# Evaluate The Effectiveness of a Structured Teaching Programme on Newborn Care in Terms of Knowledge and Practice Among Primigravida Mothers in Selected Hospitals, Haryana

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***Abstract*—Background and aim: Many first-time mothers are excited to be pregnant and expect their lives to change for the better after giving birth. Becoming a mother may, however, not be such a positive experience for all women. Evaluate the effectiveness of a structured teaching programme regarding care of newborns in terms of knowledge and practice of primigravida mothers. Materials and Methods: The study was quasi experimental research design. Sample size 100 primigravida mothers admitted in N.C. Jindal and Churamani Vishnu Devi Maternity Hospital, Haryana. Convenient sampling was used to collect data. The data were collected using a structured questionnaire and a checklist. The collected data were analysed by using descriptive and inferential statistics. Results: It is observed from the present study that the pre-test and post-test results of the mothers' knowledge regarding care of newborns. The mean as well as the standard deviation of the knowledge on care of newborns during the pre-test is 12.1 and 3.44, during the post-test, the mean is 21.2, and the standard deviation is 4.49. The difference in the mean knowledge score on care of newborns is statistically significant (<0.001). It is observed from the present study that pre-test and post-test results of the mothers' practice regarding care of newborns, the mean as well as standard deviation of the practice on care of newborns during the pre-test is 6.08 and 1.049, during the post-test, the mean is 9.76 and standard deviation 2.045. The difference in the mean practice score on care of newborns is statistically significant (<0.001). It is observed from the present study that there was no correlation between the knowledge and practice score of primigravida mothers regarding care of newborns, which was not significant at the p<0.05 level.**

***Index Terms*—Evaluate, Effectiveness, New-born care, Knowledge, Practice, Primigravida, Mothers**

## I. INTRODUCTION

The birth of the baby is one of the happiest and most emotional events that can occur in one's lifetime. After nine months of anticipation, the baby arrives with full excitement. The baby gives pleasure and excitement to the parents and family members. Many first-time mothers are excited to be pregnant and expect their life to change for the better by giving birth. Becoming a mother may, however, not be such a positive experience for all women (Harwood et al. 2007). Women have to adapt to several physical, emotional and social changes during the transition to motherhood. Research indicates that a considerable group of women do not cope well with the many challenges associated with motherhood (Cowan and Cowan, 1995). For some, the costs (e.g., sleep deprivation, worries about raising the child) weigh more heavily than the rewards (Nomaguchi and

Milkie 2003). The burden of parenthood alone or in combination with low antenatal support and/or a young age may cause mothers to experience a range of negative feelings, including anxiety, sadness, and anger (Graham et al. 2002; Porter and Hsu 2003; Thorp et al. 2004).

There is no doubt that a substantial portion of new mothers experience a high degree of stress and low or irritable mood, but the occurrence of postpartum depression does not tell us the extent to which the transition to motherhood is associated with changes in women's well-being. The impact of the transition to motherhood on women's well-being is not yet fully understood for the following reasons. First, studies examining women's postpartum well-being in comparison to prenatal levels have yielded mixed results. Some have shown a pattern of higher depressive scores following the birth of the child (Matthey et al. 2000), others have shown no change in the mean-level of depressive symptoms or prevalence rates of depression (Eberhard-Gran et al. 2004; Josefsson et al. 2001; Salmela-Aro et al. 2006), and again others have shown a decrease in depression scores (Harwood et al. 2007). In the study by Harwood et al. (2007) 71 first-time mothers completed questionnaires during pregnancy and at 4 months postpartum. Only a few of these mothers had scores on the EPDS indicative of depression. Furthermore, declining depression scores from pregnancy to 4 months postpartum also contrasted with the notion of postpartum depression. To complicate things further, it may also be that only particular indicators of psychological distress show an increase during the transition to motherhood. Dipietro et al. (2008) recently showed that first-time mothers experienced an increase in anxiety from the prenatal to the postnatal period, whereas no changes over time were found for self-reported stress and depressive symptoms. In sum, it can be concluded that the literature is inconclusive as to whether becoming a mother produces heightened psychological distress or improves women's well-being.

## II.. STATEMENT OF THE PROBLEM

Evaluate the effectiveness of a structured teaching programme regarding care of newborns in terms of knowledge and practice of primigravida mothers.

Objectives of the study:

- To assess the level of knowledge and practice regarding newborn care among primigravida mothers.
- To evaluate the effectiveness of a structured teaching programme on knowledge and practice regarding newborn care.
- To correlate the knowledge and practice regarding newborn care among primigravida mothers.
- To find out the association between the knowledge and practice regarding newborn care among primigravida mothers and demographic variables.

The research design selected for the study was "Pre-test Post-Test Control Group Design" (Quasi-Experimental Design). The population is Primigravida mothers who are available in the selected hospital, and a convenient sampling technique will be used. 50 primigravida mothers fulfilled the inclusion criteria in Haryana. Assessment of knowledge by a self-structured questionnaire regarding care of newborns and a checklist to assess the practice regarding care of newborns.

## III. RESULTS

Table 1: Analysis of pre-test knowledge score of primigravida mothers regarding newborn care.

n = 100

| Level of Knowledge | Range of Percentage of score | Range of score | Primigravida Mother | |
|---|---|---|---|---|
| | | | f | % |
| Inadequate Knowledge | < 50% | 0-15 | 72 | 72% |
| Moderately adequate Knowledge | 50 - 75% | 16-22 | 28 | 28% |
| Adequate Knowledge | > 75% | 23-30 | 0 | 0% |
| Total | | 100 | | 100% |

Table 1. Shows majority of primigravida mothers (72%) had inadequate knowledge regarding the care of newborns. Primigravida mothers (28%) had moderately adequate knowledge. No primigravida mothers had adequate knowledge regarding the care of newborns.

Table 2: Analysis of post-test knowledge score of primigravida mothers regarding newborn care.

n = 100

| Level of Knowledge | Range of Percentage of score | Range of score | Primigravida Mother | |
|---|---|---|---|---|
| | | | f | % |
| Inadequate Knowledge | <50% | 0-15 | 13 | 13% |
| Moderately adequate Knowledge | 50-75% | 16-22 | 55 | 55% |
| Adequate Knowledge | <75% | 23-30 | 32 | 32% |
| Total | 100% | | 100 | 100% |

Table 2. shows that the majority of primigravida mothers (13%) had inadequate knowledge regarding the care of newborns. Primigravida mothers (55%) had moderately adequate knowledge. (32%) Primigravida mothers had adequate knowledge regarding the care of newborns.

Table 3: Analysis of practice score of primigravida mothers regarding care of newborn.

n=100

| Level of Knowledge | Range of Percentage | Range of Score | Primigravida Mother | |
|---|---|---|---|---|
| | | | f | % |
| Poor practice | < 50% | 0-5 | 5 | 5% |
| Average Practice | 50 - 75% | 6-10 | 58 | 58% |
| Good Practice | < 75% | 11-15 | 37 | 37% |
| Total | | | 100 | 100% |

Table 3 shows that the majority of primigravida mothers (58%) had average practice regarding care of newborns. Primigravida mothers (5%) had poor practice, but (37%) primigravida mothers had good practice regarding care of newborn.

Table 4: Area-wise knowledge score of primigravida mothers regarding care of newborn.

n=100

| SR. NO. | KNOWLEDGE ASPECTS | MAX SORE (30) | PRIMIGRAVIDAMOTHERS | | |
|---|---|---|---|---|---|
| | | | MEAN | SD | MEAN % |
| 1. | Introduction of new-born | 13 | 0.71 | 0.16 | 5.46% |
| 2. | Risk factors / causes | 4 | 0.75 | 0.21 | 18.75% |
| 3. | Mode of infection / mode of transmission | 2 | 0.64 | 0.15 | 32% |
| 4. | Prevention / management | 11 | 0.72 | 0.12 | 6.54% |

The data presented in Table 4 indicate that the lowest primigravida mothers' mean percentage score (5.46%) was in the area of introduction of the newborn. It presents that the maximum knowledge deficit existed in this area, followed by the prevention and management of care of newborns (6.54%). Mode of infection, mode of transmission of infection (32%) and risk factors and causes (18.75%). Which is the minimum knowledge deficit area?

Table 5: Area-wise practice score of primigravida mothers regarding care of newborn.

n=100

| SR.NO. | PRACTICE ASPECTS | MAX. SCORE | PRIMIGRAVIDA MOTHERS | | |
|---|---|---|---|---|---|
| | | | MEAN | SD | MEAN % |
| 1. | Regarding new-born care | 5 | 0.68 | 0.21 | 13.6% |
| 2. | Regarding diet | 1 | 0.36 | - | 36% |
| 3. | Personal hygiene | 5 | 0.55 | 0.08 | 11% |
| 4. | Prevention/Management | 4 | 0.72 | 0.09 | 18% |

The data presented in Table 5 indicate that the lowest primigravida mothers' mean percentage score (11%) was in the area of personal hygiene. It presents that maximum practice existed in this area, followed by newborn care (13.6%). Regarding prevention and management (18%), the highest mean percentage gain in the area of diet. (11%). which is the minimum practice area of newborn care (13.6%), which is the minimum knowledge deficit area.

Table 6: Correlate the level of knowledge score and practice score of primigravida mothers regarding the care of newborns

n = 100

| GROUP | KNOWLEDGE SCORE | | | | "t" VALUE |
|---|---|---|---|---|---|
| | MEAN | Mean difference | SD | Df | |
| Knowledge score | 12.05 | 9.06 | 5.35 | 98 | 16.82 |
| Practice score | 21.11 | .91 | 3.91 | | 7.44 |

The data presented in Table 6 shows that the mean knowledge score (12.05) among primigravida mothers is lower than the mean practice score (21.11) among primigravida mothers. The calculated 't' value 16.82 is significant at the 0.05 level in the knowledge score, and the calculated 't' value in the practice score is 7.44. Therefore, it is concluded that there was no correlation between the knowledge and practice score of primigravida mothers regarding care of newborns. Hence, the null hypothesis H04 is rejected and the research hypothesis H4 is not rejected.

Thus, it indicates that there is a correlation between the knowledge scores and practice scores after the structured teaching programme.

## IV. DISCUSSION

Major Findings

- The majority of primigravida mothers (13%) had inadequate knowledge regarding the care of newborns. Primigravida mothers (55%) had moderately adequate knowledge. (32%) Primigravida mothers had adequate knowledge regarding the care of newborns.
- The majority of primigravida mothers (58%) had average practice regarding care of new-born care. Primigravida mothers (5%) had poor practice, but (37%) primigravida mothers had good practice regarding care of newborns.
- The lowest primigravida mothers' mean percentage score (5.46%) was in the area of the introduction of newborns. It presents that the maximum knowledge deficit existed in this area, followed by the prevention and management of care of newborns (6.54%). Mode of infection, mode of transmission of infection (32%) and risk factors and causes (18.75%). Which is the minimum knowledge deficit area
- The lowest primigravida mothers' mean percentage score (11%) was in the area of personal hygiene. It presents that maximum practice existed in this area, followed by newborns (13.6%). Regarding diet (36%) and the lowest mean percentage gain in the area of Prevention and management (18%), which is the minimum practice area of newborn care (13.6%), which is the minimum knowledge deficit area.
- The mean knowledge score was 21.11 among primigravida mothers. The calculated 't' value

16.82 is significant at the 0.001 level. The mean practice score was 12.05 among primigravida mothers. The calculated value 't' value is 7.44, significant at the 0.001 level. Therefore, it is concluded that there is a significant difference in knowledge and practice level among primigravida mothers regarding care of new-born care.

- There is no significant association between the mean knowledge score and selected variables of age, education, religion, occupation, income, type of family, family size, residence, type of delivery, or source of information. These chi-square values are not significant at the 0.05 level. Hence, the null hypothesis H04 is not rejected, and the research hypothesis H4 is rejected.
- There is no significant association between mean practice score and selected variables of age, education, religion, occupation, income, type of family, family size, residence, type of delivery, or source of information. These chi-square values are not significant at the 0.05 level. Hence, the null hypothesis H05 is not rejected, and the research hypothesis H5 is rejected.

## V. IMPLICATIONS OF THE STUDY

The findings of the present study have implications for nursing practice, nursing administration, nursing education and nursing research.

Nursing practice: structured teaching programme regarding care of newborns for the health service providers and professionals should be made as an ongoing training programme in hospitals.

Nursing Administration: The nursing administration must ensure the provision of equipment and facilities for training programmes with materials for nursing personnel regarding care of newborns, and the administrator should take active initiative and develop a structured teaching programme regarding care of newborns.

Nursing education: Nursing education should emphasise the preparation of a structured teaching programme for nurses to gain knowledge and apply it while in practice regarding the prevention and management of newborn anaemia. In-service education and demonstration can be arranged for the staff who are already working in the antenatal OPD, ward, NICU, etc.

Nursing research: Nursing as a profession can grow only when nurses enlarge their body of knowledge, which can be done through research only. More research regarding newborn care should be conducted to generate valid and reliable data, gain more insight into this matter, especially in the Indian setting and to enhance the knowledge of the staff nurses regarding care of newborns.

Conflict of interest:
The authors have no conflict of interest to declare.

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