

# “Nurturing After Birth Obstetric Nurses as the First Line of Defense Against Sepsis”

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**DOI: 10.63001/tbs.2025.v20.i02.S2.pp1060-1062**

## KEYWORDS

Obstetric nurse, self-care practices, puerperal sepsis, postnatal mothers, well-being, nurse-led intervention, Health Belief Model, quasi-experimental study.

**Received on:**

**25-06-2025**

**Accepted on:**

**19-07-2025**

**Published on:**

**23-08-2025**

## ABSTRACT

Puerperal sepsis remains a major cause of maternal morbidity and mortality in low- and middle-income countries like India. Gaps in self-care and awareness among postnatal mothers increase this risk. Obstetric nurses play a key role in guiding mothers through structured education during the vulnerable postnatal period. The main objective of the study was to determine the effectiveness of an obstetric nurse-guided intervention on self-care practices for the prevention of puerperal sepsis and the level of well-being among postnatal mothers.

### METHODS AND MATERIALS:

A quasi-experimental design was adopted among 60 postnatal mothers selected by purposive sampling and assigned to experimental (n=30) and control (n=30) groups. The experimental group received a four-week nurse-guided intervention on self-care, while the control group received routine care. Data were collected using validated tools (WHO-5 Well-Being Index, Modified Self-Care Questionnaire) and analysed with descriptive and inferential statistics.

### RESULT & DISCUSSION:

Pre-test showed average self-care (86.7% experimental, 90% control) and poor well-being (60%, 53.3%). Post-test, good self-care (66.7% vs. 23.3%) and well-being (73.3% vs. 20%) improved in the experimental group (p<0.001). These results indicate that both demographic and clinical factors strongly influence postnatal self-care and well-being. Similar findings by Masih and Balusamy (2023) and McCauley et al. (2021) highlight the role of socioeconomic and contextual determinants in shaping maternal outcomes, reinforcing the need for tailored, context-specific postpartum interventions.

### CONCLUSION:

Nurse-guided intervention improved postnatal self-care and well-being, reducing infection risk and supporting better maternal outcomes through structured care.

## INTRODUCTION

One of the main causes of maternal morbidity and mortality in low-income nations is puerperal sepsis, which may have an impact on sustainable development objectives. Ethiopian research on maternal-reported self-care behaviours for puerperal sepsis was lacking, despite the fact that it is a preventable issue through maternal self-care practices. Reducing the burden of infections as a cause of morbidity and mortality can be achieved by individual knowledge, efficient prevention, early identification, and suitable treatment for sepsis. Additionally, preventing postpartum puerperal sepsis in women requires education and awareness on the prevention of puerperal sepsis. Maternal health during the postnatal period is significantly influenced by maternal self-care habits in addition to the care given by healthcare professionals. Maternal self-care is the capacity of the mother to look after her bodily needs, including good diet, self-care when needed, cleanliness, and beauty. Postpartum well-being refers to the holistic health of a mother after childbirth, encompassing physical, emotional, and social aspects. Physically, mothers require adequate rest, nutrition, and recovery support to heal from labor and delivery. Emotionally, they may face mood fluctuations due to hormonal changes, and without proper care, can be at risk of postpartum depression or anxiety. Social well-being involves having a strong support system, including family, healthcare providers, and community resources.

### MATERIALS AND METHODS:

The Quantitative Research approach. The research design selected for the study was a Quasi-experimental study design to

assess the effectiveness of the Obstetric nurse-guided intervention on self-care practices for the prevention of puerperal sepsis and the level of well-being among Postnatal mothers conducted at the institute of obstetrics and Gynecology (IOG). In the present study, using a non-probability purposive sampling technique, the researcher adopted the sample consists of 60 Postnatal mothers (Exp.group-30, Cont.group-30). The tools include Socio-Demographic Data, WHO-5 Level of well-being scale and modified Self-care practices for prevention of puerperal sepsis questionnaire.

### METHODOLOGY:

A quasi-experimental, non-randomised control group design was adopted. Sixty postnatal mothers were selected using purposive sampling and equally assigned to experimental (n=30) and control (n=30) groups. The experimental group received a structured obstetric nurse-guided intervention over four weeks, which included education and counselling on hygiene, handwashing, perineal care, nutrition, wound care, rest, and emotional well-being. The control group received standard postnatal care. Data were collected using a validated and reliable tool comprising demographic and obstetrical variables, the WHO-5 Well-Being Index, and the Modified Self-Care Practices Questionnaire. Data were analysed using descriptive and inferential statistics such as paired t-tests, Chi-square tests, and McNemar's test.

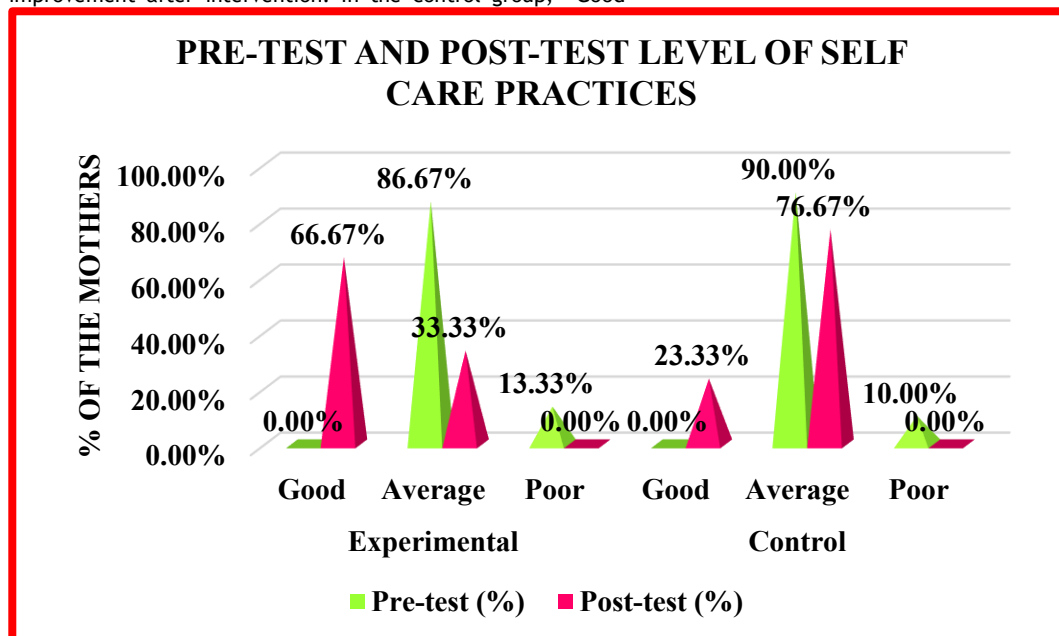
### RESULT

**TABLE1: COMPARE THE PRE-TEST AND POST-TEST LEVELS OF SELF-CARE PRACTICES FOR PREVENTION OF PUERPERAL SEPSIS BEING AMONG THE EXPERIMENTAL AND CONTROL GROUPS OF POSTNATAL MOTHERS.**

Group	Level of Self-Care Practices	Pre-test (n)	Pre-test (%)	Post-test (n)	Post-test (%)	McNemar's Test
Experimental	Good	0	0.00%	20	66.67%	$\chi^2 = 22.04$ $p = 0.000^{***}$ (S)
	Average	26	86.67%	10	33.33%	
	Poor	4	13.33%	0	0.00%	
	Total	30	100%	30	100%	
Control	Good	0	0.00%	7	23.33%	$\chi^2 = 5.24$ $p = 0.023^*$ (S)
	Average	27	90.00%	23	76.67%	
	Poor	3	10.00%	0	0.00%	
	Total	30	100%	30	100%	

In the experimental group, "Good" self-care improved from 0% to 66.67% and "Poor" reduced to 0%, showing a significant improvement after intervention. In the control group, "Good"

rose to 23.33% and "Poor" fell to 0%, with a smaller but still significant change.



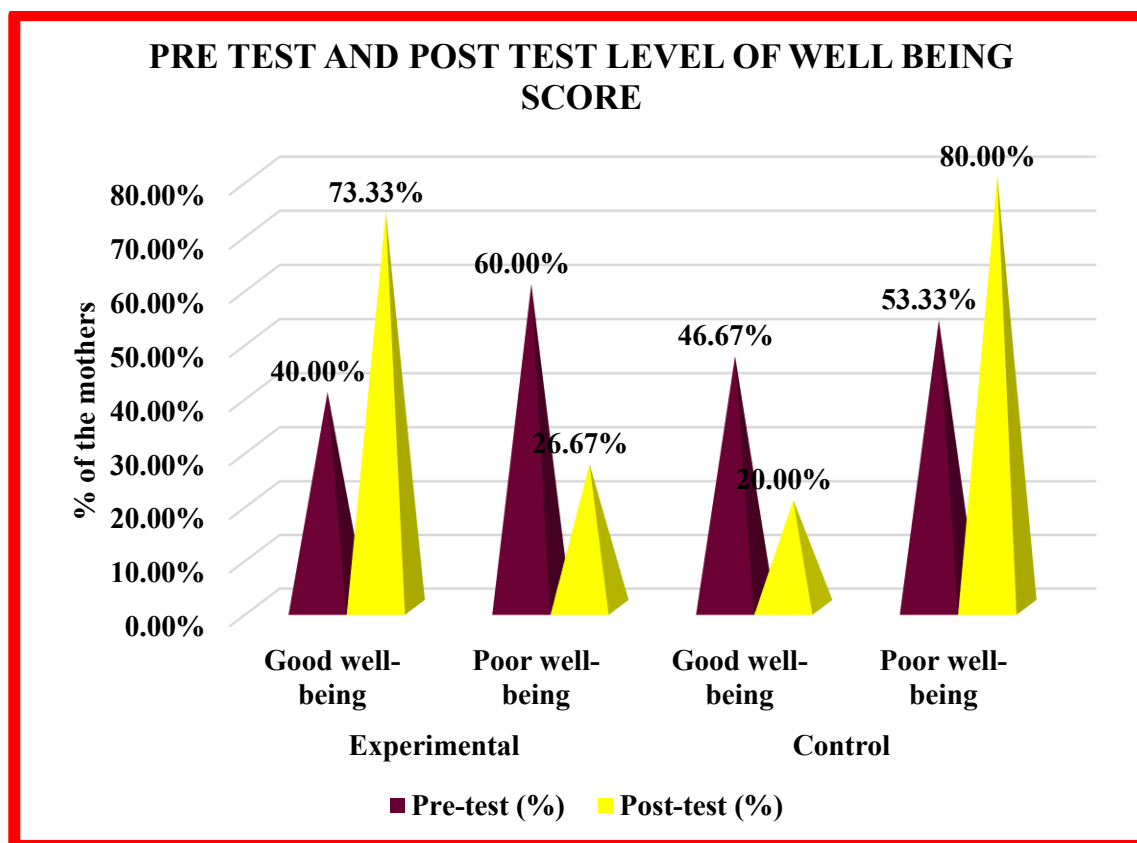
**TABLE2: COMPARE THE PRE-TEST AND POST-TEST LEVELS OF SELF-CARE PRACTICES FOR PREVENTION OF PUERPERAL SEPSIS AND THE LEVEL OF WELL-BEING AMONG THE EXPERIMENTAL AND CONTROL GROUPS OF POSTNATAL MOTHERS.**

	Well-being Score	Pre-test (n)	Pre-test (%)	Post-test (n)	Post-test (%)	McNemar's Test
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Experimental	Good well-being	12	40.00%	22	73.33%	$\chi^2 = 8.10$ $p = 0.004$ (S)
	Poor well-being	18	60.00%	8	26.67%	
	Total	30	100%	30	100%	
Control	Good well-being	14	46.67%	6	20.00%	$\chi^2 = 2.50$ $p = 0.114$ (NS)
	Poor well-being	16	53.33%	24	80.00%	
	Total	30	100%	30	100%	

In the experimental group, good well-being improved from 40% to 73.33% ( $\chi^2 = 8.10$ ,  $p = 0.004$ ), showing significant improvement.

The control group declined from 46.67% to 20% ( $p = 0.114$ ), indicating no significant change.



## DISCUSSION

Pre-test findings showed most mothers had only average self-care practices and poor well-being. After the nurse-guided intervention, the experimental group demonstrated significant improvements in both self-care (66.67% good) and well-being (73.33% good), while the control group showed minimal change. A moderate positive correlation ( $r = 0.54$ ) indicated that better self-care was linked with improved well-being. Demographic factors such as income, family type, residence, delivery mode, and breastfeeding influenced outcomes in the experimental group. These results are supported by earlier studies, confirming that structured nurse-led interventions and education effectively enhance maternal practices and postpartum health.

## CONCLUSION

In conclusion, the findings affirm the crucial role of obstetric nurses in delivering targeted education and support to enhance maternal outcomes. The integration of nurse-led interventions into routine postnatal care can lead to a reduction in postpartum complications such as puerperal sepsis and foster a more positive postnatal experience. Therefore, there is a need for health systems and policymakers to prioritize structured, evidence-based nurse-guided programs as a standard component of maternity services.

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