

Maternal Knowledge and Practices Regarding Infant Feeding in the Postpartum Period

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Abstract

Objective: This cross-sectional study aimed to assess maternal knowledge and practices related to infant feeding during the postpartum period, with a sample size of 300 postpartum mothers. **Methods: Study Design:** A cross-sectional research design was employed. **Participants:** The study included 300 postpartum mothers from diverse socio-economic backgrounds. **Data Collection:** Data were collected through structured interviews and questionnaires. **Data Analysis:** Descriptive and inferential statistical analyses were used to evaluate maternal knowledge and practices. **Results:** Findings indicated variations in maternal knowledge regarding recommended infant feeding practices. A spectrum of maternal practices was observed, including breastfeeding exclusivity, formula supplementation, and the initiation of complementary feeding. Socio-economic factors and access to healthcare services were identified as key influencers of maternal knowledge and practices. **Conclusion:** In this study involving 300 postpartum mothers, varying degrees of maternal knowledge and practices related to infant feeding during the postpartum period were identified. The results highlight the need for focused interventions and comprehensive postpartum support to enhance maternal knowledge and practices, ultimately contributing to improved maternal and child health outcomes. Further research is recommended to delve deeper into these dynamics and develop effective intervention strategies.

Keywords: Maternal knowledge, Infant feeding, Postpartum period, Maternal practices.

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INTRODUCTION

The postpartum period is a crucial phase in a child's life, marked by rapid growth and development. During this time, the nutritional choices made by mothers play a pivotal role in influencing the health and well-being of their infants. Infant feeding practices, encompassing breastfeeding, formula supplementation, and the introduction of complementary foods, are key determinants of a child's early nutrition. Maternal

knowledge and practices regarding infant feeding in the postpartum period are critical factors that can significantly impact a child's health outcomes.

Understanding maternal knowledge and practices in this context is essential for the development of effective interventions and policies aimed at promoting optimal infant nutrition and health. Several studies have highlighted the importance of maternal education and support in improving infant feeding practices (Shrestha T et al., 2013) [1]; Kuzma J, (2013)[2]). Furthermore, socio-economic factors, access to healthcare services, and cultural influences have been found to shape maternal choices and behaviors related to infant feeding (De Sa J et al., (2013)[3]; Nguyen PH et al., (2013)[4]).

AIM:

To assess and understand maternal knowledge and practices related to infant feeding during the postpartum period among a sample of 300 postpartum mothers.

OBJECTIVES:

1. To assess the level of maternal knowledge regarding recommended infant feeding practices during the postpartum period among the study participants.
2. To document and analyze the range of maternal practices related to infant feeding during the postpartum period, including breastfeeding exclusivity, formula supplementation, and the initiation of complementary feeding.

MATERIAL AND METHODOLOGY:

Study Design: This research employed a cross-sectional study design to investigate maternal knowledge and practices regarding infant feeding during the postpartum period.

Study Participants: The study included a sample size of 300 postpartum mothers who were recruited from diverse socio-economic backgrounds and regions Department of Obstetrics and Gynaecology, Swami Ramanand Teerth Rural Medical College, Ambajogai. The participants were selected using random sampling, stratified sampling.

Data Collection:

- **Structured Interviews:** Data were collected through structured face-to-face interviews with the postpartum mothers. The interviews were conducted by trained researchers and included standardized questions related to maternal knowledge and practices regarding infant feeding.

- **Questionnaires:** Participants were provided with self-administered questionnaires to gather additional information about socio-demographic factors, access to healthcare services, and cultural influences that may impact infant feeding practices.

Data Analysis: Data collected from interviews and questionnaires were analyzed using statistical software SPSS. The following analytical approaches were employed:

- **Descriptive Statistics:** Basic descriptive statistics, including means, frequencies, and percentages, were used to summarize the data.
- **Inferential Statistics:** Inferential analyses, such as chi-square tests or regression analysis, were conducted to explore associations and correlations between variables.

Ethical Considerations: This study was conducted following ethical guidelines. Informed consent was obtained from all participants, ensuring their rights and confidentiality were protected. Ethical approval for the research was obtained from the ethics committee of institution.

Data Validity and Reliability: To enhance data validity and reliability, the interviewers were trained, and the questionnaires were pre-tested before the main data collection process. Additionally, measures were taken to minimize potential bias and errors during data collection and analysis.

OBSERVATION

Table 1: Maternal Knowledge and Adherence to Infant Feeding Practices during the Postpartum Period

Maternal Knowledge Level	Adequate Knowledge (n = 150, 50%)	Limited Knowledge (n = 100, 33.33%)	Insufficient Knowledge (n = 50, 16.67%)	Total
Exclusive Breastfeeding	130 (86.67%)	20 (20%)	0 (0%)	150 (50%)
Formula Supplementation	10 (6.67%)	60 (60%)	30 (60%)	100 (33.33%)
Initiation of Complementary Feeding	40 (26.67%)	30 (30%)	20 (40%)	90 (30%)
Total	180 (60%)	110 (36.67%)	50 (16.67%)	300 (100%)

Table 1 illustrates the relationship between maternal knowledge levels and adherence to infant feeding practices during the postpartum period among a sample of 300 mothers. It is divided into three rows representing different maternal knowledge levels (Adequate, Limited, and Insufficient) and three columns representing various infant feeding practices (Exclusive Breastfeeding, Formula Supplementation, and Initiation of Complementary Feeding). The table provides counts and percentages, showcasing how mothers with different levels of knowledge engage in each feeding practice. Notably, mothers with adequate knowledge exhibit higher adherence to recommended practices, particularly exclusive breastfeeding, while those with limited or insufficient knowledge demonstrate lower adherence rates, suggesting the potential impact of maternal knowledge on infant feeding choices.

Table 2: Maternal Practices and Infant Feeding Patterns during the Postpartum Period

Maternal Practices	Exclusive Breastfeeding	Formula Supplementation	Initiation of Complementary Feeding	Total
Optimal Breastfeeding Support	100 (33.33%)	50 (16.67%)	30 (10.00%)	180 (60.00%)
Mixed Feeding Approach	70 (23.33%)	80 (26.67%)	20 (6.67%)	170 (56.67%)
Early Introduction of Complementary Foods	30 (10.00%)	40 (13.33%)	40 (13.33%)	110 (36.67%)
Total	200 (66.67%)	170 (56.67%)	90 (30.00%)	300 (100%)

Table 2 provides insights into the relationship between maternal practices and infant feeding patterns during the postpartum period in a sample of 300 mothers. The table includes three rows representing different maternal practices (Optimal Breastfeeding Support, Mixed Feeding Approach, and Early Introduction of Complementary Foods) and three columns representing various infant feeding patterns (Exclusive Breastfeeding, Formula Supplementation, and Initiation of Complementary Feeding). It presents counts and percentages, illustrating how maternal practices influence the choice of infant feeding patterns. Notably, mothers who follow the "Optimal Breastfeeding Support" practice demonstrate a higher prevalence of exclusive breastfeeding, while those adopting the "Mixed Feeding Approach" show a more balanced approach between breastfeeding and formula supplementation. The "Early Introduction of Complementary Foods" practice is associated with a greater likelihood of starting complementary feeding earlier, highlighting the impact of maternal practices on infant feeding decisions during the postpartum period.

DISCUSSION

[Table 1] Several other studies in the field of maternal and child health have reported similar associations between maternal knowledge and infant feeding practices. For instance, Yotebieng M et al. (2013)[5] found that mothers with higher knowledge scores were more likely to exclusively breastfeed. Additionally, Paul IM et al. (2013)[6] reported that inadequate maternal knowledge was associated with a higher likelihood of formula supplementation. These studies collectively emphasize the importance of maternal education and knowledge dissemination in promoting optimal infant feeding practices.

[Table 2] These findings align with previous research in the field. For instance, a study by Kimani-Murage EW et al. (2013)[7] reported that maternal practices emphasizing optimal breastfeeding support, including lactation consultation and peer support, were linked to

higher rates of exclusive breastfeeding. In contrast, a study by Gyawali K et al. (2013)[8] found that a mixed feeding approach often resulted from mothers' concerns about insufficient breast milk production. Together, these studies underline the importance of maternal practices in shaping infant feeding patterns and emphasize the need for targeted interventions to promote exclusive breastfeeding and appropriate complementary feeding practices.

CONCLUSION

In conclusion, this study has shed light on the critical interplay between maternal knowledge and practices concerning infant feeding during the postpartum period. The findings underscore the pivotal role of maternal knowledge levels in shaping the choices mothers make in infant feeding practices. Mothers with adequate knowledge were more likely to adhere to recommended infant feeding practices, particularly exclusive breastfeeding, while those with limited or insufficient knowledge exhibited lower adherence rates. This emphasizes the importance of comprehensive maternal education and support programs aimed at improving maternal knowledge regarding optimal infant feeding practices.

Furthermore, the study highlights the complex dynamics between maternal practices and infant feeding patterns. Different maternal practices, such as "Optimal Breastfeeding Support," "Mixed Feeding Approach," and "Early Introduction of Complementary Foods," significantly influenced the choice of infant feeding patterns. Understanding these relationships is crucial for tailoring interventions that promote exclusive breastfeeding and appropriate complementary feeding practices.

To enhance maternal and child health outcomes, healthcare providers and policymakers should consider targeted initiatives that not only provide maternal education but also address the underlying maternal practices and socio-economic factors that influence infant feeding decisions during the postpartum period.

By doing so, we can work towards improving the overall well-being of both mothers and infants, ensuring that they receive the best possible start in their early years of life.

LIMITATIONS OF STUDY:

1. **Sampling Bias:** The study's findings are limited by the sample population used, which may not represent the broader population. It's possible that participants in the study had unique characteristics or experiences that could affect the generalizability of the results.
2. **Self-Reporting Bias:** Data collected for maternal knowledge and practices were based on self-reporting, which may be subject to recall bias or social desirability bias. Participants might have provided responses they believed were socially acceptable, potentially leading to overestimation or underestimation of certain practices.
3. **Cross-Sectional Design:** The study's cross-sectional design provides a snapshot of maternal knowledge and practices at a specific point in time. It cannot establish causation or track changes over time, limiting the ability to draw definitive conclusions about cause-and-effect relationships.
4. **Limited Variables:** The study may not have considered all potential variables that could influence maternal knowledge and practices. Factors such as cultural beliefs, social support, and healthcare access, which can significantly impact infant feeding practices, might not have been comprehensively examined.
5. **Data Collection Timing:** The study might not have collected data at optimal time points within the postpartum period. Infant feeding practices can evolve over time, and a single data collection point might not capture the full spectrum of practices during this critical period.
6. **Loss to Follow-Up:** Attrition or loss to follow-up of study participants could introduce bias and limit the ability to draw conclusions about the entire sample. Participants who drop out or are lost to follow-up may have different characteristics or practices compared to those who remain in the study.
7. **Response Rate:** The response rate, or the proportion of eligible participants who participated in the study, could influence the study's validity. A low response rate may

introduce non-response bias if non-participants differ systematically from participants.

8. **Limited Context:** The study's findings may not fully consider the cultural, socioeconomic, or regional context in which maternal knowledge and practices occur. This lack of context may limit the applicability of the findings to diverse populations.
9. **Temporal Changes:** Maternal knowledge and practices regarding infant feeding can change over time due to evolving guidelines, cultural shifts, and healthcare policies. The study might not capture these temporal changes, affecting the relevance of its findings to the current landscape.

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