



Knowledge and Practices on Episiotomy Care Among Primiparous Mothers Who Have Undergone Normal Vaginal Delivery in the Obstetric Unit of the District General Hospital, Ampara

K.L.S.N. Pradeepika¹, P.M.D.M. Dharmasena², U.H.B.E.S. Kumari³, H.P.D.I. Kumari⁴, G.A.G.S. Yasarathne^{5*}, W.N. Priyanthi⁶
^{1,2,3,4,5,6} *The Open University of Sri Lanka, Nawala, Nugegoda*

Email address of the corresponding author - *gayas@ou.ac.lk

Abstract

An episiotomy is a surgical incision made through the perineum, to provide a sufficient space within the vaginal canal for the delivery of the baby. Nowadays, according to different obstetric protocols, 10-90% of women giving birth will have an episiotomy. However, episiotomy care and its associated complications can be influenced by the knowledge and practice of mothers. This study investigated the knowledge and practice among primiparous mothers regarding episiotomy care. This was a quantitative, descriptive study in which a convenience sampling method was used. A structured self-administered questionnaire was used to obtain data from the participants. Data were analysed using IBM SPSS (version 26). The findings show that 62.5% of primiparous mothers have adequate knowledge, 26.1% have moderate knowledge of episiotomy care and only 11.4% have inadequate knowledge. Interestingly, 96.6% of primiparous mothers showed adequate knowledge about the importance of taking medicines given by the hospital correctly, to prevent infection of the episiotomy incision and to speed up the recovery. When considering practice, 36.4% of primiparous mothers have adequate practice levels which is low compared to the knowledge on episiotomy care. According to the correlation studies, it was found that those who believe in herbal remedies ($P=0.351$) are more likely to use hot water for cleaning and showed strong correlations in certain practices such as washing hands before and after cleaning the incision, changing sanitary pads every 4 hours ($P=.475$) and washing the genital area with correct practices

($P=0.420$) suggesting primiparous mothers who believe in herbal remedies may be more likely to be health-conscious in general. Studying these patterns and trends will be useful for the identification of potential risk factors associated with certain factors, public health campaigns, targeted interventions, and future research activities.

Keywords: Episiotomy; Primiparous Mothers; Knowledge and Practice; Maternal Health; Obstetric Care

Introduction

Motherhood is the greatest thing in nature. However, most women have some degree of discomfort during the first post-partum days. One common cause of discomfort is episiotomy (James, Anil, & Joseph, 2023). The term episiotomy refers to the intentional incision of the vaginal opening to hasten delivery or to avoid or decrease potential tearing (Falagarío et al., 2023). Episiotomy care is taking a major place in the post-partum period of normal vaginal-delivered mothers (Choudhari, Tayade, Venurkar, & Deshpande, 2022). According to the literature, episiotomy affects more than one million of the world's mothers who have undergone vaginal deliveries (Kaur, Kumari, & Samuel, 2014). However, the occurrence of an infection associated with this episiotomy also creates a threat for the mother to be re-hospitalized. Episiotomy infection can have negative effects on both the mother and the child.

Here, the lack of knowledge on episiotomy care especially among primiparous mothers, can result in a variety of complications, such as wound infections, pain, dilatation, and wound dehiscence (Falagarío et al., 2023). Primiparous mothers have episiotomy interventions in 70-80% of cases (Woldegeorgis et al., 2022). According to a recent medical study, 60% of women who had episiotomies experienced severe post-partum pain. 24% had an infection at the site and 20% had problems with intercourse for up to 3 months after childbirth (McCallum & Reis, 2008). According to the findings of the previous study, the majority, 39% of the sample had moderately adequate knowledge, 34% had inadequate knowledge and 27% had adequate knowledge of episiotomy (Kaur et al., 2014).

Infection and pain are common episiotomy complications that can occur if episiotomy is not properly cared for. These complications can be reduced if the mother has adequate knowledge and confidence in the practice of episiotomy care. It may be possible to reduce pain, incontinence, and sexual dysfunction by reducing or preventing infections (Kaur et al., 2014). According to a recent medical study, 60% of women who had episiotomies experienced severe post-partum pain, 24% had infections at the site and 20% had problems with intercourse for up to three months after childbirth indicating that special precautions must be taken to avoid infections (McCallum & Reis, 2008). According to that the post-partum infection rate in District General Hospital Ampara was 0.53% in year 2021 and 0.96% in year 2022. The post-partum infection rate had been elevated up to 1.7% in the first two quarters of the year 2023. The Family Health Bureau in Sri Lanka mentioned in its annual report in the year 2018 that the most common postpartum problems include an infected cesarean scar, engorged breast, and separated episiotomy respectively. Most of the reported morbidities could have been prevented by proper infection control and breast-feeding practices. However, in developing countries, such as Sri Lanka, post-partum infections may cause serious illnesses and

disabilities, while lengthening the patient's duration of hospital stay, leading to higher health expenses. Not only that the baby also suffers due to the mother's morbidity. Re-admission rates to the obstetrics unit at District General Hospital Ampara have risen lately due to infections and related complications that urge to educate primiparous mothers regarding episiotomy care. However, it is mandatory to get an idea about the status of the knowledge and practice of primiparous mothers before implementing any advocating campaigns or allied activities. Therefore, this research study was conducted to assess socio-demographic characteristics, knowledge, and practice on episiotomy care among primiparous mothers undergoing normal vaginal delivery in the obstetrics unit of District General Hospital, Ampara.

Materials and Methods

A quantitative approach with a descriptive design was used in this study. It consisted of primiparous postnatal mothers with episiotomy treated in the obstetric unit (Wards 01 and 02) of District General Hospital Ampara. Each ward is staffed with two obstetricians, medical staff, nursing officers, midwives, and other support personnel. Both units have a labor room and separate sections for ante-natal (36) and post-natal care (63), with a total capacity of 99 beds. Primiparous post-natal mothers with episiotomy following a normal vaginal delivery at the obstetric unit in District General Hospital Ampara, who were willing to participate and capable of understanding and answering were included in this research. Mothers, with cognitive impairment, postpartum psychosis, or any other critical illnesses or who were below 18 years old and who were not available in the wards during the study period, were not included in this study. The convenience sampling method, which is part of the non-probability sampling technique was used in this study. The Krejcie and Morgan formula was used to calculate the sample size. Accordingly, the population size was considered as 100 mothers. The total sample size was 88 primiparous mothers undergone normal vaginal delivery.

Ethical approval was received from the Ethical Review Committee (ERC) of Eastern University. and written permission was obtained to collect data from the head of the institution, District General Hospital Ampara. After the brief introduction, verbal and written consent were obtained from the participants. All acquired data was kept in a locked cabinet during the time of data collection and processing. Primary and the analysis data were stored in a protected folder that will be deleted after 5 years.

Data was collected using a self-administered questionnaire. The questionnaires consisted of three parts. Part A (Demographic factors of the participant), part B (Questions on mothers' knowledge about episiotomy care), and part C (Questions on mothers' practice of episiotomy care). The questionnaire was evaluated with the test and re-test approach to ensure internal reliability and consistency. Further, the tool was validated according to the content validity index (=1). The questionnaire of the study consisted of questions from previous studies: (Kaur et al., 2019) and (Muhammad, 2021). The data obtained were analysed using the SPSS version 26. Frequencies and percentages were computed for categorical variables (sociodemographic variables, knowledge, and practice). The results were presented as tables. Knowledge was assessed using 17 questions and practices were assessed using 10 questions in the questionnaire. In each case, a score of one was assigned to each correctly answered question and 0 for a wrongly answered question, the minimum possible score of 0 and a maximum score of 17 and 10 respectively for each domain of knowledge and practice. Then it was calculated as a percentage. Level of knowledge and practice was indicated as Inadequate knowledge - < 50%, moderate Knowledge - 51- 75%, and adequate knowledge - > 76% (Kaur et al., 2019).

A Pearson Correlation study was conducted to identify the correlation between the variables in knowledge and practice regarding episiotomy care.

Results and Discussion

Description of Socio-Demographic Variables of Primiparous Mothers

According to Table 1, 54.5% of the sample was between 26 and 35 years old. 73.9% of mothers were from rural areas, considering the residential areas. The highest percentage, 39.8% of the sample, had studied only up to the Ordinary Level (O/L). Further, the majority of mothers, 59.1%, were unemployed, and their monthly income was between 10,001 and 30,000 LKR, the highest percentage (42.0%).

Table 1: Frequency and percentage distribution of socio-demographic variables of primiparous mothers (N= 88).

Demographic Variable	Frequency	Valid Percent (%)
Age Group		
18-25 years	23	26.1
26-35 years	48	54.5
36-40 years	15	17
More than 40 years	2	2.3
Residential Area		
Rural	65	73.9
Suburban	20	22.7
Urban	3	3.4
Educational Level		
Never went to school	2	2.3
Up to Grade 5	7	8
Up to O/L	35	39.8
Up to A/L	34	38.6
Diploma Level or Degree Level	10	11.4
Working Status		
Unemployed	52	59.1
Self-employed	10	11.4
Private Sector	16	18.2
Government Sector	10	11.4
Monthly Income		
Less than Rs. 10,000	26	29.5
Rs. 10,001 - 30,000	37	42
Rs. 30,001 - 70,000	21	23.9
More than Rs. 70,001	4	4.5

Description of knowledge regarding episiotomy care of participants

The majority of primiparous women (73.9%) had adequate knowledge about cleaning the episiotomy wound with soap and water. A significant proportion (69.3%) correctly avoided using antiseptic liquids other than mild soap. Most participants (67.0%) understood the importance of not using hot water to clean the wound. Regarding wound healing practices, 51.1% believed that using heated water with medicinal herbs could accelerate healing, while 48.9% correctly recognized this as an unnecessary practice. A high percentage (96.6%) of participants understood the importance of taking prescribed medications to prevent infection and promote healing. Additionally, 67% recognized the importance of avoiding constipation and maintaining a balanced diet for optimal recovery. The majority of participants (78.4%) were aware of the importance of proper posture and movement to facilitate healing. Most participants (87.5%) also understood the significance of wearing clean underwear to prevent infection. Knowledge regarding the frequency of sanitary pad changes (70.5%) and the avoidance of sexual intercourse for 4-6 weeks (63.6%) was also prevalent.

Regarding the warning signs of complications, a significant proportion of participants (76.1%) recognized excessive pain as an abnormal symptom and the need to seek medical attention. Similarly, 62.5% understood that redness is a sign of potential infection and requires medical evaluation. The majority (84.1% and 79.5%) were aware of the importance of seeking medical advice for foul-smelling discharge or wound dehiscence. While only 22.7% knew about the benefits of using ice packs to reduce pain and swelling, a high percentage (85.2%) understood the importance of keeping the wound clean and dry.

Table 2: Frequency and percentage distribution of overall knowledge on episiotomy care (N= 88).

Criteria	Frequency	Percentage (%)
< 50% - Inadequate Knowledge	10	11.4
51%-75% - Moderate Knowledge	23	26.1
76%-100% - Adequate Knowledge	55	62.5
Mean	2.51	
Median	3	
Standard Deviation	0.695	

The findings show that 62.5% of primiparous mothers have adequate knowledge of episiotomy care, 26.1% of primiparous mothers have moderate knowledge of episiotomy care and only 11.4% have inadequate knowledge (Table 2). Hence, the findings show that most participants in the study have adequate knowledge of episiotomy care.

Furthermore, there is a positive correlation ($P=0.351$) regarding the knowledge between the hot water to clean the incision and believing that boiled water with medicinal leaves accelerates healing. Therefore, it suggests that primiparous mothers who use hot water may also believe in the effectiveness of herbal remedies. Further, a positive correlation ($p=0.276$) exists between avoiding constipation and eating a balanced diet. This indicates that primiparous mothers prioritizing a balanced diet will have a certain understanding of reducing constipation using a balanced diet. There is a positive correlation between using sanitary pads every 4 hours and avoiding sexual intercourse for 4-6 weeks ($p=0.386$). This suggests that individuals who practice good hygiene will also follow guidelines for sexual abstinence. These findings will be useful to identify potential risk factors associated with existing knowledge and practices. Further, gathered information can be used in public health campaigns and targeted interventions.

Description of practice regarding episiotomy care of participants

Most samples (53.4%) showed inadequate knowledge about the correct direction for cleaning the episiotomy area. Only 46.6% of the sample had adequate knowledge about the practice of cleaning from front to back. The highest percentage (67.0%) demonstrated adequate practice in washing hands with soap and water before and after cleaning the episiotomy incision. Many samples (60.2%) correctly avoided using hot water to clean the episiotomy area and ensured thorough drying of the perineal area after washing. The majority (56.8%) also avoided directly rubbing the soap bar on the incision.

A high percentage (68.2%) of participants demonstrated adequate practice in cleaning the episiotomy wound immediately if it encountered baby urine. Most participants (70.5%) washed their genital area with baby soap and clean water after defecation and urination. A significant proportion (61.4%) ensured adequate water intake of at least 2 Liters per day. The majority (62.5%) changed sanitary pads at least every 4 hours. While 52.3% used commercially available sanitary pads, 47.7% used homemade cloth pads in addition to or instead of commercial pads.

Table 3: Frequency and percentage distribution of overall practice on episiotomy care (N= 88).

Criteria	Frequency	Percentage (%)
<50% - Inadequate Practice	31	35.2
51%-75% - Moderate Practice	25	28.4
76%-100% - Adequate Practice	32	36.4
Mean	2.01	
Median	2	
Standard Deviation	0.851	

The findings show that 36.4% of primiparous mothers have adequate practice level and 28.4% have moderate practice level while 35.2% of primiparous mothers have inadequate practice level on episiotomy care. Even though the majority of the participants in the study have adequate practice levels in episiotomy care, interventions are needed to improve the practice of episiotomy care. Also, the adequate practice level was lower than the adequate knowledge of episiotomy care.

According to the Pearson correlation calculations, certain correlations between the variables of episiotomy care practices could be identified. There is a strong positive correlation ($P=0.475$) between washing hands before and after cleaning the episiotomy area and changing sanitary pads every 4 hours. This suggests that primiparous mothers who practice good hygiene will follow both practices. Further, there is a strong positive correlation ($P=0.420$) between washing the genital area with soap and water after defecation and urination and cleaning it, from the front (urethra) to the back (anus). This suggests that individuals who prioritize hygiene will conduct the cleaning perfectly. Moreover, there is a positive correlation ($P=0.279$) between cleaning and drying the episiotomy wound immediately after urine leakage and using sanitary pads regularly. This indicates that individuals who practice good wound care are also likely to practice good hygiene.

Conclusions

Findings revealed that the adequate level of practice on episiotomy care was lower than the adequate knowledge of episiotomy care. Therefore, attention must be given to improve the practice of episiotomy care through awareness programs and monitoring mechanisms. Further, the correlation analysis reveals a significant relationship between various episiotomy care practices. These findings will be useful for the identification of potential risks associated with certain factors, public health campaigns, targeted interventions, and future research activities. Future

research should explore the effectiveness of various educational strategies, such as awareness programs focusing on the relationship between the variables in knowledge and practices, pre-delivery teaching sessions, and the distribution of informative materials. The long-term impact of interventions on postpartum outcomes and maternal satisfaction can also be studied.

Acknowledgment

The authors would like to thank the ethical committee of the Eastern University of Sri Lanka for their guidance and the Head of the District General Hospital Ampara, consultants, matrons, ward sisters, nurses, and colleagues for their support, and all post-natal mothers who participated in this study.

References

- Choudhari, R. G., Tayade, S. A., Venurkar, S. V., & Deshpande, V. P. (2022). A Review of Episiotomy and Modalities for Relief of Episiotomy Pain. *Cureus*, *14*(11), e31620. doi:10.7759/cureus.31620
- Falagario, M., Greco, F., De Padova, M., Morena, M. G., Palieri, T., D'Antonio, F., . . . Nappi, L. (2023). The Role of Episiotomy in Emergency Delivery. In *Practical Guide to Simulation in Delivery Room Emergencies* (pp. 893-914): Springer.
- James, S., Anil, J., & Joseph, S. P. (2023). A Study to Assess the Knowledge and Perineal Self-Care Practices on Episiotomy Wound Among Primiparous Women. *International Journal of Nursing Care*, *11*(1).
- Kaur, J., Kumari, R., & Samuel, P. (2014). Knowledge and Attitude Regarding Episiotomy Wound Care Among Third Trimester Primigravida Mothers. *International Journal of Obstetrics, Perinatal and Neonatal Nursing*, *1*(1), 12-21.
- McCallum, C., & Reis, A. P. d. (2008). Users' and providers' perspectives on technological procedures for 'normal' childbirth in a public maternity hospital in Salvador, Brazil. *salud pública de méxico*, *50*(1), 40-48.
- Muhammad, M. A. (2021). Knowledge and Practices Regarding Episiotomy and Perineal Care among Primiparous Women. *Indian Journal of Forensic Medicine & Toxicology*, *15*(3).
- Woldegeorgis, B. Z., Obsa, M. S., Tolu, L. B., Bogino, E. A., Boda, T. I., & Alemu, H. B. (2022). Episiotomy practice and its associated factors in Africa: A systematic review and meta-analysis. *Frontiers in Medicine*, *9*, 905174.