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Original Article

A study to assess the effectiveness of self Instructional module (SIM) knowledge and Practice regarding neonate infection among of Primi mothers in a selected rural area in Jaipur

Sakshi Meena
Ph.D. Nursing Scholar, Shri JJT University, Jhunjhunu
Corresponding Address : Sakshi Meena, Ph.D. Nursing Scholar, Shri JJT University, Jhunjhunu
Corresponding E-mail : sakshi24june@gmail.com

Abstract

Introduction : Children are the future of the nation. Only healthy citizen can build up a healthy nation. Hence, the focus of every mother safeguards the newborn health. Today's children are tomorrow's citizen, a well developed child contributes to the national welfare and children are the precious resource of the nation. Children are the world's most valuable asset and their wellbeing indicates the standard of living of the country.

Methodology : Evaluative Research Approach with one group pre test post test research design was used in this study. Target Population Primipara Mothers living in Gram Natata, Jaipur. Sampling Technique Non Probability Purposive Sampling. The present study was conducted among 60 primipara mothers living in Gram Natata, Jaipur.

Results : The finding also revealed that the pre test score more homogenous (SD 3.390) than the post test score (SD 4.02).

Conclusions : Distribution of primipara mothers based on their level of knowledge showed that 50% had poor knowledge, 33.33% have average knowledge and only 16.67% primipara mothers had good knowledge on neonatal infection.

Keywords : Effectiveness; self instructional module; knowledge and Practice; neonate

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Introduction

They constitute about 40 percent of the total population. These most precious parts of the world are most delicate and highly susceptible for infections.[1]

Neonatal Sepsis or Sepsis Neonatorum refers to systemic infection of the new born, characterized by a constellation of non specific symptoms in association with bacteremia. Neonatal infections are the commonest cause for neonatal mortality accounting for 18% of cases every year in our country.[2]

Neonatal sepsis is one of the treatable causes of neonatal deaths. The clinical presentation of neonatal

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sepsis is non specific and subtle, hence may be overlooked. Thus the diagnosis of neonatal sepsis is mainly based on laboratory tests.[3]

The situation relating to neonatal health remains a major concern and a daunting challenge. The newborn's body is the most super sensitive, delicate and susceptible form which can easily be harmed if not taken care of.[4]

Of the estimated 130 million infants born each year world-wide, 4 million die in the first 28 days of life. Three quarters of neonatal deaths occur in the first week, and more than one quarter occur in the first 24 hours .Neonatal deaths accounts for 40% of deaths under the age of 5 years world-wide.[5]

Neonatal infection is one of the major leading causes of death during the neonatal period4. It can contribute up to 13- 15% of all the deaths during the neonatal period with the mortality rate reaching as high as 50% for infants who are not treated timely.[6]

In India 25 million newborn infants are born every year. When neonatal mortality was 47 per 1000 live births and it is contributed to 63% of infants mortality rate. The current neonatal mortality rate 43.4 per 1000 live births and the current infant mortality rate is 67.6per 1000 live births at the national level.[7]

The most common and preventable infections during neonatal period are eye, skin and umbilical cord infections. Newborn infections can be divided in to early (within the first week of life) and late infections (during first weeks 2-4). The former are frequently related to labour and childbirth and are caused by an entirely different spectrum of pathogens than the late neonatal infections (7-9).[8]

Early onset neonatal infections occur within the first 5 days life and are usually caused by organisms acquired during intrauterine or intrapartum stages. Late -onset neonatal infections occurs after seven days and frequently results from postpartum often nosocomial colonization12. More than half a million newborns are estimated to die each year from serious neonatal infections, accounting for about 15% of all neonatal deaths globally. The most vulnerable time for both the mother and newborn is during birth and in the hours and days immediately after childbirth. Around 75 percent of neonatal deaths occur during the first week of life, with the majority in the first 48 hours, which is also the period of highest risk for mothers. In populations with very high neonatal mortality, up to half of neonatal deaths may have an infectious cause.[9]

It is estimated that 30-40% of infections resulting in neonatal sepsis deaths are transmitted at the time of childbirth and have early onset of symptoms (developing during the first 72 hours after birth). In low income countries, about 60% of births occur without a skilled attendant, most of these at home. World-wide, 60 million births happen outside facilities and even for facility births hygienic practices may be sub-optimal.[10]

Objectives of the Study

1. To assess the knowledge of primipara mothers regarding neonatal infection before administration of self instructional module.
2. To develop and introduce the self instructional module to primipara mother regarding neonatal infection.
3. To assess the knowledge of primipara mothers regarding neonatal infection after administration of self instructional module.
4. To find out the association of knowledge with selected demographic variables.

Hypotheses

- **H_1 :** There will be significant difference between pre test and post test of primipara mothers regarding neonatal infection.
- **H_2 :** There will be a significant association between the knowledge scores and selected demographic variables.

Methodology

Research approach : An evaluative approach was found to be appropriate to assess the knowledge of primipara mothers on neonatal infections in a selected area at Jaipur.

Research design : Pre - experimental one group pre-test post-test design was selected as the research design for the present study.

Setting of the study : The study was conducted Gram Natata, Jaipur

Population : In the present study the population consists of all primipara mothers living in Gram Natata, Jaipur.

Sample : The present study was conducted among 60 primipara mothers living in Gram Natata, Jaipur.

Sample Size : 60 Sample

Sampling techniques : Non-probability purposive sampling technique was used to select 60 primipara mothers living in Gram Natata, Jaipur as the sample for the present study.

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Results

Part I : Description of the demographic data of primipara mothers.

Part II : Analysis of knowledge scores of primipara mothers on neonatal infection.

Part III : Effectiveness of self instructional module

Part IV : Association between the knowledge scores of primipara mothers with selected demographic variables.

Part I : Description of the demographic variables

Table: 1 - Description of demographic variables

Demographic Variable	Frequency	Percentage (%)
Age (In years)		
19 - 22	25	41.66%
23 - 26	20	33.33%
27 - 30	10	16.66%
31 - 34	05	8.33%
Religion		
Hindu	35	58.33%
Muslim	20	33.33%
Christian	01	1.66%
Other	04	6.66%
Educational Status		
Primary Education	35	58.33%
Secondary	15	25%
Senior Secondary	05	8.33%
Graduation & Above	05	8.33%
Occupation		
Housewife	45	75%
Private Service	05	8.33%
Government Service	03	5%
Other	07	11.66%
Family Income		
< 3000	05	8.33%
3001 - 5000	30	50%
5001 - 7000	20	33.33%
>7001	05	8.33%
Previous Information		
Yes	15	25%
No	45	75%

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Part II : Analysis of knowledge scores of primipara mothers on neonatal infection

Table: 2 - Knowledge level on neonatal infection among primipara mothers

Level of Knowledge	Score Level	Number of Respondents	Percentage
Poor	0 - 10	30	50%
Average	11 - 20	20	33.33%
Good	21 - 30	10	16.67%
Total	**60**	**100%**	

Part III : Effectiveness of self instructional module

Table: 3 - Mean Median, SD & z value of pre test and post test

TEST	Mean	Median	Standard Deviation (SD)	'z' value	Df
Pre Test	9.84	10	3.390	53.571	59
Post Test	25.5	26	4.02		

Table No.03: indicates that the mean score of post test (25.5) was higher than the mean score of pre test (9.84). The median of post test (26) is higher than the median of pre test (10). The finding also revealed that the pre test score more homogenous (SD 3.390) than the post test score (SD 4.02).

Part IV: Association of level of knowledge score with selected personal demographic variables

Table: 4 Association of knowledge score with their demographic variable

S.No.	Demographic Variable	Df	Tabulated Value	Calculated Value	Significant/ Not Significant
1.	Age	6	12.99	5.807	Not Significant
2.	Religion	6	12.99	.0485	Not Significant
3.	Educational status	6	12.99	19.438	Significant*
4.	Occupation	6	12.99	13.9723	Significant*
5.	Family Income	6	12.99	4.117	Not Significant
6.	Previous Knowledge	1	5.99	0.284	Not Significant

Table no.: 04 show that the chi square value obtained to find the not association between the knowledge of staff nurses with age (2 = 5.807), Religion (2 = 0.0485), Family income (2 = 4.117), previous knowledge (2 = 0.284).

The chi square value obtained to find the association between the knowledge of staff nurses with Educational status (2 = 19.438) and Occupation (2 = 13.9723).

The finding revealed that some selected demographic variable like age, religion, family income and previous knowledge are not significant and others like educational status and occupation are significant at the 0.05 level of significant.

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Conclusions

The calculated z'value (53.571) was found to be statistically significant at 0.05 level of significance which is higher than the tabulated value (1.96). So we can say that self instructional module is effective to improve the knowledge of primipara mothers regarding neonatal infection.

Association with knowledge score and selected demographic variable was computed using Chi-square test was used. Analysis showed that there was no significant association between knowledge of the primipara mothers on neonatal infections and demographic variables such as age, religion, family income, and previous knowledge regarding neonatal infection. But there is significant association between the knowledge score and the demographic variable such as educational status and occupation. Hence it can be concluded that the knowledge of primipara mothers on neonatal infection was inadequate

Nursing Implication

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

Nursing Education : The nursing students can improve their knowledge on neonatal infection.

Nursing Practice : The nurses should provide health teaching when patient comes for antenatal check up to prepare mothers for a safe delivery and efficient newborn care.

Nursing Research : In depth research can be done on knowledge of mothers on neonatal infections thus can reduce the neonatal mortality.

Nursing Administration : Nurse Administrators plan for health education programmes to impart health related information.

Recommendations

Based on the findings of the present study recommendations offered for the future research are:

- Similar study can be conducted on a larger sample
- Similar study can be conducted among health workers
- Comparative study can be conducted between rural and urban mothers regarding neonatal infections
- Effectiveness of planned teaching programme on various types of neonatal infections and their prevention can be done.

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