# Original Research

## A study to assess correlation between knowledge and practice regarding postnatal care among postnatal mothers

[1]Jaswinder Kaur, [2]Manoj Sharma

[1]Ph.D. Scholar, Desh Bhagat University, Mandi-Gobindgarh, Punjab, India;
[2]Desh Bhagat University, Mandi- Gobindgarh, Punjab, India

**ABSTRACT:**
The postnatal period, also known as the postpartum period, is a critical phase that begins immediately after childbirth and extends up to six weeks. This stage marks a time of significant physical, emotional, and psychological adjustments for the mother as her body gradually returns to its pre-pregnant state. It is also an essential period for establishing newborn care practices, breastfeeding, maternal-infant bonding, and adapting to new roles within the family. This time frame is essential for maintaining the mother's and the child's health and wellbeing. Methods:The research approach used in this study is a quantitative correlational design, A total of 538 postnatal mothers were selected through non-probability convenience sampling from the selected Hospitals in Punjab. Data was collected by using Self- structured knowledge questionnaire and observational checklist The results of Pearson's correlation reveal a moderate positive correlation between knowledge and practice during the pre-test ($r = 0.316$, $p = 0.000$), indicating that participants with higher baseline knowledge tended to demonstrate slightly better baseline practice levels. After the intervention, a stronger positive correlation was observed ($r = 0.457$, $p = 0.000$), suggesting that as knowledge increased, practice also improved significantly.
Similarly, for practice scores, the correlation coefficients during the pre-test ($r = 0.405$, $p = 0.000$) and post-test ($r = 0.451$, $p = 0.000$) demonstrate a statistically significant and moderate positive relationship between practice and knowledge among participants in both experimental groups.

**Corresponding Author:** Jaswinder Kaur, Ph.D. Scholar, Desh Bhagat University, Mandi-Gobindgarh, Punjab, India

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## INTRODUCTION

For both mothers and newborns, the postnatal period—the days and weeks after childbirth—is a crucial time .[1]The six-week period following delivery known as the "puerperium" is when the woman regain from the physical and psychological effects of gravity and labor, which start immediately after placenta is removed and continue through the major reproductive organs returning to their pre-gravid state. A comprehensive examination of the mother and child is conducted during the postnatal period, and the mother receives pertinent advice regarding the assessment of bubble -he. During this time, mothers may encounter various physiological changes—such as uterine involution, lactation, and hormonal fluctuations—as well as emotional experiences ranging from joy to anxiety or postpartum mood variations. Because of these complex transitions, the postnatal period is considered a vulnerable time in which mothers and newborns require continuous support, monitoring, and guidance from healthcare professionals.[2]The World Health Organization has recommended that women who give birth in a facility be monitored and cared for at least 24 hours after the vaginal delivery in order to provide mothers and newborns with this essential care Within 24 hours of the birth, the first postnatal check should take place for home births. Following the baby's birth, all mothers and newborns should have at least three more postnatal check-up on day three, between days seven and fourteen, and between weeks two and six[3]Maternal mortality and morbidity can be decreased with the use of postpartum education. Postpartum visits represent an important opportunity to share information on lowering the risk of complications following childbirth that may result in serious harm or even death.[4]

## NEED FOR THE STUDY

Pregnancy-related problems cause the deaths of 216 women worldwide for every 100,000 live births each year. By 2030, the worldwide maternal death rate should be reduced to 70 women per 100,000 live births, according to Sustainable Development Goal 3.1[5]In the 48 hours after giving birth, a significant number of maternal and infant deaths take place, and nearly all of these deaths (99%) take place in underdeveloped nations. The time of birth is the most dangerous, since it accounts for nearly 40% of maternal deaths (around 290,000 total) and 5.5 million stillbirths or neonatal deaths per year.[6] The neonatal mortality rate is 21 deaths for every 1000 live births. With 2.3 million infant deaths in 2022, the first month of life is the most precarious time for a child's survival.[7] The incidence rate per 1000 live births in India is 41. The SRS data from 2016 indicates that the neonatal death rate in the US is 24%, with rates varying from 14% in urban regions to 27% in rural areas.[8]

### Aim of the study

The aim of this study to assess the correlation between knowledge and practice regarding postnatal care among postnatal mothers.

### Objectives

1. To find the correlation between knowledge and practice regarding postnatal care among postnatal mothers.

### HYPOTHESES

The hypothesis would be tested at $p < 0.05$ level of significance.

$H_1$: There would be significant correlation between the knowledge and practice regarding postnatal care among postnatal mothers.

## RESULTS

**Table. 1 – Objective** - To find the correlation of knowledge regarding postnatal care among postnatal mothers in experimental groups 1 and experimental Group 2.

$H_3$: There would be significant correlation between the knowledge and practice regarding postnatal care among postnatal mothers.

| Person correlation | Knowledge | |
|---|---|---|
| | **Experimental group 1 and 2 Pre** | **Experimental group 1 and 2 Post** |
| r | 0.316 | 0.457 |
| p value | 0.000 | 0.000 |

**Table 2.– Objective** - To find the correlation of practice regarding postnatal care among postnatal mothers in experimental groups 1 and experimental Group 2.

| Person correlation | Practice | |
|---|---|---|
| | **Experimental group 1 and 2 Pre** | **Experimental group 1 and 2 Post** |
| r | 0.405 | 0.451 |
| p value | 0.000 | 0.000 |

## DELIMITATIONS

- The study was delimited to postnatal mothers who were being admitted in hospital for normal delivery.

### Methodology

To conduct the assessment, the investigator adopted a descriptive correlational research design. A self-structured knowledge questionnaire and a practice checklist were used as data collection instruments. The sample consisted of 538 participants selected through a non-probability convenience sampling technique. The tool was developed based on an extensive review of literature, followed by content validation and establishment of reliability. Content validity was ensured through item analysis by experts in Obstetric and Gynecological Nursing. The tool was reviewed by eight experts in the field of OBG and OBG Nursing, whose feedback and suggestions were incorporated. The structured interview schedule and practice checklist were finalized after reviewing the literature and obtaining expert validation. Pearson's correlation coefficient was used as the statistical test to determine the relationship between variables. The reliability of the tool was established using Cronbach's formula. The reliability of the tool, calculated using Cronbach's alpha, was found to be **$r = 0.834$** for the knowledge component and **$r = 0.72$** for the practice component. The collected data were analyzed using both descriptive and inferential statistics. Analysis was carried out in accordance with the objectives and hypotheses of the study. Frequency and percentage were employed to analyze the baseline demographic data. Frequency, percentage, mean, standard deviation, and mean percentage scores were used to analyze the knowledge and practice data. Pearson's correlation coefficient was applied to determine the relationship between the knowledge and practices of postnatal mothers.
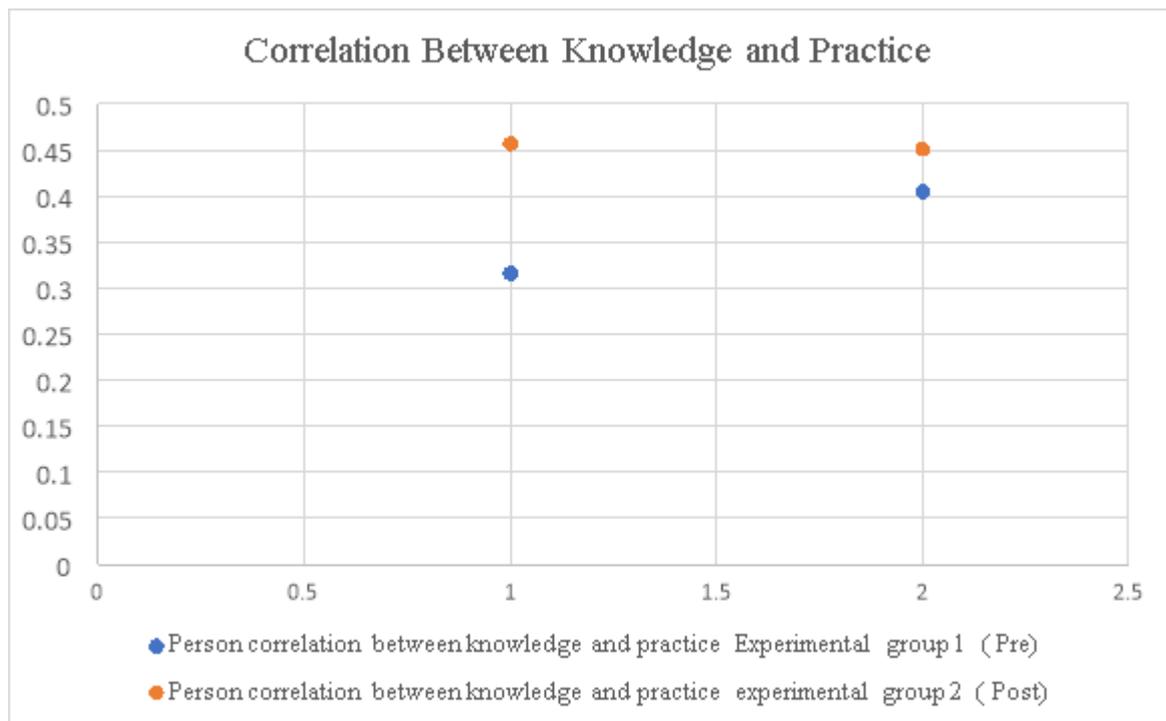
Correlation Between Knowledge and Practice

• Person correlation between knowledge and practice Experimental group 1 (Pre)
• Person correlation between knowledge and practice experimental group 2 (Post)

**Table No**. shows the correlation between knowledge and practice scores of postnatal mothers in Experimental Group 1 and Experimental Group 2 during pre-test and post-test phases.

The results **of** Pearson's correlation **r**eveal **a** moderate positive correlation between knowledge and practice during the pre-test ($r = 0.316$, $p = 0.000$), indicating that participants with higher baseline knowledge tended to demonstrate slightly better baseline practice levels. After the intervention, a stronger positive correlation was observed ($r = 0.457$, $p = 0.000$), suggesting that as knowledge increased, practice also improved significantly.

Similarly, for practice scores, the correlation coefficients during the pre-test ($r = 0.405$, $p = 0.000$) and post-test ($r = 0.451$, $p = 0.000$) demonstrate a statistically significant and moderate positive relationship between practice and knowledge among participants in both experimental groups.

**DISCCUSION**

Hence, a statistically significant positive correlation was found between knowledge and practice among postnatal mothers in both experimental groups during pre-test and post-test phases. The correlation became stronger after the intervention, indicating that enhanced knowledge levels were directly associated with improved postnatal care practices.

These findings confirm that improvements in knowledge levels were accompanied by corresponding improvements in postnatal care practices among mothers, both before and after the intervention, with the association strengthening after exposure to the educational programs

These findings are consistent with previous research. **Garg and Sharma (2017)** reported that video-assisted teaching effectively improved postnatal knowledge among primipara mothers, while **Kaur and Singh (2019)** observed similar improvements in awareness about newborn care. However, studies by **Patel and Desai (2016) and Chauhan and Kaur (2019)** emphasized that demonstration methods are particularly effective in reinforcing both theoretical knowledge and practical skills. The current study supports these observations, suggesting that while video-assisted teaching is effective for knowledge dissemination, demonstrations provide more engagement and retention. Similar results have been reported in previous studies. **Singh and Sharma (2021) and Khan and Ali (2022)** found that demonstration methods were more effective than video-assisted teaching in improving skill-based outcomes, while video-assisted methods primarily enhanced knowledge. These findings highlight the value of interactive teaching strategies in maternal education programs.

These findings align with prior research emphasizing the interdependence of knowledge and practice. **Bhardwaj and Singh (2017)** reported that improvements in maternal knowledge were directly associated with enhanced postnatal care practices. The strengthening of the correlation post-intervention in this study indicates that educational programs effectively bridge the gap between understanding and application, particularly when interactive methods such as demonstrations are employed.

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