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A Comparative Study between Knowledge and Practice of New-Borne Care and Child Health Care by the Rural Mothers and to Seek its Relationship with the Selected Demographic Variables in Tripura, India

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Abstract **Original Research Article**

Background: More than half of child deaths are due to conditions that could be easily prevented or treated given access to health care and improvements to their quality of life. ***Materials and Methods:*** The descriptive approach was thought to be most appropriate for the present study. A Structured Interview Schedule for collecting information regarding knowledge of rural mothers regarding new-borne care and child Health care which consist of back ground data of the study participants. The study period was from March' 2021 to July' 2019. ***Results:*** There is significant association between knowledge score with socio-demographic variables except caste (8.31) and occupation of the rural mothers (5.14). There is significant association between practice score with socio-demographic variables except caste (10.58) and education (7.05) of the rural mothers. There is a significant comparison at 0.05 levels between knowledge and practice of the study participants regarding new-borne care and child health care. ***Conclusions:*** 451(90.2%) participants have excellent knowledge for new-born care and child health care.327 (65.4) participants are practicing the new-born care and child health care effectively.

Keywords: Rural mother, new-borne, child health.

BACKGROUND OF THE STUDY

Globally 2.4 million children died in the first month of life in 2019. Although the global number of new-borns deaths declined from 5 million in 1990 to 2.4 million in 2019, children face the greatest risk of death in their first 28 days (WHO 2019). More than half of child deaths are due to conditions that could be easily prevented or treated given access to health care and improvements to their quality of life. Investing in children is one of the most important things a society can do to build a better future (WHO 2021). Preterm birth, intra-partum related complications (birth asphyxia or lack of breathing at birth), infections and birth defects cause most neonatal deaths (WHO 2021).

The burden of neonatal death is still high in developing countries where most of the causes could be prevented (Berhan & Gulema 2018). Essential new-born care (ENC) is a comprehensive strategy designed to improve the health of new-borns through interventions before conception, during pregnancy, at and soon after birth, and in the postnatal period (Terry 2020). Families should be advised to bring the baby for timely vaccination according to national schedules (Berhan & Gulema 2018). Awareness and attitude of postnatal mothers towards neonatal care has lots of lacunae especially in those who belong to the lower socio-economic status (NFHS – 4, 2015-16).

The main focus of studies of childhood mortality has been the infant and under-five mortality rates. Neonatal mortality (deaths <28 days of age) has received limited attention (Mersha *et al.*, 2018). Mortality between ages 1 and 5 years is higher for girls than boys. 3 percent of children under age five years had symptoms of an acute respiratory infection. Only 46 percent of children with diarrhoea were given ORS (Mersha *et al.*, 2018). The present study aimed at comparing the knowledge and practice of new-born care and child-health care among the rural mothers residing in existence of Tripura and to seek relationship of knowledge and practice with the selected demographic variables.

MATERIALS AND METHODS

Research design

Considering the objectives of the study which centred on the comparison between knowledge and practice of rural mothers regarding new-borne care and child health care, the descriptive approach was thought to be most appropriate for the present study.

The overall purpose of the framework is to make scientific findings meaningful and generalized. It provides a certain framework of reference for clinical practices, education and research. They also provide directions for relevant questions to practical problem.

The present study is based on Rosen stock Health Belief Model Revised (2003), in which health behaviour has conceptually been visualized as the practicing new-borne care and child health care by the rural mothers. In this model there are 3 main components – Maternal Perception, modifying factors, likely hood of action as important determinants to focus the practice of rural mothers to take care of her new-borne and child health care.

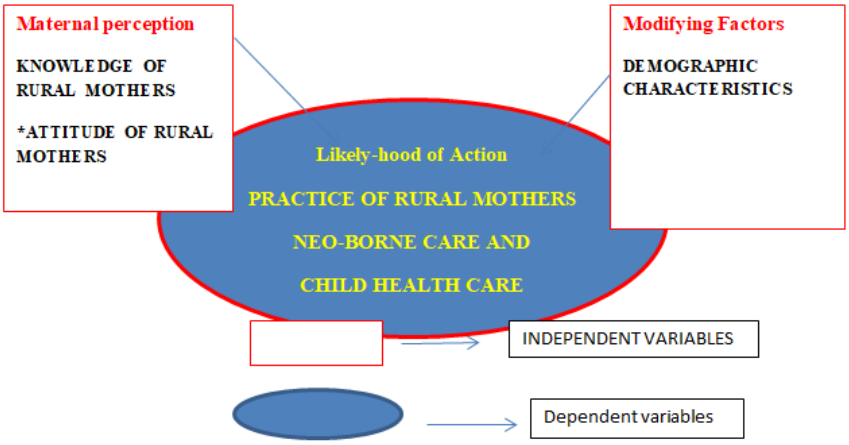

Fig 1: Rosen stock Health Belief Model Revised (2003)

The review provides a basis for future investigation justifies the need for data collection and relates the findings from one study to another to establish a comprehensive body of scientific the study participants hesitate to express the accurate information.

Data collection technique

On the basis of objectives of the study, it was decided to derive the information directly from the rural mothers. Since the present study aimed at obtaining objective information as far as possible, it was felt necessary to conduct the investigation with the help of a structured interview schedule.

Development of the tool

The tool has been developed based on the related literature and relevant to the sample subjects and present study. The item for the questionnaire was also drawn from the following sources: Consultation with nursing experts, Discussion with colleagues, Investigators personal experience.

To ensure the content validity of the tool it was validated by 5(five) nursing experts. The criteria for selection of experts were: Those who possess a PhD degree in nursing, those who have been conducted specialization in community health nursing, obstetrical and gynecological nursing.

Experts were requested to judge the items of interview schedule for clarity, relatedness and meaningfulness. A few alterations and modifications have been made by the experts.

To test the utility and feasibility of the tool, a trial study was conducted on 10(ten) rural mothers in West Tripura. The trial study was done: i) to find out clarity of questions, ii) to check the language error, iii) to check content validity and reliability of the instrument. The trial study also helped the investigator to become familiar with the use of tool and to test the effectiveness of the plan for analysis.

Tools and Description of the tool:

1. A Structured Interview Schedule for collecting information regarding knowledge and practice of rural mothers for new-born care and child Health care which consist of back ground data of the study participants.
2. **S**tandardised socio-economic status scale "rural" UDAI PAREEK revised scale has been used to obtain information regarding caste, religion, education, occupation, family type and type of house.

A Structured Interview Schedule consists of three sections as bellows:

Section – I: Composed of 4 items seeking the information on personal background data of the rural

mothers (18 – 45years), i.e. age, gravida, parity, number of living children of the study participants.

Section – II: composed of six items seeking the information of socio-economic Status of the study participants, i.e. caste, education, occupation, type of house, type of family, number of family members

Section III consisted **Part-A** includes items related to knowledge of new-borne care and Composed of 12 items seeking information regarding knowledge of new born care.

Part- B consists of practice of child health care and Composed of eight items regarding practice of child health care.

The number of questions was 20 (section III: **Part –A** 12 number of questions and in **Part – B** consists of 8 questions).The type of questions was Multiple Choice Questions and dichotomous ("Yes" / "No"). Each question carries equal score. Hence, the total score was 20 for 20 questions. The gradation was decided for knowledge items as Poor (0 to 4), good (5 to 8) and very good (9 to 12). In practice items poor practice (0 to 3), good (4 to 6) and very good (7 to 8) respectively on the basis of correct response by the study participants.

The study setting: Community-Based Study in all 8 district of Tripura.

Population: In the present study population comprised of all rural mother residing in existence of Tripura.

The Sample: Rural mothers in age group (18 – 45 year).

Sample size: 500

Sampling technique

Multistage sampling technique was used for accomplishing the aim and objectives of the present study.

At first, the entire (Total-8) District has been selected with permission obtained from the State Government. A comprehensive list of 48 household of all rural mothers age (18 to 45 years) group collected from the Sub-centre under each district and PHC by simple random method.

Data collection procedure: The study period was from March' 2021 to July' 2019. A structured self-administered pretested questionnaire was used to collect the relevant data by face to face interview. Care was also taken to ensure privacy and confidentiality.

Plan for data Analysis

The data obtained was analyzed by both descriptive and inferential statistics using online statistical calculator.

The socio demographic information related to the study participants was analyzed in relation to caste, educational level, occupation, type of family, and number of family members. The responses were summarized in frequencies and percentages.

The data related to knowledge and practice of rural mothers was analyzed in terms of scores obtained by the face to face interview from the study participants.

RESULTS

A total of 500 study sample were interviewed. Findings of the study has depicted below.

Table 1: Frequency and percentage distribution of the rural mother age (18 – 45 years) group according to their Background information N=500

Sl. No.	Variables	Categories	Frequency	
			Values	Percentage
1	Age	18-27	288	57.6
		27-36	188	37.6
		36-45	24	4.8
2	Gravida	Gravida-0	56	11.2
		Gravida -1	303	60.6
		Gravid-2	105	21
		Gravid-3	36	7.2
3	Parity	Parity-0	218	43.6
		Parity-1	207	41.4
		Parity-2	56	11.2
		Above parity-2	19	3.8
4	Number of living children	0	230	46
		1	207	41.4
		2 and above	66	13.2

Table 2: Frequency and percentage distribution of the rural mothers age (18 – 45 years) group according to their Socio-economic Characteristics N=500

Sl. no	Social economic variables	Socio economic categories	Frequency	
			Values	Percentage
1	Caste	UR	49	9.8
		OBC	45	9
		SC	162	32.4
		ST	149	29.8
		Minority	95	19
2	Occupation	Labourer	05	01
		Caste occupation	00	00
		Business	26	5.2
		Independent profession	449	89.8
		Cultivation	07	1.4
		Service	13	2.6
3	Education	Illiterate	01	0.2
		Primary	18	3.6
		Middle	116	23.2
		High school	306	61.2
		Graduate and above	59	11.8
4	Type of house	Kutccha house	78	15.6
		Mixed house	249	49.8
		Pucca house	178	35.6
5	Types of family	Nuclear	220	44
		joint	280	56
6	Family members	Below 5	394	78.8
		Above 5	106	21.2

Table 3: Association between knowledge score with socio-demographic variables

Sl. no	Socio economic variables	Degree of Freedom	Chi-square test		P value	Remarks
			Calculated	Tabulated		
1	Caste	8	8.31	15.507	0.32	NS
2	Occupation	6	5.14	12.59	0.12	NS
3	Education	8	19.56	15.507	0.012	*S
4	Type of house	4	40.88	9.48	00	*S
5	Types of family	2	48.09	5.99	00	*S
6	Types of family members	2	26.52	5.99	00	*S

Table 4: Association between practices with socio demography variables N=500

Sl. no	Socio economic variables	Degree of Freedom	Chi-square test		P value	Remarks
			Calculated	Tabulated		
1	Caste	8	10.58	15.507	0.23	NS
2	Occupation	6	46.56	12.59	00	*S
3	Education	8	7.05	15.507	0.53	NS
4	Type of house	4	38.69	9.48	00	*S
5	Types of family	2	57.46	5.99	00	*S
6	Types of family members	2	26.42	5.99	00	*S

*Significant at 5% Level, $p<0.05$. NS: Not significant.

Table 5: Level of knowledge score N=500

Knowledge items	Knowledge level	Frequency	
		values	Percentage
Poor	0-4	25	5
Good	5-8	24	4.8
Very good	9-12	451	90.2

Table 6: Level of practice score N=500

Practice items	Practice level	Frequency	
		Values	percentage
Poor	0-3	21	4.2
Good	4-6	152	30.4
Very good	7-8	327	65.4

Table 7: Mean, SD and median and independent "t" test N=500

Sl. No	Mean	SD	Median	Independent t tests		P value	
				Calculated	Tabulated		
Knowledge	10.89	2.78	12	29.48	2.01	00	Significant
Practice	6.5	2.08	8				

MAJOR FINDINGS AND DISCUSSION

57.6% of the rural mother was in the age group of 18-27years.Majority 60.6% rural mothers (18–45 years) belongs to Gravida 1 (Table 1). Out of total participants majority 162(32.4%) are belongs to scheduled caste and 449(89.8%) of the participants were engaged in independent profession. Majority 306(61.2%) out of total participants were undergone up to high school level of education. Majority 280(56%) participants were belongs to the joint family and 394(78.8%) of the study participants were having the family size of below 5 members category (Table 2). Majority 451(90.2%) participants have very good knowledge for new-born care and child health care (Table 5). Majority 327(65.4) participants are practicing the new-born care and child health care in very good level (Table 6). There is significant association between knowledge score with socio-demographic variables except caste (8.31) and occupation of the rural mothers (5.14) (Table 3). There is significant association between practice score with socio-demographic variables except caste (10.58) and education (7.05) of the rural mothers (Table 4). There is a significant comparison at 0.05 levels between knowledge and practice of the study participants regarding new-borne care and child health care (Table 7).

This study finding revealed the mean age of the rural mothers was 26.75(SD±5.28). It is supported by Mersha A, Assefa N, Teji K, Shibiru S, Darghawth R, Bante A (2018) and reported in their study the mean age of study participants were 29.62 (±5.082 SD).In the present study Majority 451(90.2%) participants have very good knowledge for new-born care and child health care.The highest mean knowledge score of maintenance of body temperature was 97% found by Shivaleela P. Upashe conducted in (Jan.-March, 2014) [11]. The study finding shows 30.4% rural mother's age (18 to 45 years) had good practice of new-born and child health care. This is consistent to the findings reported by Mersha A, Assefa N, Teji K, Shibiru S, Darghawth R, Bante A (2018). Their study revealed that 38.4% of mothers had good practices in essential new-born care. In the present study chi-square value of educational status and Types of family at df=8, 2(x^2 =19.56, 57.46) is higher than the table value (15.507, 5.99) at 0.05 level of significant. It is interpreted that there was a significant association between educational status and their level of knowledge regarding newborn care and child health care. This is the evident from the study reported by Shivaleela P. Upashe. Study to Assess the Knowledge on Essential New-born Care among Primipara Mothers Jan.-March, 2014.The present study finding revealed that Majority 280(56%) participants were belongs to the joint family. The findings are consistent enough with the study conducted by Mersha, Abera *et al*., (2018).

The present study finding also supported by Bhattarai, Muna & Gurung, Rajmi & Gurung, Sunita & Poudel, Sharmila & Mahato, Janaki & Katel, Kalpana & Soti, Harikala & Koirala, Sabita & Paudyal, Laxmi. (2021). Castalino F., Nayak B. S. & D'Souza A Staff Nurse, Kasturba Hospital, Professor & HOD, Assistant Professor (Sr. Scale) Department of Child Health Nursing (2014).

RECOMMENDATION

More study can be carried on community level in comparison with rural and urban mothers.

CONCLUSION

451(90.2%) participants have excellent knowledge for new-born care and child health care. 327(65.4) participants are practicing the new-born care and child health care. There is a significant comparison at 0.05 levels between knowledge and practice of the study participants regarding new-borne care and child health care. Health teaching regarding neonatal care during the antenatal visit of pregnant mother will help in filling the gap between knowledge and practice.

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Conflicts of interest: None

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