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A Review Article

### STUDY ON ASSESSMENT OF KNOWLEDGE AND PRACTICE ON NEONATAL CARE AMONG POSTNATAL MOTHERS IN TERTIARY CARE HOSPITAL

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**Abstract:**

**Background:** Under-five mortality is a major concern, especially in a developing country like India. In <5 years age group, most vulnerable population is the neonatal period (0-28 days of life), accounting for more than half of under-five child deaths. Neonatal period has also an important bearing on long term growth and development of the baby. That is why the care of the new born plays a vital role in determining child health and under-five mortality rate.

**Methods:** Mothers were classified according to some socio demographic factors. Each mother was given a questionnaire comprising of 25 questions on knowledge and 14 questions on practice of newborn care. For each correct response 1 point and for each incorrect response 0 point was allotted. Finally, the total score was computed. Knowledge was categorized as inadequate (score 0-7), satisfactory (score 8-16) or adequate (score 17-25). Practice was categorized as inadequate (score 0-4), satisfactory (5-9) or adequate (10-14). Chi-square test was applied to determine whether any statistical correlation existed between the socio-demographic profiles and knowledge and practices. A p value of <0.05 was considered to be significant.

**Results:** Answers of 200 mothers were analyzed. Most of them had satisfactory knowledge (91.5 %). Majority of them had adequate practice (54%). This study shows that there is significant association of level of knowledge and practice with selected demographic variables. There was significant association between educational level and knowledge ( $p < 0.00001$ ). No association was observed between knowledge and age ( $p = 0.1657$ ), parity ( $p = 0.014$ ). There was a significant association between parity and practice ( $p = 0.00001$ ), occupation ( $p = 0.00001$ ). No association between age ( $p = 1.828$ ) and education ( $p = 1.8884$ ) with practice of postnatal mothers.

**Conclusion:** Maternal knowledge and practice about new born care play vital roles in prevention of neonatal death. Some socio demographic factors may bear associations with the knowledge and practice of the mothers. Educating the mothers and also their family members plays a pivotal role.

**Key words:** knowledge, postnatal mothers, neonatal period

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**INTRODUCTION:**

Neonatal mortality or death is one of the major causes of concern with newborns all over the world, especially developing and under developed countries. Despite some remarkable improvements in neonatal health in recent years, the high mortality rates remain unchanged in many countries [1]. Of the 10 million babies born every year, approximately 4million infants die during first week, 8 million during first year and around 10 million within 5 years of their life [2]. 99% of these deaths occur in the third world or developing countries, Asia and Africa contributing two third of those [3]. Out of the 3.9 million deaths occurring worldwide, it is estimated that about 1.17 million (30%) deaths occur in India [4], where most of these deaths taking place at home due to lack of proper care. According to United Nations Children's Fund, one in five infants who die within one month after birth is an Indian. Almost fifty percent of the neonatal deaths occurring within 5 years happen before first 28 days. In the past two decades, there has been a decline in neonatal mortality, between 1.7% and 2.3% [5] and it is due to the vigorous efforts of government as well as non-government organizations. Unhygienic environment conditions, improper cord care practices, poor feeding practices etc can cause infections like sepsis, tetanus, diarrhoea etc., to infants leading to death [6]. Inadequate knowledge results from many problems in these countries, some of them being finance, illiteracy, early marriage and child bearing as well as lack of experience [7]. Essential newborn care is a wide-ranging interventional strategy designed and developed with the aim to improve newborn's health and it is administered before conception, during pregnancy and delivery, after birth as well as during the postnatal period [8]. Adequate diet, proper immunizations, breast feeding counselling, nutrient intake, detection and treatment of infections and diseases, preparing for delivery etc are some of the normal antenatal care practices [9]. There are number of interventions in the essential newborn care practice and all of them are important and should be practiced in a proper way for better results [10]. Birth attendants should keep their hands and other contacts with umbilical cord clean and hygienic to prevent such infections [11].

**Newborn care:**

All newborns require essential newborn care to minimize the risk of illness and maximize their growth and development. Warmth, normal breathing, mother's milk, and prevention of infection are the basic needs of normal baby at birth. These basic needs indicate that a baby's survival is totally

dependent upon her mother and other caregivers. Therefore, it is important to provide proper care to all the neonates immediately after birth. This care will also prevent many newborn emergencies [13].

Thus, the present study was undertaken to assess the knowledge of mothers regarding newborn care, find out the practices of mother regarding newborn care and to find the relationship between knowledge and practice of mothers regarding newborn. This research was conducted at Government general hospital, Ongole, Andhra Pradesh, India.

**Aim:**

- The aim of the study is to assess the knowledge and practice on neonatal care among postnatal mothers in a tertiary care hospital.

**Objectives:**

- To determine the existing knowledge of postnatal mothers regarding new born care.
- To determine the practices of postnatal mothers regarding new born care.
- To find out the relationship between knowledge and practices of postnatal mothers regarding new born care.
- To determine the association between knowledge and selected demographic variables of postnatal mothers regarding new born care.

**METHODOLOGY:**

The present study was conducted based on some socio demographic factors. A questionnaire comprising of 25 questions on knowledge and 14 questions on practice of newborn care. For each correct response 1 point and for each incorrect response 0 point was allotted. Finally, the total score was computed. Knowledge was categorized as inadequate (score 0-7), satisfactory (score 8-16) and adequate (score 17-25). Practice was categorized as inadequate (score 0-4), satisfactory (5-9) and adequate (10-14).

**Study design:** Prospective Observational study carried out among postnatal mothers

**Study site:** Department of Obstetrics & gynaecology, Government general hospital, Ongole, Andhra Pradesh, India

**Study period:** 6 months

**Study population:** 200

**Inclusion criteria:**

- Postnatal mothers who were willing to participate in study.
- The mothers who were able to communicate in

- Telugu, Hindi, English.
- Mothers who had given birth to live born baby in Government General Hospital and mothers who was admitted in the postnatal ward.

**Exclusion criteria:**

- Mothers who were sick
- Mothers who were not willing to participate in the study

- Mothers who were admitted in Intensive care unit (ICU)

**RESULTS:**

A total of 200 postnatal mothers were participated in the study.

The mothers were classified according to different socio demographic factors. The percentage of knowledge and practice scores were predicted as

**Table 1. Distribution of mothers according to socio demographic factors**

Parameters	Frequency	Percentage%
<b>Age</b>		
<20	34	17.0%
20-27	121	60.5%
28-35	32	16.0%
>35	13	6.5%
<b>Parity</b>		
Primipara	120	60.5%
Multipara	80	39.5%
<b>Education</b>		
Illiterate	43	21.5%
Primary	86	43.0%
Secondary	54	27.0%
Graduation	15	7.5%
Higher education	2	1%
<b>Occupation</b>		
Housewife	169	84.5%
Working	31	15.5%
<b>Economic status</b>		
Poor	100	50%
Middle class	96	48%
Above middle class	3	1.5%
Upper class	1	0.5%

**Table.2** Association between level of knowledge and practice and socio demographic factors of the mothers (n=200)

Knowledge (Score)	Number	Percentage
Inadequate (0-7)	61	30.5
Satisfactory (8-16)	86	43
Adequate (17-25)	53	26.5
<b>Practice (Score)</b>		
Inadequate (0-4)	51	25.5
Satisfactory (5-9)	41	20.5
Adequate (10-14)	108	54

**Statistical analysis:**

Factors	Knowledge – P value	Relation (Yes/No)	Practice – P value	Relation (Yes/No)
Age	0.1657	No	1.828	No
Parity	0.014	No	0.00001	Yes
Education	0.00001	Yes	1.8884	No
Occupation	0.8255	No	0.00001	Yes
Economical status	0.00001	Yes	0.00078	Yes

To analyze the data SPSS- version 23 was used and calculated by using chi-square test

The study shows that there is significant association / relation of level of knowledge and practice with some selected socio demographic variables. The finding of the study shows that there was significant association between education level and knowledge on neonatal care ( $p = <0.00001$ ) and economic status ( $p = 0.00001$ ). No association was observed between Knowledge and age group ( $p = 0.1657$ ), parity ( $p = 0.014$ ) and occupation ( $p = 0.8255$ ).

The study shows that there is significant association / relation of level of practice with some selected socio demographic variables. The finding of the study shows that there was significant association between parity of the mother and practice on neonatal care ( $p = < 0.00001$ ) and occupation of the mother ( $p = 0.00001$ ) and no association with age group ( $p = 1.828$ ), education ( $p = 1.8884$ ) and economical status ( $p = 0.00078$ )  $0.00001$ ).

**DISCUSSION:**

In present study out of 200 participants 121 (60.5%) were between the age group of 20-27 years, 120 (60.5%) of the participants are primipara, 43.0% participants had obtained primary level of education, 169 (84.5%) participants were housewives, 100 (50.0%) of the participants belongs to middle class family. Only 53 (26.5%) of the study participants have adequate knowledge about neonatal care, 108 (54.0%) of the participants having adequate practice. The present study was conducted to assess the knowledge and practice of postnatal mothers on neonatal care. Sample size was 200. Data was collected using structured questionnaire. Majority of the mothers had satisfactory knowledge and adequate practice on newborn care.

In Nepal a similar study revealed that 38.7% mothers

had excellent knowledge on neonatal care. In Udipi most of the mothers had appropriate knowledge about neonatal care [13].

A study conducted in outskirts of Kolkata, west bengal had shown that most of the mothers had satisfactory knowledge (91.5%) about newborn care and majority of them had adequate practice (54%) [14]. A descriptive study to assess the knowledge on postnatal mothers regarding essential newborn care in badarpur, Delhi had revealed that out of 50 postnatal mother's majority (34) of the mothers had average knowledge scores, only 6 of them had above average scores and 10 of them had scored below average score [15].

**CONCLUSION:**

The study concludes with an estimation of satisfactory level of knowledge and adequate level of practice on essential newborn care with the participants included in the study. The study indicates the requirement of an awareness programme on essential newborn care – a programme that contains all the components of essential newborn care available to all the people irrespective of their socio-economic status. Hence the maternal knowledge and practice about newborn care place a major role in prevention of neonatal deaths. Some socio demographic factors may bear association with the knowledge and practice of the mothers. Educating the mothers and also their family members play an important role.

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