” (R1, 26 years old, bachelor's degree, housewife, primiparous, normal delivery)

“When I was pregnant, it was clear, right?” We can prepare for it before engaging in combat. Who knows if it is possible to remember after giving birth? We lose sight of it. (R3, 28 years old, bachelor's degree, private job, multiparous, normal delivery)

Methods of providing education

The preferred educational method of the participant is directly and immediately grouped.

“In my opinion, before getting pregnant, it's important so that we can prepare. If we can prepare, we won't be in such a rush after pregnancy after giving birth. If we can be mentally prepared and everything is ready, it will be safer for everything.” (R1, 26 years old, bachelor's degree, housewife, primiparous, normal delivery)

Participant 4 also stated the method in a way that directed more likes to the person.

“I like to just go straight to the person; sometimes via WA, it's not clear. It's not nice if you ask a lot of questions on WA. It looks like you're being too chatty (Mother chuckles), so face-to-face with the person giving the education is more effective, I think.” (R4, 28 years old, bachelor's degree, job private, multiparous, normal delivery)

Apart from methods in a way, there are also more participants, such as a group providing education in a way.

Face-to-face is better, so you can ask questions and get answers straight away. It's better for the health workers; you can group, so you can all come together (R3, 28 years old, bachelor's degree, private job, multiparous, normal delivery)

Educational Media

Educational media is desired, according to survey participants.

“I used to get an education through leaflet media while pregnant, but there is no media now. So, I have to look for information myself. Yes, I am familiar with the leaflet; I give it once in a while when pregnant, if after giving birth, most often through communication with friends or relatives. Yes, as I previously stated, I enjoy looking for information on social media when no one else is aware of it.” (R3, 28 years old, bachelor's degree, private job, multiparous, normal delivery)

More people prefer video media. The first thing we can be certain of is that demonstrations are also live on video.

“I read alone, am lazy, and occasionally lack health knowledge. That is something that no one understands. Yes, non-health professionals do not understand the language. So I don't understand enough.” (R1, 26 years old, bachelor's degree, housewife, primiparous, normal delivery)

Source information

Respondents are the source of the desired information. See a variety of doctor specialists in midwifery and beyond midwifery for more information. Families or friends, according to participants, can be completely trusted.

“For me, I often go to a gynecologist, so maybe I prefer a doctor. But midwives are also experts, right? Ordinary nurses or doctors might know, but they don't know as much as specialist doctors and midwives. But everything is possible. Is it family or friends? It depends. If I see that he has experience, for example, having children or something related to his work, I may believe him, but not immediately. It's the same with the family; sometimes they take care of it; the old version, if it makes sense and isn't dangerous, I also follow it” (the mother answered with a smile).” (R3, 28 years old, bachelor's degree, job private, multiparous, normal delivery).

“If me, I prefer to go directly to the specialist or midwife. Might be after those, nurse.”(R5, 36 years old, bachelor's degree, work as a housewife, multiparous, normal delivery)

2. Quantitative Results

Characteristics Respondent

Table 1. Characteristics Respondent

Characteristics of Postpartum Mothers	Amount (n= 300)	
	Qty	%
Age		
< 20 years	9	3 %
20-25 years	291	97%
Last education		
Elementary School	23	7.7%
Junior high school	21	7%
Senior high school	177	59%
Diploma/bachelor	79	26.3%

Characteristics of Postpartum Mothers	Amount (n= 300)	
	Qty	%
Work		
Housewife _	147	49%
Civil servants	4	1.3%
Private	132	44%
Self-employed	9	3%
Etc	8	2.7%
Parity		
Primiparous	91	30.3%
Multiparous	199	66.3%
Grand multiparous	10	3.3%
Long Married		
< 5 years	213	71%
5-10 years	67	22.3%
> 10 years	20	6.7%
How to give birth		
Normal	109	36.3%
Operation Section	191	63.7%
Place Labor		
Hospital / clinic giving birth	245	81.7%
Practicing midwife	52	17.3%
Public health center	3	1%

According to the data presented in Table 1, the majority of respondents (97%) fall within the age range of 20–25 years. In terms of educational attainment, the highest percentage of respondents (59%) reported having completed high school. The occupation most commonly reported by the respondents was housewife (49%). Additionally, a significant proportion of respondents (66.3%) reported having experienced multiple childbirths. The majority of respondents (71%) reported being married for less than 5 years. Regarding the method of labor, a substantial portion of respondents (63.7%) underwent a cesarean section. Furthermore, the vast majority of respondents (81.7%) gave birth in a hospital or clinic setting.

Characteristics of Respondents ' Husbands

Table 2. Characteristics of Respondents' Husbands

Characteristics of Respondents ' Husbands	Amount (n= 300)	
	Qty	%
Age		
< 20 years	6	2 %
20-25 years	249	83%
>35 years	45	15
Last education		
Elementary school	24	8%
Junior high school	13	4.3%

Senior high school	178	59.3%
Diploma/Bachelor	83	27.7%
Master	2	7%
Work		
Civil servants	29	9.7%
Private	231	77%
Self-employed	40	13.3%
Income family		
< IDR 2,700,000	32	10.7%
≥ IDR 2,700,000	232	77.3%

According to the data presented in Table 2, a significant proportion (83%) of the husbands surveyed fell within the age range of 20–35 years. This trend was particularly prominent among respondents who had completed their education up to the high school level (59.3%). Furthermore, a substantial majority (77%) of the respondents were employed in the private sector, and a similar proportion (77.3%) reported earning an income that exceeded the minimum wage set by the Badung Regency. The accompanying image displays educational resources about postpartum maternal health that are essential for mothers.

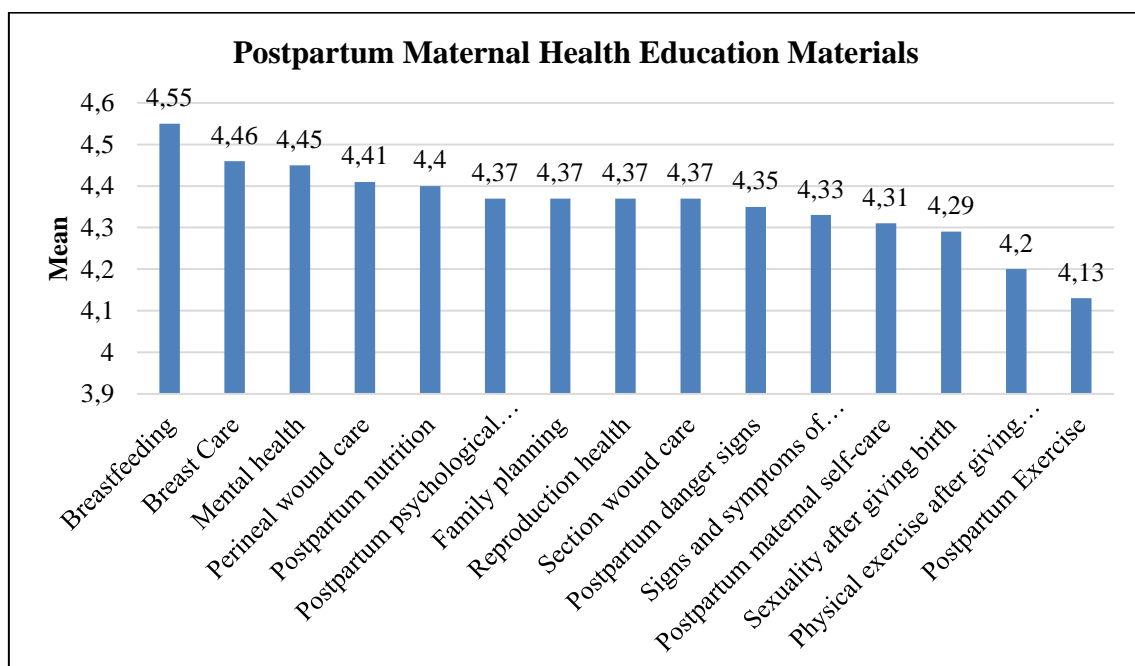


Figure 1. Educational material regarding postpartum maternal care

Figure 1 illustrates the average responses of the respondents, indicating a unanimous need for educational material during the postpartum period. Specifically, the respondents expressed a high demand for information regarding breastfeeding (mean = 4.55 ± 0.531), breast care (mean = 4.46 ± 0.531), mental health (mean = 4.45 ± 0.584), perineal wound care (mean = 4.41 ± 0.580), and nutrition for postpartum mothers (mean = 4.40 ± 0.578). The five items deemed to have the least importance are the identification and manifestation of postpartum infection signs and symptoms (mean =

4.33, standard deviation = 0.561), maternal self-care during the postpartum period (mean = 4.31, standard deviation = 0.555), resumption of sexual activity after childbirth (mean = 4.29, standard deviation = 0.600), engagement in physical exercise following childbirth (mean = 4.20, standard deviation = 0.562), and participation in postpartum exercise (mean = 4.13, standard deviation = 0.578). The accompanying image displays educational resources pertaining to infant health that are essential for postpartum mothers.

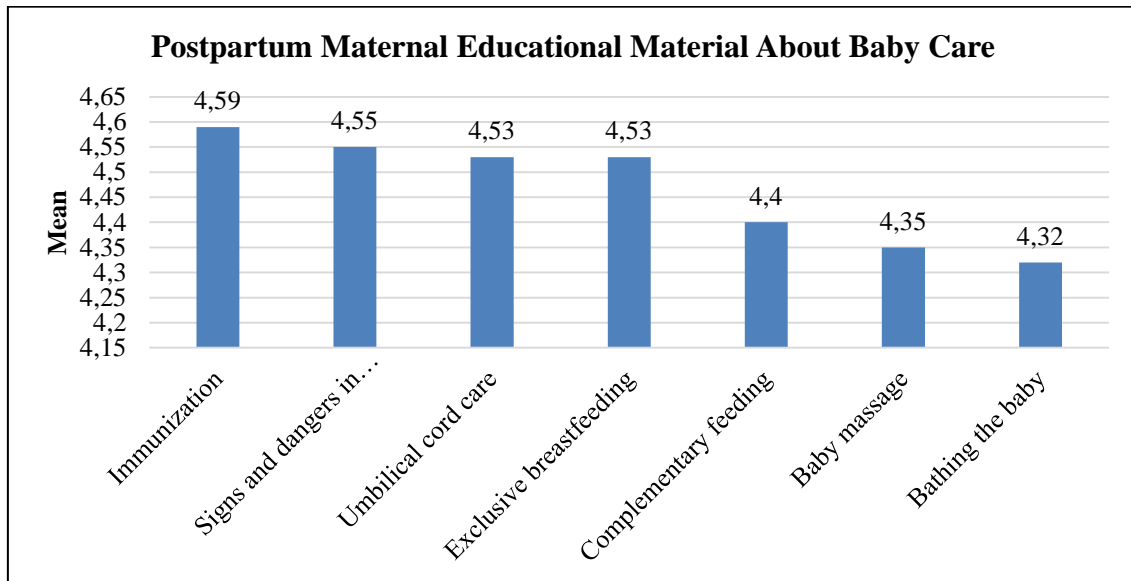


Figure 2. Educational material about caring for newborns

According to the findings presented in Figure 2, there is a significant demand for educational resources pertaining to infants among postpartum mothers. The essential components of baby care include immunization (mean score: 4.59 ± 0.493), identification of signs and risks in newborns (mean score: 4.55 ± 0.685), proper care of the umbilical cord (mean score: 4.53 ± 0.557), and the practice of exclusive breastfeeding (mean score: 4.53 ± 0.557).

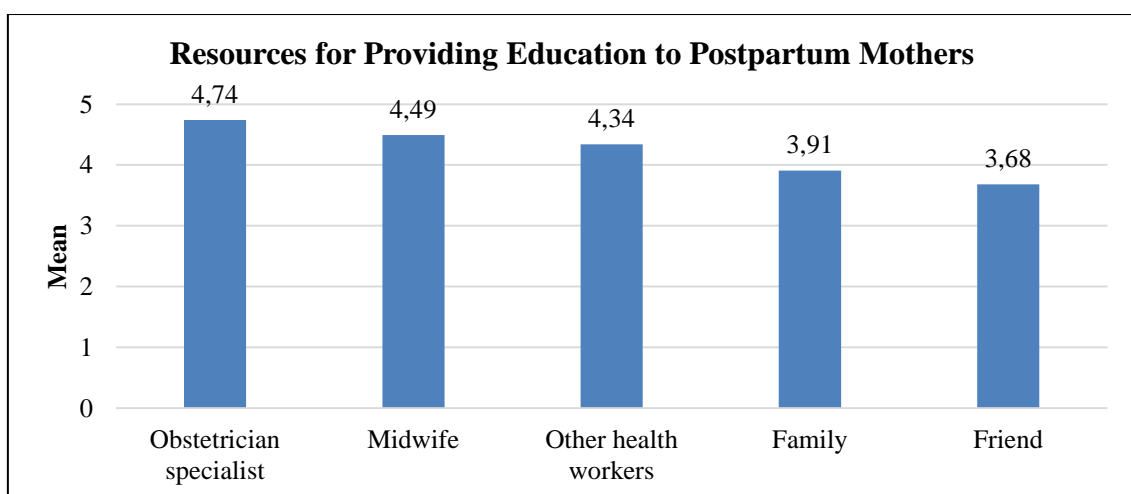


Figure 3. Sources of Postpartum Education information

Based on the data presented in Figure 3, it can be observed that health workers, particularly specialist doctors, are anticipated to be the primary sources of educational information (mean = 4.74 ± 0.463). Following closely are midwives (mean = 4.49 ± 0.507) and other health workers, including general practitioners and nurses (mean = 4.34 ± 0.520).

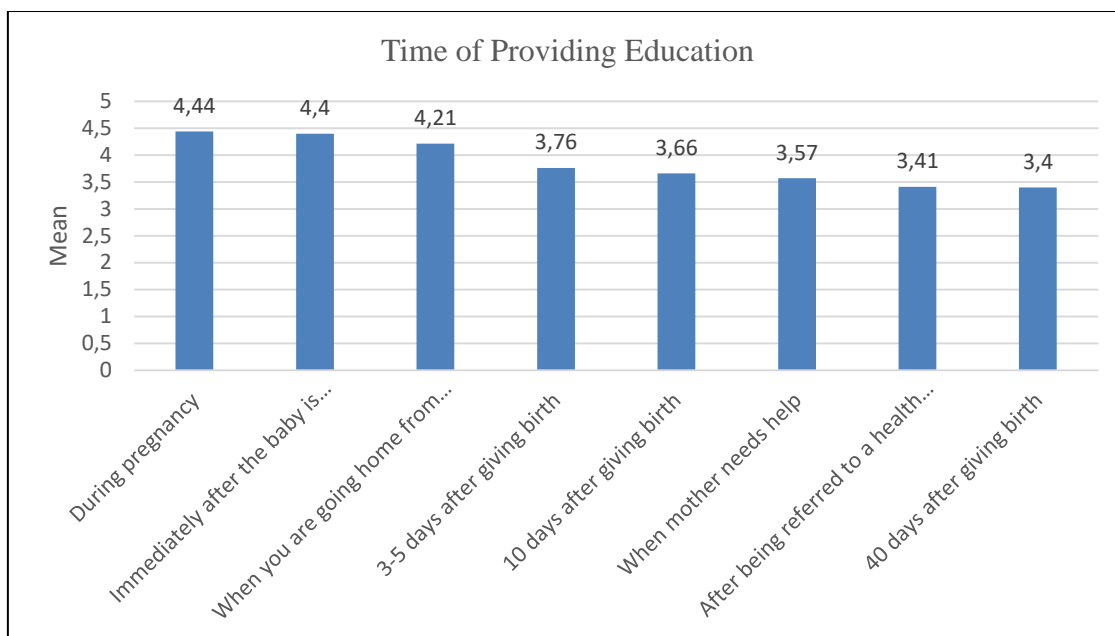


Figure 4. Delivery Time Postpartum Education

According to the data presented in Figure 4, it can be observed that the optimal time for information provision is during pregnancy, with a mean score of 4.44 ± 0.612 . Subsequently, the second most prevalent time for information dissemination is immediately after the baby's birth, with a mean score of 4.40 ± 0.529 . Lastly, leaving the health facility is identified as another significant time for information delivery, with a mean score of 4.21 ± 0.589 .

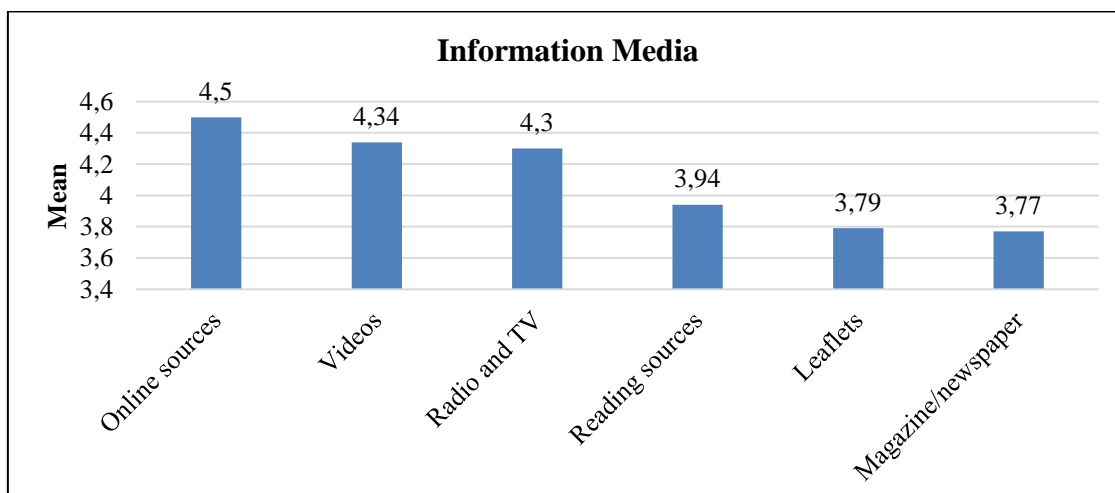


Figure 5. Postpartum Education Media

According to the data presented in Figure 5, it can be observed that the anticipated means of disseminating information predominantly involve online platforms such as YouTube and Google (mean = 4.50, standard deviation = 0.558), followed by video formats (mean = 4.34, standard deviation = 0.600) and radio/TV broadcasts (mean = 4.30, standard deviation = 0.534).

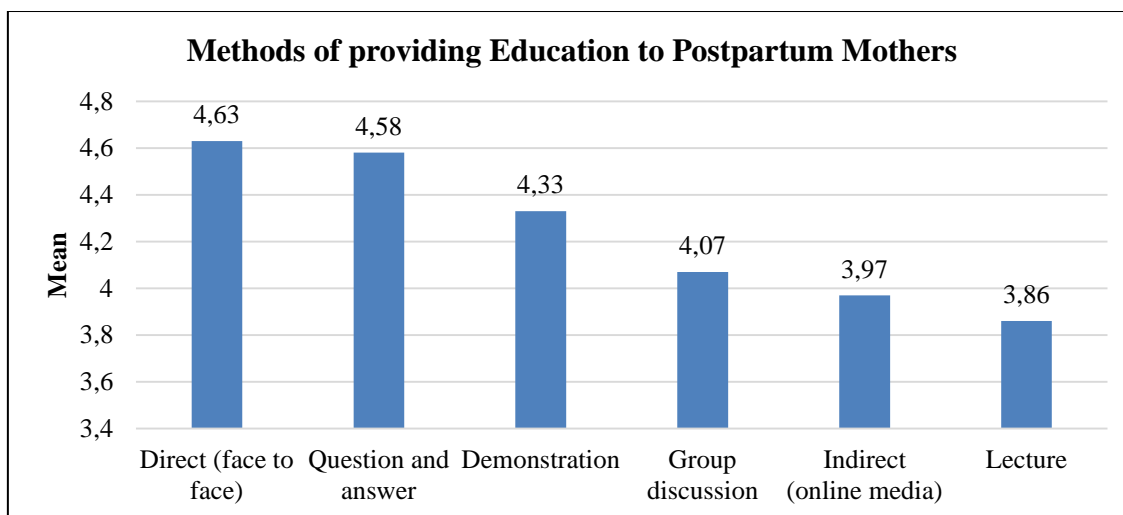


Figure 6. Method of Providing Postpartum Education

Based on the data presented in Figure 6, it can be observed that the anticipated approaches for conveying information include direct communication (mean = 4.63, standard deviation = 0.503), question and answer sessions (mean = 4.58, standard deviation = 0.521), and demonstrations (mean = 4.33, standard deviation = 0.718).

DISCUSSION

The findings of the qualitative data analysis, which involved conducting in-depth interviews with postpartum mothers, revealed the presence of six overarching themes. These themes include the importance of educating mothers on self-care, the significance of educating mothers on infant care, the role of timely information dissemination, the various methods employed for providing education, the utilization of educational media, and the sources of information accessed by mothers. The findings of the research study This aligns with the findings of a study conducted by Nazari et al., (2018) wherein they identified four primary categories of educational needs, namely "maintenance and restoration of physical health," "sexual health needs," "mental health needs," and "educational barriers."

Based on the findings of quantitative studies, it has been observed that the most prevalent educational requirement among mothers pertains to the maintenance of their own well-being and breastfeeding practices. Conducting a predominantly qualitative investigation. The aforementioned study, which was carried out in Ghana, discovered The discussion group centers around six primary themes that have emerged. 1)The provision of care with a focus on the needs of infants during the postpartum period; 2)The implementation of postpartum practices; 3)Limited understanding regarding the indicators of postpartum complications; 4)Challenges encountered in obtaining postpartum services. According to Adams et al., (2023) individuals may encounter

challenges related to their mental well-being and may require educational support after giving birth.

Extensive research has been conducted on the imperative nature of education for postpartum mothers, with a focus on qualitative methodologies. In addition to conducting qualitative data collection, it is imperative to engage in rigorous quantitative studies. In order to elucidate the outcomes and discoveries. The research findings indicate a clear quantitative demand for educational interventions pertaining to maintenance. The mother demonstrates concern for various aspects of postnatal care, including mental well-being, breast health, and breastfeeding, as well as the management of postpartum wounds.

The significance of maternal mental health from pregnancy through the postpartum period lies in its potential influence on the well-being of children, partners, and the overall quality of life for mothers. The presence of depression in mothers during the postpartum period has the potential to impact the bonding process, interactions, and caregiving practices toward infants until the child's cognitive, emotional, and behavioral development reaches maturity (Patabendige et al., 2020). The postpartum period encompasses the early phase of motherhood, which is characterized by the temporary nature of this role and the significant responsibilities associated with caring for a young child. Hence, the occurrence of menstrual periods has been found to render women more susceptible to emotional stress and anxiety (Walker et al., 2020).

The primary source of educational information is health workers, comprising a significant proportion of specialist doctors (4.74 ± 0.463), followed by midwives (4.49 ± 0.507), and other health workers such as general practitioners and nurses (4.34 ± 0.520). In terms of respondent characteristics, it is noteworthy that a significant proportion of respondents reported giving birth in hospital settings. Consequently, the primary providers of healthcare services and information to these individuals are typically obstetricians. In addition, it is worth noting that approximately 17% of postpartum mothers opt to give birth at a midwife's practice. Consequently, a midwife serves as a viable alternative source of information in this context.

Online sources, such as YouTube and Google, are anticipated to be the primary means of disseminating information (mean = 4.50, SD = 0.558). Additionally, video platforms (mean = 4.34, SD = 0.600) and traditional media channels like radio and television (mean = 4.30, SD = 0.534) are also expected to play a significant role in information provision. Another study that aligns with this research is the investigation conducted by de Sousa et al. (2022), which explored the impact of educational videos on the retention of prenatal and postnatal knowledge among newborn infants and their families.

The findings of the research indicate that educational videos are a valuable tool for postpartum mothers, as they facilitate the acquisition of knowledge regarding the proper care of newborn infants. Furthermore, these videos assist in the provision of activity education and healthcare guidance by nurses. Additional research provides corroborating evidence for this claim.

The optimal period for dispensing information was found to be during pregnancy (mean = 4.44, standard deviation = 0.612), followed closely by the immediate postpartum period (mean = 4.40, standard deviation = 0.529) and the period after discharge from the healthcare facility (mean = 4.21, standard deviation = 0.589). This study aligns with the findings of Nazari et al., (2018) who discovered that the period of

pregnancy presents an optimal window for delivering educational interventions to postpartum mothers, facilitating their readiness to provide care for their newborn infants. This assertion is supported by the findings of a study conducted by McCarter-Spaulding & Spencer (2016), which indicate that providing educational guidelines regarding the care of newborns and mothers during the postpartum period does not yield significant effectiveness. An investigation into the efficacy of time management and educational content during the postpartum period is necessary. Postpartum mothers commonly express a diminished recollection of the educational content they received within their household, perceiving it as a mere "documented caregiver."

The anticipated approaches for conveying information include direct communication (mean = 4.63, standard deviation = 0.503), question and answer sessions (mean = 4.58, standard deviation = 0.521), and demonstrations (mean = 4.33, standard deviation = 0.718). Additional research conducted by Wagner and Washinton (2016), supports the findings of this study, indicating that first-time mothers who undergo the traditional method of teaching experience higher levels of satisfaction. The act of instructing reverts back to conventional methods, encompassing the dissemination of knowledge that was provided in a manner that was observed intently by the attending nurse. Additional research is in close proximity as well. The aforementioned assertion holds validity for the research conducted by Cheng et al., (2023), as evidenced by the outcomes of their study.

There is a notable impact of employing a significant teaching method to enhance postpartum health and body. The study involved three distinct phases, each focusing on different aspects of the postpartum period. These phases encompassed the time before childbirth, immediately after labor, and the two weeks following labor. The research methodology employed a combination of techniques, including surveys, interviews, direct observations, and demonstrations. These methods were utilized to gather information, pose relevant inquiries, obtain responses, provide guidance, and illustrate key concepts.

One notable aspect of this study is its utilization of a mixed-methods approach. At the outset, a qualitative research approach was employed to gain a comprehensive understanding of the educational requirements of postpartum mothers. This qualitative phase served as a foundation for the development of research instruments, which were subsequently utilized to conduct quantitative research. The construction of the instrument was informed by the identification of themes that arose during the analysis of qualitative data. The research sample size is substantial, consisting of 300 respondents, thereby ensuring representativeness in capturing the conditions of the research site.

One of the primary constraints of this study pertains to the sampling methodology employed. Obtaining samples at the Community Health Center posed challenges for researchers due to the prevailing trend among postpartum mothers to deliver their babies and undergo health check-ups at maternity hospitals and clinics. Meanwhile, the research permits were exclusively available at the North Kuta and South Kuta Community Health Centers. This phenomenon results in reduced variability in sample characteristics, specifically about the duration of delivery, thereby exerting an impact on educational requirements.

This study employs a descriptive research design to investigate the educational requirements of mothers during the postpartum period. Moreover, utilizing the data

derived from this study, it is possible to conduct further research employing experimental methodologies to examine materials, techniques, and platforms that are suitable for addressing the educational requirements of postpartum mothers residing in the province of Bali. Additional investigation can be conducted within diverse healthcare settings, including hospitals, clinics, autonomous midwifery practices, and community health centers.

CONCLUSION

Postpartum mothers require tailored education for self-care and infant care. Success in education is contingent on appropriate materials, methods, and media, delivered at the right time and by qualified personnel. Further research, particularly experimental studies, can explore materials, methods, and media aligned with postpartum mothers' educational needs in Bali's province. The research scope can extend to various health services, including hospitals, clinics, independent midwives, and community health centers.

ACKNOWLEDGEMENT

The researcher extends gratitude to the Director of Denpasar Health Polytechnic for financial support, facilitating data collection by the Head of the Public Health Center for North Kuta and South Kuta Districts, Badung Regency, Bali. Special thanks to all respondents who participated in this study.

REFERENCES

- Adams, Y. J., Miller, M. L., Agbenyo, J. S., Ehla, E. E., & Clinton, G. A. (2023). Postpartum care needs assessment: women's understanding of postpartum care, practices, barriers, and educational needs. *BMC Pregnancy and Childbirth*, 23(1), 1–12. <https://doi.org/10.1186/s12884-023-05813-0>
- Amir-Behghadami, M., & Sadeghi-Bazarghani, H. (2021). Why and how to apply exploratory sequential mixed methods in health-related psychometric research. *BMJ Supportive & Palliative Care*, bmjincare-2021-003170. <https://doi.org/10.1136/bmjincare-2021-003170>
- Asmuji., & Diyan, I. (2014). Model Edukasi Postnatal Melalui Pendekatan FCMC. *Keperawatan*, 5(2), 128–141.
- Braun, V., & Clarke, V. (2012). Thematic analysis. In *APA handbook of research methods in psychology, Vol 2: Research designs: Quantitative, qualitative, neuropsychological, and biological*. (pp. 57–71). American Psychological Association. <https://doi.org/10.1037/13620-004>
- Cheng, G. Z., Chen, A., Xin, Y., & Ni, Q. Q. (2023). Using the teach-back method to improve postpartum maternal-infant health among women with limited maternal health literacy: a randomized controlled study. *BMC Pregnancy and Childbirth*, 23(1), 1–14. <https://doi.org/10.1186/s12884-022-05302-w>
- Colorafi, K. J., & Evans, B. (2016). *Qualitative Descriptive Methods in Health Science*

Research. *Health Environments Research and Design Journal*, 9(4), 16–25.
<https://doi.org/10.1177/1937586715614171>

de Sousa, L. B., Braga, H. F. G. M., Alencastro, A. de S. A., da Silva, M. J. N., de Oliveira, B. S. B., Dos Santos, L. V. F., & Melo, E. S. J. (2022). Effect of educational video on newborn care for the knowledge of pregnant and postpartum women and their families. *Revista Brasileira de Enfermagem*, 75(Suppl 2), 20201371. <https://doi.org/10.1590/0034-7167-2020-1371>

Dinkes Kab. Badung. (2021). *Profil Kesehatan Kabupaten Badung 2020*. 100.

Fernandes, D. V., Canavarro, M. C., & Moreira, H. (2021). Postpartum during COVID-19 pandemic: Portuguese mothers' mental health, mindful parenting, and mother–infant bonding. *Journal of Clinical Psychology*, 77(9), 1997–2010. <https://doi.org/10.1002/jclp.23130>

Kemendes RI. (2021). Kemendes Perkuat Upaya Penyelamatan Ibu Dan Bayi. In *Kemendes RI* (Issue September).

Kementerian Kesehatan RI. (2022). Laporan Kinerja kementerian kesehatan Tahunan 2022. In *Kementerian Kesehatan RI* (Vol. 1, Issue 1).

Manurung, S. (2021). Maternal Health Education (Pregnant, Childbirth and Postpartum Periods) during the COVID-19 Pandemic: Literature Review. *Journal of Health and Cardiovascular Nursing*, 1(1), 23–42. <https://doi.org/10.36082/jhcn.v1i1.266>

Maryam, S. (2021). Budaya Masyarakat yang Merugikan Kesehatan Pada Ibu Nifas dan Bayi. *Jurnal Kebidanan*, 10(1), 1–6. <https://doi.org/10.35890/jkdh.v10i1.156>

McCarter-Spaulling, D., & Spencer, B. (2016). Mothers' Needs and Expectations for Postpartum Education. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 45(3), S43. <https://doi.org/10.1016/j.jogn.2016.03.109>

Nazari, S., Hajian, S., Abbasi, Z., & Majd, H. A. (2018). Postpartum Care Promotion Based On Maternal Education Needs : A Mixed Study. *Journal of Education and Health Promotion*, January, 1–6. <https://doi.org/10.4103/jehp.jehp>

Njakatara, U. N., Lusmilasari, L., & Rustiyaningsih, A. (2021). Pengaruh Edukasi Kesehatan Paket Cerdas Ibu Menyusui (PCIM) terhadap Efikasi Diri Ibu Primipara dalam Merawat Bayi Baru Lahir di Haharu , Sumba Timur The Influence of PCIM Health Education Module on The Self-Efficacy of Primiparous in Taking Care of New. *Jurnal Keperawatan Klinis Dan Komunitas*, 5(2), 61–72.

Patabendige, M., Athulathmudali, S. R., & Chandrasinghe, S. K. (2020). Mental Health Problems during Pregnancy and the Postpartum Period: A Multicenter Knowledge Assessment Survey among Healthcare Providers. *Journal of Pregnancy*, 2020. <https://doi.org/10.1155/2020/4926702>

- Pourhoseingholi, M. A., Vahedi, M., & Rahimzadeh, M. (2013). Sample size calculation in medical studies. *Gastroenterology and Hepatology from Bed to Bench*, 6(1), 14–17. <http://www.ncbi.nlm.nih.gov/pubmed/24834239>
- Rodrigues, D. P., Dodou, H. D., Do Lago, P. N., Mesquita, N. S., De Melo, L. P. T., & De Souza, A. A. S. (2014). Care for both mother and child immediately after childbirth: A descriptive study. *Online Brazilian Journal of Nursing*, 13(2), 227–238. <https://doi.org/10.5935/1676-4285.20144231>
- Suzuki, S. (2020). Psychological status of postpartum women under the COVID-19 pandemic in Japan. *Journal of Maternal-Fetal and Neonatal Medicine*, 35(9), 1–3. <https://doi.org/10.1080/14767058.2020.1763949>
- Wagner, D. L., & Washinton, C. (2016). Patient Satisfaction With Postpartum Teaching Methods. *The Journal Of Perinatal Education*, 25(2), 129–136.
- Walker, A. L., Peters, P. H., de Rooij, S. R., Henrichs, J., Witteveen, A. B., Verhoeven, C. J. M., Vrijkotte, T. G. M., & de Jonge, A. (2020). The Long-Term Impact of Maternal Anxiety and Depression Postpartum and in Early Childhood on Child and Paternal Mental Health at 11–12 Years Follow-Up. *Frontiers in Psychiatry*, 11(September), 1–12. <https://doi.org/10.3389/fpsy.2020.562237>
- Wulandari, R., Suwandono, A., I. Kartasurya, M., & Sri A., N. (2020). Development of M-Health Promotion in Postpartum Care. *European Journal of Molecular & Clinical Medicine*, 7(1), 3834–3843.