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## Knowledge and Utilization Practices of Reproductive and Child Health Services among Mothers

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### Abstract

**Background of The Study:** Reproductive health is a crucial part of general health and a central feature of human development. More than three quarters of the population of our country live in rural areas. Maternal and neonatal mortality and morbidity continue to be high despite the existence of national programs for improving maternal and child health (MCH) in India. This could be related to several factors, an important one being non-utilization or under-utilization of maternal health-care services, especially amongst the rural poor and urban slum population due to either lack of knowledge or access to health-care services.

### Objectives

1. To assess the knowledge regarding reproductive and child health care services among mothers
2. To identify the factors influencing utilization of reproductive and child health care services
3. To assess utilization of reproductive and child health care services among mothers.

**Materials and Methods:** A descriptive cross sectional study was conducted in Muthukur, rural village at Nellore District. A sample size of 40 women with infants were selected by simple random technique by means of lottery method. Structured Questionnaire was used to assess the knowledge and the utilization of RCH services.

**Results:** The study shows that majority of them ie 90% have inadequate knowledge and 10% have average knowledge regarding RCH services. 67.5 % had Knowledge regarding registration of pregnancy at I trimester, 42.5% had minimum no of antenatal checkups required,60%had knowledge about iron & folic acid, 57.5 % had about TT immunization and 50% had knowledge about Tests done during pregnancy. With regard to utilization 40% attended 3 ANC's,75% registered at I trimester, majority attended ANC at PHC,100% received iron and folic acid and 67.5% received 2 doses of TT and 47.5% had 2 Postnatal checkups and 100% coverage of immunization for the infants.

**Conclusion:** Majority of the mothers utilized PHC for immunization and antenatal services. Utilization of RCH services has not reached the desired level.

**Keywords:** RCH services, knowledge, practice, utilization and family planning.

### 1. Introduction

Reproductive health is a crucial part of general health and a central feature of human development.<sup>1</sup> More than three quarters of the population of our country live in rural areas. Maternal and neonatal mortality and morbidity continue to be high despite the existence of national programs for improving maternal and child health (MCH) in India. This could be related to several factors, an important one being non-utilization or under-utilization of maternal health-care services, especially amongst the rural poor and urban slum population due to either lack of knowledge or access to health-care services<sup>1</sup>.

Pregnancy and childbirth are special events in women's lives, and, indeed, in the lives of their families. This can be a time of great hope and joyful anticipation. The primary aim of antenatal care is to achieve, at the end of pregnancy, a healthy mother and a healthy baby. The quality of care is more important than the quantity. Pregnancy requires specialized care, generally agreed to be a preventive activity. The concept of healthy mother and healthy baby is an important aspect of Maternal and Child Health (MCH)<sup>1</sup>.

Maternal mortality is one of the key indicators of the status of reproductive health care service delivery and utilization, but it also can be an indicator of women's status in a society. Maternal mortality, currently an issue of concern on the international health agenda, remains one of the most important public health problems in developing countries<sup>2</sup>

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In a developing country like India, poverty, illiteracy and multiple pregnancies take their toll of mother’s health and that of the breast fed infant. High prevalence of anemia and malnutrition among reproductive age group women, particularly during pregnancy and lactation can have irrevocable effects on the infant’s health<sup>[1]</sup>.

Maternal mortality & morbidity are significant health problems in developing countries. Improving maternal health has been an essential element for achieving health for all & has been included in Millennium Developmental Goals<sup>[3]</sup>.

Maternal and neonatal mortality & morbidity continue to be high despite the existence of national programs for improving maternal and child health (MCH) in India. This could be related to several factors, an important one being non-utilization or under-utilization of maternal health-care services, especially amongst the rural poor and urban slum population due to either lack of awareness or access to health-care services<sup>[4]</sup>.

Maternal mortality adds up to 600000 women each year. Every minute, at least one woman dies from complications of pregnancy and childbirth. Maternal mortality represents one of the widest health gaps between developed and developing nations, with 99 percent of all maternal deaths occurring in developing countries. That ≤ one percent of maternal deaths worldwide occur in developed countries indicates that maternal deaths could be avoided if the proper health resources and services were available to women in developing nations<sup>[5]</sup>. In addition to the number of deaths each year, over 50 million women suffer from maternal morbidity due to acute complications from pregnancy<sup>[6]</sup>.

Despite the efforts, utilization of RCH services by the rural community has not reached the desired level. Recently, efforts to address these issues have gained momentum with the formulation of National Rural Health Mission (NRHM-2005-12), which seeks to provide effective healthcare to rural population throughout the country<sup>[7]</sup>.

**2. Objectives**

1. To assess the knowledge regarding availability of reproductive and child health care services among women of reproductive age group.
2. To identify the factors influencing utilization of reproductive and child health care services.
3. To assess utilization of reproductive and child health care services.

**2. Methods & Materials**

This was a cross sectional descriptive study, conducted in rural Village at Nellore District. The study subjects were women of reproductive age group who have at least one child and residing at Muthukur, at Nellore district.

**2.1 Sample Size:** 40 mothers of reproductive age group between 15-45 yrs of age were selected by using simple random technique by means of lottery method.

Data were obtained by the following methods:

- A) Through oral questionnaire method by interviewing the mothers for assessing their Knowledge in relation to reproductive and child care services.
- B) Semi structured Questionnaire was used to assess the utilization of RCH services.

The study period was one month, Jan 2014. The data entry & analysis was done, using the Microsoft excel. Results were presented as percentage of number of mothers with correct responses. Mean and standard deviation of knowledge scores(at 95% Confidence Intervals).

**2.2 Ethical Clearance:** There was no drug administration or invasive procedure involved in the study. A written permission was obtained from the institutional authority and ethical committee. Written informed consent was obtained from mothers who participated in the study and Confidentiality and anonymity of the subjects was maintained throughout the study.

**3. Results**

**Table 1:** Distribution of Demographic Variables of the Mothers(N=40)

S. No	Demographic Variables	Frequency	Percentage
1	Age		
	a)17-23 years	17	42.5
	b)24-30 years	21	52.5
	c)31-37 years	2	5
2	Educational status	14	35
	a) Illiterate	17	42.5
	b.Primary education	7	17.5
	c) High secondary education	2	5
3	Occupational status		
	a.Coolie	38	95
	b.House wife	2	5
4	Family income		
	a)Below Rs 3,000/-	8	20
	b)Rs 3,000-5,000/-	26	65
	c)Rs 5,001-7,000/-	6	15
5	Type of family		
	a)Nuclear family.	21	52.5
	b)Joint family.	18	45
	c)Extended family	1	2.5
6	No of children		
	a)One child	11	27.5
	b)two children	29	72.5
7	Religion :		
	a.Hindu	33	82.5
	b.Muslim	5	12.5
	c.Christian	2	5
8	Source of information regarding RCH services		
	a.ANM/AWW/ASHA		40

**Table 2:** Frequency and percentage distribution of level of knowledge of mothers

S.N	Level Of Knowledge	f	%	Mean	SD
1	Average knowledge	4	10	15.72	3.442
2	Inadequate knowledge	36	90		
	Total	40	100		

**Table 3:** Distribution of knowledge regarding antenatal services (n=40)

S.No	Items	f	%
1	Knowledge about JSY	16	40
2	Cash assistance provided in YSY	16	40
3	Registration of pregnancy should be done	27	67.5
4	Minimum No of ANC's recommended	17	42.5
5	Timing of I ANC	24	60
6	Timing of II ANC	13	32.5
7	Timing of III ANC	23	50
8	No of TT Doses	23	57.5
9	Timing of I dose of TT	7	17.5
10	Timing of II dose of TT	13	32.5
11	Regular dose of Folic acid should be started at	24	60
12	Tests done during pregnancy-Hb, urine sugar, albumin	20	50
13	Wt monitoring during visit	7	17.5
14	Ideal wt gain during pregnancy	24	60
15	Normal wt gain after the I trimester	9	22.5
16	Additional requirement of calories during pregnancy	23	57.5

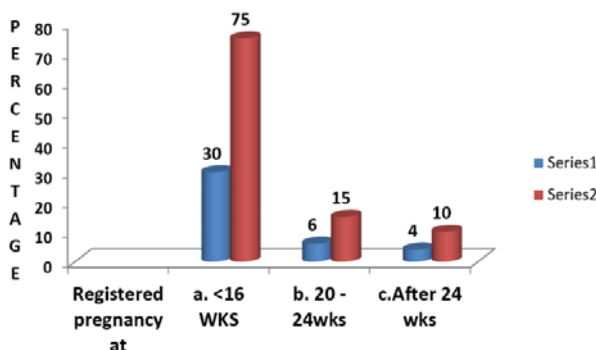
**Table 4:** Distribution of knowledge regarding postnatal services.

SN	Post Natal Services	f	%
1	Timing of PNC a.I check up b.II check up	15 6	37.5 15
2	Complications during post partum period	25	62.5
3	Additional calorie required during lactation	8	20
4	Ca requirement during lactation	14	35
5	Essential component of newborn care	26	65
6	Initiation of breast feeding after delivery	18	45
7	Duration of exclusive breast feeding	21	52.5
8	Initiation of complimentary feeding after delivery	13	32.5
9	Concept of rooming in	27	67.5
10	Demand feeding	17	42.5

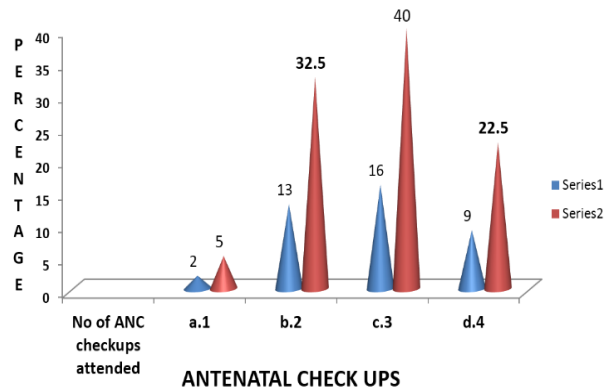
**Table 5:** Distribution of knowledge regarding family planning services.

S. no	Items	FRE	%
1	Permanent methods	25	62.5
2	Temporary methods	15	37.5
3	IUD insertion	12	30
4	IUD offers protection up to	4	10
5	Oral contraceptives are started	4	10
6	Action of oral contraceptives	4	10

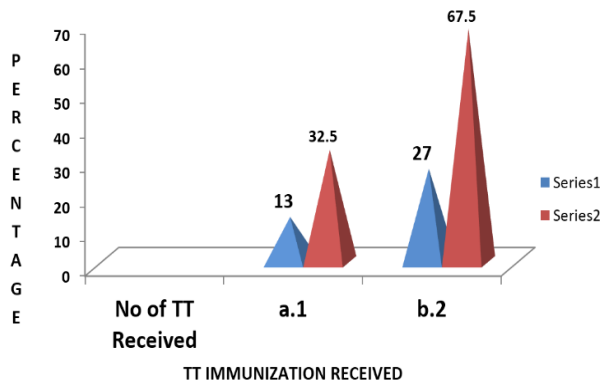
**Utilization of RCH Services among Mothers**



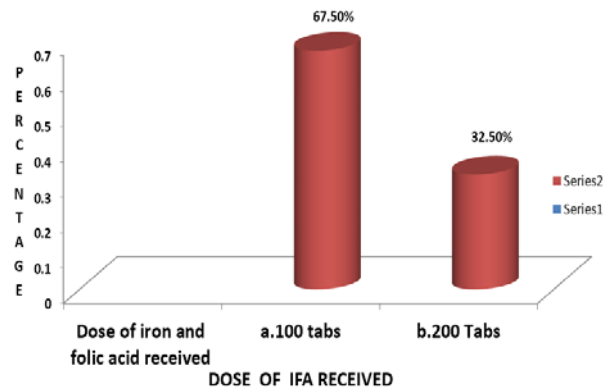
**Fig 1:** Percentage distribution of mothers based on registration of pregnancy.



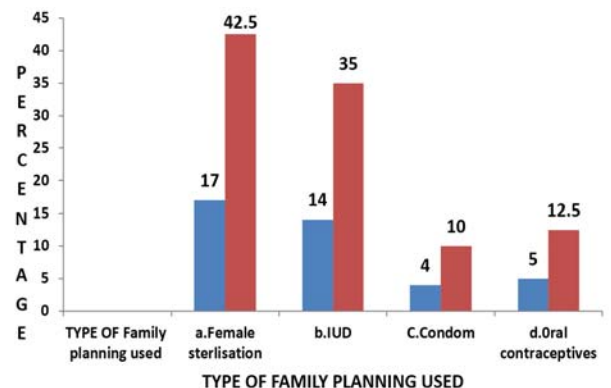
**Fig 2:** Percentage distribution of mothers based on no of antenatal visits attended



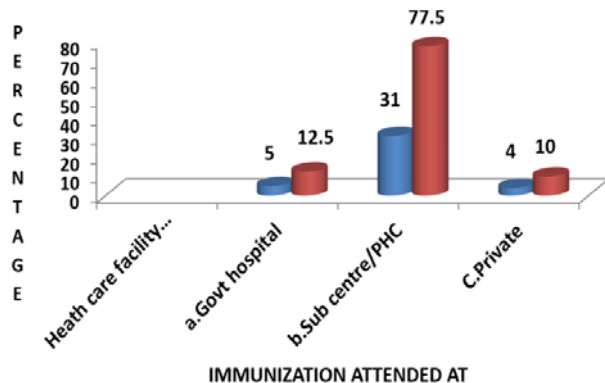
**Fig3:** Percentage of mothers based on no of TT immunization received.



**Fig4:** Percentage of mothers based on dose of IFA received.



**Fig5:** Percentage of mothers based on the use of family planning.



**Fig6: Percentage of mothers based on the place of health care facility attended**

#### 4. Discussion

##### Characteristics of Back Ground Variables.

**Tab.no.1**, shows that Majority of the mothers were between 24-30 yrs of age, ie 21 (52.5%), most of had primary education(42.5%),95% of were housewives, and 65% of them had income of Rs5000-7000. 52.5% belong to nuclear family and 29 % of them had one child and 82.5% were Hindus.

##### Distribution of Mothers Based On Knowledge Regarding RCH Services.

**Tab. no. 2** shows that Regarding Ante natal services 40% of the mothers were aware of JSY and about the cash assistance provided in JSY- 67.5% of them had knowledge about the timing of registration during in health care facility,42.5%had knowledge about minimum no antenatal checkups required,60%hadknowledge about the timing of first ANC,32.5% about timing of second visit,50%about timing of 3<sup>rd</sup> ANC.57.5% had knowledge regarding the TT immunization and the no of doses,60% of them had knowledge about Iron and folic acid supplementation,50% had knowledge regarding the tests done during pregnancy,60% had knowledge about ideal wt gain during pregnancy.

In a study by **Ranjan D, Amir A, Nath P** conducted among married women between the age group of 15–45 years at rural area, Aligarh, it was found that only 57.2% of the antenatal cases were registered, 78% at the rural health training centre 15% at the community health centre and the remaining 6.8% by private practitioners. Of all ANC registrations, 66.1% got themselves registered in second trimester, while 18.6% and 15.2% women were registered in third and first trimester respectively. The reasons for non-availing of ANC services were lack of knowledge (11.4%), obstacles (36.4%) and socio-cultural taboos (52.3%)<sup>[8]</sup>.

**Tab. No.4** shows that with regard to post natal services,47.5% had knowledge about Postnatal check ups, 62.5% had knowledge on postpartum complications,20% had knowledge about additional nutritional requirement,35% about Ca Requirement,45% about initiation breast feeding within hr after delivery,52.5% of them had about duration of exclusive breast feeding,32.5% had about complimentary feeding,42.5% had knowledge about demand feeding,47.5%had knowledge about BCG vaccination,27.5% about DPT,22.5 about timing of 1<sup>st</sup> dose of measles.

In a cross sectional study conducted by **R. R. Venkatesh, A. G. Umakantha, J. Yuvaraj**, to determine the factors influencing the utilization of maternal and child health

services in urban slums of Davangere city, Karnataka, India revealed that among 510 mothers, only 35.9% of the women had utilized all the three services i.e., antenatal, intra-natal and postnatal completely. The percentage of deliveries conducted by the trained attendants was 70.4% and 64.7% of the women had received at least one postnatal visit<sup>[9]</sup>.

**Tab no.5** shows that with regard to knowledge regarding family planning services,62.5% had knowledge about permanent methods,30% of them had knowledge about timing of IUD insertion,10% were aware about the duration IUD protection, and only 10% had knowledge about side effects of oral contraceptives

In a cross-sectional survey conducted by **Sanjay Gupta et al.**, to evaluate the MCH services, particularly immunization in rural areas of Rajasthan, revealed that less than one third (28.9%) of children, aged 12-23 months, were fully immunized with BCG, 3 DPT, 3 OPV and measles vaccines; around a quarter (26.5%) had not received even a single vaccine (nonimmunized), and little less than half (44.5%) were found partially immunized. Around half of the eligible children were vaccinated for BCG (55.9%) and Measles (43.6%). Though nearly two-third (66.8%) were covered with first dose of DPT and OPV, but about one third of these children dropped out of third dose of DPT and OPV for various reasons<sup>[10]</sup>.

##### Distribution of Mothers Based On Utilization of RCH Services

Regarding the utilization of RCH services, 75%registered pregnancy in the first trimester, 40% had 3 antenatal check ups, 22.5% had 2 ANC's,32.5% had at 4 antenatal check ups,45% attended ANC at PHC,50% of them had tests- Hb, urine sugar & albumin, HIV done 67.5% received 2 doses of TT during pregnancy, 67.5% received IFA tabs (100 tab), 32.5% received IFA (200 TABS), with regard to place of delivery 45% delivered at Govt hospital, 27.5% delivered in private hospital, 42.5% had undergone female sterilization, 35% had IUD insertion, 77.5% attended sub -centre for immunization services.

A cross-sectional study on utilization MCH services by **V.O. Awusi, E.B. Anyanwu, V. Okeleke.**, at Nigeria. Showed that out the 200 women studied, 113 (57%) utilized antenatal care services during pregnancy while 87(43%) did not<sup>[11]</sup>.

In a descriptive study conducted by **Singh B. Padam& A.Yadav**, regarding utilization of RCH services showed that about 89% of the pregnant women availed antenatal visits of which 62% had received three or more ANC visits. Those receiving second dose of TT or booster dose were about 78%. About 73% of the pregnant women received IFA tablets during their pregnancy. About 53% had full package of ANC. The proportion of Institutional deliveries managed by hospitals and health centers was about 41%, it being higher among literate women and in urban areas. The study concluded that the literacy of women is the key to improve antenatal care of pregnant women<sup>[12]</sup>

Distance from the residence, socioeconomic status, and the knowledge regarding the availability of services influence the utilization of RCH services.

In a study conducted by **De Allegri, Manuela et al.** on Determinants of utilization of maternal care services showed that 76% of women had attended at least 3 ANC visits and 72% had delivered in a facility. Living within 5 km from a facility was positively associated, ANC utilization and with

delivering in a facility<sup>[13]</sup>.

**5. Conclusion: The Mothers lack knowledge regarding essential components of maternal and care family planning and immunization.** Majority of them utilized PHC for immunization and antenatal services. Utilization of RCH services has not reached the desired level. Distance and awareness was the determinants in influencing the utilization of RCH services. The study indicates the need for creating an awareness among women of reproductive age group regarding the RCH SERVICES.

#### 6. Recommendations

1. A comparative study can be conducted to assess the utilization practices between mothers in urban and rural villages.
2. A Study can be conducted to assess the awareness and utilization of JANANI SURAKCHANA YOJANA among mothers in rural and urban areas.
3. A study can be conducted among community health workers on knowledge and practice regarding RCH Services.

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