Original Article

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A Descriptive Study to Assess the Knowledge on Institutional Delivery among Primi Gravida Mothers at Selected Hospitals, Raipur, Chhattisgarh

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Abstract

The study was conducted to Assess the Knowledge on Institutional Delivery among Primi Gravida Mothers at Selected Hospitals, Raipur, (C.G.). A descriptive survey design with Non random sampling technique was used to collect the data from 30 Primigravida mothers in selected maternity hospitals, Raipur. Data was collected using a structured questionnaire schedule. The results were described by using descriptive statistic. The mean knowledge score was as adequate knowledge of primi mothers is 82.22% and inadequate knowledge score of primi mothers is 60.37% regarding importance of institutional delivery. There was no association between knowledge scores and selected demographic variables except age and place of residence. ($p>0.05$). Association of demographic variables with pre-test score. Chi square test is used to test the significance of distribution of demographic variables according to knowledge score. On applying the test demographic variables "Age" and "Area of leaving" showed significant association with knowledge score at $p<0.05$ and $p<0.02$ significance level. Rest all demographic variables showed insignificant ($p > 0.05$) association with knowledge score [5].

Keyword: Knowledge; Institutional Delivery; Primi Gravida.

Introduction

Back ground of study

According to WHO about 495000 maternal deaths occurred globally during the year 200 of these deaths about 243000 occurred in African countries, 20000 in America, 65000 in Eastern Mediterranean, 3000 in western pacific countries. The life time chances of maternal death in the world as a whole is about 1 in 75 which varies from country to country. India is among those countries which have a very high maternal mortality rate. As more than 100,000 women die each year due to complications of pregnancy and child birth, most of them within 24 hrs after child birth. This indicates 20% of the global maternal deaths are from India. For every maternal death, there are 10 newborn deaths are occurring [1].

It is well established that giving birth in a medical institution under the care and supervision of trained health-care providers promotes child survival and reduces the risk of maternal mortality. In India, both child mortality (especially neonatal mortality) and maternal mortality are high. Seven out of every 100 children born in India die before reaching age one, and approximately five out of every 1,000 mothers who become pregnant die of causes related to pregnancy and childbirth. India

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accounts for more than one-fifth of all maternal deaths from causes related to pregnancy and childbirth worldwide.

Despite various claims by the state government of promoting institutional deliveries, Chhattisgarh continues to have the poorest record of with nearly 60% deliveries still taking place at homes. What is also alarming is that "untrained functionaries" are handling majority of the births taking place at homes, putting both the mother and child at risk in case of complications. According to the latest Annual Health Survey (AHS) 2011-12 report, less than 50% women in Chhattisgarh received medical attention by skilled health personnel while delivering at home. While the state's average of births at the hands of "untrained functionaries" was 55%, district wise this figure varied from 78% in Dantewada district to as low as 29.9% in Kawardha [2].

The report states reveals that Chhattisgarh has reported the lowest institutional deliveries at 40.4% among the eight socio-economically backward states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttaranchal and Uttar Pradesh, referred to as the Empowered Action Group (EAG) states. The neighboring states of Madhya Pradesh and Odisha seem to have done exceedingly well as they recorded 79.6% and 77.7% institutional deliveries respectively [3].

Need of study

"Never knowing a gift so marvelous Bringing into the world wonderful arts, Isn't the care of it much precious Yes its accomplished through-Delivery care" - BOB SMITH

From time immemorial, the community through the organized efforts has been organizing certain activities which pertain to improvement of environmental aspects, promotion of healthful living prevention of diseases, care of the sick at home. There has been an account of organized Government efforts to provide such services to prevent and control diseases, to promote health and efficiency of people at large in a defined community and the goal was to attain 'Health For All'. In our society, the pregnant women and her neonate from the vulnerable sector, more importantly in rural areas and in the urban slums so, in the past few decades a greater emphasis has been laid in rural health as 80% of our population lived in villages.

India accounts for over 20% of global maternal and child deaths, and also records 20% of births worldwide. Approximately 30 million women in India experience pregnancy annually and 27 million have live births, among these 136,000 maternal deaths occur annually. Major causes for such maternal deaths are excessive hemorrhage during child birth (generally among deliveries at home), obstructed and prolonged labor, infection, unsafe abortions, disorders relating to high blood pressure and anemia. However, most of the maternal deaths occur due to delays in care seeking which is the ultimate result of low socio status of women, lack of awareness and knowledge at the house hold, inadequate resources to seek care, and the poor access to quality care (deliveries are oftenly conducted by untrained dais). Such maternal deaths can be brought down considerably by promoting 'safe motherhood' through women's programme, increasing awareness of the community on safe motherhood through health care providers and engaging the media in highlighting the issue.

Although various safe motherhood initiatives have been taken, yet decline in maternal ratio in India is far from the desired level of 100 by 2012 set by the National Rural Health Mission (NRHM) and 109 by 2015 as per millennium development goals (MDG). Recent survey by sample registration system has estimated the level of MMR in India to be about 300 in 2001-2003. However, the level of MMR is about 400 in some of the states encompassing over 40% of India's population. Preconditions appear to have been early awareness of the magnitude of the problem, recognition that most maternal deaths are avoidable, and mobilization of professionals and the community. Still, there were considerable differences in the timing and speed of reduction of maternal mortality between countries, related to the way professionalization of delivery care was determined.

The report on maternal mortality rate compiled by WHO, UNICEF, UNFPA and the world bank revealed that more women die in India during child birth than anywhere else in the world. Among 5.36 lakh women who died during pregnancy or after child birth in 2005 globally, India accounted for 1.17 lakh. The MMR in India is 450 per 100,000 while in Bangladesh 570, Pakistan 320, China 45, Nepal 83 and in Sri Lanka 58 per 100,000 live births. Home births are still common in India accounting for almost for 60% of recent births. NFHS-III found that 37% of deliveries where assisted by a traditional birth attendant, and 16% where delivered by a relative or other untrained person. Similarly in South India, Karnataka constantly holding the second place from 1999 to 2003 having 49% of institutional deliveries to change this various major

program are to be adopted. States having higher institutional deliveries have low maternal mortality rate and vice versa [4].

Problem Statement

"A Descriptive Study to Assess the Knowledge on Institutional Delivery among Primi Gravida Mothers at Selected Hospitals, Raipur, Chhattisgarh."

Objectives of the Study

1. To assess the knowledge on institutional delivery among primigravida mothers.
2. To associate the findings with the demographic variables.

Conceptual framework

The conceptual frame work chosen for this study is based on the Health Belief Model. It is one of the most widely used models to explain why people do or do not take preventive health actions. The model was first developed in early 1950's by Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels and was later modified to include the influence of health motivation.

The model comprised of three primary components, including

1. Individual perceptions
2. Modifying factors
3. Factors affecting the likelihood of initiating or engaging in action.

Material and Methods

Research approach:- Non-probability convenient research approach was adopted for this study.

Research design:- Non experimental descriptive research design was found to be most appropriate for this study.

Research setting:- The present study was undertaken in Sarvodaya Maternity Hospital, Raipur, (C.G.) and Dr. Bhim Rao Ambedkar Memorial Hospital, Raipur, (C.G.) due to the geographical proximity, feasibility of the study and availability of sample.

Population

Target population:- The target for the present study comprised of all the primigravida women with the age group of 20-30 years those who were residing in selected Hospital, Raipur.

Sample:- In this study the sample consisted of all the primigravida women with the age group of 20-30 years those who were residing in selected Hospital, Raipur.

Sample size:- The sample size of the study is 30 primigravida mothers in selected hospitals who fulfill the exclusion and inclusion criteria.

Sampling technique:- Simple non-random sampling technique.

Inclusion criteria

1. Primigravida mothers who are preset in the selected hospital, Raipur.
2. Primigravida mothers who are willing to participate in the study.
3. Primigravida mothers who are present at the time of study.
4. Primigravida mothers who know language Hindi and age group 20-30 years.

Exclusion criteria

1. Primigravida mothers who are not willing to participate in the study

Method of data collection

Description of the Tool

The tool consists of a structured knowledge questionnaire and 3 point attitude scale (Likert's type). It is divided into 2 parts, they are as follows.

Part I

The investigator constructed the tool to collect the Socio - demographic data of the study subjects. It consists of 10 demographic variables which includes age group, educational status, occupation, family income, religion, type of family, place of residence, source of information and previous institutional experience [5].

Part II: Knowledge scale for importance of institutional delivery

Investigator prepared structured knowledge questionnaire containing 30 knowledge questions regarding importance institutional delivery which was further divided under 2 Sections.

Section A: concept of institutional delivery

Section B: importance of institutional delivery

Each correct response was given with score of 'one' and wrong answer was given a score of 'zero'. The maximum score was 30 and minimum score was 0. The respondents were asked questions through structured knowledge questionnaire and had to put tick (right) mark to the appropriate answers. The resulting express were ranged as follows:

- Adequate - more than 75%
- Moderate - 50% to 75%
- Inadequate - less than 50%

Development of tool

The tool was developed by using the following steps

- Reviewing the related literature
- Past knowledge experience of the investigator
- The opinion of the subject expert in nursing

Reliability

Procedure used to calculate the reliability of the research instrument is Split-half method. The formula used Karl Pearson correlation coefficient. The reliability value of the tool is r which includes high degree of reliability, hence the tool is reliable.

Data collection procedure

A formal written permission was obtained from Sarvodaya maternity hospital, Raipur, and Dr. Bhim Rao Ambedkar Memorial Hospital, Raipur. to conduct the study. The data was collected from 0-09- 2017 to 0-09-2017. The investigator explained the purpose of the study and selected the samples by non- random sampling technique. Informed consent was taken from the samples and the data was collected by self-administered structured knowledge questionnaires and knowledge scale. They were assured of anonymity and confidentiality. At the end of data collection an information booklet was given to the primigravida mothers.

Results

The data collected were organized and presented under the following sections

Section 1: Distribution of sample based on socio demographic variables

Percentage analysis was carried for demographic variables and presented in the form of table and graph**.**

As per demographic variables depicts that out of 30 women majority 36.67% (11) of them belongs to the age group between 21-23 years and 36.67% (11) of them belongs to the age group between 24-27 years, 20% (6) of them belonging to age group between 28-30 years, and 6.67% (2) belonging to age group 18-20 years. Hence it can be interpreted that majority of the women were in age group of 21-23 and 24-27 years.

In relation to religion of the subject depicts that out of 30 women majority 90% (27) of them were Hindu, 10% (3) of them were Muslim, and 0% (0) were Christian and Sikh.

Distribution of subjects on the basis of occupation depicts that out of 30 women majority 76.6% (23) of them were House wife, 13% (4) of them were in Govt. Job, and 6.67% (2) were in Private Job and 3.33% (1) are were Labourer.

Distribution of subjects on the basis of education depicts that out of 30 women majority 36.67% (11) of them were have primary education, 30% (9) of them were have secondary education, and 23.33% (7) were graduates and 10% (3) were post graduates.

In relation to marital status of the subject depicts that out of 30 women majority 100% (30) of them were married, 0% (0) were divorced and widow.

Distribution of subjects on the basis of type of family depicts that out of 30 women majority 56.67% (17) of them were in joint family, 43.33% (13) of them were in nuclear family, and 0% (0) was in extended family.

Distribution of subject according toarea of living depicts that out of 30 women majority 56.67% (17) of them were living in urban area and 43.33% (13) of them were living in rural area.

Distribution of subject according to diet depicts that out of 30 women majority 60% (18) of them were vegetarian, 40% (12) of them were non vegetarian.

In relation to previous knowledge of the subject depicts that out of 30 women majority 80% (24) of them were have previous knowledge, 16.67% (6) of them were have no previous knowledge.

Distribution of subjects on the basis of source of knowledge depicts that out of 30 women majority 76.67% (23) of them were have knowledge from family, 13.33% (4) of them were have knowledge

from friends, and 10% (3) were have knowledge from mass media and 0% (0) women were have knowledge from health professionals.

Section 2: Assessment of knowledge regarding institutional delivery.

Table 1: Assessment of knowledge regarding institutional delivery n=30

Aspect	Mean	Mean %	SD	CV
knowledge score of primi mothers regarding institutional delivery and selected demographic variables	22.7	75.67	4.26	18.76

Table 2: Knowledge score of primi mother regarding institutional delivery n=30

Knowledge score of primi mother regarding institutional delivery and selected demographic variables	Poor	Average	Good
N (%)	0 (0%)	9 (30%)	21 (70%)
Mean	0	18.11	24.67
Mean %	0	60.37	82.22
SD	0	1.96	3.35
CV	0	10.85	13.59

Section 3: Findings related to association between knowledge levels of primigravida.

Table 3: n=30

Demograhic variables	Knowledge Score			Total	Chi sqr value/ df/p value
Age	**Poor**	**Average**	**Good**		
18-20 year		2 (100%)	0 (0%)	2 (100%)	
21-23 year		5 (45.45%)	6 (54.55%)	11 (100%)	
24-27 year		2 (18.18%)	9 (81.82%)	11 (100%)	9.22/3/<0.05 Significant
28-30 year		0 (0%)	6 (100%)	6 (100%)	
Religion	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Hindu		7 (25.93%)	20 (74.07%)	27 (100%)	2.13/1/>0.05 NS
Muslim		2 (66.67%)	1 (33.33%)	3 (100%)	
Christian		0 (0%)	0 (0%)	0 (0%)	
Sikh		0 (0%)	0 (0%)	0 (0%)	
Occupation	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Labourer		0 (0%)	1 (100%)	1 (100%)	0.86/1/>0.05 NS
House wife		7 (30.43%)	16 (69.57%)	23 (100%)	
Private Job		1 (50%)	1 (50%)	2 (100%)	
Govt. Job		1 (25%)	3 (75%)	4 (100%)	
Education	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Primary		2 (18.18%)	9 (81.82%)	11 (100%)	1.65/3/<0.05 S
Secondary		4 (44.44%)	5 (55.56%)	9 (100%)	
Graduate		2 (28.57%)	5 (71.43%)	7 (100%)	
Post graduate		1 (33.33%)	2 (66.67%)	3 (100%)	
Marital Status	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Married		9 (30%)	21 (70%)	30 (100%)	
Divorced		0 (0%)	0 (0%)	0 (0%)	
Widow		0 (0%)	0 (0%)	0 (0%)	
Family Type	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Nuclear		4 (30.77%)	9 (69.23%)	13 (100%)	0.006/1 >0.05 NS
Joint		5 (29.41%)	12 (70.59%)	17 (100%)	
Extended		0 (0%)	0 (0%)	0 (0%)	
Area of Living	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Rural		7 (53.85%)	6 (46.15%)	13 (100%)	6.21/1/ <0.02
Urban		2 (11.76%)	15 (88.24%)	17 (100%)	Significant
Diet	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Veg		5 (27.78%)	13 (72.22%)	18 (100%)	0.105/1/ >0.05 NS
Non veg		4 (33.33%)	8 (66.67%)	12 (100%)	
Previous Knowledge	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Yes		6 (24%)	19 (76%)	25 (100%)	2.57/1/ >0.05 NS
No		3 (60%)	2 (40%)	5 (100%)	
Source of Information	**Poor**	**Average**	**Good**	**Total**	**Chi sqr value/ df/p value**
Family		8 (34.78%)	15 (65.22%)	23 (100%)	1.58/1/ >0.05 NS
Health professional		0 (0%)	0 (0%)	0 (0%)	
Friends		1 (25%)	3 (75%)	4 (100%)	
Mass media		0 (0%)	3 (100%)	3 (100%)	

Table 3 shows association of demographic variables with post test score. Chi square test is used to test the significance of distribution of demographic variables according to knowledge score. On applying the test demographic variables "Age" and "Area of leaving" showed significant association with knowledge score at $p<0.05$ and $P<0.02$ significance level. Rest all demographic variables shows insignificant ($p>0.05$) association with knowledge score.

Discussion

The findings of the study were discussed under the following headings:-

Section A: Demographic characteristics of the sample

- As per demographic variables depicts that out of 30 women majority 36.67% (11) of them belongs to the age group between 21-23 years and 36.67% (11) of them belongs to the age group between 24-27 years, 20%(6) of them belonging to age group between 28-30 years, and 6.67% (2) belonging to age group 18-20 years. Hence it can be interpreted that majority of the women were in age group of 21-23 and 24-27 years.
- In relation to religion of the subject depicts that out of 30 women majority 90% (27) of them were Hindu, 10% (3) of them were Muslim, and 0% (0) were Christian and Sikh.
- Distribution of subjects on the basis of occupation depicts that out of 30 women majority 76.6% (23) of them were House wife, 13% (4) of them were in Govt.job, and 6.67% (2) were in private job and 3.33% (1) are were labourer.
- Distribution of subjects on the basis of education depicts that out of 30 women majority 36.67% (11) of them were have primary education, 30% (9) of them were have secondary education, and 23.33% (7) were graduates and 10% (3) were post graduates.
- In relation to marital status of the subject depicts that out of 30 women majority 100% (30) of them were married, 0% (0) were divorced and widow.
- Distribution of subjects on the basis of type of family depicts that out of 30 women majority 56.67% (17) of them were in joint family, 43.33% (13) of them were in nuclear family, and 0% (0) was in extended family.
- Distribution of subject according to area of living depicts that out of 30 women majority 56.67% (17) of them were living in urban area and 43.33% (13) of them were living in rural area.
- Distribution of subject according to diet depicts that out of 30 women majority 60% (18) of them were vegetarian, 40% (12) of them were non vegetarian.
- In relation to previous knowledge of the subject depicts that out of 30 women majority 80% (24) of them were have previous knowledge, 16.67% (6) of them were have no previous knowledge.
- Distribution of subjects on the basis of source of knowledge depicts that out of 30 women majority 76.67% (23) of them were have knowledge from family, 13.33% (4) of them were have knowledge from friends, and 10% (3) were have knowledge from mass media and 0% (0) women were have knowledge from health professionals.

Section B: Objectives of the study

Objective 1: To assess the knowledge on institutional delivery among primigravida mothers.

In knowledge level of the primigravida mothers, 70% (21) of the respondents have good knowledge, 30% (9) of the respondents have average knowledge and 0% have poor knowledge regarding institutional delivery. The findings reveal that the mean knowledge score was 24.67% in good knowledge and 18.11 in average knowledge, and SD was 3.35% in good knowledge and 1% in average knowledge.

Objective 2: To associate the findings with the demographic variables.

There was having significant association between knowledge with age group ($9.22/3/<0.05$) and area of living ($6.21/1/<0.02$), Hence, for these findings H_1 is accepted.

There was no significant association between knowledge with with religion ($2.13/1/>0.05$), occupation ($0.86/1/>0.05$), education ($1.65/3/<0.05$), type of family ($0.006/1 >0.05$), diet ($0.105/1/ >0.05$), previous knowledge ($2.57/1/ >0.05$), source of knowledge ($1.58/1/ >0.05$), Hence for these findings H_1 is rejected.

Limitations

1. Study is limited to Primigravida mothers who are admitted in selected maternity hospital, Raipur.
2. Study is limited to primigravida mothers who can read and write English or Hindi.
3. Study is limited to primigravida mothers who are willing to participate in the study

Recommendation

On the basis of the findings of the study it is recommended that

1. A similar study can be replicated on a large sample to generalize the findings.
2. A quasi-experimental study can be undertaken with a control group for effective comparison of the result
3. A study can be conducted by including additional demographic variables.
4. A comparative study can be conducted between rural and urban settings.
5. A study can be carried out to evaluate the efficiency of various teaching strategies like SIM, pamphlets, leaflets and computer-assisted instruction on institutional delivery.

Conclusion

Institutional delivery is to give the care to both mother and neonate. Institutional delivery reduces risk for the mother and baby. The study focus was to assess the knowledge regarding importance of institutional delivery among primigravida mothers in selected maternity hospitals, Raipur. The data was collected from 100 samples through non probability sampling technique. Analysis was done and the following conclusions were drawn:

- Most of the subject had inadequate knowledge regarding institutional delivery.
- There was no association between knowledge scores and selected demographic variables except educational status and place of residence.

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