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POSTPARTUM HEALING: EVALUATING THE EFFICACY OF SITZ BATH IN ALLEVIATING EPISIOTOMY PAIN AMONG NEW MOTHERS

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Abstract

Childbirth, hailed as a divine honor bestowed upon women, marks a profound transition accompanied by physical and psychological changes during the postnatal period, known as puerperium. Among the challenges faced by postpartum women, episiotomy—a surgical incision to facilitate childbirth—poses a significant concern for healthcare providers. Ensuring comfort, pain relief, and infection prevention are paramount during this critical phase. This quasi-experimental study aimed to assess the effectiveness of sitz bath—a therapeutic technique involving immersion of the perineal area—in managing episiotomy wound pain among postnatal mothers. 60 participants meeting inclusion criteria were divided into experimental (n=30) and control (n=30) groups via non-probability purposive sampling. Pre-test pain levels were measured using visual analogue scales for both groups. Subsequently, sitz bath education was administered to the experimental group, with pre and post-test pain assessments conducted for both cohorts. Results revealed that the experimental group exhibited a significant decrease in pain levels post-intervention, while the control group showed a comparatively modest reduction. Moreover, a closer examination revealed a stronger impact of sitz bath on pain reduction in the experimental group, with a paired mean value difference having high statistical significance (*p<0.001). Demographic variables such as age and pregnancy status exhibited significant associations with post-test pain levels in the experimental group. In conclusion, the findings underscore the efficacy of sitz bath in mitigating episiotomy-related pain among postnatal mothers. This study not only highlights the therapeutic potential of sitz bath but also emphasizes the importance of tailored interventions in promoting postpartum healing and well-being.

Keywords: Postpartum, Episiotomy, Sitz bath, Pain relief, Postnatal care.

INTRODUCTION

Childbirth, a revered act bestowed upon women, marks a transformative period known as puerperium, during which significant physical and psychological changes occur. However, this journey was not without its challenges, particularly when postnatal women encounter the discomfort of episiotomy wounds following a normal delivery. At this juncture, the primary concern of healthcare professionals is to ensure the woman's comfort, alleviate her pain, and mitigate the risk of infection. Healing the episiotomy wound effectively emerges as a paramount concern in postpartum care. Employing a

structured interview methodology, data collection aimed to illuminate the spectrum of experiences surrounding perineal pain in the postpartum period. The findings of the study revealed a striking prevalence of perineal pain, with a staggering 90% of women reporting its presence. Among them, 37% described experiencing moderate to severe pain, which significantly impeded their recovery process. Notably, activities integral to daily life, such as walking and sitting, were particularly challenging for a substantial portion of women, with 33% and 39% respectively citing discomfort. Moreover, an alarming 45% reported that perineal pain disrupted their sleep patterns, further exacerbating their postnatal recovery journey. In light of these findings, the researchers underscored the critical importance of proactive care by midwives in offering a diverse array of effective pain relief options to women navigating the complexities of postpartum recovery. By addressing perineal pain comprehensively and compassionately, healthcare professionals can play a pivotal role in facilitating the holistic well-being of postnatal women during this transformative phase of their lives.

Study needs

The practice of episiotomy, once ubiquitous in obstetrics, has undergone significant scrutiny in recent decades. Historically, episiotomy rates were alarmingly high, with statistics indicating its performance in over 60% of vaginal deliveries in the United States by 1979, soaring to a staggering 80% among nulliparous women. However, as medical understanding evolved, the routine application of episiotomy came under increasing scrutiny. In response to mounting concerns, there has been a notable shift in practice. By 2004, the episiotomy rate had markedly decreased to 24.5% across all vaginal births. This decline reflects a growing recognition of the need to reassess the benefits and risks associated with episiotomy. Proponents of episiotomy have historically argued that it reduces fetal trauma, diminishes the incidence of severe perineal tears, and safeguards maternal soft tissues. However, contemporary discourse emphasizes the importance of critically evaluating these claims in light of current evidence and best practices in obstetric care. The WHO recommends a 10% episiotomy rate for normal deliveries. However, episiotomy often leads to more perineal pain and dyspareunia postpartum, impacting basic activities like walking, sitting, and passing urine. In Australia (2005), the episiotomy rate was 15%, with 55% experiencing no or small tears. Compared to the US (35%), Australia fares relatively well. In India, the overall episiotomy rate was 40.6%, with midwives performing fewer (21.4%) than faculty (33.3%) and private providers. In cases of difficult labor, approximately 88% of women undergo episiotomy. Midwives play a crucial role in perineal wound care post-childbirth, overseeing various practices in this domain. However, some practices may not necessarily contribute to optimal wound healing. It's imperative for midwives to recognize the significance of their care interventions, acknowledging both the positive and negative impacts on wound healing. Balancing the provision of effective pain relief with strategies that promote wound healing is essential in midwifery practice. As a midwife, it's integral to provide comprehensive support to expectant mothers, addressing their physical, emotional, and psychological needs while respecting their cultural beliefs. Offering services aimed at reducing pain and stress was essential for aiding mothers in coping with the challenges they may face during pregnancy. Pregnancy often brings about various sources of discomfort, making effective pain management crucial. Research underscores the significant toll pregnancy-related pain and stress can take on expectant mothers. These challenges are associated with a range of adverse outcomes, including elevated blood pressure, fluctuations in weight, sleep disturbances, fatigue, and diminished coping abilities. Thus, it's imperative for midwives to prioritize strategies that alleviate pain and stress, thereby promoting the well-being of both mother and child throughout the pregnancy journey.

METHODOLOGY

Research design:

The research design used for this study is Quasi experimental research design, such as pretest and post test with a comparison group design. A quantitative approach was adopted with quasi experimental control group pre-test and post-test design. The independent variable was Sitz bath and the dependent variables were Episiotomy pain level. The study population included who had normal vaginal delivery with episiotomy. The sample size consisted of 60 mothers (30 in study group and 30 in control group), who fulfilled the inclusion and exclusion criteria, and were selected by non-probability purposive sampling technique. The study included the mothers who underwent normal vaginal delivery with episiotomy, who are willing to participate and who were available at the time of the study, and who are admitted for 3 post natal days and the study excluded mothers who were perineal infection. The tool consisted of two parts i.e., data collection tool and intervention tool. Part A - The data collection tool included two sections. Section A consisted of demographic variables and Section B consisted of pain level assessment using visual analogue scale.

Data collection

On the first day of data collection, the investigator introduced herself and explained the nature and purpose of the study to the sitz bath for episiotomy mothers. Consent was obtained to participate in the study and confidentiality of their responses was assured. As the part of the study, a pretest was conducted to the group of episiotomy mothers here one group used sitz bath that was experimental group

and another group was an control group it is not used sitz bath. After pretest, on the 14th day, a post test was conducted with the copy of same structured visual analog scale was used in the same manner of pretest was conducted. The same procedure was followed for the data collection for the rest of the samples subsequently.

RESULTS AND DISCUSSION

Section A: Distribution of Demographic variables

Age Distribution:

Experimental Group (n=30):

- 53% of participants were aged between 20 to 30 years.
- 40% were aged between 31 to 40 years.
- 7% were aged between 41 to 50 years.

Control Group (n=30):

- 73% of participants were aged between 20 to 30 years.
- 27% were aged between 31 to 40 years.

Religious Distribution:

Experimental Group (n=30):

- 47% of participants identified as Hindu.
- 33% identified as Christian.
- 20% identified as Muslim.

Control Group (n=30):

- 47% of participants identified as Hindu.
- 40% identified as Christian.
- 13% identified as Muslim.

Section B: Comparison between pretest and posttest between experimental and control group

Pre-test Measurements:

Control Group:

- Mean: 6
- Standard Deviation: 0.75
- Standard Error of the Mean: 0.18

Experimental Group:

- Mean: 5.40
- Standard Deviation: 0.83
- Standard Error of the Mean: 0.19

Post-test Measurements:

Control Group:

- Mean: 5.53
- Standard Deviation: 0.51640
- Standard Error of the Mean: 0.14

Experimental Group:

- Mean: 3.8667
- Standard Deviation: 0.84
- Standard Error of the Mean: 0.19

DISCUSSION

The age distribution among participants in both the experimental and control groups provides insights into the demographics of the study population. In both groups, the majority of participants belonged to the younger age brackets, with a significant proportion falling between 20 to 30 years old. This demographic trend aligns with the reproductive age group, which is typically more prone to conditions requiring intervention or treatment, such as those addressed in the study. Furthermore, the distribution of religious affiliations among participants demonstrates the diversity within the study population. Hinduism and Christianity are the predominant religions represented in both groups, while the Muslim community is also represented, albeit to a lesser extent. Understanding the religious background of participants is crucial for providing culturally sensitive care and ensuring that interventions are tailored to the beliefs and practices of each individual. These demographic findings underscore the importance of considering factors such as age and religious affiliation when designing and implementing interventions or treatments. Tailoring healthcare approaches to accommodate the diverse needs and backgrounds of patients can enhance the effectiveness of interventions and improve overall patient satisfaction and outcomes. Additionally, acknowledging and respecting cultural and religious beliefs fosters trust and rapport between healthcare providers and patients, ultimately promoting better health-seeking behaviors and adherence to treatment plans. The pre-test measurements in both the control and experimental groups provide baseline data for assessing the initial levels of the variable under study. In the control group, the mean pre-test score was 6, indicating the average value of the variable before any intervention. The standard deviation of 0.75 reflects the variability or spread of individual scores around the mean, while the standard error of the mean (0.18) estimates the precision of the sample mean as an estimate of the population mean. Similarly, in the experimental group, the pre-test mean score was slightly lower at 5.40, with a slightly higher standard deviation of 0.84 and standard error of the mean of 0.19. These values provide a comparative understanding of the initial state of the variable in both groups before any intervention is applied. Following the intervention, post-test measurements were conducted to assess any changes in the variable of interest. In the control group, the mean post-test score slightly decreased to 5.53, accompanied by a decrease in both standard deviation (0.51640) and standard error of the mean (0.14). This suggests a subtle change in the variable after the observation period, although the magnitude of this change is relatively small.

The pre-test measurements reveal initial pain levels among participants in both the control and experimental groups. The control group had a higher mean pain score of 6, compared to the experimental group's mean score of 5.40. Additionally, the standard deviation and standard error of the mean provide insights into the variability and precision of the measurements within each group. The calculated 't' value of 8.99 at degrees of freedom (df) 16, with a significance level of $p < 0.001$, underscores the statistical significance of the observed difference in pain reduction between the control and experimental groups. This suggests that the intervention,

likely sitz bath therapy, had a substantial and beneficial impact on reducing pain levels among participants in the experimental group compared to the control group.

Table 1: Paired Samples Test for experimental group.

Description	Paired Differences					t	Df
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower	Upper		
Pre - Post	2.5333	0.84	0.19	2.1218	2.9449	8.99*	16

***p<0.001**

Table: 2 Paired Samples Test for control group.

Description	Paired Differences					t	df
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
				Lower	Upper		
Pre - Post	0.56	0.61	0.14	0.190	0.85	4.5*	16

The control group's 't' value of 4.5 indicates a significant reduction in pain levels post-intervention, yet it is notably lower than the experimental group's 't' value of 8.99.

This disparity in 't' values suggests that the sitz bath education intervention was more effective in decreasing episiotomy wound pain compared to standard postnatal care alone. The larger effect size observed in the experimental group underscores the importance and efficacy of implementing tailored interventions to address specific postpartum challenges.

Section C: Association of Demographic variables with Experimental and control group pain variables

In the experimental group, demographic variables such as religion, type of family, education, occupation, family income, source of information, residential area, and nutritional status did not show any significant association with the level of pain experienced by postnatal mothers with episiotomy wounds. However, age and pregnancy status were found to be significantly associated with pain levels, indicating their potential influence on postpartum pain perception. Conversely, in the control group, none of the demographic variables—including age, pregnancy status, religion, type of family, education, occupation, family income, source of information, residential area, and nutritional status—showed a significant association with pain levels. This suggests that no single demographic factor independently contributed to the variation in pain experienced among postnatal mothers receiving routine postnatal care. The results highlight the effectiveness of sitz bath education in reducing episiotomy wound pain, particularly when compared to the pain experienced by mothers receiving standard postnatal care. The absence of significant associations between pain levels and various demographic factors underscores the consistent efficacy of sitz bath education in alleviating postpartum pain, regardless of individual characteristics.

CONCLUSION

The present study aimed to evaluate the effectiveness of Sitz bath therapy among postnatal mothers who underwent episiotomy. The results demonstrate a significant decrease in pain levels among mothers in the experimental group compared to those in the control group. This underscores the efficacy of Sitz bath therapy as an effective method for alleviating postpartum pain associated with episiotomy wounds. These findings highlight the importance of incorporating Sitz bath education and therapy into postnatal care protocols to enhance the comfort and well-being of mothers recovering from childbirth.

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