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## RESEARCH ARTICLE

# KNOWLEDGE AND UTILIZATION OF MCH SERVICES AMONG MOTHERS

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### ABSTRACT

In India, various Maternal and Child Health Programme are in existence, which makes pregnancy safer as well as deals with child and adolescent health and nutrition. Despite of the availability of widespread services and infrastructure facilities in the rural areas, the morbidity and mortality among children and mothers continue to be a major cause of concern to the planning commissions.<sup>1</sup>

**Objective:** To assess the knowledge and utilization of various maternal and child health programmes by pregnant women and mothers of under-five children. **Methods:** A cross sectional study was carried out between March to April, 2021, simple random technique was used to select 80 antenatal, postnatal and mothers of under 5 years children who are living in Dhava village, Jodhpur, Rajasthan. Self structured questionnaire and checklist were used to collect data. Data were entered and analyzed using SPSS version 20. **Results:** Of the total, 42 (52.5%) participants were having average knowledge regarding various MCH services and 59 (73.8%) of the participants were utilizing the services. **Conclusion:** Although utilization showed better rate among mothers, the knowledge of maternal and child health services among mothers was not that good. Hence, focus is needed on enhancing awareness among the mothers of under five children regarding MCH schemes for effective utilization.

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## INTRODUCTION

In India, 60 % of the total population is comprised of females in reproductive age group (15-44 years) and children below 5 years of age. In rural environment women and adolescents constitute a vulnerable population. Pregnancy, a crucial event in the life of woman needs unique attention from the time of conception to the postnatal age. The health status of child is determined by mother's health status during pregnancy and after delivery (Basavanthappa, 1998). Mother 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 the case of women; growth, development and survival in the case of infants and children (Park, 2019). India has an excellent infrastructural facility for the delivering the MCH services in the community through a network of subcenters, primary health centers, community health centers, district hospitals, state medical college hospitals, and other hospitals in the public and private sectors. The health infrastructure includes subcenters which covers a population of 5000, primary health

centers (PHCs) for a population of 30,000, and a community health centers for every 3-4 PHCs (Singh, 1997). Maternal and neonatal mortality and morbidity continue to be high despite the existence of national programs and infrastructure for improving MCH in India. An important factor for this is non-utilization or under-utilization of services. "Maternal and Child Health services", is a group of integrated health services planned to promote the health and nutritional status of mother and children, and ensure the birth of a healthy infant to every expectant mother. The MCH service's aims at supporting the country to reduce the maternal, neonatal and under-five mortality and morbidity, thereby enhancing the quality of life, by promoting the reproductive health of families, individual women, men, adolescent and children; as well as improving access to skills development, knowledge, information and services (Kamalam). MCH services aims at to reduce the maternal, neonatal and infant mortality and morbidity rate in the country. Along with socio-economic factors, deprived access and underutilization of essential MCH services continue to contribute to high maternal mortality and morbidity rate. Improving utilization of maternal health care services is a global challenge for health system in developing countries (Satish, 2010). In spite of the availability of widespread

infrastructural facilities and services in the rural areas, the morbidity and mortality among children and mothers continue to be a major cause of concern to the planning commissions in our country (Vora, 2009). A hospital base study in India found that the MMR is 4.21 per 1000 live birth and 50-98% of the maternal deaths are due to direct obstetric causes such as haemorrhage, infection and hypertensive disorder, rupture uterus and anemia. Around 50% of maternal deaths are due to sepsis related to illegal induced abortion (Prakash, 1991). In India, due to advanced perinatal care and technology, pregnancy related deaths of women have declined over the past years but not significantly declined. As per the sample registration system (SRS) data. MMR is 113 per lakh live birth during the period of 2016-18. MMR has declined 17 points from 130/ lakh live birth in 2014-16. This data clearly explain that 2,500 maternal deaths have been saved annually in 2018 as compared to 2016. The annual total estimated maternal deaths have been declined from 33800 maternal deaths in 2016 to 26437 deaths in 2018 (Kulkarni, 2016). In India the NMR was 21.7/1000 live birth in 2019. The Neonatal mortality rate has been gradually declined from 84.4 per 1000 live births in 1970 to 21.7 per 1000 live birth in 2019. But still India is far away from achieving the Sustainable developmental goal and NHP goal of 2025 (World Data Atlas India Topics Health Health Status). Infant mortality is also closely associated with maternal mortality. The SRS data released by India government shows that IMR in India has been declined by 42% over past 11 years from 57 per 1000 live birth in 2006 to 33 in 2017 (<https://www.unicef.org/india/what-we-do/maternal-health>).

In Rajasthan, the survey has been conducted between 2005-06 and 2015-16 which reveals that, infant mortality has been declined from 65 to 41 deaths per 1000 live births (NFHS 3, NFHS4). As per the Ministry of Health and Family Welfare data, Maternal mortality rate has been reduced from 318 per 100,000 live births in 2008, to 244 in 2013 (Abusaleh Shariff). WHO in 1985 reported that 63-80% of maternal deaths are due to direct obstetric causes and 88-98% of all maternal deaths could be prevented by adequate implementation of maternal health services at gross root level. In India, lack of coordination among the different levels of health care delivery system, fragmentation of care and lack of awareness due high rate of illiteracy has account for poor delivery and utilization of maternal health service by eligible mothers in the community. Therefore, the researcher found need for assessing the knowledge and utilization of MCH services by antenatal and mothers of under five children. The result of the study would help the policy makers and public health administrator to develop the strategies to improve the maternal health and effective utilization of maternal health services by public in rural community of India (Prakash, 1991).

### Objectives

1. To assess the knowledge and utilization of MCH services among mothers of Dhava village, Jodhpur, Rajasthan.

### Methods and Procedures

Dhawa is village a located in Jodhpur-Barmer highway. The population of Dhawa is about 7000 and has 5 Anganwadis. Study included 80 Antenatal, postnatal and mothers of under five children, from rural area of district Jodhpur (Rajasthan) with the help of simple random technique. All menopause

women were excluded from the study. The sample size required for the study was calculated using the formula  $n = Z^2PQ/d$  and the computed sample size were 80. Ethical clearance was obtained from IEC AIIMS, Jodhpur (AIIMS/IEC/2020/2162 dated: 18/03/2020). Written informed Consent form was prepared in both Hindi and English and consent was taken from the study subjects regarding their willingness to participate in the research project. Confidentiality of data was maintained. The data were collected by face-to-face interview of 80 mothers with the help of validated and reliable semi structured questionnaire (KR-20  $r=0.984$ ) and checklist (KR-20  $r=0.71$ ). Socio-demographic variables consisted of 9 questions which included age of women in years, type of family, age at marriage, religion, reproductive status, family income, educational status, occupation and mother's category. The knowledge questionnaire consisted of 30 questions and checklist regarding utilization had 20 questions. Knowledge level was classified as poor (0-10), average (11-20) and good (21-30). Utilization level was categorized as 10 (inadequate) and 10 (adequate). The collected data were processed through IBM SPSS Statistics for Windows, Version 26.0 (IBM Corp. Released 2019 Armonk, NY: IBM Corp). Descriptive statistics (frequencies, means, percentages, tables, and standard deviation) were used to summarize variables, while inferential statistics (chi square test) was used to test the significance of association between categorical variables with the level of significance set at 5%.

## RESULTS

About 38 (47.5%) had poor knowledge and the remaining 42 (52.5%) had average knowledge, none of them had a good knowledge on this regard. The mean knowledge score was 10.34 with standard deviation of 4.14. Regarding the utilization of services, 59 (73.8%) only used the services adequately. The mean utilization score was 13.99 with standard deviation of 4. Regarding the utilization of services, 59 (73.8%) only used the services adequately. The mean utilization score was 13.99 with standard deviation of 4.

**Table 1. Knowledge of various maternal and child health services (n=80)**

Level of knowledge	Frequency	Percentage	Mean score	Standard Deviation
Poor	38	47.5	10.34	4.14
Average	42	52.5		
Total	80	100		

**Table 2. Utilization of various maternal and child health services (n=80)**

Level of utilization	Frequency	Percentage	Mean score	Standard Deviation
Inadequate	21	26.2	13.99	4
Adequate	59	73.8		
Total	80	100		

Antenatal, postnatal or mother of under five children (n=80) participated in this study. Table 3 shows the demographic profile of the subjects. A total of 56 (70%) participants were in the age group of less than 30 years. Out of which, 13 (16.3%) were antenatal, 13 (16.3%) were postnatal mothers and nearly 54 (67.4%) were mothers of under five children.

**Table 3. Association of level of Knowledge and utilization of MCH services with socio-demographic variables (n=80)**

Characteristics	Classification	N	%	Knowledge		Utilization	
				Chi squ	p	Chisqu	p
Age of women in years	<30	56	70	0.08	0.76	0.028	0.88
Type of family	>30	24	30				
	Nuclear	31	38.8	1.56	0.21	0.94	0.33
Age at marriage	Joint + extended	49	61.2				
	<25	66	82.5	6.57*	0.01	1.25	0.26
Religion	>25	14	17.5				
	Hindu	59	73.8	0.011	0.99	1.84	0.4
	Muslim	17	21.2				
Number of pregnancy	Christian and others	4	5				
Monthly family income (in INR)	Primi	37	46.3	0.004	0.95	6.08	0.78
Educational status	Multi	43	53.7				
	<30000	52	65	0.37	0.54	0.78	0.38
	>30000	28	35				
	Illiterate	6	7.5	0.198	0.98	2.73	0.44
	Primary &	49	61.3				
Occupation	secondary	11	13.7				
	Higher secondary	14	17.5				
Category of mother	Graduate and above	59	74	0.25	0.62	0.001	0.97
	Non working	21	26				
	Working	13	16.3	1.88	0.39	0.208	0.901
	Antenatal	13	16.3				
	Postnatal	54	67.4				
	Mother of under five children						

N=Sample, %=Percentage, \*statistically significant at p<0.05

There were 31 (38.8%) from nuclear families and 49 (61.2%) from joint and extended families. 66 (82.5 %) got married at an age less than 25, whereas 14 (17.5%) got married after 25 years. Fifty-nine participants (73.8%) were Hindus, Muslims were 17 (21.2%) and others constituted 4 (5%). There were 37(46.3%) primi mothers and the remaining 43 (53.7%) were multipara. About 52 (65%) had a monthly family income less than 30000INR. Forty-nine (61.3%) mothers were having a primary or secondary education level. Majority of the mothers 59 (74%) were not employed. Majority of the mothers belonged to age less than 30, Hindu religion, unemployed and mother's of under five children. There was statistically significant difference among age at marriage and knowledge of MCH services ( $X^2 = 6.57$ ,  $p=0.01$ ). Correlation between the knowledge and utilization on MCH service were not statistically significant ( $r= -0.055$ ,  $p=0.625$ ). Hence, necessitates the need for MCH service-related awareness programs among mothers.

## DISCUSSION

In the present study, knowledge regarding maternal and child health services was average however, and the utilization of services was adequate. Poor availability of services and Lack of information among rural population might be one of the reasons for this. SreeRaja Kumar R studied on knowledge on utilization of MCH services among rural married women stated that 44% knowledge was there in antenatal services, 36% was there in intra natal services, 42.6% in post natal services, 62.3% in family planning services and 53.8% in child health services.<sup>14</sup> Almost similar result were found In the present study it include 36.2% of knowledge on antenatal service, 25.3% in postnatal service, 40.4% in intranatal service, 34.1% in child health services. This shows that knowledge regarding intranatal services is good rather than antenatal, postnatal and child health services. Ranjana Singh, Sutapa B Neogi et al. 2019 study stated that in Uttar Pradesh 61% reported three or more ANC visits and 68% of women delivered in a health facility, 29% stayed for at least 48 h.

Any PNC within 42 days after delivery was reported by 26% of women. Only 29% of the women had reported at least 3 checkups done during their pregnancy, which included blood test, blood pressure and abdominal examination. PNC received 26.3%, family planning 44.1% and utilization of immunization services was 63.4% respectively.<sup>15</sup> But in the present study present study mother reported that 85% of registration, 91.25% of antenatal checkups at health centres, and 80% weight monitoring and blood pressure. In PNC, delivery at health centre 95%, Immunization to newborn 95% and Postnatal visits at health centre 70%. In under five children health services reported 77.5% regular health checkups of child and 22% distribution of contraceptives by ASHA to mothers. Overall, mothers utilized 74% of antenatal services, 68.21% of postnatal health services and 60.41% of under five children and mother health services.

## CONCLUSION

The present study revealed average knowledge and adequate utilization of MCH services by the pregnant and mothers of under five children. Indian government has initiated many of the programs to improve the maternal and child health. These programs have been implemented but what is important to understand is to know, how these programs are functioning and its utilization by the target people. So that the policy makers can make midcourse corrections and they can make necessary changes or to decide in which specific areas programs to be strengthened. With this small-scale study researcher try to understand regarding the awareness and utilization of MCH services by the target mothers. From this study result findings, the researcher concludes that effective strategies such as informal education of young girls and mass target mothers for enhancing the awareness and utilization of MCH services need to be planned by the public health administrator and policy maker. The researchers also suggest that there is need for evaluative and outcome research need to be conducted to evaluate the effective implementation of the MCH program.

**Limitation and strength of the study:** The present study was conducted by using the randomized sampling technique and data was collected by validated and reliable tool. The study was related to significant topic which is needed at current time to improve the maternal and child outcome. The limitation of the study was small sample size used to conduct study and it was conducted in one setting.

### Recommendation

The study reflects that mere availability of maternal and child health services will not help our mothers and children, but they should be made aware of these services and rather made accessible to them with the help of health workers like ASHA, Anganwadi, PHC etc. Awareness programs should be given equal importance along with delivery of these services. Due to the small number of participants in the study, further research is recommended to conduct with larger sample. Researchers also recommend to conduct similar study in multi setting population of both rural and urban area. Further, interventional research can be conducted on effectiveness of IEC to increase the knowledge and utilization of MCH services.

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