



**“A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE AND PRACTICE REGARDING CARE AFTER DISCHARGE OF LOW BIRTH WEIGHT BABY AMONG THE PRIMI MOTHERS ADMITTED IN SELECTED HOSPITALS, SURAT DISTRICT, GUJARAT.”**

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**ABSTRACT** **Introduction:** Birth weight is a critical determinant for survival in the neonatal period and for future growth and development of the newborn. The nurse should concentrate on workshops and in-service education, as this will update the knowledge and practice of the staff nurses who play a major role in managing hospitalized low birth weight infants. **The objective** of the study to assess the knowledge, practice & association of primi mothers regarding care after discharge of low birth weight babies, before and after providing information booklet. **Material And Methods:** In present study, the researcher adopted Pre-experimental one-group pre-test post-test design. The study carried out on 50 samples. A Non-probability Convenient Sampling Technique was used. Data analysis was done mainly using descriptive statistics Paired t- test for hypothetical testing & Fisher exact test was applied. **Result:** Ninety two percent of mothers were having average knowledge and 8 percent of them were having good knowledge during pre-test and during post-test 94 percent mother were having average knowledge and 6 percent of mother were having good knowledge. Ninety six percent mothers were having average practice and 4 percent mothers were having good practice during post-test. Age was found associated with knowledge & types of delivery was found associated with practice of primi mother of low birth weight baby. **Conclusion:** Mothers and health professionals play an important role in providing care to the pre-term babies. So, this study helped to primi mothers to have knowledge and practice of care after discharge of low birth weight babies. The study revealed that information booklet was observed to be very effective in improving the knowledge and practice of mothers and therefore should be adopted by health personnel in order to convey health related information to the public.

**KEYWORDS :** Assess, Care, Primi Mother, Low Birth Weight, Discharge

### INTRODUCTION

Birth weight is a critical determinant for survival in the neonatal period and for future growth and development of the newborn. The newborn with the low -birth weight starts life with a handicap and this way persists in life. <sup>1</sup> Low birth weight (LBW) is a term used to describe babies who are born weighing less than 2500 grams . The average new born weighs about 2.5 to 3.5kg. Babies with a birth weight of less than 1500 gram are considered as very low birth weight (VLBW) babies and babies with a birth weight of less than 1000 gram considered as extremely low birth weight (ELBW) babies.

High risk mother should be identified early during the course of pregnancy and referred for confinement to an appropriate health care facility. Nurse has to offer support and comfort to mother and reassure her of her capabilities. The management of LBW babies includes hospital management and home management which are , thermal protection, fluid and feeds, kangaroo mother care, infection control and appropriate management of specific complication.<sup>6</sup>

### Need For The Study

The majority (75%) of neonatal deaths occur in the first week of life, with 25%-45% of these occurring within the first 24 hours after birth. Mothers and other caretakers play a significant role in the care of newborns, and should therefore have the appropriate knowledge and skills to identify Low Birth Weight babies and give them appropriate care. Neonatal mortality has remained persistently high worldwide.

UNICEF (2015) stated that globally , the main causes of neonatal deaths were preterm birth complications (35%), intrapartum related complication (24%) and sepsis (15%), thus, targeting the time around birth with proven high impact interventions and quality care for small and sick newborns may prevent up to 80% of newborn deaths.

The vast majority of low birth weight babies in India are born in rural areas with prevalence of 24% and in urban areas with 21%. Unless the outcomes of these babies are improved it is unlikely to change the overall national neonatal mortality rate.

A nurse should arrange booklets and pamphlets and it must be the duty of the health care provider to distribute and educate them before the discharge. At the time of discharge the health care provider should make sure that every mother has the written information regarding the care of low birth weight babies including all the major information.

The nurse should concentrate on workshops and in-service education, as this will update the knowledge and practice of the staff nurses who play a major role in managing hospitalized low birth weight infants.<sup>14</sup>

### OBJECTIVES OF THIS STUDY

- To prepare and validate information booklet on care after discharge of low birth weight baby.
- To assess the knowledge of primi mothers regarding care after discharge of low birth weight babies, before and after providing information booklet.
- Assess the practice of primi mothers regarding care after discharge of low birth weight babies before and after providing an information booklet.
- To compare the knowledge score of primi mothers after providing an information booklet.
- To find out the association between post-test knowledge and practice scores with the selected socio-demographic variables such as age, sex, educational qualification, occupations, etc.

### Hypothesis Of The Study:

**H<sub>1</sub>:** There will a significant difference between mean score of knowledge of mothers before and after providing information booklet regarding care after discharge of low birth weight baby at 0.05 level of significance.

**H<sub>2</sub>:** There will be significant association between post-test knowledge and practice score with their selected demographic variables among primi mothers.

### MATERIAL AND METHOD:

In present study, researcher adopted pre-experimental research design. The study carried out on 50 samples. A Non- Convenient Technique was used. Data analysis was done mainly using descriptive statistics test- Chi square was applied.

### Description Of Tool:

#### Tool 1: Structured knowledge questionnaire.

- Structured knowledge questionnaire consisted of 2 sections:-
- Section I: Socio-demographic data
- Section II: Knowledge questionnaire

#### Tool 2: Inventory and Observation checklist

#### Tool 3: Information booklet

### Plan for Data Analysis:

Data analysis was done by using descriptive and inferential statistics based on objectives of study.

### RESULT AND DISCUSSION

Majority 29(58%) of samples belonged to 21-25 years, 11(22%) of samples belonged to below 20 years of age, 9(18%) of samples

belonged to 26-30 and remaining 1(2.0%) of samples belonged to above 31 years of age. Majority 45(90%) of samples belonged to Hindu religion, 1(2.0%) of samples belonged to Muslim religion and 4(8%) of samples belonged to other religion. Majority 49(98%) of participants were married, and 1(2.0%) of participants was widow. 24 (48%) participants were from rural residential area and remaining 26(52%) participants were from urban residential area. majority 21(42%) of participants were read and write , 15(30%) participants had high school education, 9(18%) of them had primary education and remaining 1(2%) of participant was can read only , 1(2%) participants had graduation and 3(6%) participants had above education. majority 32(64%) of participants belonged to nuclear family, 16(32%) participants belonged to joint family and remaining 2(4%) participant belong to extended family. majority 41(82%) of participants were house wives, 5(10%) participants were doing cultivation, 1(2%) participant was doing labor work, 1(2%) of was doing business, remaining 2(4%) participants were doing service.

**Table No 1 Classification Of Overall Knowledge Of Primi Mothers**

| Classification    | Pre -test |            | Post- test |     |
|-------------------|-----------|------------|------------|-----|
|                   | Grade     | Score %    | f          | %   |
| Poor knowledge    | 1-10      | 1- 33%     | -          | -   |
| Average knowledge | 11-20     | 34 – 66%   | 46         | 92% |
| Good knowledge    | 21- 30    | 67 – 100 % | 4          | 8%  |

The above table deals with the classification of overall knowledge of primi mother.

Ninety two percent of mothers were having average knowledge and 8

**Association Between Post-test Knowledge Score With The Selected Socio – Demographic Variables Of Primi Mothers. N=50**

|                     |                         | Post-test Knowledge |                | Total | fishers Chi Square | Df | Table Value | Level of significance |
|---------------------|-------------------------|---------------------|----------------|-------|--------------------|----|-------------|-----------------------|
|                     |                         | Average (11 - 20)   | Good (21 - 30) |       |                    |    |             |                       |
| Age in Years        | Below 20                | 2                   | 9              | 11    | 11.611             | 3  | 7.82        | Significant           |
|                     | 21- 25                  | 0                   | 29             | 29    |                    |    |             |                       |
|                     | 26 – 30                 | 2                   | 7              | 9     |                    |    |             |                       |
|                     | 31 and Above            | 1                   | 0              | 1     |                    |    |             |                       |
| Sex of a Baby       | Male                    | 1                   | 24             | 25    | 2                  | 1  | 3.84        | Not significant       |
|                     | Female                  | 4                   | 21             | 25    |                    |    |             |                       |
| Religion            | Hindu                   | 5                   | 40             | 45    | 0.96               | 2  | 5.99        | Not significant       |
|                     | Muslim                  | 0                   | 1              | 1     |                    |    |             |                       |
|                     | Others                  | 0                   | 4              | 4     |                    |    |             |                       |
| Marital status      | Married                 | 5                   | 44             | 49    | 0.113              | 1  | 3.84        | Not significant       |
|                     | Widow                   | 0                   | 1              | 1     |                    |    |             |                       |
| Residence           | Rural                   | 4                   | 20             | 24    | 2.279              | 1  | 3.8         | Not significant       |
|                     | Urban                   | 1                   | 25             | 26    |                    |    |             |                       |
| Level of Education  | Can Read only           | 0                   | 1              | 1     | 5.294              | 5  | 11.07       | Not significant       |
|                     | Can Read and Write      | 3                   | 18             | 21    |                    |    |             |                       |
|                     | Primary                 | 2                   | 7              | 9     |                    |    |             |                       |
|                     | High School             | 0                   | 15             | 15    |                    |    |             |                       |
|                     | Graduate                | 0                   | 1              | 1     |                    |    |             |                       |
|                     | And Above               | 0                   | 3              | 3     |                    |    |             |                       |
| Type of family      | Joint                   | 2                   | 14             | 16    | 0.66               | 2  | 5.99        | Not significant       |
|                     | Nuclear                 | 3                   | 29             | 32    |                    |    |             |                       |
|                     | Extended                | 0                   | 2              | 2     |                    |    |             |                       |
| Monthly Income      | 5001 – 10,000           | 3                   | 18             | 21    | 0.742              | 2  | 5.99        | Not significant       |
|                     | 10001 – 15000           | 2                   | 23             | 25    |                    |    |             |                       |
|                     | 15001 – 20000           | 0                   | 4              | 4     |                    |    |             |                       |
| Source of Knowledge | Print Media             | 3                   | 15             | 18    | 1.389              | 1  | 3.84        | Not significant       |
|                     | Electronic Media        | 2                   | 30             | 32    |                    |    |             |                       |
| Employment          | House Wife              | 4                   | 37             | 41    | 9.892              | 4  | 9.49        | Not significant       |
|                     | Labourer                | 1                   | 0              | 1     |                    |    |             |                       |
|                     | Business                | 0                   | 1              | 1     |                    |    |             |                       |
|                     | Cultivation             | 0                   | 5              | 5     |                    |    |             |                       |
|                     | Service                 | 0                   | 2              | 2     |                    |    |             |                       |
| Type of Delivery    | Normal vaginal delivery | 4                   | 30             | 34    | 0.559              | 2  | 5.99        | Not significant       |
|                     | Caesarian delivery      | 1                   | 13             | 14    |                    |    |             |                       |
|                     | Vaccum Delivery         | 0                   | 2              | 2     |                    |    |             |                       |
| Gestational Age     | 27- 30 week             | 0                   | 4              | 4     | 1.522              | 3  | 7.82        | Not significant       |
|                     | 31 – 34 week            | 3                   | 22             | 25    |                    |    |             |                       |
|                     | 35 – 38 week            | 1                   | 15             | 16    |                    |    |             |                       |
|                     | 38- 42 week             | 1                   | 4              | 5     |                    |    |             |                       |

percent of them were having good knowledge during pre- test and during post-test 94 percent mother were having average knowledge and 6 percent of mother were having good knowledge.

**Table 2 Classification Of Overall Practice Of Mother N=50**

| Classification   | Grade | Score | %          | Post –test |     |
|------------------|-------|-------|------------|------------|-----|
|                  |       |       |            | f          | %   |
| Poor practice    |       | 0-3   | 1-33%      | -          | -   |
| Average practice |       | 4-6   | 34 – 66%   | 48         | 96% |
| Good practice    |       | 7-10  | 67 – 100 % | 2          | 4%  |

The above table shows Ninety-six percent of mothers were having average practice and 4 percent of mothers were having good practice during post-test

**Table 3 Comparison Of Mean Knowledge Score Of Pre-test And Post-test Of Mothers N=50**

| Knowledge score |           | Mean Differe nce | SD Differe nce | Sed  | t- value    |                  | Signi ficanc e |       |   |
|-----------------|-----------|------------------|----------------|------|-------------|------------------|----------------|-------|---|
| Pre- test       | Post-test |                  |                |      | Table value | Calculated value |                |       |   |
| 15.10           | 3.66      | 23.14            | 1.78           | 8.04 | 1.88        | 0.56             | 2              | 16.90 | S |

From the above table it is evident that the pre-test knowledge score of mothers was 15.10 and post-test knowledge score was 23.14, with mean difference 8.04. The calculated paired t value 16.90 is greater than tabulated value 2, at df 49 and 0.05 level of significance. Hence, the obtained difference is true difference and not by chance. Therefore, H0, is rejected and H1, is accepted. Information booklet was effective in improving the knowledge of primi mothers statistically.

**Association Between Post-Test Practice Score With Selected Socio-demographic Variables Of Primi Mothers. N=50**

|                     |                         | Post-test Inventory |             | Total | Fishers Chi Square | df | P Value | Level of significance |
|---------------------|-------------------------|---------------------|-------------|-------|--------------------|----|---------|-----------------------|
|                     |                         | Average (4-6)       | Good (7-10) |       |                    |    |         |                       |
| Age in Years        | Below 20                | 3                   | 8           | 11    | 2.632              | 3  | 7.82    | Not significant       |
|                     | 21- 25                  | 9                   | 20          | 29    |                    |    |         |                       |
|                     | 26 – 30                 | 5                   | 4           | 9     |                    |    |         |                       |
|                     | 31 and Above            | 0                   | 1           | 1     |                    |    |         |                       |
| Sex of a Baby       | Male                    | 7                   | 18          | 25    | 0.802              | 1  | 3.84    | Not significant       |
|                     | Female                  | 10                  | 15          | 25    |                    |    |         |                       |
| Religion            | Hindu                   | 14                  | 31          | 45    | 3.415              | 2  | 5.99    | Not Significant       |
|                     | Muslim                  | 0                   | 1           | 1     |                    |    |         |                       |
|                     | Others                  | 3                   | 1           | 4     |                    |    |         |                       |
| Marital status      | Married                 | 17                  | 32          | 49    | 0.526              | 1  | 3.84    | Not significant       |
|                     | Widow                   | 0                   | 1           | 1     |                    |    |         |                       |
| Residence           | Rural                   | 6                   | 18          | 24    | 1.66               | 1  | 3.84    | Not significant       |
|                     | Urban                   | 11                  | 15          | 26    |                    |    |         |                       |
| Level of education  | Can Read only           | 0                   | 1           | 1     | 2.581              | 5  | 11.07   | Not Significant       |
|                     | Can Read and Write      | 7                   | 14          | 21    |                    |    |         |                       |
|                     | Primary                 | 3                   | 6           | 9     |                    |    |         |                       |
|                     | High School             | 5                   | 10          | 15    |                    |    |         |                       |
|                     | Graduate                | 1                   | 0           | 1     |                    |    |         |                       |
|                     | And Above               | 1                   | 2           | 3     |                    |    |         |                       |
| Type of Family      | Joint                   | 5                   | 11          | 16    | 0.896              | 2  | 5.99    | Not significant       |
|                     | Nuclear                 | 12                  | 20          | 32    |                    |    |         |                       |
|                     | Extended                | 0                   | 2           | 2     |                    |    |         |                       |
| Monthly Income      | 5001 – 10,000           | 7                   | 14          | 21    | 0.252              | 2  | 5.99    | Not significant       |
|                     | 10001 – 15000           | 9                   | 16          | 25    |                    |    |         |                       |
|                     | 15001 – 20000           | 1                   | 3           | 4     |                    |    |         |                       |
| Source of Knowledge | Print Media             | 9                   | 9           | 18    | 3.209              | 1  | 3.84    | Not significant       |
|                     | Electronic Media        | 8                   | 24          | 32    |                    |    |         |                       |
| Employment          | House Wife              | 14                  | 27          | 41    | 3.182              | 4  | 9.49    | Not significant       |
|                     | Labourer                | 1                   | 0           | 1     |                    |    |         |                       |
|                     | Business                | 0                   | 1           | 1     |                    |    |         |                       |
|                     | Cultivation             | 1                   | 4           | 5     |                    |    |         |                       |
|                     | Service                 | 1                   | 1           | 2     |                    |    |         |                       |
| Type of Delivery    | Normal vaginal delivery | 7                   | 27          | 34    | 9.949              | 2  | 5.99    | Significant           |
|                     | Caesarian delivery      | 8                   | 6           | 14    |                    |    |         |                       |
|                     | Vaccum Delivery         | 2                   | 0           | 2     |                    |    |         |                       |
| Gestational Age     | 27- 30 week             | 1                   | 3           | 4     | 0.529              | 3  | 7.82    | Not significant       |
|                     | 31 – 34 week            | 9                   | 16          | 25    |                    |    |         |                       |
|                     | 35 – 38 week            | 5                   | 11          | 16    |                    |    |         |                       |
|                     | 38- 42 week             | 2                   | 3           | 5     |                    |    |         |                       |

The above table shows the Association between post- test knowledge score with selected socio-demographic variables of mothers. It was done using fishers chi-square test.

**Age in year:** The chi- square value 11.61 at  $p < 0.05$  was significant of age with post-test knowledge score of the mothers.

**Sex of Baby:** The chi- square value 2 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Religion:** The chi- square value 0.96 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Marital status:** The chi- square value 0.113 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Residence:** The chi- square value 2.27 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Level of Education:** The chi- square value 5.29 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Type of family:** The chi- square value 0.66 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Monthly Income:** The chi- square value 0.74 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Source of Knowledge:** The chi- square value 1.38 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Employment:** The chi- square value 9.89 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Type of Delivery:** The chi- square value 0.55 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

**Gestational Age:** The chi- square value 1.52 at  $p < 0.05$  was not significant of age with post-test knowledge score of the mothers.

The above table shows the Association between post- test practice score with selected socio-demographic variables of mothers.

**Age in year:** The chi- square value 2.63 at  $p < 0.05$  was not significance of age with post-test practice score of the mothers.

**Sex of the baby:** The chi- square value 0.80 at  $p < 0.05$  was not significance of age with post-test practice score of the mothers.

**Marital status:** The chi- square value 0.52 at  $p < 0.05$  was not significance of marital status with post-test practice score of the mothers.

**Religion:** The chi- square value 3.41 at  $p < 0.05$  was not significance of religion with post-test practice score of the mothers.

**Residence:** The chi- square value 1.66 at  $p < 0.05$  was not significance of residence with post-test practice score of the mothers.

**Level of education:** The chi- square value 2.58 at  $p < 0.05$  was not significance of residence with post-test practice score of the mothers.

**Type of family:** The chi- square value 0.89 at  $p < 0.05$  was not significance of age with post-test knowledge score of the mothers.

**Monthly Income:** The chi- square value 0.25 at  $p < 0.05$  was not

significance of age with post-test knowledge score of the mothers.

**Source of Knowledge:** The chi-square value 3.20 at  $p < 0.05$  was not significance of age with post-test knowledge score of the mothers.

**Employment:** The chi-square value 3.18 at  $p < 0.05$  was not significance of age with post-test knowledge score of the mothers.

**Type of Delivery:** The chi-square value 9.94 at  $p < 0.05$  was not significance of age with post-test knowledge score of the mothers.

**Gestational Age:** The chi-square value 0.52 at  $p < 0.05$  was not significance of age with post-test knowledge score of the mothers.

### Implications

The findings are useful in the field of education nurses, administration of nurses and clinical practice.

### Nursing Education

The nurse educator should emphasize more on preparing students to impart health information to the public/mothers regarding care of after discharge of low birth weight baby. More knowledge should be provided to mothers regarding care after discharge of low birth weight baby. Facilities should be made available for mothers to have direct experience in public teaching. A nursing student should be taught about the importance of health education and develop their skill in preparing health teaching materials according to the community's level of understanding. A student can be encouraged to take up projects and studies on care of low birth weight babies.

### Nursing Administration

Copies of the information may be made available in OPD, NICU and post natal ward for reference for health personnel as well, so that all mothers receive the same information from them

### Nursing Research

Extensive research can be conducted to find out the health problem of low birth weight. The study can be a base line for future studies. Nursing research contribute professional development of child health nurse.

### CONCLUSION

In pre-test there was lack of knowledge and practice among primi mothers regarding care after discharge of low birth weight baby. But after providing information booklet there was improvement in knowledge and practice among primi mothers. Thus, study revealed that information booklet was observed to be very effective in improving the knowledge and practice of mothers and therefore should be adopted by health personnel in order to convey health related information to the public.

### Limitation

- The study is limited to primi mothers who had babies born before 37 weeks of gestation and having birth weight below 2.5 kg
- Sample were available during the study period.
- Sample were willing to participate in the study.
- They would understand and speak Gujarati language.

### Recommendations

- The study can be replicated in large sample size.
- A similar study can be done in different setting and for different population.
- Exploratory study may be conducted to assess the knowledge of mothers regarding low birth weight.
- Exploratory study may be done to assess the knowledge of mothers regarding care of low birth weight babies.
- A comparative study can be conducted among rural and urban mothers.

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