

Short Communication

Effectiveness of structured teaching programme on the knowledge regarding management of pre-term baby among final year B.Sc. Nursing students

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Abstract

All expectant parents hope that their babies will be healthy. A preterm baby is one who born before 37 completed weeks of gestation. All babies born preterm are at risk for serious health problems, including medical complications, long term disabilities and death. A quantitative approach with, pre-experimental research design, one group pre-test and post -test was used. The non –probability purposive sampling method was used to select the samples for the study. 83 samples of Final Year B.Sc Nursing students of Dinsha Patel College of Nursing, Nadiad and Late Ratilal Prabhudas Patel College of Nursing, Ode were used for data collection regarding Management of Preterm Baby. Tool consist of Section I demographic data: 7 items and section II-25 Structured Knowledge Questionnaire. In pre-test majority of respondents (27%) had inadequate knowledge, (71%) of them had moderate knowledge, & 2.4% of them had adequate knowledge regarding Management of Preterm baby. In post test 86% of them had moderate knowledge and 14% of them had adequate knowledge regarding Management of Preterm baby. Paired 't' test value obtained is 12.85 which is significant at 0.001 level. Majority of Final Year B.Sc Nursing students had inadequate knowledge regarding management of preterm baby.

Keywords: Knowledge, Preterm baby, Management of preterm baby, Final Year B.Sc. Nursing students, Structured Teaching Programme.

Introduction

“The true strength of a premature baby’s fighting spirit, can never be measured by a weight, length or gestational age.”

(Julia Toivonen)

All expectant parents hope that their babies will be healthy. Most pregnancies last around 40 weeks. Babies born between 37 and 42 weeks of pregnancy are called full term¹. A preterm baby is one born before 37 completed weeks of gestation. All babies born preterm are at risk for serious health problems, including medical complications, long term disabilities and death. Fortunately, advances in obstetrics and neonatology have improved the chances of survival for even these smallest babies².

In India, about 6 to 8 million Low Birth Weight babies are born annually. Out of which about 10 to 12% of Indian babies are born preterm as compared to 5 to 7% incidence in the West. The high incidence of Preterm babies in our country is accounted for poor socio-economic status, low maternal weight, chronic and acute systemic maternal disease, ante-partum hemorrhage, cervical incompetence, maternal genital colonization and infections, cigarette smoking during pregnancy, threatened abortion, acute emotional stress, physical

exertion, sexual activity, trauma, bicornuate uterus, multiple pregnancy and congenital malformations³.

WHO estimates that, each year globally about 25 millions Low Birth Weight babies consisting 17% of all live births, nearly 95% of them in developing countries. The incidence of preterm baby with low birth weight babies in India is 30% of live births⁴.

The preterm infant faces many challenges during the early stages of life. Poor control of body temperature is due to the large amount of skin surface in proportion to body weight, the lack of insulation of subcutaneous fat, immature nervous system and poor muscular development⁵.

Low Birth Weight babies may also results in complications like respiratory distress syndrome, Hypothermia, Hypoglycemia, Feeding difficulties, mental retardation, failure to thrive etc. To manage and to prevent the complication in Low Birth Weight babies, an effective and low cost method like kangaroo mother care need to be practiced by mothers of Low Birth Weight babies⁶.

In developing countries like India, use of incubators in the management of Low Birth Weight babies exerts a heavy

financial burden on parents of Low Birth Weight babies. Incubators are not affordable by the family members of Low Birth Weight babies because of high cost. Hence equally effective and low cost methods to manage the Low Birth Weight babies like Kangaroo Mother Care are to be made aware for mothers of Low Birth Weight babies. Kangaroo Mother Care not only prevents hypothermia in Low Birth Weight babies but also improves bonding between baby and mother⁷.

In 2013, nearly 22 million newborns an estimated 16% of all babies born globally had Low Birth Weight. Highest incidence occurs in the sub region of south central Asia where 27% of infants are Low Birth Weight and among these countries India and Bangladesh has highest prevalence of 30%⁸.

Nature's most precious gift to a woman is her baby and every woman look forward to have a healthy normal baby. Low Birth Weight infants a global and alarming problem and it is the most significant factor contributing to neonatal morbidity and mortality.

In India more than one million newborns die annually and Low Birth Weights are the main cause of Neonatal Mortality Rate and it represent about 33% of all live births. This is 25% of the global neonatal death load⁹.

The objectives of this study was to evaluate effectiveness of Structured Teaching Programme on management of preterm babies among Final Year B.sc nursing students.

Materials and methods

The study, designed as a Pre-experimental, one group pre-test and post-test, was conducted in the Dinsha Patel College of Nursing, Nadiad and Late Ratilal Prabhudas College of Nursing, Ode during the period from December 2015 to June 2016 with the approval of the Institutional Ethics Committee. 83 selected Final Year B.Sc. Nursing students were selected as convenient sampling. Tool consist of Section I demographic data: 7 items & section II-25 Structured Knowledge Questionnaire on management of preterm baby.

Detailed information on socio-demographic profile, like age, religion, type of family, area of residence, source of information, academic performance and attended any workshop/conference/Seminar related to management of preterm baby were documented on a pre-designed proforma. For

the procedures, the Final year B.Sc. Nursing students were taken to a quiet pre-designated room where pre-test on structured knowledge questionnaire was taken and Structured Teaching Programme on Management of Preterm Baby was introduced among respondents.

The post-test on same structured knowledge questionnaire was taken after 8 days of programme. Differential and inferential Statistical analysis was done. For categorical (qualitative) data, frequency and percentage were calculated and paired "t" test was used for significance test, chi square test was used to find association among demographic variables.

Inclusion criteria: Final year B.sc nursing students at Dinsha Patel College of Nursing, Nadiad and Late Ratilal Prabhudas College of Nursing, Ode are available at the time of data collection and who are able to read and write English.

Exclusion criteria: Final year B.sc nursing students at Dinsha Patel College of Nursing, Nadiad and Late Ratilal Prabhudas College of Nursing, Ode who are having any type of complicating fear and stress.

Results and discussion

Socio demographic data presented that among 83 samples, 61% (51) samples belonged to the age group of 20-21 year, 40% (32) samples belonged to the age group of 22-23 years. There were 93% (77) samples Hindu, while 1.20% (1) was Muslim, while 6% (5) samples are Christian. There were 36% (21) samples belonged to joint family; whereas remaining 69% (57) samples belonged to nuclear family. There were 20% (17) samples had source of health information from newspaper, 55% (46) had from social media, 24% (20) had from study material. There were 30% (25) samples belonged to rural area, were 48% (40) belonged to urban area, and 22% (18) samples belonged to semi urban area. There were 64% (53) samples had first-class in previous academic year, 28% (23) samples had second class and 8% (7) samples are having pass class in previous academic year. There were 29% (24) samples had attended workshop on management of pre-term baby.

In Table-1 the paired 't' test value at df 82 obtained is 12.85 significant at 0.05 level. Mean of post-test is greater than mean of pre-test knowledge score. Therefore Structured Teaching programme is effective.

Table-1: Paired' test value between pre- test and post- test knowledge scores.

	Minimum score	Maximum score	Range	Mean	SD	Paired "t" test
Pre-test	1	23	1-23	13.18	5.08	12.85 P<0.05
Post-test	11	25	11-25	17.22	3.06	

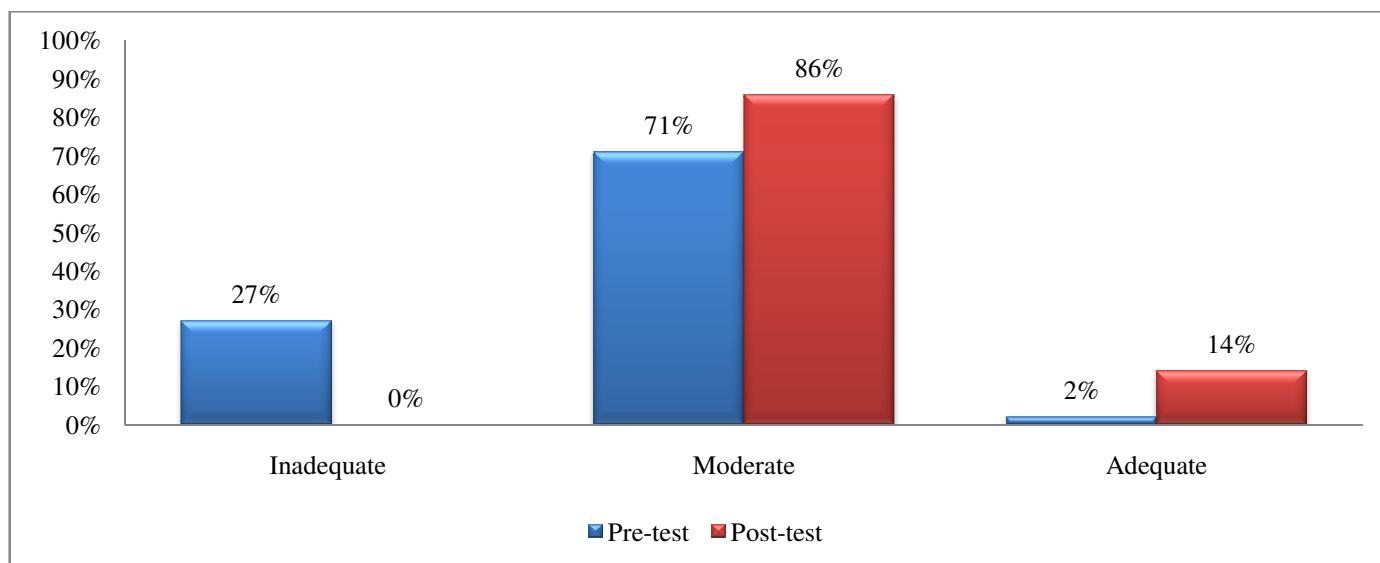


Figure-1: Level of knowledge of Final Year B.Sc. Nursing students before and after Structured Teaching Program.

Table-2: Association between selected Socio Demographic variables and post-test knowledge score on Management of Preterm Baby. N=83

	Socio Demographic variables	Inadequate	Moderate	Adequate	Chi square value
Age in years	20-21	4	36	11	$\chi^2 = 2.664$ df 2 (P=5.99 at p<0.05) NS
	22-23	0	24	8	
Religion	Hindu	3	56	18	$\chi^2 = 3.043$ df 4 (P=9.49 at p<0.05) NS
	Muslim	0	1	0	
	Christian	1	3	1	
Type of family	Joint	0	20	6	$\chi^2 = 1.938$ df 2 (P=5.99 at p<0.05) NS
	Nuclear	4	40	13	
Source of Information	News paper	3	12	2	$\chi^2 = 8.713$ df 4 (P=9.49 at p<0.05) NS
	Social media	1	32	12	
	Study material	0	16	5	
Area of residency	Rural	2	21	2	$\chi^2 = 6.123$ df 4 (P=9.49 at p<0.05) NS
	Urban	2	26	13	
	Semi urban	0	13	04	
Academic Performance of the previous Year	First class	3	37	13	$\chi^2 = 1.208$ df 4 (P=9.49 at p<0.05) NS
	Second class	1	16	5	
	Pass class	0	7	1	
Attended any Workshop/ conference/Seminar	Yes	1	18	5	$\chi^2 = 0.127$ df 2 (P=5.99 at p<0.05) NS
	No	3	42	14	

The present study is supported by a randomized controlled trial study on kangaroo mother care among 206 LBW infants with birth weight of <2000gm was conducted in Mumbai of which there were 103 neonates had KMC and 103 CMC over period 9 months. The result showed that infants with KMC had daily weight gain and no complications. The control group who had CMC had suffered from hypothermia and sepsis. It was observed that exclusive breast feeding was good (98%) in neonates with KMC than in control group (76%). There was good maternal acceptance with no adverse events and all were able to practice KMC at home¹⁰.

Conclusion

The findings of the study showed that highest percentage 61% of the samples belonged to age group of 20-21 years. The Structured Teaching Program was effective as pretest knowledge score standard deviation was (5.08) which was higher than the posttest knowledge score standard deviation (3.06). None of the socio demographic variables are significant with knowledge score of final year B.Sc. Nursing students.

Recommendation: i. The same study can be done with large samples to generalize the findings. ii. A comparative study can be conducted between Government and Self finance nursing college students. iii. An experimental study can be undertaken with control group on same topic. iv. A study can be carried out to evaluate the efficiency of various teaching strategies like self-instructional module (SIM), pamphlets, leaflets, and computer assisted instruction on Management of Preterm baby. v. A descriptive study can be carried out to assess the knowledge, attitude and practice of staff nurses regarding Management of Preterm baby.

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