# **Original Research Article**

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# A study to assess the knowledge of mothers regarding reproductive child health programme activity and its utilization in selected urban community in Gwalior city

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#### **ABSTRACT**

**Background:** Reproductive and child health program is the flagship program of the department of family welfare, government of India. Female education is a strong predictor of the use of reproductive health care services but the extent and nature of relation between the two is not uniform across social setting. Hence the investigator feels very important to assess the knowledge of mothers regarding reproductive child health programme activity and its utilization in Gwalior city.

**Methods:** The present study aimed at assessing the mother's knowledge and utilization regarding reproductive child health programme activity in selected urban community at Gwalior city.

**Results:** The present study depicts that the maximum mother (55%) were having good knowledge regarding reproductive child health programme activity and the mothers were having maximum knowledge regarding essential newborn care 67.5% and minimum knowledge (26.6%) regarding control of STD/RTI. Majority of mothers 45 (75%) had average utilization of the reproductive child health programme activity. There was positive correlation between knowledge and utilization of reproductive child health programme activity among mothers (r=0.83).

**Conclusions:** In the present study, there was significant association between utilization of reproductive child health programme activity and mother's age and parity.

**Keywords:** Reproduction, Child health, Knowledge

# INTRODUCTION

Reproductive and Child Health program is the flagship program of the department of family welfare, government of India. "Make every mother and child count" reflects the need for today. Government and international community make the health of women and children a higher priority. The wellbeing of societies is directly linked to health and survival of mother and children. When mothers survive and thrive their children survive

and thrive. When both mothers and children survive and thrive the societies in which they live prosper.

Global picture of maternal, newborn, child morbidity and mortality status depicts that maternal mortality is very high in Africa where the risk of maternal death is 1 in 16 compared with 1 in 2800 in rich countries. Between 11% and 17% maternal death occur during first 24 hrs and more than 2/3 during first weeks and average infant mortality rate is 49.4%. In India, the current infant

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mortality rate is 63 per thousand live birth and maternal mortality is 406 per 100000 live births.

Mothers and children not only constitute a large group but they are also a vulnerable or special risk group. The risk is connected with child bearing in case of women, growth, development and survival in case of infants and children. Where 50% of all death in developed world occur among people over 70, the same proportion of death are occur among children during first 5 years of life in developing world.<sup>1</sup>

At present around 5,85,000 women die from complications due to pregnancy and child birth globally each year. Further 50 million women (40% of pregnancy) experience maternal health morbidity each year. 70% of maternal death are caused by hemorrhage (24%) infection (15%), unsafe abortion (13%), high blood pressure (12%), obstructed labour (8%).

Female education is a strong predictor of the use of reproductive health care services but the extent and nature of relation between the two is not uniform across social setting. In Bangladesh and Thailand, women with primary schooling did not differ from women with no schooling in receiving delivery assistance.<sup>3</sup>

The Government of India introduced a new programme to achieve unattained goals and cater to the health needs of unreached and underserved people whose unmet needs largely contribute to the population and other problem with which country is fighting this new programme named "Reproductive Child Health programme (RCH)"

was launched in 1997 incorporating some of the ideas out of discussion at international conference on population and development held in Cairo in 1994.

The reproductive child health programme aims to broaden health care to include all reproductive health problems of the people and not limit services only to maternal and child health and family planning. The new approach under the reproductive child health programme place special emphasis or client oriented, need based, high quality integrated approach to all the beneficiaries.

#### **METHODS**

All human life on the planet is born of woman. Woman is an important person for their children and family. She nourishes her foetus and gives birth to child. The health of a woman is therefore important because of women face the risk of child bearing and assumes most of the responsibility of contraception. Further women carry the burden of pregnancy. Thus if a women is healthy enough she bears and rears a healthy child and children are future citizens of the nation. The health of the any nation is often judged by the health of its mother and children. The health of mother is bound with health of newborn which in turn to be a large extent, reflect the development of the society as a whole. Millions of women in developing countries have less awareness and lack of utilization of adequate care during pregnancy. Only 65% of women in developing country receive ANC care, 63% in Africa, 65% in Asia, 73% in Latin America. In developed country 97% of women receive ANC care and as a result maternal mortality is comparatively less.<sup>4</sup>

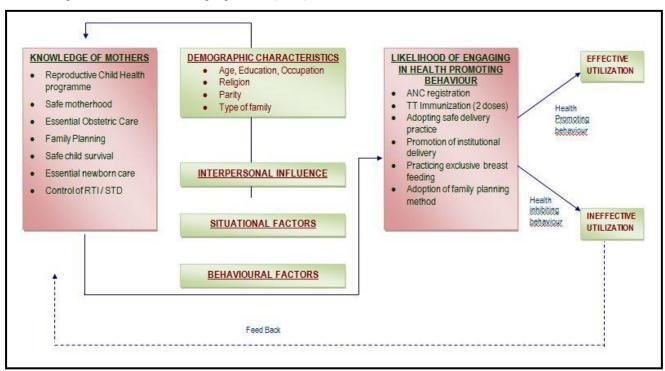


Figure 1: Conceptual frame work of present study based on modified pender's health promotion model cognitive perceptual modifying factor participating in health promoting behaviour factors.

Facts revealed by this study are likely to throw light for the improvement in utilization of reproductive child health services. This will also help the administrator and health planner to take necessary corrective actions for improving the quality of care which will ultimately lead to achievement of National health goals. Hence the investigator feels very important to assess the knowledge of mothers regarding reproductive child health programme activity and its utilization in Gwalior city.

Demographic characteristics, interpersonal factor, biological, situational behavioral factors are predictive of a given health related behavior. In the present study the model incorporate the effect of modifying factors like demographic characters interpersonal influence, situational and behavioral factor.

#### Demographic characteristics

Age factors, educational level, occupation status, parity, religion, type of family are the modifying factors which will make the individual to participate in health promoting behavior.

# Interpersonal influence

In the present study, the interpersonal relationship of the subject with investigator can help her to participate in positive behavior; other influences may be relationship between subjects and health worker. Media channels, elder people can increase the knowledge of mothers.

## Situational factors

These are the situations which promote the positive health behavior. The pregnant mothers, sick newborn, postnatal mothers, un-immunized babies are in great need for getting maximum benefit from Reproductive Child Health programme activity.

# Behavioral factors

Behavioral factors are the subject interest, customs, culture, and traditions, religion that promotes or inhibits the behavior.

The present study aimed at assessing the mother's knowledge and utilization regarding reproductive child health programme activity in selected urban community at Gwalior city (20-40 years of age). To accomplish the objective of study non experimental descriptive approach is used.

# Setting of the study

Out of several slum areas of Gwalior Kedarpura area was selected for the study. The slum is covering about 25798 population. The rationale for selecting the Kedarpura Area was that investigator was familiar with this setting.

She was confident of getting more cooperation from the mothers of those areas as she was working at slum area over a period of time.

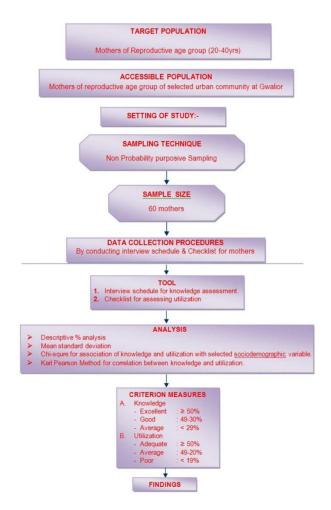


Figure 2: Research design.

# Population

The present study population comprises the mothers (20-40 years) in selected slum area that is Kedarpura area, Gwalior, Madhya Pradesh.

#### Sample and sample technique

The total sample size was 60 mothers in Kedarpura area, Gwalior. Purposive sample method was adopted to collect the data. A representative sample was selected by using sampling technique from the population of all mothers of Kedarpura area Gwalior Madhya Pradesh.

## Selection criteria

#### Inclusion criteria

Inclusion criteria were mothers of age group between 20-40 years; those who will be available at the time of visit; the mothers who are willing to participate in the study.

#### Exclusion criteria

Exclusion criteria were women who had achieved menopause; those who are not willing to participate in the study.

## Data collection procedure

The data for the study was collected from 26 August 2013 to 25 September 2013. The investigator prior to commencing the task of data collection, a letter seeking permission to conduct study was sent by principal college. As a result, investigator obtained formal administrative permission from chief medical and health officer Jaipur to conduct study. The investigator introduced herself to the subject and established good rapport with them and explained about the purpose of study. Mothers were assured of confidentiality of their response. The data of knowledge and utilization was collected with the help of interview schedule and checklist respectively from mothers (20-40 years) by going house to house. The investigator spent 25-30 min with each mother. At the end of interview, 3 to 5 minute were utilized to give knowledge regarding reproductive child health programme activity run by Government.

#### **RESULTS**

In socio-demographic variable, majority of mothers i.e. 27 (45.1%) belong to age group of 20-25 years, 25 (41.6%) belong to age group 25-30 years and only 3(5%) belong to age group of 35-40 years. Related to religion majority 55 (91.7%) were Hindu and 5 (8.3%) belong to Muslim. None of them belong to Christian and other religion. With regards to education status of mothers majority of them were illiterate 48 (80%) and 12 (20%) was literate. The relation to occupation majority 52 (86.6%) of mothers were nonworking and only 8 (13.4%) were working. Majority of mothers, 59 (98.4%) were multipara and only 1 (1.6%) were primi. In relation to family type majority 38 (63.4%) of mothers belonged to joint family, 21(35%) were having nuclear family type and only 1 (1.6%) belong to extended type of family (Table 1).

Analysis of overall knowledge score of mother regarding reproductive child health programme activity as per criterion were assessed and tabulated in Table 2. Out of 60 mothers, majority 33 (55%) had good knowledge, 23 (38.33%) had excellent knowledge, 4 (6.6%) had average knowledge. Mothers had mean knowledge score of 13.25.

Area wise analysis regarding reproductive child health programme activity reveals that the highest mean percentage score was in the area of essential newborn care (67.5%), regarding essential obstetric care and family planning 55%, related to safe motherhood 53.7%, in the reproductive child health programme 42.1%, and the lowest mean score percentage score was in the area of

safe child survival (39.5%) and control of STD / RTI (26.6%) (Table 3).

Table 1: Sociodemographic variables.

	Frequency (N)	Percentage (%)
Age (in years)		
20-25	27	45
25-30	25	41.6
30-35	5	8.3
35-40	3	5
Religion		
Hindu	55	91.7
Muslim	5	8.3
Christian	0	0
Others	0	0
Education		
Literate	12	20
Illiterate	48	80
Occupation		
Working	8	13.4
Non working	52	86.6
Parity		
Primi	1	1.6
Multi	59	98.4
Family type		
Nuclear	21	35
Joint	38	63.4
Extended	1	1.6

Thirteen (21.6%) of mothers had adequate utilization of reproductive child health programme activity, 45 (75%) were having average reproductive child health programme activity and 2 (3.4%) poorly utilized reproductive child health programme activity.

There is positive correlation between knowledge and utilization of reproductive child health programme activity by mothers as shown in Table 5.

The association between knowledge and age factor is shown in Table 6. There is significant association between the level of knowledge and the age of mothers. At 5% level of significant with 6 degree of freedom. The calculated chi square vale (13.88) is greater than Table value of chi square (12.59).

Table 7 shows that there is no significant association between level of knowledge and education. At 5% level of significance with 2 degree of freedom. The calculated chi-square value (1.03) is lesser than the Table value of chi square (5.99).

There is significant association between level of knowledge and parity at 5% level of significance with 2 degree of freedom. The calculated chi-square value (7.88) is greater than the Table value of chi-squre (5.99) (Table 8).

Table 2: Overall knowledge score of mother.

Level of knowledge	Frequency (N)	Percentage (%)	Max score	Mean	S.D.
Excellent	23	38.33			
Good	33	55	30	13.25	2.03
Average	4	6.6		13.23	2.03
Total	60	100			

Table 3: Area wise analysis of knowledge.

Area of knowledge	Max. score	Range of score	Mean score	Mean score (%)	SD
Reproductive child health programme	6	1-5	2.53	42.1	0.3
Safe motherhood	4	0-4	2.15	53.7	0.03
Essential obstetric care	3	0-3	1.65	55	0.02
Safe child survival	8	0-6	3.16	39.5	0.3
Family planning	4	1-4	2.2	55	0.2
Essential New born care	2	0-2	1.35	67.5	0.1
Control of STD/RTI	3	0-2	0.8	26.6	0.1

Table 4: Analysis of utilization score of mothers regarding reproductive child health programme.

<b>Utilization score</b>	Frequency (N)	Percentage (%)	Max. score	Mean	S.D.
Adequate	13	21.6			
Average	45	75.0	14	5 1	1.05
Poor	2	3.4	14	3.1	1.03
Total	60	100			

Table 5: Correlation between knowledge and utilization of reproductive child health programme.

Para meter	Mean score	S.D.	R	Result
Knowledge	13.25	2.03	0.8	Significant
Utilization	5.1	1.05	0.8	Significant

Table 6: Association of mean knowledge score with age factor.

Age	Excellent	Good	Avg.	Total	Chi square	DF	Critical value at 0.05	Result
20-25	12	15	0	27				
25-30	9	14	5.21	25	13.88	6	12.59	Significant
30-35	2	2	1	5	13.00	6	12.39	Significant
35-40	1	2	0	3				
Total	24	33	3	60				

Table 7: Association of mean knowledge score according to education.

Education	Excellent	Good	Avg.	Total	Chi square	DF	Critical value at 0.05	Result
Literate	5	9	0	14	- 1.03	2	5.99	Non
Illiterate	16	27	3	46	1.03	2	3.99	significant
Total	21	36	3	60				

Table 8: Association of mean knowledge score according to parity.

Parity	Excellent	Good	Avg.	Total	Chi square	DF	Critical value at 0.05	Result
Nullipara	0	0	0	0				
Primi	1	0	0	1	7.88	2	5.99	Significant
Multi	23	33	3	59				
Total	24	33	3	60				

Table 9: Association of mean utilization with age.

Age	Excellent	Good	Avg.	Total	Chi square	DF	Critical value at 0.05	Result
20-25	6	18	2	26				
25-30	4	20	0	24	15 20	(	12.50	C:: C: +
30-35	2	4	0	6	- 15.38	6	12.59	Significant
35-40	2	2	0	4				
Total	14	44	2	60				

Table 10: Association of mean utilization with education.

Education	Excellent	Good	Avg.	Total	Chi square	DF	Critical value at 0.05	Result
Literate	4	8	0	12	1.18	2	5.99	Non
Illiterate	10	36	2	48	1.10		3.99	significant
Total	14	44	2	60				

Table 11: Association of mean utilization score with parity.

Parity	Excellent	Good	Avg.	Total	Chi square	DF	Critical value at 0.05	Result
Nullipara	0	0	0	0				
Primi	0	1	0	1	6.49	2	5.99	Significant
Multi	13	44	2	59				
Total	13	45	2	60				

Table 9 describes that there is significant association between the level of utilization and age at 5% level of significance with 6 degree of freedom. The calculated chi-square value (15.38) is greater than the tale vale of chi-square (12.59).

There is significant association between the utilization score and education as the calculated chi-square value (1.18) is less than chi-square Table value (5.99) with degree of freedom 2 at 5% level of significance (Table 10).

Table 11 shows that there is significance association between utilization score of mothers and parity. The calculated chi-square value (6.49%) is greater than Table value of chi square (5.99) with degree of freedom 2 at 5% level of significance.

# **DISCUSSION**

Analysis of overall knowledge score of mothers regarding reproductive child health programme activity was done and tabulated in Table 2. The findings depicts that majority of mothers 33 (55%) had good knowledge regarding reproductive child health programme activity, 23 (38.33%) had excellent knowledge, only few 4 (6.6%) had average knowledge. This indicates that reproductive child health programme activity services are already going on in the village run by government.

Area wise analysis regarding reproductive child health programme activity was assessed and tabulated in Table 3. In the area of essential new born care majority of mothers had mean knowledge score percentage 67.5% as

mothers know the importance of breast feeding and skin to skin contact, related to essential obstetric care and family planning a mean score percentage (55%), regarding safe motherhood (53.7%), in reproductive child health programme, mean knowledge score percentage is 42.1%, related to safe child survival (39.5%) and control of STD / RTI mean score percentage (26.6%).

This study was supported by a study in which, out of 100 mothers, majority 70 knew about early contact of baby after birth mother and exclusive breast feeding. 5 30% of them knew about the importance of breast feeding, 50% of them knew about techniques of feeding, 66.2% had the idea about the skin to skin contact and to provide warmth to baby.

This study was supported by survey done by Government of India. Survey was carried out in 1111 sample household distributed in both rural (774) and urban (332) areas. It was revealed that about 48% of mothers were aware about ANC checkup, 36% were aware of TT injection. 44% knew about any one method of family planning and 54% of females were aware of RTI / STD and 51% were aware of safe sex to prevent HIV /AIDS.

The utilization of reproductive child health programme activity were assessed and tabulated in Table 4. It was depicted that majority of mothers 45 (75%) had average utilization of reproductive child health programme activity, 13 (21.6%) mothers shown adequate utilization and 2 (3.4%) poorly utilized the reproductive child health programme activity. This means that Government is conducting the programme in the village at free of cost, mass awareness is due to media, TV Channels etc and health workers are doing their work effectively.

Correlate the knowledge and utilization of reproductive child health programme activity by mothers was assessed and tabulated in Table 5. The findings reveals that there was positive correlation of knowledge and utilization of reproductive child health programme activity by mothers (r=0.8). Mothers are aware of the reproductive child health programme and utilization the activity because of the positive experiences shared by the peer group and propagation through media channels.

To associate the knowledge regarding reproductive programme activity with selected demographic variables, it was assessed and tabulated in Table 6 to 8. The findings reveals that there was significant association between level of knowledge and mothers and age ( $x^2$ =13.88 at p<0.05 level). It reveals that younger age group (20-25 years) age more aware about reproductive child health programme activity due to TV channels, health education play, posters etc.

The knowledge level of mothers and education shows no significant association ( $x^2=1.03$  at p<0.05 level). There is association between knowledge and parity ( $x^2=7.88$  at p<0.05 level). It reveals that multipara mothers have more knowledge due to experience than primi mothers.

This finding in the study was supported by the survey done by National Family Health Services in India in Andhra Pradesh and found that active reproductive age group of mother's utilized and high awareness of (60%) about antenatal services rendered by Government.<sup>7</sup>

To associate the utilization of reproductive child health programme activity with selected demographic variables, it was assessed and tabulated in Table 9 to 11. The findings reveals that there is significant association between utilization and age ( $x^2$ =15.38 at p<0.05 level). The utilization level is more in younger age group with more awareness about the reproductive child health programme. The educational level and utilization level shows negative association between each other ( $x^2$ =1.18 at p<0.05). The level of utilization and parity have significant association ( $x^2$ =6.49 at p<0.05) levels that with multipara mothers are more utilizing the reproductive child health programme activity than primi mothers as with experience the use of facilities increases.

The findings was supported by the study done by Sheila found that in Bombay slum area the younger age group mothers (20-28 years) utilized more about 58.6% maternal health services provided.<sup>8</sup>

It was also supported by study done in Andhra Pradesh revealed that women with high order of birth had utilized maternal with higher order of birth had utilized maternal health services to a more extent than primi order of birth. This is possible because such women might have experienced more gain from the facilities being provided to them by government.

#### **CONCLUSION**

The following conclusions were drawn from the findings of the study –

- The present study depicts that the maximum mother (55%) were having good knowledge regarding reproductive child health programme activity and the mothers were having maximum knowledge regarding essential newborn care 67.5% and minimum knowledge (26.6%) regarding control of STD / RTI.
- The study revealed that majority of mothers 45 (75%) had average utilization of the reproductive child health programme activity.
- There was positive correlation between knowledge and utilization of reproductive child health programme activity among mothers (r=0.83) in the present study.
- There was significant association between the knowledge of mothers regarding reproductive child health programme activity and mother's age and parity.
- In the present study, there was significant association between utilization of reproductive child health programme activity and mother's age and parity.

#### **Implications**

Health is the wealth of the family. To preserve health in a fruitful way, quality care is needed. This care should start from intrauterine life to guard the fetus from ill effects. Mothers are natural custodians of the new born and should possess basic knowledge about the reproductive child health programme to reduce mortality and morbidity of both mother and child.

# Nursing education

- The present study emphasis the need for increasing the knowledge of mothers regarding reproductive child health programme activity.
- In order to achieve the national health goals, there is crucial need to improve the knowledge of mothers by conducting role play, health education, poster display, puppet show.
- Health education pamphlet express different aspect of reproductive child health programme activity should be made available to general public in local language.
- The community health nurses working in rural areas should be equipped with knowledge regarding reproductive child health programme activity and train the health workers, who provide the care to health consumers at their door step.
- The nursing curriculum of maternal and child health and community health programme should include learning experience for the students to know about aims, objectives of reproductive child health programme activity, and how to assess plan, implement and evaluate nursing intervention based

on felt needs of mothers regarding reproductive child health programme activity.

Nursing practice

- The study implies the importance of mass education programme on reproductive child health programme activity to the public especially for the mother's and thus enhance the practice of services rendered by
- As primary care giver community nurse can take a specialist role as "antenatal health educator" for increasing awareness among the pregnant mothers.
- Nurse educator can also visit adolescents in their homes and educate regarding reproductive health.
  School health nurse can conduct planned education programme on safe motherhood for adolescent group.
- Training programme and continuing education to health workers to be enhanced for impacting their knowledge regarding current trends of Reproductive Child Health programme.

#### Limitations

The study has some limitations for generalizing its findings. These are:-

- The study was limited to 60 mothers of age group 20-40 years; hence findings cannot be generalized.
- It was restricted within one urban slum area.
- Mothers who were available at the time of visit.
- The time period of the study was limited.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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