

Effectiveness of Information Education and Communication Material on Knowledge of Postnatal Mothers Regarding Self Care and Newborn Care at PGIMS, Rohtak

S. Divya¹, K. Sunita², K. Jyoti³, Jailalita⁴

¹M.Sc. Nursing Student, ²Professor,

Department of Obstetrical and Gynaecological Nursing, Pt. B.D. Sharma University of Health sciences Rohtak, Haryana, India.

³M.Sc. Nursing student, ⁴M.Sc. Nursing Student

Corresponding Authors: K. Jyoti, Jailalita

ABSTRACT

Introduction: The maternal mortality ratio in developing countries in 2015 is 239 per 100 000 live births. According to UNICEF, India has highest infant mortality rates with over six lakh children dying within the first month of their birth in 2016.

Objectives: To assess the knowledge of postnatal mothers regarding self care and newborn care. To assess effectiveness of information education and communication on knowledge score. To find out association of pre test knowledge score with selected demographic variables.

Material and method: A quantitative approach and pre-experimental design was used for study. The study was conducted among 60 postnatal mothers admitted in postnatal ward at PGIMS, Rohtak. The subjects were selected by non probability convenient sampling method.

Results: The data was analysed using descriptive and inferential statistics. The study finding shows that post-test mean knowledge (26.10) were found higher when compared with mean of pre-test knowledge(18.43). The calculated t-value 18.952 for knowledge score was higher than tabulated 't' at 0.05 level of significance. This shows that Information Education and Communication was effective. There was no association between knowledge score.

Conclusion: The study shows that there is a mean gain significant increase in the knowledge ($p < 0.05$) in all the areas of self care and new

born care. The study reveals that the Information Education and Communication material was very effective in increasing the knowledge.

Keywords: Postnatal mothers, newborn, knowledge, information education and communication

INTRODUCTION

Postpartum period or postnatal period is the period beginning immediately after the birth of a child and extending for about 6 weeks. [1] The World Health Organization (WHO) describes the postnatal period as the most critical and yet the most neglected phase in the lives of mothers and babies; most deaths occur during the postnatal period. [2] Postnatal period is a crucial period in woman's life and lot of physiological changes used to occur.

They are in need of special care during pregnancy, at the time of labour as well as after delivery of child in order to prove safe motherhood and healthy living. Mostly, incorrect perception of postnatal health practices leads the individual to move towards the unsafe motherhood. Postnatal health practices such as hygiene; breast care perineal care, postnatal diet, postnatal exercise and family planning will promote health and reduce the mortality and morbidity rate.

Neonate period refers from birth to 28 days of life. In the first 28 days of life the child is at high risk of dying and is a crucial period of life. During this period appropriate care and feeding should be provided in order to lay the foundation for healthy life as well as to improve the child's chances of survival. [3]

The maternal mortality rate (MMR), according to the sample registration system (SRS) data released by the office of Registrar General of India was declined to 130 in 2014-16 from 167 in 2011-13. [4] Globally the number of under 5 mortality has declined from 12.6 million in 1990 to 5.4 millions in 2017. Since, 1990 the global under-5 mortality rate has dropped by 58%. [5] India's infant mortality rate in 2017 was 32 deaths per 1,000 live births, compared to the global average of 12. Neonatal mortality rates show a similar gap--24 per 1,000 live births for India, compared with the global average of 18. [6]

Self care after child birth assures that the mother and baby should be free from infections. It is important in the life of women to provide adequate information and knowledge on self care activities, healthy practices and life styles which will help the mother to bring forth a healthy baby. There is approximately a lack of knowledge about feeding, immunization, umbilical cord care and prevention of hypothermia. Hence there is a strong need to educate the expectant women regarding newborn care and self care.

MATERIALS AND METHODS

Research Approach for the study was Quantitative Research Approach. A total of 60 samples were collected by using non probability sampling technique from postnatal ward at PGIMS, Rohtak. Target population was postnatal mothers along with their babies admitted in postnatal ward at PGIMS, Rohtak. Tool used consists of 2 sections first section was of demographic variables consists of 9 items (Age, Gravida, Para, Education of mother, occupation, family income, type of family, antenatal

visit , MCP card.) and second section was of knowledge questionnaire that consists of 30 items related to personal hygiene, diet, family planning, postnatal exercise, danger signs of postnatal mother, minor ailments and complications, prevention of hypothermia, breast feeding, cord care and prevention of infection, danger signs of new born and immunization. Inclusion criteria for the study was all postnatal mothers who were admitted in the postnatal ward at PGIMS Rohtak, mothers who all were available and willing to participate in the study, mothers who all were having live baby and Postnatal mothers who had normal vaginal delivery. Postnatal mothers who were health personnel, Postnatal mothers who were not willing to participate in this study, Postnatal mothers who were not having live babies was the exclusion criteria for the study. Data was collected after taking permission from the authorities by using tool. Pilot study was conducted from 11-16 February 2019. Final data collection was done from 22 February to 30 March 2019. Data analysis was done by descriptive and inferential statistics.

RESULTS

Part 1: Description of demographic variables.

Table 1 show the distribution of demographic data of postnatal mothers participated in the study. Table 1 shows the following findings:

Age: Out of 60 participants, the highest 47 (78.30%) selected postnatal mothers were in the age group of 18-25 years.11(18.30%) belongs to the age group of 26-33 years, 2(3.30%) belongs to the age group of 34-40 years and no one belongs to age group of above 40years.

Gravida:

Out of 60 participants, majority 36 (60%) of selected postnatal mothers belongs to gravida 1, 13(21.70%) belongs to gravida 2, 4 (6.70%) belongs to gravida 3 and 7(11.70%) belongs to gravid 4 and above 4.

Table 1: Frequency and percentage distribution of postnatal mothers according to demographic variables N=60

Sr. no.	Demographic Variables	Frequency	Percentage (%)
1.	Age in years : a) 18- 25 years b) 26- 33 years c) 34- 40 years d) Above 40 years	47 11 02 00	78.3% 18.3% 3.3% 0
2.	Gravida : a) 1 b) 2 c) 3 d) 4 and above 4	36 13 04 07	60% 21.7% 6.7% 11.7%
3.	Parity : a) Primipara b) Multipara	44 16	73.3% 26.7%
4.	Education : a) Illiterate b) Primary c) Secondary d) Graduate and above	06 12 25 17	10% 20% 41.7% 28.3%
5.	Occupation of mother: a) Housewife b) Government job c) Private job d) Any other specify	56 00 02 02	93.3% 00 3.3% 3.3%
6.	Type of family a) Nuclear b) Joint	09 51	15% 85%
7.	Family income (in rupees) a) 1001-5000 b) 5000-10000 c) 10001 and above	06 28 26	10% 46.7% 43.3%
8.	Antenatal visits a) 3-5 b) 6-8 c) 9 and more than 9	38 01 21	63.3% 1.7% 35%
9.	MCP card issued a) Yes b) No	55 05	91.7% 8.3%

Parity:

Out of 60 participants majority 44(73.30%) of selected postnatal mothers belongs to primipara, and 16 (26.70%) postnatal mothers belongs to multipara.

Education:

Out of 60 participants, majority, 25(41.70%) selected mothers were educated upto secondary level, 17(28.30%) were graduate and above, 12 (20%) were educated upto primary level and only 6 (10%) selected postnatal mothers were illiterate.

Occupation of mother

Out of 60 participants, 56 (93.30%) selected postnatal mothers were housewife, 0 (0%) were in govt. job, 2(3.30%) were private in job and 2(3.30%) were in any other occupation.

Type of family

Out of 60 participants, 9 (15%) selected postnatal mothers belongs to nuclear family, and 51(85%) postnatal mothers belongs to joint family

Family income

Out of 60 participants, 6(10%) selected postnatal mothers belongs to family income of Rs.1001-5000, 28(46.70%) belongs to family income of Rs 5001-10000, 26(43.30%) belongs to family income of Rs 10001 and above.

Antenatal visits

Out of 60 participants, majority 38(63.30%) of selected postnatal mothers had done 3-5 antenatal visits, 1(1.70%) had done 6-8 antenatal visit and 21(35%) had done 9 and above 9 antenatal visits.

MCP card issued

Out of 60 participants, 55(91.70%) selected postnatal mothers were having MCP Card and 5 (8.30%) postnatal mother were not having MCP card.

Part 2:

This part deal with the description of knowledge regarding self care and new born care among postnatal mothers.

It represents that, 7(11.67%) mothers had inadequate knowledge, 49(81.67%) mothers had satisfactory knowledge and 4(6.66%) mothers had adequate knowledge in pre-test. Whereas in post-test 0(0%) mothers had inadequate knowledge, 7(11.67%) mothers had satisfactory knowledge and 53(88.33%) had adequate knowledge.

Table 2: Frequency and percentage distribution of pre-test and post-test knowledge scores, N=60

S.no.	Pre-test		Post-test		Criteria
	Frequency	Percentage	Frequency	Percentage	
1	7	11.67%	0	0%	Inadequate knowledge
2	49	81.67%	7	11.67%	Satisfactory knowledge
3	4	6.66%	53	88.33%	Adequate knowledge

PART 3: Evaluation of the effectiveness of Information Education and Communication material regarding postnatal self care and newborn care.

Section A: Pre-test and post-test knowledge scores of postnatal mothers

Table 3: Assessment of level of Pre-test & Post-test, Mean, S.D, t-test of knowledge score, N=60

Knowledge score	Maximum score	Mother,s knowledge			df	p value
		Mean	S.D	Paired 't' test value		
Pre-test	30	18.43	3.143	18.952*	59	< 0.05
Post-test	30	26.10	2.978			

*significant

This table shows that mean of post-test knowledge score was 26.10 found higher with S.D of 2.978 when compared with mean of pre-test knowledge score value which was 18.43 with S.D of 3.143. The calculated 't' value was 18.952 which is higher than tabulated 't' value at 0.05 level of significance so the Information Education and Communication was effective.

PART 4: Association of pre-test knowledge, belief and practice score with selected demographic variables.

Table 4: Association between pre-test knowledge score and the selected demographic variables N=60

Variables	>=m	<=m	Chi Square value	df	p value
Gravida :					
a) 1	11	25	3.372	3	0.337 ^{NS}
b) 2	06	07			
c) 3	0	04			
d) 4 and above 4	03	04			
Parity :					
a) Primipara	15	29	0.043	1	0.83 ^{NS}
b) Multipara	05	11			
Education :					
a) Illiterate	02	04	3.816	3	0.282 ^{NS}
b) Primary	05	07			
c) Secondary	05	20			
d) Graduate and above	08	09			
Occupation of mother:					
a) Housewife	19	37	1.259	2	0.532 ^{NS}
b) Govt.job	0	0			
c) Private.job	01	01			
d) Anyother specify	0	02			
Antenatal visits					
a) 3-5	13	25	0.513	2	0.773 ^{NS}
b) 6-8	0	01			
c) 9 and more than 9	07	14			
MCP card issued					
a) Yes	18	37	0.109	1	0.741 ^{NS}
b) No	02	03			

NS –non significant

This table shows that Chi-square test was done to analyze the association between the pre-test knowledge scores and the selected demographic variables. The study

findings show that, there was no association between Gravida (3.372), Parity (0.043), Education (3.816), Occupation (1.259), Antenatal visits (0.513) and MCP card issued (0.109)

DISCUSSION

The study finding shows that, in pre-test 7(11.67%) mothers had inadequate knowledge, 49(81.67%) mothers had satisfactory knowledge and 4(6.66%) mothers had adequate knowledge. Whereas in post-test 0(0%) mothers had inadequate knowledge, 7(11.67%) mothers had satisfactory knowledge and 53(88.33%) had adequate knowledge.

The study findings are consistent with the study conducted at Banashankari Referral Hospital, Bangalore among 60 postnatal mothers regarding knowledge and practice about postnatal care. The study findings shows that Thirty Three (55%) respondents were having moderately adequate knowledge regarding selected aspects of postnatal care, 24(40%) were having inadequate knowledge and only 03(05%) of respondents had adequate knowledge. The level of practice was out of 60 respondents, 29(48.33%) respondents were having inadequate practices, 26(43.33%) were having moderately adequate practices and only 05(08.34%) of them had adequate practices on selected aspects of postnatal care. [7]

The study finding shows that mean of post-test knowledge score was 26.10 found higher with S.D of 2.978 when compared with mean of pre-test knowledge score value which was 18.43 with S.D of 3.143. The calculated 't' value was 18.952 which is higher than tabulated 't' value at 0.05 level of significance so the Information

Education and Communication was effective.

The study findings are consistent with the study conducted at tertiary care hospital Uttarakhand among 60 postnatal mothers regarding effectiveness of structured teaching programme on knowledge about postnatal care among mothers. The study finding shows that the mean of post-test knowledge score (26.28 ± 1.89) of the postnatal mothers was higher than that of the mean pre-test knowledge score (19.8 ± 2.98) and the mean difference was 6.48. The t calculated value (23.98) was higher than the tabulated value. So, the scores predicted that the significant difference between the mean of pre-test and post-test at $p < 0.05$ level. [8]

CONCLUSION

The study shows that there is a mean gain significant increase in the knowledge ($p < 0.05$) in all the areas of self care and newborn care. The study reveals that the Information Education and Communication material was very effective in increasing the knowledge. The present study shows that, there is no association between pre-test knowledge and belief and the selected demographic variables. There is association between antenatal visits and MCP card with pre-test practice scores but other demographic variables had no association.

REFERENCES

1. Basavanthapa BT. Text Book of Midwifery and Reproductive Health. 1st ed. New Delhi: Jaypee Brothers Publisher; 2006.

2. WHO. WHO Recommendation on Postnatal Care of the Mothers and Newborn. Available from: <http://www.postpartumwikipediathefreencyclopeda>.
3. WHO. Infant, Newborn. Available from: <https://www.who.int/infant-newborn/en>
4. Sample Registration System (SRS). Special bulletin on maternal mortality (Internet). New Delhi: Office of Registrar General, India, Ministry of Home Affairs; May 2018. Available from: <http://www.censusindia.gov.in>
5. WHO, Global Health Observatory (GHO). Available from data.http://www.who.int/gho/child_health/mortality/neonatal_infant_text/en/.
6. UNICEF. India (IND) Demographics, health and infant mortality, 2018. Available from: <https://data.unicef.org/country/ind>.
7. Pradan A, Rani U. Knowledge and Practice on Selected Aspects of Postnatal Care among Postnatal Mothers. Journal of Universal College of Medical Sciences. 2017; 5(1):37-41. DOI: <https://doi.org/10.3126/jucms.v5i1.19059>
8. Rao RC, Dhanya SM, Ashok K, Niroop SB, Assessment of cultural beliefs and practices during the postnatal period in a coastal town of South India. A mixed method research study, GJMEDPH .2014; 3, (5).

How to cite this article: S. Divya, K. Sunita, K. Jyoti et.al. Effectiveness of information education and communication material on knowledge of postnatal mothers regarding self care and newborn care at PGIMS, Rohtak. *International Journal of Science & Healthcare Research*. 2021; 6(1): 78-82.
