



## Enhancing Perineal Hygiene Awareness among Primiparous Women

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### Abstract

**Background:** The attention surrounding perineal health self-care practices has grown due to their perceived benefits in promoting postpartum recovery, alleviating discomfort, and preventing long-term problems.

**Objective:** This study aimed to comprehensively explore the various aspects of awareness of perineal health, specifically among first-time mothers (Primiparous Women).

**Method:** Using a descriptive-analytical approach, the research was conducted with 520 first-time mothers in a maternal teaching hospital in Sulaimani City. Data collection occurred over four consecutive months, spanning from September 2022 to March 2023, involving direct interviews using a questionnaire encompassing information on maternal demographic characteristics and awareness of postnatal perineal hygiene.

**Result:** The results demonstrated a variety of levels of awareness about postnatal self-care practices: 45.4% exhibited inadequate awareness, 44.2% showed moderate awareness, particularly after undergoing an episiotomy, and 10.4% demonstrated a high level of awareness.

**Conclusion:** This study underscores the importance of focusing on perineal health through effective self-care practices, given their potential to improve postpartum recovery, alleviate discomfort, and prevent potential long-term complications. In particular, the research highlights a worrying trend in awareness of postnatal self-care practices, indicating a significant proportion of participants with limited understanding. This emphasizes the pressing need for targeted interventions and educational initiatives to cultivate improved self-care practices among first-time mothers, which ultimately leads to better perineal health outcomes.

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### Introduction

Primiparous women, those experiencing their first childbirth, undergo a multitude of physical and emotional changes during this phase. Maintaining proper perineal hygiene is crucial for your general well-being among their various postpartum challenges. (Brown et al., 2020). The perineum, the area between the vagina and the anus, is particularly vulnerable to discomfort and infections due to the strains of childbirth. Therefore, increasing awareness of perineal hygiene practices is essential to ensure

the health and comfort of primiparous women during their postpartum journey (Smith et al., 2021).

Primiparous women often face a myriad of physical changes in their bodies. The delivery process places immense stress on the perineal region, leading to possible tears, swelling, and discomfort. The vulnerability to infections and discomfort requires a comprehensive understanding of the proper hygiene practices that can prevent complications. Educating primiparous women about effective perineal

hygiene measures can alleviate discomfort and reduce the likelihood of postpartum infections (Williams, L. E. et al., 2020). Despite the critical importance of perineal hygiene, primiparous women often lack adequate awareness of hygiene practices during the postpartum period. This knowledge gap can arise from cultural taboos, lack of open discussions, or inadequate healthcare care guidance. To bridge this gap, healthcare providers play an essential role in the dissemination of accurate and accessible information. By providing evidence-based guidance on perineal care, healthcare professionals can empower primiparous women to adopt effective hygiene practices and make informed decisions about their postpartum well-being (Jones AA et al., 2019) (Foureur M. et al., 2017) & (WHO 2013). Technology offers a promising avenue to enhance awareness of perineal hygiene among primiparous women in an era dominated by digital communication and information sharing. Online platforms, mobile applications, and social media channels present innovative ways to reach a wider audience with personalized and culturally sensitive information. Using these platforms, healthcare organizations and professionals can create interactive educational resources, share success stories, and facilitate discussions, fostering a supportive community that encourages positive perineal hygiene practices among primiparous women (Miller, Ed. D., Anderson, S. J., & Clark, LA 2022). This article aims to explore the existing literature on perineal hygiene among primiparous women, focusing on the challenges they face and the interventions that have been proposed to improve awareness and education in this regard. By synthesizing and analyzing available research, our objective is to contribute to a deeper understanding of the importance of perineal hygiene for primiparous women and to identify effective approaches to promote better hygiene practices.

#### **METHOD**

**Research design:** This study will employ a descriptive-analytic design to assess the level of awareness of perineal hygiene among primiparous women. The study was carried out at the Maternity Teaching Hospital, the largest and only government-run maternity hospital in Sulaimani City.

**Sampling:** The target population for this study will be first-time mothers (first-time mothers) who have recently delivered. A prospective sampling technique was used to recruit participants from postnatal units of maternal teaching hospitals, from selected hospitals or healthcare centers. Inclusion criteria will include women under 18 years of age or older, vaginal delivery, the ability to comprehend the local language, and the willingness to participate voluntarily. Participants with any perineal or postpartum complications were excluded.

**Data Collection:** Data were collected using a structured questionnaire developed based on validated scales and previous research on awareness of perineal hygiene. The questionnaire will include items related to knowledge of perineal hygiene practices toward perineal hygiene and self-reported hygiene behaviors. The study was carried out from September 2022 to February 20, 2023.

**Data Analysis:** Data were analyzed using appropriate statistical methods, such as descriptive statistics, t-tests, or chi-square tests. The significance level was established at  $p < 0.05$ .

**Limitations:** Generalizability could be limited due to the specific nature of the sample (primiparous women) and the selected healthcare facilities. b. Self-reported data may be subject to bias, including bias of social desirability bias. c. Short-term follow-up may not capture long-term changes in perineal hygiene practices.

**Implications:** The findings of this study will contribute to the existing literature on perineal hygiene among primiparous women and can inform healthcare professionals about effective strategies to improve awareness of perineal hygiene. Improved perineal hygiene practices can reduce postpartum complications and overall better postnatal care for primiparous women.

#### **RESULTS**

As shown in Table (1), the predominant segment of the sample population (64.2%) fell within the age bracket of 18 to 25 years. A substantial part, representing 30.8% of all respondents, was 25 or older, while a smaller fraction (5%) was under 18. Regarding educational attainment, the distribution indicated that 44.2% of the participants had completed secondary school, 40.8% had

institutional or college degrees, 11.2% had achieved a primary school education, and 1.9% were illiterate or had proficiency in reading and writing. In the occupation domain, a significant majority (98.1%) identified themselves as

housewives, with a minor segment (1.9%) employed in government positions. Geographical location revealed that 75.0% of the respondents resided in urban areas, 22.7% in suburban regions, and 2.3% in rural settings.

**Figure 1 : Levels of perineal hygiene awareness**

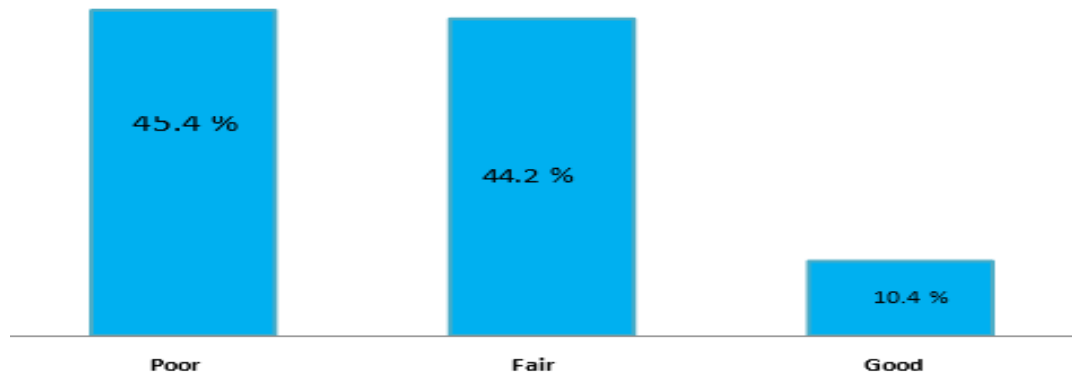


Table 1 The study aimed to assess the awareness of perineal hygiene among participants based on various practices related to perianal care. A total of 520 participants were included in the study, and their responses were evaluated to determine their level of awareness of perineal hygiene. Most of the participants (76.54%) did not wear breathable clothing, such as cotton and disposable shorts, resulting in a poor score for this aspect of perineal hygiene. Similarly, a significant proportion (75.38%) did not position the sanitary pads from front to back, contributing to another poor score. Furthermore, a large number of participants (94.62%) did not let their perineum air dry, resulting in a poor score for this practice as well. On the other hand, good scores were observed in areas such as hand hygiene (66.15% practiced thoroughly washing hands before and after perianal care) and regular bathing (73.85% took regular baths or showers and washed the area with soap and water). In general, most of the participants demonstrated

poor awareness of perineal hygiene (mode: poor). The scale used to classify awareness levels indicated that most of the participants fell into the poor awareness category (score of 0 – 258). Only a few participants showed fair awareness (score 260 – 389), and a smaller proportion showed good awareness (score <75%) with a total score of 390-520. The data provided indicate the distribution of levels in a particular category. Interestingly, most instances fall under the "poor" and "fair" categories, collectively accounting for 89.6%. This suggests that there may be room for improvement in this category overall. However, the "Good" level represents a smaller proportion at 10.4%, implying that there are still a relatively small number of instances meeting a higher standard. It would be beneficial to delve deeper into the factors contributing to these levels and consider strategies to enhance the distribution towards the "Good" category, which might lead to more favorable outcomes in this context.

**Table 1 Sociodemographic characteristics of the study sample**

	Groups	F	%
Age (Years)	< 18	26	5
	18 – 25	334	64.2
	> 25	160	30.8
	Mean ± S.D	23.13± 3.47	
Level Education	Illiterate	10	1.9
	Primary School Graduated	68	13.1
	Secondary School	230	44.2
	Graduated Institution and College	212	40.8
Occupation	Graduated Employed	10	1.9
	Housewife	510	98.1
	Residence	Urban	390
Suburban		118	22.7
Rural		12	2.3
Total		520	100

**Table 2: awareness of the study sample of perineal hygiene.**

Perineal Hygiene		F	%	Total Score	Result
Hand Hygiene: Wash your hands thoroughly before and after perianal care, such as using the bathroom or changing a sanitary pad.	No	88	33.85	172	Fair
	Yes	172	66.15		
Perineal Cleaning: Clean the perineum from front to back to prevent the spread of bacteria from the anus to the vagina	No	156	60.00	104	Poor
	Yes	104	40.00		
Use plain warm water to gently clean the area, pouring water from front to back.	No	42	16.15	218	Good
	Yes	218	83.85		
Regular Bathing: Take regular baths or showers, and while bathing, gently wash the area with soap and water, paying attention to any stitches if present.	No	68	26.15	192	Fair
	Yes	192	73.85		
Sanitary Pad Placement: When using sanitary pads, position them from front to back to protect the inner surfaces from potential contamination.	No	196	75.38	64	Poor
	Yes	64	24.62		
Drying After Cleaning: Dry the perineal area gently with toilet paper or a towel.	No	28	10.77	232	Good
	Yes	232	89.23		
Change in Sanitary Pads: Change sanitary pads at least 3 to 4 times a day to maintain cleanliness and hygiene.	No	167	64.23	93	Poor
	Yes	93	35.77		
Air drying: Let the perineum air dry after cleaning to aid in the healing process. For this, lie on your bed without underwear for 10 minutes once or twice a day.	No	246	94.62	14	Poor
	Yes	14	5.38		
Stitch Care: Avoid removing the stitches on your own.	No	37	14.23	223	Good
	Yes	223	85.77		
If you notice stitches on your sanitary pad, do not panic; it is a normal part of the healing process.	No	213	81.92	47	Poor
	Yes	47	18.08		
	No	253	97.31		

Exposing the stitches to fresh air can help the healing process. Lying on your bed without underwear for 10 minutes once or twice a day may be helpful	Yes	7	2.69		
Sitz Bath: A warm bath daily can provide soothing relief and promote healing.	No	9	3.46	251	Good
	Yes	251	96.54		
Ice-Cool Packs: In the first 2-3 days, use ice-cool packs to reduce swelling and discomfort. Apply the pack for up to half an hour, allowing for at least an hour of rest between applications. Ensure that the ice-cold pack does not directly contact your skin; place a towel between the pack and your skin to prevent skin burns.	No	247	95.00	13	Poor
	Yes	13	5.00		
Breathable clothing: Opt for breathable materials such as cotton and disposable briefs, and avoid wearing tight clothing that can cause discomfort.	No	199	76.54	61	Poor
	Yes	61	23.46		
Abstain from Sexual Intercourse: Refrain from sexual intercourse during the first six weeks.	No	46	17.69	214	Good
	Yes	214	82.31		
Total		520	100	Mode	Poor

*Note/sample (520), Total score (520), No (0), Yes (1) The awareness scale was classified as good awareness (75%) with a score (of 390-520), fair awareness (50% - < 75%) with a score (of 260 - 389) and poor practice (<50%) with score (0 - 258)*

## Discussion

The findings presented in this study shed light on the state of awareness of perineal hygiene among primiparous women, offering valuable information on specific practices and areas of concern. The results highlight areas of improvement and possible interventions to improve awareness of perineal hygiene, which ultimately contributes to improved postpartum health outcomes.

### Hygiene Practices and Poor Awareness:

The observation that a significant majority of participants (76.54%) did not wear breathable clothing such as cotton and disposable briefs is concerning. Breathable fabrics are crucial to maintaining proper perineal health by minimizing moisture and promoting airflow, thus preventing discomfort and potential infections. This finding underscores the need to educate people about choosing clothing materials that support perineal health.

This discovery is consistent with previous research, showing that over 50% of primiparous mothers did not follow practices such as changing pads more than once a day, maintaining proper hand hygiene, and cleaning the perineum from front to back. These behaviors are known to affect the healing process of episiotomies, as indicated in studies conducted by Ettore et al. (2016) and Gamel W. et al. (2020).

Furthermore, our findings are consistent with other studies that demonstrate a lower percentage of primiparous women who use fresh air for perineal drying, a practice recognized to accelerate the healing of episiotomies, as observed in research conducted by

Darulis N. et al. (2021). However, it is important to note a discrepancy with the rates reported by Novelia S. et al. (2021), in which more than half of the mothers in their study adhered to proper practices, including the use of soap and water for proper care of the perineum.

Similarly, the substantial proportion (75.38%) of participants who did not position the sanitary pads from front to back indicates a lack of understanding of basic hygiene principles. The incorrect placement of the sanitary pads can lead to contamination and potential infections. This highlights the importance of targeted education to address misconceptions and provide clear instructions for the use of sanitary pads. Another significant concern is the large number of participants (94.62%) who did not allow their perineum to air dry. Allowing the perineum to air dry can help prevent moisture-related issues and promote healing. The high prevalence of this practice suggests the need for comprehensive education on the benefits of air drying and its role in maintaining perineal health.

A separate investigation agrees with our findings in Pune city, revealing that over 75% of postpartum women used warm water, cleaned the perineum from front to back, and used toilet paper to dry their stitches. This alignment is evidenced by the study conducted by Gadade et al. (2018). Furthermore, an additional study by Timilsina S. & Dhakal, R. (2015) also mirrors the results of our study, in which a significant proportion of participants properly cleaned and dried their stitches and perineum.

The results of a different investigation conducted by Oleiwi S. (2010) indicated that the use of ice packs was performed correctly. Furthermore, a notable aspect within this category is their awareness of abstaining from sexual intercourse during the initial six weeks to mitigate perianal discomfort and pain, a practice influenced by religious and cultural norms. The results of another study conducted by Adanikin et al. (2015) align with our discovery, affirming that approximately two-thirds of the mothers refrained from participating in sexual activity within the initial two months post-delivery.

#### **Positive Practices:**

On a positive note, the findings indicate good scores in certain areas. Hand hygiene practices were relatively favorable, with 66.15% of participants washing their hands before and after perianal care. This is an essential practice to prevent the spread of germs and reduce the risk of infections.

The report that 73.85% of the participants take regular baths or showers and wash the perineal area with soap and water is encouraging. Regular bathing is a fundamental hygiene practice that contributes to general perineal health.

As indicated by the provided data, the distribution of levels within a particular category offers valuable information on the prevailing conditions and potential areas of concern. In this case, the analysis reveals a distribution between three levels: 'poor,' 'fair,' and 'good.' The findings prompt us to consider the implications of this distribution, explore possible contributing factors, and discuss strategies to promote improvement in the given category.

#### **Distribution Analysis and Implications**

The data demonstrate that most instances, comprising 89.6%, fall within the "poor" and "fair" levels. This suggests that overall performance or compliance may be suboptimal. A significant proportion at these lower levels could indicate challenges, gaps in understanding, or areas where current practices do not meet the desired standards. This finding was consistent with a study by (Mohammed, A.K. & Mohammed, A.K. M. A. K. 2023).

On the contrary, the "Good" level constitutes a smaller fraction, comprising 10.4% of the instances. This implies that some cases meet higher standards but remain relatively rare. This revelation prompts inquiries into the underlying factors contributing to this elevated "Good" level. It raises considerations regarding the potential existence of certain exemplary practices or conducive conditions that might warrant broader encouragement. It is important to note that our findings diverge from those of a Turkish study conducted by Karaçam Z. et al. (2013). In their

research, which bore similarities to ours, involving 396 primiparous participants, 223 of whom had undergone episiotomies, it was reported that less than half of the women who underwent episiotomies faced challenges in self-care and wound healing. Furthermore, the percentage of individuals who showed commendable self-care practices was significantly lower in that study cohort.

#### **Implications for Healthcare Professionals:**

These findings emphasize the role of healthcare providers in raising awareness of perineal hygiene among primiparous women. Healthcare professionals can play an essential role in providing accurate information and practical tips and dispelling myths related to perineal hygiene. Personalized guidance during prenatal and postpartum care can empower women to make informed choices about their perineal health.

**Conclusions** Increasing awareness of perineal hygiene among primiparous women is imperative to impact their postpartum journey positively. Recognizing their challenges, disseminating accurate information, and utilizing technology-driven interventions, healthcare providers and organizations can empower these women to prioritize their perineal health, leading to better well-being and a smoother transition to motherhood.

#### **CONCLUSIONS**

The improvement of awareness of perineal hygiene among primiparous women is imperative to positively impact their postpartum journey. Recognizing their challenges, disseminating accurate information, and utilizing technology-driven interventions, healthcare providers and organizations can empower these women to prioritize their perineal health, leading to better well-being and a smoother transition to motherhood.

#### **DECLARATION SECTION**

##### **Ethical Considerations**

This study adhered to ethical guidelines, and informed consent was obtained from all participants. Confidentiality and anonymity will be maintained throughout the study. Participants were informed of their right to withdraw at any stage without facing any consequences.

##### **Conflict of interest**

None to be declared.

##### **Funding:**

None to be declared.

##### **Data availability:**

Data are available by contacting the corresponding author by email.

**Authors contribution**

All authors have read and approved the manuscript.

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