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### RESEARCH ARTICLE

#### A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON PREVENTION OF NEONATAL INFECTION AMONG POST CESAREAN WOMEN IN DOON HOSPITAL, DEHRADUN

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Structured Teaching Program, Neonatal Infection, Post Cesarean Women

#### Abstract

**Introduction:** Neonatal infection occurs when a pathogenic organism enters in the body and shows its signs and symptoms. As the newborn have immature immune system it is the leading cause of morbidity and mortality. In this study we aimed to found out the effectiveness of the structured teaching program on the prevention of neonatal infection among the post cesarean women.

**Methods:** On 60 post cesarean women pre –experimental study was conducted at the post cesarean ward of Government Doon Medical College and Hospital, Dehradun Uttarakhand. Sample selection is done by purposive sampling technique. The procedure of data collection was completed by self-administration of designed questionnaire with the help of paper pencil test. The intervention was implemented through structured teaching program after pre test. The post test data was collected after five days of pre-test. One group pre-test and post-test design of pre-experimental research design is used.

**Result:** After giving structured teaching program about 49(81.66%) post cesarean women had good knowledge and 11(18.34%) had average and none of the post cesarean women had poor knowledge. Improvements in knowledge on prevention of complications will enable the post cesarean women to provide proper neonatal care and there by bring down morbidity and mortality. The post test mean score is higher than pre test mean score , so hypothesis is accepted.

**Conclusion:** The study concluded that by the help of structured teaching program there is increment in the post test scores of the post cesarean women.

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#### Introduction:-

The most crucial and vulnerable period of life is first month after the delivery of baby. A neonate is also called a newborn. The first four weeks of child's life is known as neonatal period. Neonates are more susceptible to having an infection.

Neonatal sepsis is major cause of neonatal mortality and morbidity. Neonatal sepsis is a serious infection that occurs in neonates. When the sepsis is seen in first week of life is called early onset neonatal sepsis (EONS) and when it occurs after 1st week of life to 4th week of life it is called as late onset neonatal sepsis (LONS).<sup>1</sup>

Early detection of infection can prevent severe complication. Delayed diagnosis and inconsistent use of preventive measures exacerbate the disease condition which makes the survival difficult for the neonate.

Sepsis prevention is important for decreasing the mortality rate. According to global report on the epidemiology and burden of sepsis about 84% of neonatal deaths due to infection can be prevented through measures such as early diagnosis and timely appropriate clinical management.

Prevention of infection in community and in healthcare facilities involves effective hygiene practices, appropriate nutrition, improvement in the knowledge and practice of mothers and exclusive breastfeeding till 6 months of age and functioning of IPC programme and team effective hygiene practices in precaution respectively. Affordable and effective quality care is needed to prevent and reduce the cases of neonatal infection.

Nurse as an important member of health care team has a responsibility to prevent the neonatal deaths and promote the survival of neonate which is necessary for the betterment of the country as present's child is future's development. In every post cesarean visit it is necessary to give information to mother regarding prevention of neonatal infections.

#### **Need for the study –**

According to global report on the epidemiology and burden of sepsis 2020, an estimate of 1.3 million to 3.9 million annual neonatal sepsis cases found and about 400,000 to 700,000 annual deaths occurs worldwide (WHO)<sup>ii</sup>

Every year about 25 millions babies are born in India. India accounts for 24% of global neonatal mortality. Study conducted between 2013–14 by Government medical college, Haldwani, Nainital, Uttarakhand shows that sepsis account for 21.6% mortality rate in Uttarakhand. (Rakholia R, Rawat V, Bano M, Singh G)<sup>iii</sup>

#### **Methodology:-**

##### **Study design**

Pre-experimental research design was used. Purposive sampling technique was used for collecting the sample which comprised of 60 primi post cesarean women. The study was conducted at Doon medical college and hospital, Dehradun, Uttarakhand 25<sup>th</sup> may 2022 to 5<sup>th</sup> June 2022.

##### **Instrument/tools**

It includes self structured questionnaire to evaluate the knowledge post cesarean women on prevention of neonatal infection.

##### **Demographic Data**

Age in years, educational status, occupational, area of living, religion, previous knowledge

##### **Questionnaire to assess the level of knowledge among the post cesarean women**

This was a self-structural questionnaire with 24 statements to assess the level of score among the post cesarean women.

##### **Scoring of tool**

Each parameter was awarded one mark for correct answer and zero mark if the answer is wrong thus the total marks for the question related to knowledge were 24. Those who scored 0 to 8 considered as poor score, 9 to 16 considered as average score and 17 to 24 considered as good score.

##### **Descriptive statistics:**

To describe the knowledge and demographic variables in numbers, frequency, percentage and mean, standard deviation were used in the descriptive analysis of the study.

##### **Inferential statistics:**

1. Compare the score within the group paired “t” test was used in the study.
2. To find the association between the pre-test knowledge and the demographic variables of the samples, the “chi square” test was used.

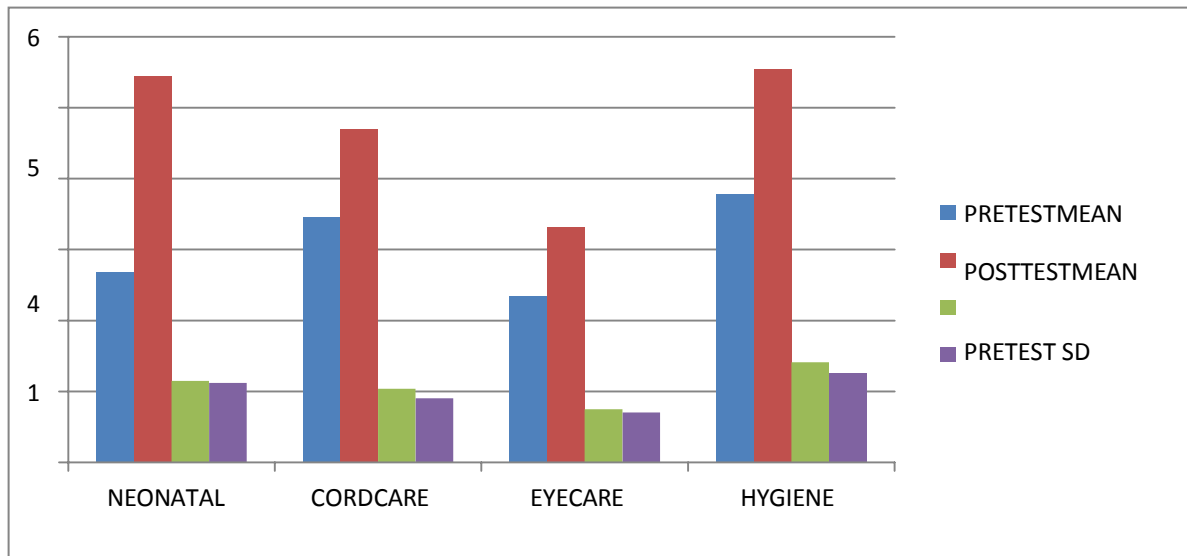
**Data analysis**

**Table 1:-** Mean, mean percentage and standard deviation for the pre test and post test scores of women section wise.

S. no	Section	No. of items	Pretest			Posttest		
			Mean	Mean%	SD	Mean	Mean%	SD
1	Neonatal infection	7	2.68	38.28%	1.15	5.45	77.85%	1.12
2	Cord care	6	3.45	57.5%	1.04	4.70	78.33%	0.90
3	Eye care	4	2.35	58.75%	0.75	3.31	82.75%	0.70
4	Hygiene	7	3.78	54%	1.41	5.55	79.28%	1.26
	<b>TOTAL</b>	<b>24</b>	<b>12.26</b>	<b>51.08%</b>	<b>2.32</b>	<b>19.03</b>	<b>79.29%</b>	<b>2.60</b>

The above Table 2 depicts the aspect wise knowledge of post cesarean with their mean score and mean percentage along with standard deviation for pre and post test. The highest mean score was found in hygiene (3.78) but the highest mean percentage (58.75%) is of eye care in the pre test also in the post test the hygiene has highest mean score (5.55) and eye care has highest mean percentage (82.75%).

**Figure 1:-** Bar diagram showing the mean and standard deviation for the pretest and post test scores of women section wise.



**Table 2:-** Determining the association between socio- demographic variables with knowledge related to neonatal infection among post cesarean women.

S. no.	Demographic variable	Frequency	Percent(%)	Level of score			Chi square	df	P value	Inference
				Poor	Average	Good				
1	Age(in years) 18-22 23-27 28-32 33-37	15	25	0	13	2	2.93	6	0.81	NS
		29	48.33	2	25	2				
		14	23.33	0	13	1				
		2	3.33	0	2	0				
2	Educational status Informal secondary intermediate	10	16.66	2	7	1	11.29	4	0.02	S
		35	58.33	0	33	2				
		15	25	0	13	2				
3	Occupation Housewife Others	60	100	2	53	5	-	-	-	C*
		0	0	0	0	0				

4	Area of living Urban Rural	31	52	1	28	2	0.303	2	0.85	NS
		29	48	1	25	3				
5	Religion Hindu Muslim	48	80	2	43	3	1.79	2	0.40	NS
		12	20	0	10	2				
6	Previous knowledge Yes No	18	30	0	14	4	7.13	2	0.02	S
		42	70	2	39	1				

The table 3 shows that 10 post cesarean women had informal education, 35 had studied secondary education, 15 studied up to intermediate. Out of 60, 18 post cesarean women have previous knowledge related to prevention of neonatal infection whereas 42 post cesarean women are unaware about the same. Chi-square value for Age (in years), Education, Previous knowledge and Religion. The obtained p value for education and previous knowledge is less than 0.005 which indicates that there is significant association of pre test score with demographic variables. Hence, the hypothesis H1 is accepted.

### Discussion:-

The present study result on prevention of neonatal infections among post cesarean women. The mean difference between pre test and post test knowledge score of post cesarean women is 6.76 Majority of post cesarean women 29 (48.33%) comes under age group of 23-27 years. Regarding education, most 19 (32%) were having primary education. For religion variable, majority 48 (80%) of the study participants were Hindu participants. Significant association found between knowledge score of post cesarean women with their previous knowledge (0.02) and education (0.11)

The result was supported by the finding of the study conducted by Miss Priyanka Sharma on neonatal infections among primipara mothers<sup>iv</sup>. The mean difference between pre test and post test knowledge score of primipara mother is 16.44 Out of 50 respondents, 48% were in the age group of 18-22 years. Regarding education, most 16 (32%) were having primary education. Majority 68% of the study participants were Hindu participants. Significant association found between knowledge score of primipara mothers with their age at the (0.013) level of significance.

The result was supported by the finding of the study conducted by Miss Anjali Mall on neonatal care among primipara mothers<sup>v</sup>. Out of 155 respondents, 66.4% were in the age group of 18-23 years. Regarding education, most 57(36.8%) were having primary education. Majority 98(63.2%) of the study participants were Hindu participants. Significant association found between knowledge score of primipara mothers with their age at the (P = 0.03\*) level of significance.

The result was supported by the finding of the study conducted by Miss Priyanka Bansal on essential newborn care among postnatal mothers<sup>vi</sup>. Majority of postnatal mothers 29 (58%) comes under age group of 21-25 years. Out of 50 respondents regarding education most 18 (36%) were having primary education. For religion variable, majority 42 (84%) of the study participants were Hindu participants. There is no significant association found between knowledge of mothers with their demographic variables at 0.05 level of significance

### Conclusion:-

Based on the finding of the present study it is concluded that the most of the post cesarean women have average knowledge regarding the prevention of neonatal infections. From the finding of the study it can be concluded that the demographic variable such as previous knowledge and education status have significant association with their knowledge score

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