

# Comparative Study to Assess the Knowledge and Practice Regarding Newborn Care Among Postnatal Mothers in Selected Rural and Urban Communities in Rajahmundry with a View to Conduct Health Education Programme

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**Abstract:-** A comparative study to assess the knowledge and practice regarding newborn care among postnatal mothers in selected rural and urban communities in Rajahmundry with a view to conduct health education programme, was undertaken by Mrs. A. Swapna Kumari in partial fulfilment of the requirement for the reward of degree of Master of Science in Nursing from Swatantra College Of Nursing, Rajahmundry during thr year 2008-2010. The main objectives were: to assess the knowledge and practice among the rural and urban postnatal mothers regarding newborn care; to compare the knowledge and practice ;to find out association between knowledge and practice with their demographic variables; to conduct health education programme on newborn care. The study had made use of survey approach with descriptive comparative design for assessing knowledge and practice. The setting of the study was rural and urban communities , Rajhundry. A sample of 60 postnatal mothers were selected by simple random sampling technique as sampling technique for the study. The structured questionnaire, practice checklist and health education programme were validated and their reliability was determined. There is a significant difference between knowledge and practice so the hypothesis(H1) is accepted. The results suggested that by imparting health education to the postnatal mothers could bring about a well improvement in their knowledge and practice.

### Keywords:-

- *Df* :Degree of freedom
- *Et.al* : All other
- *F* :Frequency
- *N* :Total number of samples

- *M* :Mean
- *SD* : Standard Deviation
- *SE* : Standard Error
- *P-value* : Level of significance
- *HE* : Health Education Programme
- *<* :Less than
- *>* :More than
- *%* :Percentage

## I. INTRODUCTION

*“Behold, children are a heritage from the lord, the fruit of the womb is a reward”.*

- King David

### ➤ Back Ground of The Study

Motherhood is the gift of god. Healthy mothers will give birth to healthy babies. These babies will become the pillar of future. So new born care is necessary for the normal growth and development of a healthy child. The birth of a baby is one of life’s most wondrous moments. Newborn babies have amazing abilities, yet they are completely dependent on others for every aspect – feeding, warmth and comfort. Despite the improvements in child survival over the past 25 years, there is still virtually no effective health care system for newborns in many developing countries. Extra uterine life presents a challenge to the new born infant. The most important changes, those in the heart and lungs, take place at birth. However, continued adaptations are necessary in the first weeks of life as the infant assumes independence from the maternal and placental nurturing which is enjoyed before birth. He remains dependent on his mother or other caregivers for nutrition and protection but is responsible for his metabolism and homeostasis among other functions essential to survival.

Mother – baby separation post birth is common in Western culture. Early skin – to – skin contact (SSC) begins ideally at birth and involves placing the naked baby, covered across the back with a warm blanket, prone on the mother's bare chest. According to mammalian neuroscience, the intimate contact inherent in this place evokes neuro behaviours ensuring fulfillment of basic biological needs. This time may represent a psycho physiologically 'sensitive period' for programming future behaviour.

The common health problems of the new born are sticky ice stuffy nose, oral thrush, napkin rash, constipation, physiological jaundice and congenital phimosi etc.

The infant should be examined systematically but speedily to prevent undue exposure, beginning from the head followed by inspecting the whole body to detect any congenital abnormality. The baby is placed in a cradle where warmth is maintained depending upon the environment. Chilling must be avoided to prevent hypothermia. The baby should be flat on the cot with the head slightly lowered. Handling should be gentle and be kept to a minimum. Temperature should be frequently recorded until it becomes stabilized. Routine baby bath is not favoured in many centres to prevent cross infection. The excess vernix, blood or meconium are wiped off from the skin using sterile moist swabs and then make the skin dry by using soft towel. The procedure may be repeated daily. Breast feeding practices play an important role in reducing child mortality and morbidity.

Gomal Journal of Medical Sciences (Jan – June, 2006), Vol. 4 stated that newborn mortality is one of the most neglected health problems in the developing world. In Pakistan it also remains very high. Most of these deaths could be prevented through cost – effective interventions. A large proportion of births continue to occur at homes. Newborn mortality accounts for about one – third of deaths in children under five. Neglecting this problem may undermine the fourth Millennium Development Goal of reducing child mortality by two – thirds by 2015.

Allisyn. C.Moran, (2006), stated that urbanization is occurring at a rapid pace, especially in low – income countries. Dhaka, Bangladesh, is estimated to grow to 50 million by 2015, with 21 million living in urban slums. Although health services are available, neonatal mortality is higher in slum areas than in urban non – slum areas.

## II. MATERIALS AND METHODS:

New born babies are completely dependent on others for every aspects of poor knowledge of the mothers regarding exclusive breast feeding, immunization, prevention of accidents and injury, poor practices in feeding, providing warmth and comfort. In order to improve the knowledge and practice of the postnatal mothers to take care of the babies researcher selected this topic

### A. Research Approach

The Research Approach adopted was survey approach comprising practicability, feasibility and to a certain extent generalization.

The present study was conducted in two phases

- Assessed the knowledge and practice of rural and urban postnatal mothers.
- Conducted health education programme on newborn care.

### B. Research Design

The research design adopted for the study to achieve the objectives of the study was descriptive and comparative design.

### C. Setting

The study was conducted in the Rural Community of 30 postnatal mothers which is in Rajanagaram about 12 km from Swatantra College of Nursing and Urban Community of 30 postnatal mothers which is in Ambedkar Nagar about 5 km from Swatantra College of Nursing, Rajahmundry. The setting was chosen on the basis of the investigator's feasibility, in terms of availability of adequate sample and cooperation, formal permission was obtained from the principal of the college.

### D. Sample Size

The sample comprises of 60 postnatal mothers 30 in rural and 30 in urban communities, Rajahmundry, who fulfill the inclusive criteria.

### E. Criteria for Selection of Sample

The sample of this study includes all postnatal mothers in rural and urban committees, Rajahmundry.

#### ➤ Inclusive Criteria:

- Postnatal mothers of full term normal vaginal delivery and LSCS.
- Postnatal mothers who were willing to participate in the study.

#### ➤ Exclusive Criteria:

- Postnatal mother who were not cooperative.
- Those who are not available during the data collection.

### F. Sampling Technique

The simple random technique was used in this study.

### G. Variables of the Study

#### ➤ Independent Variables

Providing information by health education programme on newborn care.

#### ➤ Dependent Variables

Knowledge and practice of postnatal mothers on newborn care.

### ➤ *Extraneous variables*

Considered by the investigator were the age religion, educational status, occupation, family income, type of family, place of living, place of delivery, source of information.

### H. *Development of tool*

The structured questionnaire and practice check list was developed from extensive review of literature, books, journals, newspapers and guidance from experts. The experts gave their opinions and suggestions regarding adequacy and appropriateness of the study. The tool consists of 50 items.

The tool consists of the following sections;

#### ➤ *Section I :*

Consists of demographic data (age, religion, education, occupation, family income, type of family, place of living, place of delivery, source of information) that consists of 9 questions.

#### ➤ *Section II :*

Consists of 30 questions on knowledge related to age of child, eye care, ear care, nose care, breast feeding, skin care with multiple choices. A score of 1 was given for every correct answer and 0 for wrong answer. Total score is 30, 16 postnatal mothers had moderate knowledge, 14 had inadequate knowledge, none of them had adequate knowledge in rural community. Total score is 30, 16 postnatal mothers had adequate knowledge, 14 had moderate knowledge, none of them had inadequate knowledge in urban community.

#### ➤ *Section III :*

Consists of 20 questions on practice regarding newborn care. A score of 1 was given for every correct answer and 0 for wrong answer. Total score is 20, 6 postnatal mothers had good practice, 24 mothers had poor practice in rural community. Total score is 20, 12 postnatal mothers had good practice, 18 had poor practice in urban community.

### I. *Development of Health Education Programme*

Health education programme was developed from extensive review of literature including books, journals, news papers and guidance from experts. Experts were permitted to give their opinions regarding adequacy and the appropriateness of the study. The modifications were made. The final health education programme consists of introduction, definition of new born, initial care, general care of new born and regarding breast feeding includes importance, advantages and techniques.

### J. *Validity*

To determine the content validity, tools were submitted to the experts in the field of medical and nursing in obstetrics and gynecology. After obtaining their opinion, the tool was modified wherever necessary.

### K. *Reliability*

The reliability of the tool was a major criteria for assessing the quality and adequacy. In order to determine

reliability Pearman brown prophecy formula test – retest method was done on postnatal mothers. ( $r = 0.894$ ).

### L. *Pilot Study*

Formal written permission was obtained from the medical officers in Rural (Ganugudem) and Urban (Santhi Nagar) communities in Rajahmundry. Pilot study was conducted from 05-04-2010 to 17-04-2010. Initially assessed the postnatal mother's knowledge and practice, followed by conduction of health education programme, it was found feasible to conduct the study. Based on the results from the pilot study the tool was accepted.

### M. *Data Collection Procedure*

Formal written permission was obtained from the medical officers in rural (Rajanagaram) and urban (Ambedkar Nagar) committees in Rajahmundry.

The data was collected from 01-05-2010 to 30-05-2010. After explaining about the study the investigator made the postnatal mothers to sit comfortably and obtained their oral consent. The data was collected from 60 postnatal mothers in the period of 4 weeks. Structured questionnaire and practice check list were used to assess the knowledge and practice of rural and urban postnatal mothers.

### N. *Plan for Data analysis*

After the data collection the data was organized, tabulated, summarized and analyzed. It was planned to analyse using descriptive and inferential statistics.

#### ➤ *Descriptive Statistics used:*

- Percentage, mean standard deviation for knowledge and practice on newborn care.

#### ➤ *Inferential statistics used:*

- Unpaired 't' test for the comparison of knowledge and practice of postnatal mothers.
- Chi square test to analyse the association of demographic variables.

## III. STATISTICAL ANALYSIS

Abdellah and Levine (1979) stated that interpretation of tabulated data can bring to right the real meaning of the findings of the study. This chapter deals with the analysis and interpretation of the data collected from the post natal mothers who are in rural and urban communities, Rajahmundry with a view to conduct health education programme on knowledge and practice regarding new born care. A structured questionnaire and practice check list was used to collect the data for the study.

Total score is 30, 16 postnatal mothers had moderate knowledge, 14 had inadequate knowledge, none of them had adequate knowledge in rural community. Total score is 30, 16 postnatal mothers had adequate knowledge, 14 had moderate knowledge, none of them had inadequate knowledge in urban community.

Total score is 20, 6 postnatal mothers had good practice, 24 mothers had poor practice in rural community. Total score is 20, 12 postnatal mothers had good practice, 18 had poor practice in urban community.

The major findings of the study were organized in the form of tables and Diagrams with appropriate statistical tool and are represented under the following sections.

*A. Section – 1*

Demographic variables of post natal mothers.

*B. Section – 2*

Knowledge and practice of rural and urban post natal mothers regarding new born care.

*C. Section – 3*

Comparison of knowledge and practice among rural and urban post natal mothers regarding newborn care.

*D. Section – 4*

Association between knowledge and practice among rural and urban postnatal mothers regarding newborn care.

*A. Section -1 Demographic Variables of Postnatal Mothers In Rural And Urban Communities*

In this section an attempt is made to describe the demographic characteristics of the respondents. The demographic variables of the postnatal mother are coded and analyzed.

Sl. No	Demographic Characteristics	Frequency	Percentage
1.	<b>Age</b> 19-22 years 23-26 Years 27-30 Years	16 10 4	53.3 33.3 13.3
2.	<b>Religion</b> Hindu Muslim Christian	14 --- 16	46.6 --- 53.3
3.	<b>Educational Status</b> Illiterate Primary Secondary Graduate and above	9 13 8 ---	30 43.3 26.6 ---
4.	<b>Occupation</b> House Wife Labourer	17 13	56.6 43.3
5.	<b>Family income</b> < Rs.2,000/- Rs. 2,001/- to Rs. 5,000/- Rs. 5,001/- – Rs. 10,000/- >Rs. 10,000/-	6 17 7 ---	20 56.6 23.3 ---
6.	<b>Type of family</b> Nuclear Joint Extended	19 6 5	63.3 20 16.6
7.	<b>Place of living</b> Urban Rural	--- 30	--- 100
8.	<b>Place of delivery</b> PHC Govt. Hospital Private Hospital Home	9 7 9 5	30 23.3 30 16.6
9.	<b>Source of information</b> Mass Media Family members Health personnel	2 12 16	6.66 40 53.3

Table 1 Frequency and percentage distribution of postnatal mothers in rural community according to demographic characteristic  
N=30

The data presented in table 1 revealed that among the sample postnatal mothers majority 53.3% of respondents were in the age group of 19-22 yrs whereas 33.3% of the respondents were in the age group of 23-26 yrs whereas 13.3% of respondents were in the age group of 27-30 yrs. Majority of respondents 53.3% were adhering to Christianity, 46.6% of the respondents adheres to Hinduism. None of them belong to Muslim, other religions.

In relation to educational status of the respondent, majority 43.3% completed up to primary education, 30% were belongs to illiterate, 26.6% studied secondary education, none of them were belongs to graduate and above. In relation to occupational status of the respondents majority 56.6% were house-wives, 43.3% were labourers, none of them were engaged in business and employment. Pertaining to family income, about 56.6% of them belonged to the families where in the monthly income was within the range of Rs.2,001/- to Rs.5,000/-, 23.3% of the respondents belonged to the families where in the monthly income was within the range of Rs.5,001/- to Rs.10,000/-, 20% of the

respondents belonged to the families where in the monthly income was less than Rs. 2,000/- None of them were belonged to the families having monthly income more than Rs. 10,000/-.

In relation to type of family majority 63.3% belongs to the nuclear, 20% belongs to the joint family, 16.6% of the respondents belonged to the extended family. In relation to place of living, 100% of the respondents were belonged to rural area, none of them were belongs to urban area. In relation to place of delivery majority 30% of the respondents delivered at private hospitals, 30% of the respondents delivered at PHC, 23.3% of the respondents were delivered at Govt. Hospitals, 16.6% of the respondents delivered at home. In relation to source of information, majority of the respondents acquired information from the health personnel, 53.3% of the respondents acquired information from the health personnel and 40% of the respondents acquired information from the family members, 6.66% of the respondents acquired information from the mass media, none of them were acquired information from others.

Sl. No	Demographic Characteristics	Frequency	Percentage
1.	<b>Age</b> 19-22 years 23-26 Years 27-30 Years.	12 11 7	40 36.6 23.3
2.	<b>Religion</b> Hindu Muslim Christian	16 4 10	53.3 13.3 33.3
3.	<b>Educational Status</b> Illiterate Primary Secondary Graduate and above	--- 14 15 1	--- 46.6 50 3.33
4.	<b>Occupation</b> House Wife Labourer	22 8	73.3 26.6
5.	<b>Family income</b> < Rs.2,000/- Rs. 2,001/- to Rs. 5,000/- Rs. 5,001/- to Rs. 10,000/- > Rs. 10,000/-	--- 16 12 2	--- 53.3 40 6.66
6.	<b>Type of family</b> Nuclear Joint Extended	17 10 3	56.6 33.3 10
7.	<b>Place of living</b> Urban Rural	30 ---	100 ---
8.	<b>Place of delivery</b> PHC Govt. Hospital Private Hospital Home	9 3 18 ---	30 10 60 ---
9.	<b>Source of information</b> Mass Media Family members Health personnel	7 11 12	23.3 36.6 40

Table 2 Frequency and percentage distribution of postnatal mothers in urban community according to demographic characteristic: N=30

The data presented in table 2 revealed that among the sample postnatal mothers majority 40% of respondents were in the age group of 19-22 yrs whereas 36.6% of the respondents were in the age group of 23-26 yrs whereas 23.3% of respondents were in the age group of 27-30 yrs. Majority of respondents 53.3% were adhering to Hinduism, 33.3% of the respondents adheres to Christianity and 13.3% of them to Muslim. None of them belong to other religions.

In relation to educational status of the respondent, majority 50% completed up to secondary education, 46.6% completed primary education, 3.33% studied degree and above, none of them were illiterates. In relation to occupational status of the respondents majority 73.3% were house-wives, 26.6% were labourers, none of them were engaged in business and employment. Pertaining to family income, about 53.3% of them belonged to the families where in the monthly income was with in the range of Rs.2,001/- to Rs.5,000/-, 40% of the respondents belonged to the families where in the monthly income was with in the range of

Rs.5,001/- to Rs.10,000/-, 6.66% of the respondents belonged to the families where in the monthly income was with in the range of more Rs.10,000/-, none of them were belonged to the families having monthly income less than Rs. 2,000/-.

In relation to type of family majority 56.6% belonged to the nuclear, 33.3% belonged to the joint family, 10% of the respondents belonged to the extended family. In relation to place of living, 100% of the respondents were belonged to Urban area, none of them were belongs to rural area. In relation to place of delivery majority 60% of the respondents delivered at private hospitals, 30% of the respondents delivered at PHC, 10% of the respondents were delivered in Govt. Hospitals, none of them were delivered at home. In relation to source of information, majority 40% of the respondents acquired information from the health personnel, 36.6% of the respondents acquired information from the family members and 23.3% of the respondents acquired information from the mass media.

Knowledge variables	Adequate		Moderate		Inadequate	
	Postnatal Mother	%	Postnatal Mother	%	Postnatal Mother	%
Definition of newborn, initial care and general care of newborn, breast feeding importance and its techniques.	-	-	16	53.3	14	46.6

Table – 3 Level of Knowledge Among Rural Postnatal Mothers Regarding Newborn Care

The data presented in table - 3 shows that the total knowledge among rural postnatal mothers the majority 53.3% had moderate knowledge, 46.6% had inadequate knowledge, none of them had adequate knowledge.

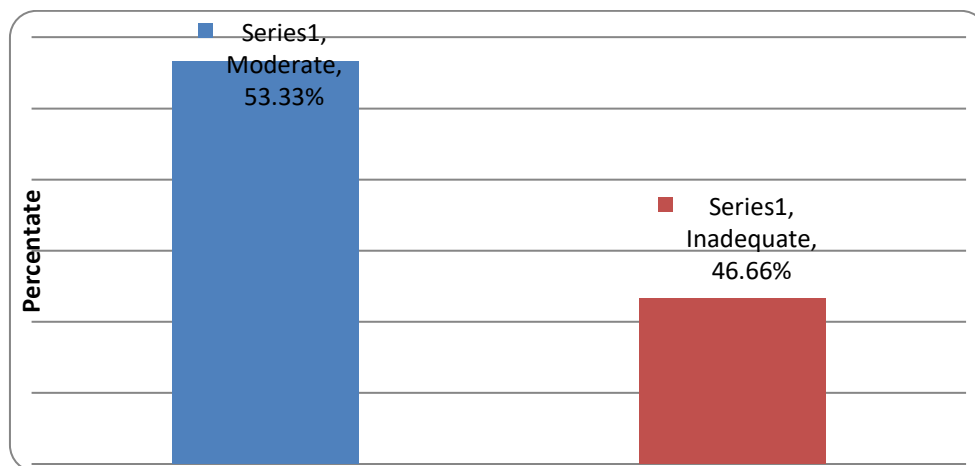


Fig: 1

➤ Level of Knowledge Among Rural Postnatal Mothers Regarding Newborn Care

Knowledge variables	Adequate		Moderate		Inadequate	
	Postnatal Mother	%	Postnatal Mother	%	Postnatal Mother	%
Definition of newborn, initial care and general care of newborn, breast feeding importance and its techniques.	16	53.3	14	46.6	-	-

Table – 4 Level of Knowledge Among Urban Postnatal Mothers Regarding Newborn Care

The data presented in table - 4 shows that the total knowledge among urban postnatal mothers the majority 53.3% had adequate knowledge, 46.6% had moderate knowledge, none of them had inadequate knowledge.

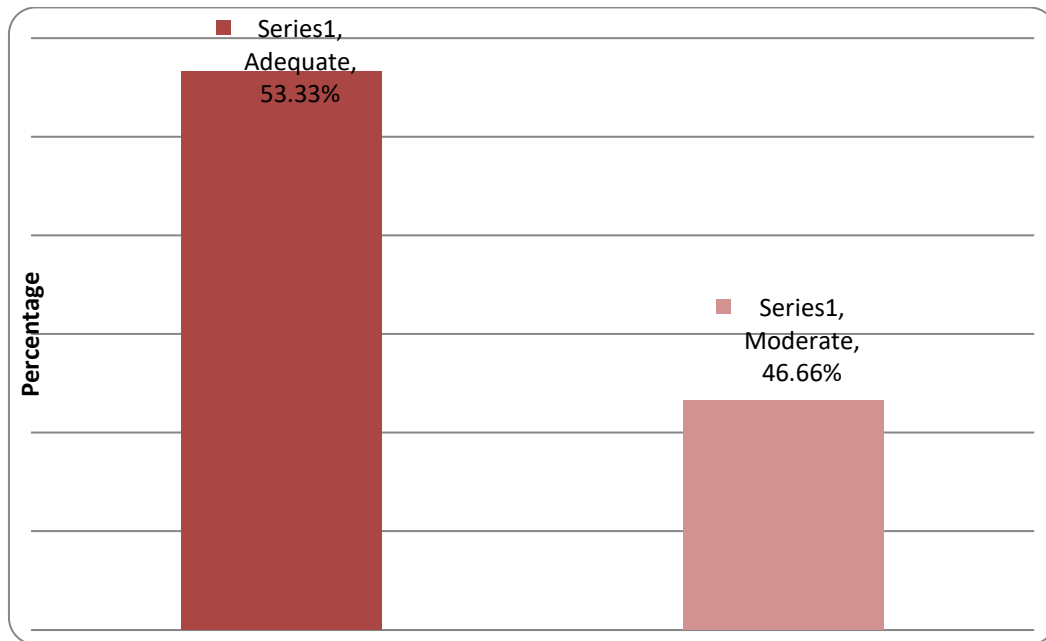


Fig 2

➤ *Level of Knowledge Among Urban Postnatal Mothers Regarding Newborn Care*

Practice variables	Good		Poor	
	Postnatal Mother	%	Postnatal Mother	%
Regarding breast feeding – positioning of the mother, baby. Cleaning of eyes, ears, nose and mouth with warm wet soft cloth. Put the baby clothes appropriately (cotton, clean, kept separately)	6	20	24	80

Table – 5 Level of Practice Among Rural Postnatal Mothers Regarding Newborn Care

The data presented in table - 5 shows that the total practice among rural postnatal mothers the 20% had good practice, the majority 80% had poor practice.



Fig 3

➤ *Level of Practice Among Rural Postnatal Mothers Regarding Newborn Care*

Practice variables	Good		Poor	
	Postnatal Mother	%	Postnatal Mother	%
Regarding breast feeding – positioning of the mother, baby. Cleaning of eyes, ears, nose and mouth with warm wet soft cloth. Put the baby clothes appropriately (cotton, clean, kept separately)	12	40	18	60

Table – 6 Level of Practice Among Urban Postnatal Mothers Regarding Newborn Care

The data presented in table - 6 shows that the total practice among urban postnatal mothers 40% had good practice, the majority 60% had poor practice.

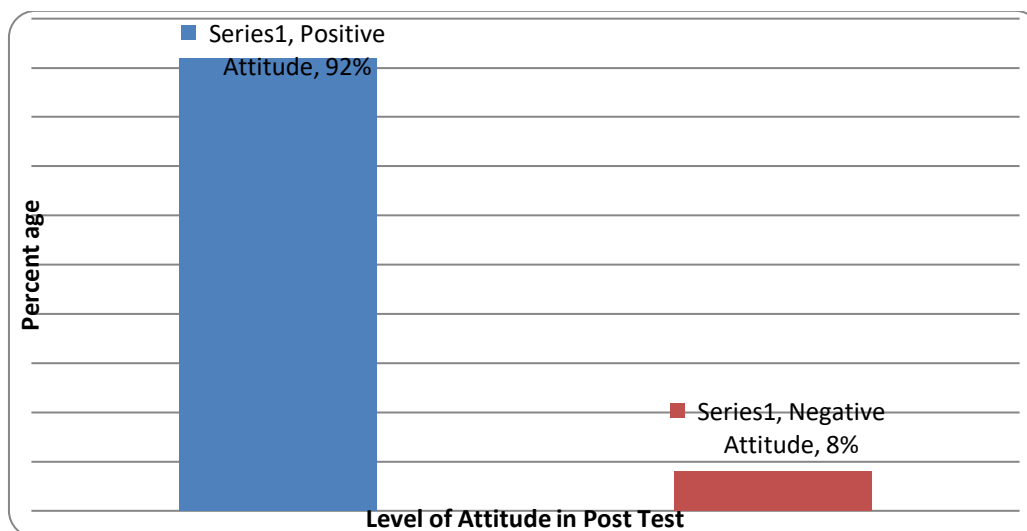


Fig 4

➤ *Level of Practice Among Urban Postnatal Mothers Regarding Newborn Care*

*B. Section –2 Distribution of Mean And Standard Deviation of Knowledge Regarding Area*

In this section an attempt is made to show the mean score difference between knowledge and practice. The standard deviation was calculated to identify difference between the minimum value and maximum value.

The mean score knowledge is 12.27 and standard deviation of knowledge is 3.443 in rural post natal mothers. The mean score knowledge is 21.13 and standard deviation knowledge is 3.192 in urban post natal mothers were obtained respectively.

	Group	N	Mean	Std. Deviations	Std. Error Mean
Knowledge	Rural	30	12.27	3.443	0.629
	Urban	30	21.13	3.192	0.583

Table – 7

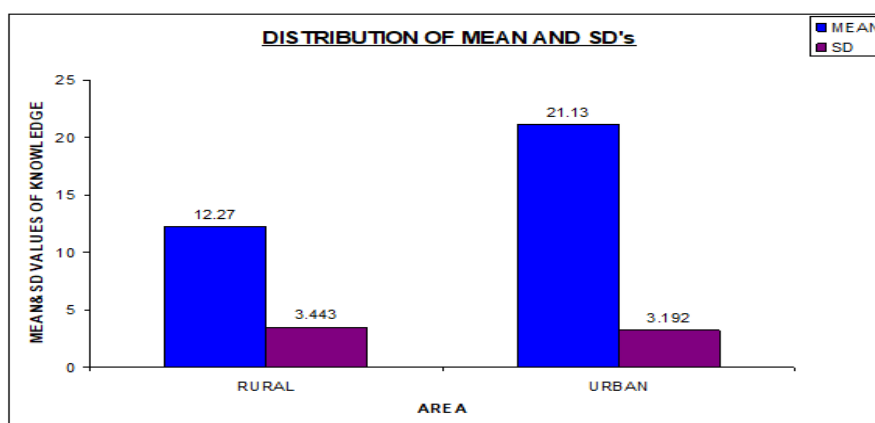


Fig – 5



➤ *Distribution of Mean And Standard Deviation of Practice Regarding Area*

The mean score in practice is 10.27 and standard deviation practice is 2.900 in rural postnatal mothers, mean score practice is 12.77 and standard deviation practice 3.157 in urban postnatal mothers were obtained respectively.

	Group	N	Mean	Std. Deviations	Std. Error Mean
Practice	Rural	30	10.27	2.900	0.529
	Urban	30	12.77	3.159	0.577

Table – 8

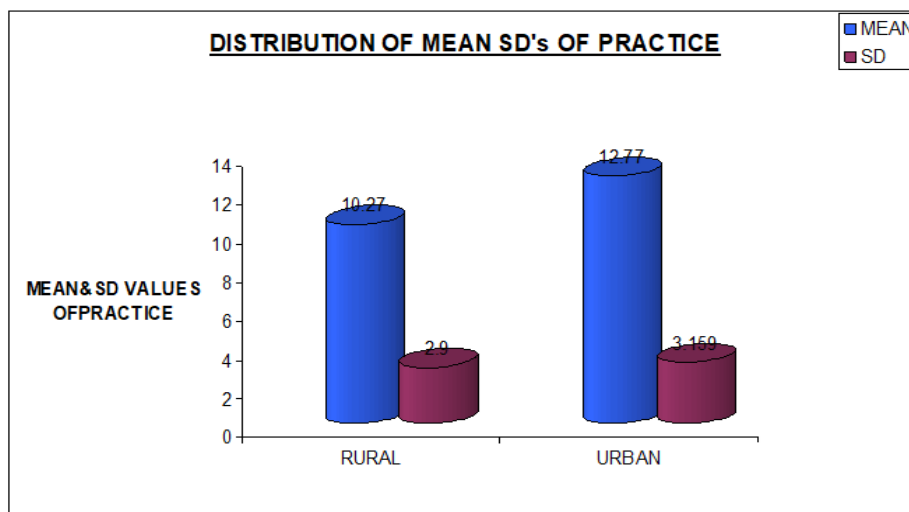


Fig 6

C. *Section -3 Comparison of Knowledge and Practice Among Postnatal Mothers Regarding Newborn Care*

In this section an attempt is made to compare the knowledge and practice regarding newborn care. The t – value was calculated to determine the statistical significance of the difference.

The t - value is statistically significant at < 0.05 level.

**INDEPENDENT SAMPLES TEST**

		Levene's Test for Equality of Variances	t-test for Equality of Means					
		f	sig	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference
Knowledge	Equal variance assumed	0.696	0.407	10.343	58	0.000	-8.867	0.857
	Equal variance not assumed			10.343	57.669	0.000	-8.867	0.857

Table 9

**Interpretation :**

The above table shows that there is a highly significant difference in knowledge between rural and urban postnatal mothers regarding new born care.

		Levene's Test for Equality of Variances	t-test for Equality of Means					
		f	sig	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference
Practice	Equal variance assumed	1.34	0.251	3.193	58	0.002	-2.500	0.783
	Equal variance not assumed			3.193	57.581	0.002	-2.500	0.783

Table 10

**Interpretation :**

The above table shows that there is a significant difference in practice between rural and urban postnatal mothers regarding new born care .

**D. Section –4 Association Between Knowledge of Rural Postnatal Mothers With Their Demographic Variables**

Sl. No.	Demographic variables	Knowledge			Chi-square method	P - value	Association
		Adequate	Moderate	inadequate			
1.	<b>Age</b> ➤ 19-22 years ➤ 23-26 Years ➤ 27-30 Years	- - -	9 5 2	7 5 2	0.117	0.943	N.S
2.	<b>Religion</b> ➤ Hindu ➤ Muslim ➤ Christian	- - -	6 - 10	8 - 6	1.158	0.282	N.S
3.	<b>Educational Status</b> ➤ Illiterate ➤ Primary ➤ Secondary ➤ Graduate and above	- - - -	5 4 7 -	4 9 1 -	6.429	0.04	S
4.	<b>Occupation</b> ➤ House Wife ➤ Labourer	- -	10 7	7 6	0.074	0.785	N.S
5.	<b>Family income</b> ➤ < Rs.2,000/- ➤ Rs. 2,001/- to 5,000/- ➤ Rs. 5,001/- to 10,000/- ➤ > Rs. 10,000/-	- - - -	5 9 2 -	1 8 5 -	3.895	0.143	N.S
6.	<b>Type of family</b> ➤ Nuclear ➤ Joint ➤ Extended	- - -	9 3 4	10 3 1	1.727	0.42	N.S
7.	<b>Place of living</b> ➤ Urban ➤ Rural	- -	- 16	- 14	-	-	-
8.	<b>Place of delivery</b> ➤ PHC ➤ Govt. Hospital ➤ Private Hospital ➤ Home	- - - -	5 4 5 2	4 3 4 3	0.434	0.933	N.S
9.	<b>Source of information</b> ➤ Mass Media ➤ Family members ➤ Health personnel	- - -	2 8 6	1 4 9	2.143	0.343	N.S

Table – 11 Association between Knowledge and demographic variables in Rural Community.

The above table shows that there is no significant association between knowledge and demographic variables (age, religion, occupation, family income, type of family, place of living, place of delivery and source of information) in rural community.

There is a significant association between knowledge and demographic variables i.e. educational status in rural community.

Sl. No.	Demographic variables	Knowledge			Chi-square method	P-value	Association
		Adequate	Moderate	inadequate			
1.	<b>Age</b> ➤ 19-22 years ➤ 23-26 Years ➤ 27-30 Years	6 5 5	6 6 2	- - -	1.249	0.536	N.S
2.	<b>Religion</b> ➤ Hindu ➤ Muslim ➤ Christian	9 2 5	7 2 5	- - -	0.117	0.943	N.S
3.	<b>Educational Status</b> ➤ Illiterate ➤ Primary ➤ Secondary ➤ Graduate and above	- 6 9 1	- 8 6 -	- - - -	1.76	0.45	N.S
4.	<b>Occupation</b> ➤ House Wife ➤ Labourer	13 3	9 5	- -	1.099	0.295	N.S
5.	<b>Family income</b> ➤ < Rs.2,000/- ➤ Rs. 2,001/- to 5,000/- ➤ Rs. 5,001/- to 10,000/- ➤ > Rs. 10,000/-	- 8 8 -	- 8 6 -	- - - -	0.513	0.696	N.S
6.	<b>Type of family</b> ➤ Nuclear ➤ Joint ➤ Extended	9 6 1	8 4 2	- - -	0.662	0.718	N.S
7.	<b>Place of living</b> ➤ Urban ➤ Rural	16 -	14 -	- -	-	-	-
8.	<b>Place of delivery</b> ➤ PHC ➤ Govt. Hospital ➤ Private Hospital ➤ Home	6 - 10 -	3 3 8 -	- - - -	4.107	0.128	N.S
9.	<b>Source of information</b> ➤ Mass Media ➤ Family members ➤ Health personnel	4 6 6	3 5 6	- - -	0.101	0.951	N.S

Table – 12 Association between knowledge and demographic variables in Urban Community.

The above table shows that there is no significant association between knowledge and demographic variables urban community.

Sl. No.	Demographic variables	Practice		Chi-square method	P - value	Association
		Good	Poor			
1.	<b>Age</b> ➤ 19-22 years ➤ 23-26 Years ➤ 27-30 Years	4 1 1	12 9 3	0.938	0.626	N.S
2.	<b>Religion</b> ➤ Hindu ➤ Muslim ➤ Christian	3 - 3	11 - 13	0.033	0.855	N.S
3.	<b>Educational Status</b> ➤ Illiterate ➤ Primary ➤ Secondary ➤ Graduate and above	2 - 4 -	7 13 4 -	7.778	0.020	S
4.	<b>Occupation</b> ➤ House Wife ➤ Labourer	3 3	14 10	0.136	0.713	N.S
5.	<b>Family income</b> ➤ < Rs.2,000/- ➤ Rs. 2,001/- to 5,000/- ➤ Rs. 5,001/- to 10,000/- ➤ > Rs. 10,000/-	3 1 2 -	3 16 5 -	5.814	0.055	N.S
6.	<b>Type of family</b> ➤ Nuclear ➤ Joint ➤ Extended	6 - -	13 6 5	4.342	0.114	N.S
7.	<b>Place of living</b> ➤ Urban ➤ Rural	- 12	- 18	-	-	-
8.	<b>Place of delivery</b> ➤ PHC ➤ Govt. Hospital ➤ Private Hospital ➤ Home	1 1 3 1	8 6 6 4	1.587	0.662	N.S
9.	<b>Source of information</b> ➤ Mass Media ➤ Family members ➤ Health personnel	1 4 2	1 8 14	2.516	0.284	N.S

Table – 13 Association between Practice and demographic variables in Rural community.

The above table shows that there is no significant association between practice and demographic variables (age, religion, occupation, family income, type of family, place of living, place of delivery and source of information) in rural community. There is significant association between practice and demographic variables i.e. educational status in rural community.

Sl. No.	Demographic variables	Practice		Chi-square method	P - value	Association
		Good	Poor			
1.	<b>Age</b> ➤ 19-22 years ➤ 23-26 Years ➤ 27-30 Years	4 4 4	8 7 3	1.14	0.566	N.S
2.	<b>Religion</b> ➤ Hindu ➤ Muslim ➤ Christian	6 2 4	10 2 6	0.208	0.901	N.S
3.	<b>Educational Status</b> ➤ Illiterate ➤ Primary ➤ Secondary	- 5 7	- 9 8	1.052	0.591	N.S

	➤ Graduate and above	-	1			
4.	<b>Occupation</b>					
	➤ House Wife	10	12	1.023	0.312	N.S
	➤ Labourer	2	6			
5.	<b>Family income</b>					
	➤ < Rs.2,000/-	-	-			
	➤ Rs. 2,001/- to 5,000/-	4	12	3.214	0.073	N.S
	➤ Rs. 5,001/- to 10,000/-	8	6			
	➤ > Rs. 10,000/-	-	-			
6.	<b>Type of family</b>					
	➤ Nuclear	7	10	0.065	0.968	N.S
	➤ Joint	4	6			
	➤ Extended	1	2			
7.	<b>Place of living</b>					
	➤ Urban	12	18	-	-	-
	➤ Rural	-	-			
8.	<b>Place of delivery</b>					
	➤ PHC	4	5	0.139	0.933	N.S
	➤ Govt. Hospital	1	2			
	➤ Private Hospital	7	11			
	➤ Home	-	-			
9.	<b>Source of information</b>					
	➤ Mass Media	4	3	1.319	0.517	N.S
	➤ Family members	4	6			
	➤ Health personnel	4	9			

Table – 14 Association between Practice and demographic variables in Urban community.

The above table shows that there is no significant association between practice and demographic variables urban community.

#### IV. RESULTS

##### A. Discussion

Newborn mortality is one of the most neglected health problems in the developing world. In Pakistan it also remains very high. Most of these deaths could be prevented through cost – effective interventions. A large proportion of births continue to occur at homes. Neglecting this problem may undermine the fourth Millennium Development Goal of reducing child mortality by two – thirds by 2015.

The present study programme was mainly aimed at “A comparative study to assess the knowledge and practice regarding newborn care among post natal mothers in selected rural and urban communities in Rajahmundry with a view to conduct health education programme”. The discussion of the present study was based on findings obtained from descriptive and inferential statistical analysis of collected data.

The assessment helps to determine the knowledge and practice of post natal mothers and ascertain if the information provided was valid of post natal mothers.

The study was undertaken to “A comparative study to assess the knowledge and practice regarding newborn care among post natal mothers in selected rural and urban communities in Rajahmundry with a view to conduct health education programme”. The discussion of the present study is

based on findings obtained from descriptive and inferential and statistical analysis of the collected data.

It is presented here in view of the objectives of the study.

##### B. Objectives of The Study

1. To assess the knowledge among the rural and urban postnatal mothers regarding ‘Newborn care’.
2. To assess the practice among the rural and urban postnatal mothers regarding ‘Newborn care’.
3. To compare the knowledge and practice between rural and urban postnatal mothers regarding ‘Newborn care’.
4. To find out association between knowledge and practice among rural and urban postnatal mothers regarding new born care and there demographic variables.
5. To conduct health education programme on new born care.

##### C. Hypothesis

- H<sub>1</sub> : There is a significant difference in knowledge between rural and urban postnatal mothers.
- H<sub>2</sub> : There is a significant difference in practice between rural and urban postnatal mothers.
- H<sub>3</sub> : There is a significant association in knowledge between rural and urban postnatal mothers with their demographic variables.
- H<sub>4</sub> : There is a significant association in practice between rural and urban postnatal mothers with their demographic variables.

The first objective of the study was to assess the knowledge regarding newborn care among postnatal mothers in rural and urban communities. Administer structured

questionnaire and collected data was analyzed. With regard to the total knowledge of postnatal mothers in rural community the majority 53.3% had moderate knowledge, 46.6% had inadequate knowledge, none of them had adequate knowledge. In urban community 53.33% had adequate knowledge, 46.66% had moderate knowledge and none of them had inadequate knowledge.

The second objective of the study was to assess the practice regarding newborn care among postnatal mothers in rural and urban communities. The practice was assessed through checklist and the collected data was analyzed. With regard to the total practice of postnatal mothers in rural area 20% had good practice, 80% had poor practice, in urban area 40% had good practice, 60% had poor practice.

The third objective of the study was to compare the knowledge and practice regarding newborn care among postnatal mothers in rural and urban communities with demographic variables. The mean score difference is 12.27 in rural knowledge and the mean score 21.13 in urban knowledge was significant at 0.05 level as the 't' value 10.343. The mean score 10.27 in rural practice and 12.77 in urban practice is significant at 0.05 level as the 't' value 3.193.

The fourth objective of the study was to find out association between knowledge and practice among rural and urban postnatal mothers with their selected variables. There is significant association between knowledge with their selected variable like educational status with the  $\chi^2$  value 6.429 and 7.778 respectively. There was no association found between the knowledge, practice and their demographic variables like age, religion, occupation, family income, type of family, place of living, source of information in rural community. There is no significant association knowledge and the selected variables like age, religion, education, occupation, family income, type of family, place of living, source of information in urban community.

## V. CONCLUSION

The following conclusion were drawn:

The knowledge regarding newborn care among postnatal mothers in rural and urban communities revealed that the total knowledge of postnatal mothers in rural community the majority 53.3% had moderate knowledge, 46.6% had inadequate knowledge, none of them had adequate knowledge. In urban community 53.33% had adequate knowledge, 46.66% had moderate knowledge and none of them had inadequate knowledge.

The practice regarding newborn care among postnatal mothers in rural and urban communities revealed that the total practice of postnatal mothers in rural area 20% had good practice, 80% had poor practice, in urban area 40% had good practice, 60% had poor practice.

There was a significant difference between rural and urban post natal mother's knowledge and practice on newborn care. Hence the hypothesis is adopted.

## IMPLICATION

The findings of the study have the following implications for nursing practice, nursing education, nursing administration and nursing research.

### A. Nursing practice

- Health education should be made an integral component of nursing practice.
- Nursing personnel should conduct planned teaching programme for post natal mothers in hospital and community setting.
- Need to develop the strategies for teaching newborn care to the post natal mothers.

### B. Nursing education

- Teaching modules should be introduced into the curriculum at primary levels of nursing education.
- The students should be trained in putting their efforts to reduce the occurrence of morbidity and mortality by improving the knowledge and practice of postnatal mothers on new born care.
- Nursing personnel working in MCH clinics, community health departments, PHC, sub – centers should be given in service education to update and improve their activities in terms of knowledge, skills, attributes in identifying the needs of post natal mothers and also to plan, implement and educate by health education programme to post natal mothers.

### C. Nursing research

The researcher should focus attention on knowledge and practice acquired by the post natal mothers on the effectiveness of health education programmes on new born care.

## RECOMMENDATIONS

- A similar study can be conducted with large sample.
- A similar study on qualitative longitudinal study can be done.
- A similar study can be done on late neonatal care (7 – 28 days) in community settings.
- A similar study can be done by using different instructional technology.
- A descriptive study can be done to assess the traditional practices and its merits and demerits.
- Future studies can be conducted among primi mothers on knowledge and practice regarding new born care.
- A follow up qualitative study can be done among same postnatal mothers to assess the effect of the outcomes on health education.
- A comparative study can be conducted at PHC and district hospital on knowledge of newborn care.

- A descriptive study can be done among nursing personnel on advocacy of newborn care to antenatal / postnatal mothers.

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