

A STUDY TO ASSESS THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING MANAGEMENT OF BIRTH ASPHYXIA AMONG STAFF NURSES WORKING IN SELECTED MATERNITY HOSPITALS AT BANGALORE, KARNATAKA

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ABSTRACT

The present study was aimed to assess the effectiveness of self-instructional module on knowledge regarding management of birth asphyxia among staff nurses working in selected maternity hospitals at Bangalore, Karnataka the research approach was pre experimental design was adopted for this study. 60 staff nurses working in maternity hospital were selected by using purposive sampling method. Demographic profile was used to assess the personal information of staff nurses and structured knowledge questionnaire was used to assess knowledge. A pre-test was conducted to assess the existing level of knowledge towards management of birth asphyxia with the help of structured knowledge questionnaire, followed by self-instructional module given on management of birth asphyxia seven day later a post test was taken. The study found that self-instructional module on management of birth asphyxia effectively improved the knowledge level of staff nurse's selected maternity hospitals at Bangalore, Karnataka.

Keywords: Knowledge, Birth Asphyxia, Self-Instructional Module , Staff Nurses .

INTRODUCTION

The birth of baby is a wonderful yet very complex process. Many physical and emotional changes occur for mother and baby. A baby must make many physical adjustments of life outside the mother's body. The baby's body systems must work together in a new way. Sometimes a baby has difficulty making the transition to the world. There are many problems occurs during the intranatal and postnatal life of the newborns like diarrhoea, tetanus, pneumonia, sepsis, preterm birth complication, birth asphyxia and congenital which may lead neonatal mortality. Being born prematurely having a difficult or birth defects can also make changes more challenging among these. Birth asphyxia is one of the major causes of neonatal mortality which require resuscitation immediately after the birth¹.

Birth asphyxia is a serious clinical problem worldwide. According to WHO, birth asphyxia is defined as "The failure to initiate and sustain breathing at birth"². Asphyxia is an insult to the fetus or newborn due to lack of perfusion to various organs. There are many reasons a baby may not able to take in enough oxygen before; during or just after birth .A mother may have medical conditions that can lower her oxygen levels. There may be problem with the placenta that prevents enough oxygen from circulating to the fetus; or the baby may be unable to breath after delivery³.

According to WHO statistics on 2011 of estimated 130 million, infants born each year worldwide, 4 million die in the first 28 days of life. Two thirds of world's neonatal deaths occur in just 10 countries mostly in ASIA, Pakistan is number 3 among these countries with an estimated 298.000 neonatal deaths annually and a reported neonatal mortality rates 49/1000 live birth Pakistan accounts for 7% of global neonatal deaths. Infection 36%, pre term birth 28%, and birth asphyxia 23% totally it accounts for 87% of neonatal deaths worldwide. since cause of neonatal death vary by country and which the availability and quality of health care understanding neonatal mortality in relation to these factors is crucial⁴.

According to National Neonatal Perinatal Database 2000 data collected from 17 tertiary neonatal intensive care units in India. Apgar score <7 at 1 minute (includes moderate and severe asphyxia) were documented in 9% of all intramural deliveries. 2.5% babies continued to have Apgar scores <7 at 5 minutes of age. bag and mask ventilation was used in 4.5% infants and less than 1% infants needed cardiac compressions and/or medications for resuscitation at birth. Perinatal asphyxia was responsible for 20% of all neonatal deaths, manifestations of hypoxic-ischemic encephalopathy were seen in approximately 1.5% of all babies, and perinatal asphyxia was the commonest cause of still births accounting for one-third of all such studies⁵.

Therefore, birth asphyxia is recognized as an important cause of neonatal morbidity and mortality throughout the world.⁶ so the nurses should be trained in the management of birth asphyxia like newborn resuscitation to prevent further complications.

RESEARCH PROBLEM

A study to assess the effectiveness of self-instructional module on knowledge regarding management of birth asphyxia among staff nurses working in selected maternity hospitals at Bangalore, Karnataka”

OBJECTIVES OF THE STUDY:-

1. To assess the existing level of knowledge regarding management of birth asphyxia among staff nurses.
2. To develop and administer a Self-Instructional Module on management of birth asphyxia.
3. To evaluate the effectiveness of Self Instructional Module regarding management of birth asphyxia among staff nurses by post-test knowledge scores.
4. To find an association between the pre-test knowledge scores regarding management of birth asphyxia among staff nurses with selected demographic variable such as age, sex, religion, marital status, type of family, education, place of residences, year of experience in maternity hospital, source of information and number of resuscitation performed during the services.

MATERIAL AND METHODS

A pre-experimental design was adopted to accomplish the study objectives. Purposive sampling technique was used to select 60 staff nurses working in selected maternity hospitals at Bangalore. Permission was taken from the higher authorities of the college of nursing and hospital . The researcher approached the staff nurses working in selected maternity hospitals in bangalore . A sampling frame was prepared for those who fulfil the inclusive criteria of the current study. Researchers explained the main aim of the study.

Specification of the instrument and related measurement

Part-I Demographic profile consist of 7 items

Part-II

Investigator prepared containing 36 structured knowledge questions regarding management of birth asphyxia.

Instrument consists of 36 structured knowledge questions regarding management of birth asphyxia. The maximum score expected 36 and minimum score was 6. The data gathered was analyzed and interpreted in terms of objectives of the study. The Mean, Median, Mean Percentage & SD of knowledge were analyzed by using descriptive and inferential statistics.

RESULTS

Table-1: Showing the frequency and percentage distribution of subjects according to socio-demographic variables

Majority (37%) of staff nurses belonged to the age group of 25-30 years and only remaining 12% belonged to age group of 35 yrs and above. Majority (60%) of staff nurses were females and only remaining 40% were males. Majority (62%) of staff nurses were married and only remaining 38% of staff nurses were unmarried. Majority (68.4%) of staff nurses belonged to nuclear family and none of the staff nurses belonged to extended family. Majority (63.3%) of the staff nurses were G.N.M. staff and only remaining 6.8% were M. Sc. Nsg. staff. Majority (36.6%) of Staff nurses has 3 years and above years of working experiences and only remaining 11.6% has less than one year of working experiences. Majority of Staff nurses (73.3%) belonged to urban area and only remaining 26.7% belonged to rural area. Majority of Staff nurses (63.3%) has got information from academic education and only remaining 6.6% has got information from friends and colleges. Majority (50%) of staff nurses were performed 1-5 times resuscitation of newborn during their service and only remaining 3.3% were performed 6-10 times resuscitation of newborn during their service.

Table –I: Frequency and Percentage Distribution of Subjects According to Socio-Demographic Variables

(n = 60)

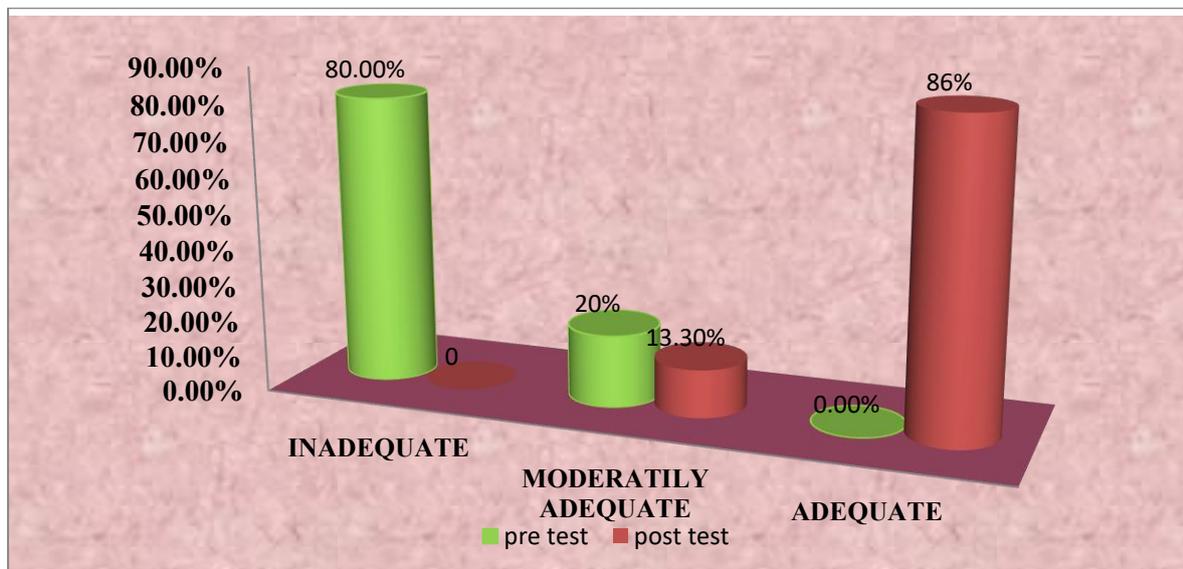
SL. No.	Demographic variables	Frequency	Percentage
1.	Age in years:		
	a. Below 25 years	17	28.3%
	b.25-30 years	22	
	c.30-35 years	14	36.6%
	d.35 years & above	7	23.3%
2.	Sex:		
	a. Male	24	40%

	b. Female	36	60%
3.	Marital status: a. Married	37	61.6%
	b. Unmarried	23	38.3%
4.	Type of family: a. Single parent family	10	16.6%
	b. Nuclear family	36	60%
	c. Joint family	14	23.3%
	d. Extended family	0	0%
5.	Educational Status: a. G.N.M.	34	56.6%
	b. B. Sc. Nsg	15	25%
	c. P.B. B. Sc. Nsg	7	11.6%
	d. M.Sc. Nsg	4	6.6%
6.	Years of working experiences: a. Below 1 years	7	11.6%
	b. 1-2 years	11	18.3%
	c. 2-3 years	20	33.3%
	d. 3 years & above	22	36.6%
7.	Place of residence: a. Urban	44	73.3%
	b. Rural	16	26.6%
8.	Sources of information: a. Mass media	9	15%
	b. Academic education	38	63.3%
	c. Friends and colleagues	4	6.6%
	d. Continuing education programme	9	15%
9.	Number of newborn resuscitation performed: a. Not done	15	25%
	b. 1-5 times	32	53.3%

	c. 6-10 times	2	3.3%
	d. More than 10 times	11	18.3%

TABLE-2 LEVEL OF KNOWLEDGE REGARDING MANAGEMENT OF BIRTH ASPHYXIA AMONG STAFF NURSES: N=60

LEVEL OF KNOWLEDGE	(<50%)		(51-75%)		(>75%)	
	frequency	percentage	frequency	percentage	frequency	Percentage
Pre Test	48	80%	12	20%	0	0
Post Test	0	0	8	13.33%	52	86.66%



The above table and cylindrical diagram reveal that pre test knowledge scores shows that majority (80%) of respondents have inadequate knowledge and only 20% have moderately knowledge and none of them have adequate knowledge regarding management of birth asphyxia respectively during pretest. After Self Instructional Module post test knowledge scores shows that majority (86.6%) of respondents have adequate knowledge and 13.3% respondents have moderately knowledge and none of them have inadequate knowledge regarding management of birth asphyxia respectively during post test.

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TABLE 4: Association between knowledge score with selected demographic variables:

N=60

SL. No.	Demographic variables	Frequency	Knowledge variable		X ²	df	P value Inference
			Median & below median (14)	Above median (14)			
1.	Age in years:						
	a. Below 25 years	17	5	12	8.69 3	3	0.033 S*
	b.25-30 years	22	14	8			
	c.30-35 years	14	11	3			
d.35 years & above	7	2	5				
2.	Sex:						
	c. Male	24	10	14	5.60 1	1	0.017 S*
3.	Marital status:						
	c. Married	37	21	16	0.06 6	1	0.796 NS
4.	Type of family:						
	c. Single parent family	10	5	5	7.91 1	2	0.019 S*
	d. Nuclear family	36	25	11			
	c. Joint family	14	2	12			
d. Extended family	0	0	0				
5.	Educational Status:						
	d. G.N.M.	34	20	14	9.43 4	3	0.024 S*
	e. B. Sc. Nsg	15	7	8			
	f. P.B. B. Sc. Nsg	7	2	5			
d. M.Sc. Nsg	4	3	1				
6.	Years of working experiences:						
	e. Below 1 years	7	3	4			

	f. 1-2 years	11	6	5	9.71	3	0.021
	g. 2-3 years	20	11	9	9		S*
	h. 3 years & above	22	12	10			
7.	Place of residence:				5.74	1	0.016
	c. Urban	44	20	24	6		S*
	d. Rural	16	12	4			
8.	Sources of information:						
	b. Mass media	9	7	2			
	b. Academic education	38	22	16	9.88	3	0.019
	c. Friends and colleagues	4	1	3	3		S*
	d. Continuing education programme	9	2	7			
9.	Number of newborn resuscitation performed:				9.70	3	0.021
	e. Not done	15	8	7	6		S*
	f. 1-5 times	32	14	18			
	g. 6-10 times	2	0	2			
	h. More than 10 times	11	10	1			

NOTE: S* -- Significant at 0.05 level (P<0.05). , NS – Non significant at 0.05 level (P>0.05).

DISCUSSION

The study pre-test finding reveals that staff nurses had inadequate knowledge regarding knowledge regarding management of birth asphyxia. The finding of the data present indicates that there was improvement in the knowledge of the staff nurses knowledge regarding management of birth asphyxia after the administration of self-instructional module .

This study is supported by **Raichel** who revealed that the post-test level of knowledge of New-born resuscitation among staff nurses 19 (31.67%) had moderate knowledge, they are categorized as 50-75% score, And 41 (68.33%) had adequate knowledge, they are categorized as more than 75% score⁷¹.

CONCLUSION

The present study proved that self-instructional module was effective among the staff nurses to increase knowledge about management of birth asphyxia. Further effectiveness if Self Instructional Module was tested by inferential statistics using paired 't' test. A significant difference was found between pre and post-test knowledge scores of staff nurses indicating significant increase in knowledge after Self Instructional Module. Hence research hypothesis (H₁) was accepted, therefore, the investigator concludes that Self Instructional Module is effective in improving the knowledge of staff nurses.

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