

A STUDY TO ASSESS THE KNOWLEDGE REGARDING MATERNAL SERVICES PROVIDED BY THE GOVERNMENT AND THEIR UTILIZATION AMONG ANTENATAL MOTHERS IN SELECTED RURAL AREA OF JAIPUR RAJASTHAN

Author's Name: Mr. Kailash Chand Atal¹, Dr. Minaxi Vyas², Mrs. Priti Nair³

Affiliation:

1. M.Sc. Nursing Final Year, Govt College of Nursing, Jaipur, Rajasthan, India.
2. HOD, Obstetrics and Gynaecological Nursing Department, Govt. College of Nursing, Jaipur, Rajasthan, India.
3. Lecturer, Obstetrics and Gynaecological Nursing Department, Govt. College of Nursing, Jaipur, Rajasthan, India.

Corresponding Author Name and Email Id: Mr. Kailash Chand Atal,
atalkailashchand@gmail.com

ABSTRACT

INTRODUCTION: Maternal health services play a crucial role in ensuring the well-being of both mothers and babies during the maternity period. In rural areas like Jaipur, Rajasthan, access to and utilization of government-provided maternal services are essential for promoting safe pregnancies and deliveries. This study aims to assess the knowledge and utilization of maternal services among antenatal mothers in a selected rural community in Jaipur. The WHO suggests that skilled care before, during and after childbirth can save the lives of women and newborn babies. Maternal mortality has decreased worldwide by about 44% between 1990 and 2015. The earlier estimates by WHO showed that 536000 women died in 2005 as a result of complications of pregnancy and childbirth, and 400 mothers died for every 100000 live births. According to 'World Health Statistics' by WHO (2008) the maternal mortality was nine in developed countries, 450 in developing countries and 900 in 2 sub-Saharan Africa. This shows that 99% of the women who died in pregnancy and childbirth were from developing countries. More than half of these deaths occurred in sub-Saharan Africa and about a third in southern Asia. Thus, reduction of maternal mortality is one of the major challenges to improve the overall quality of life (Seth 2009). Therefore, this is great challenge for developing countries and for countries like India.

METHOD: The research has quantitative non - experimental descriptive research approach where 60 Antenatal mothers were selected as sample by Non-Probability Convenient Sampling technique. Pilot study was conducted at UPHC HARMADA SIKAR ROAD JAIPUR. The Main study was conducted at PHC OF MANPURA MACHERI, JAIPUR. A questionnaires and checklists was used for data collection in the study. The conceptual framework for the present study was based on General system theory. The data obtained from the study subjects were analyzed and interpreted in terms of the objectives and hypothesis of the study. Descriptive and inferential statistics were used for data analysis at 95% of confidential interval(CI).

RESULTS: Level of knowledge of antenatal mothers showed that 16.7% of the antenatal mothers had inadequate knowledge, 63.3% had moderate adequate knowledge and 20 % of the antenatal mothers had

adequate knowledge regarding maternal services. and Utilization of antenatal mothers showed that 0 % of the antenatal mothers had inadequate Utilization, 65 % had Moderately adequate Utilization and 35 % of the antenatal mothers had adequate Utilization towards jssy, pmmvy, pmsma of maternal services. The correlation coefficient computed between the overall mean knowledge and overall mean attitude of antenatal mothers as $r=0.841$ (S) suggests a highly positive correlation between knowledge and Utilization significant at $p>0.05$ level. There was a significant association between the level of knowledge and selected demographic variables like educational of mother, education of husband, age, occupation, religion, family income, no of children of the participants. Same way there was a significant association between the utilization and selected demographic variables like educational of mother, education of husband, and occupation of the participants. **CONCLUSION:** The present study was undertaken “a study to assess the knowledge regarding maternal services provided by the government and their utilization among antenatal mothers in selected rural area of Jaipur raj.” The following conclusions were drawn on the basis of the findings of the study. The majority of women have moderate knowledge of maternal services and their utilization provided by the government among antenatal mothers. The findings show the very strong positive correlation between knowledge and utilization of maternal services provided by the government among antenatal mothers. Means as the knowledge increases the utilization also increases.

Keywords: Maternal Services, PMMVY, PMSMA, JSSY, Antenatal Mothers Utilization, Knowledge.

INTRODUCTION

Maternal health is still an issue of concern, particularly in the developing countries. World Health Organization defines “Maternal health as the health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for too many women it is associated with suffering, ill-health and even death (WHO 2010)”. Koblinsky and Campbell (2003) report that, nearly half of all maternal deaths in developing countries occur during labor or delivery or in the immediate postpartum period. Maternal mortality is still high in the developing countries. New estimates by the WHO (2016) showed that in 2015, roughly 303, 000 women died during and following pregnancy and childbirth. Every day, approximately 830 women die from preventable causes related to pregnancy and childbirth and 99% of the maternal deaths occur in developing countries. Maternal mortality is higher in women living in rural areas and among poorer communities.

Maternal and Child Health (MCH) In India In India efforts have been taken since British rule for improving the maternal and child but major steps were taken only after independence. “Bhore Committee” known as “health survey and development committee” set up in 1946 is one of the important milestones in Indian health policy and program. With the Bhore Committee Report, public health became the responsibility of the national government, although the implementation remained in the hands of the individual states. The Committee suggested the three-tiered referral system, with primary health care services emphasizing preventative care to be available in primary health centers (PHCs) at the village level, secondary curative services to be available at the district level, and tertiary services to be available in the urban centers, often attached to medical teaching and research institutions.

Rural women seeking allopathic services during childbirth were encouraged and expected to use this three-tiered system according to their needs (Van Hollen 2003:58). After independence in 1952 India initiated national level family planning programmers and later on the five-year plan incorporated maternal and child health programmers with realization of the relationship between child mortality and family planning that “parents cannot be expected to limit the size of their families unless they have some confidence that the children they already have will survive to adulthood” (Bhende and Kanitkar 2008).

The advance is largely due to key government interventions such as the Janani Shishu Suraksha Karyakram (JSSK) scheme which encompasses free maternity services for women and children. A nationwide scale-up of emergency referral systems and maternal death audits and improvements in the governance and management of health services at all levels. Nutritional

status among children during the critical period is of paramount importance for later physical, mental and social development. Childhood poor nutrition may contribute to poor growth, poor cognition, poor muscle development, high rate of illness and poor social development.

OBJECTIVES

1. To assess the knowledge regarding maternal services provided by the government among antenatal mothers in selected rural area of Jaipur raj.
2. To assess the utilization of maternal services provided by the government among antenatal mothers in selected rural area of Jaipur raj.
3. To find out the association between knowledge regarding maternal services provided by the government among antenatal mothers with their selected demographic variables in selected rural area of Jaipur raj.
4. To find out the association between utilization of maternal services provided by the government among antenatal mothers with their selected demographic variables in selected rural area of Jaipur raj.
5. To find out the correlation between knowledge and utilization of maternal services provided by the government among antenatal mothers in selected rural area of Jaipur raj.

HYPOTHESES

H1: There will be significant association between knowledge regarding maternal services provided by the government among antenatal mothers with their selected demographic variables at 0.05 level of significance.

H0: There will be no significant association between knowledge regarding maternal services provided by the government among antenatal mothers with their selected demographic variables at 0.05 level of significance.

H2: There will be significant association between utilization of maternal services provided by the government among antenatal mothers with their selected demographic variables at 0.05 level of significance.

H02: There will be no significant association between utilization of maternal services provided by the government among antenatal mothers with their selected demographic variables at 0.05 level of significance.

H3: There will be significant relationship between knowledge and utilization regarding maternal services provided by government among antenatal mothers at 0.05 level of significance.

H03: There will be no significant relationship between knowledge and utilization regarding maternal services provided by government among antenatal mothers at 0.05 level of significance

CONCEPTUAL FRAMEWORK :

General system model.

METHODOLOGY

Research approach ; quantitative research approach

Research Design: This research employed a descriptive study design to assess the knowledge regarding maternal services provided by the government and their utilization among antenatal mothers in selected rural area of Jaipur Rajasthan.”

Study Setting and Participants: The study was conducted in a rural area of manpura macheri District Jaipur, selected based on its accessibility and representation of typical rural area in the region. The participants comprised antenatal mothers residing in the selected rural area.

Sampling: In this study purposive sampling technique used. . The population selected for the present study will be all antenatal mother living selected Jaipur rural community in manpura macheri. were approached and invited to participate in the study. A total of 60 participants were included in the sample, ensuring a diverse representation of the target population.

Data Collection: Data collection was carried out using structured knowledge questionnaire and checklist developed based on existing literature and expert input. Additionally, it included 19 items related to knowledge about maternal services, and 20 item utilization of maternal services .The checklist was used to assess specific Utilization related to maternal services .

Data Analysis: by using descriptive data analyzed by mean, mode, median and sd along with inferential data analyzed by chi square and correlation coefficient.

RESULTS

ANALYSIS AND INTERPRETATION OF DEMOGRAPHIC VARIABLES OF THE SAMPLES

Table 1. Frequency and percentage wise distribution of samples based on Demographic Variables.

[N=60]

SL No	Demographic Variables	Frequency	percentage
1	AGE OF MOTHER IN YEAR		
	Below 20 years	2	3.3
	21-25 years	38	63.3
	26-30 years	15	25.0
	Above 30 years	5	8.3
2	EDUCATION OF MOTHER		
	No formal education	0	0
	Primary	10	16.7
	Secondary	40	66.7
	Graduate & above	10	16.7
3	EDUCATION OF HUSBAND		
	No formal education	0	0
	Primary	4	6.7
	Secondary	31	51.7
	Graduate & above	25	41.7
4	TYPE OF FAMILY		
	Joint	40	66.7
	Nuclear	20	33.3

5	OCCUPATION		
	House wife	49	81.7
	Government job	3	5.0
	Private job	4	6.7
	Other	4	6.7
6	NUMBER OF CHILDREN		
	1	30	50.0
	2	20	33.3
	3	9	15.0
	Above 3	1	1.7
7	RELIGION		
	Hindu	54	90.0
	Muslim	0	0
	Christian	3	5.0
	Sikh	3	5.0
8	FAMILY INCOME		
	<10,000	6	10.0
	Rs 10,001 – 15,000	22	36.7
	15001 – 20,000	20	33.3
	>20,000 Rs	12	20.0

Table 1. Frequency and percentage wise distribution of samples based on Demographic Variables.

Shows the demographic characteristic of antenatal mothers under the study, out of 60 samples, in age, majority 38(63.3%) were between 21-25 years, 15 (25%) were in 26-30 years, 5(8.3%)

were above 30 years and only 2 (3.3%) were between 18-20 years.

Regarding **education of mother**, majority of the samples 40(66.7%) had secondary education, 10(16.7%) were graduated and above and 10(16.7%) were having primary education.

Regarding **education of husband**, majority of the samples 31(51.7%) had secondary education, 25(41.7%) were graduated and above and only 4(16.7%) were having primary education.

In **type of family**, 40(66.7%) were from joint family and 20(33.3%) were from nuclear family.

With respect to occupation, majority 49(81.7%) were housewife, 4(6.7%) were having private job, 3(5%) were having government job and 4(6.7%) were having other kind of occupation.

In number of children, 30(50%) were having one child, 20(33.3%) were having 2 child, 9(15%) were having 3 children and only 1 (1.7%) had more than 3 children.

In religion, majority 54(90%) were Hindus, 3(5%) were Christians and 3(5%) were belong to Sikh religion.

With respect to monthly family income, 6(10%) are having income of less than 10,000 Rs per month, 22(36.7%) had 10,000-15,000 Rs, 20(33.3%) had 15,001 – 20,000 Rs and 12(20%) we're having more than 20,000 Rs per month.

Table-2. Frequency and percentage distribution of Knowledge regarding maternal services provided by government among antenatal mothers

[N=60]

Level of knowledge	Score	Frequency	Percentage
Inadequate Knowledge	0-6	10	16.7
Moderately adequate knowledge	7-13	38	63.3
Adequate knowledge	14-19	12	20
Total	19	60	100

Table 2. Shows that the majority 38 (63.3%) samples had moderately adequate knowledge, 10 (16.7%) samples had inadequate knowledge and 12(20%) had adequate knowledge regarding maternal services provided by government among antenatal mothers.

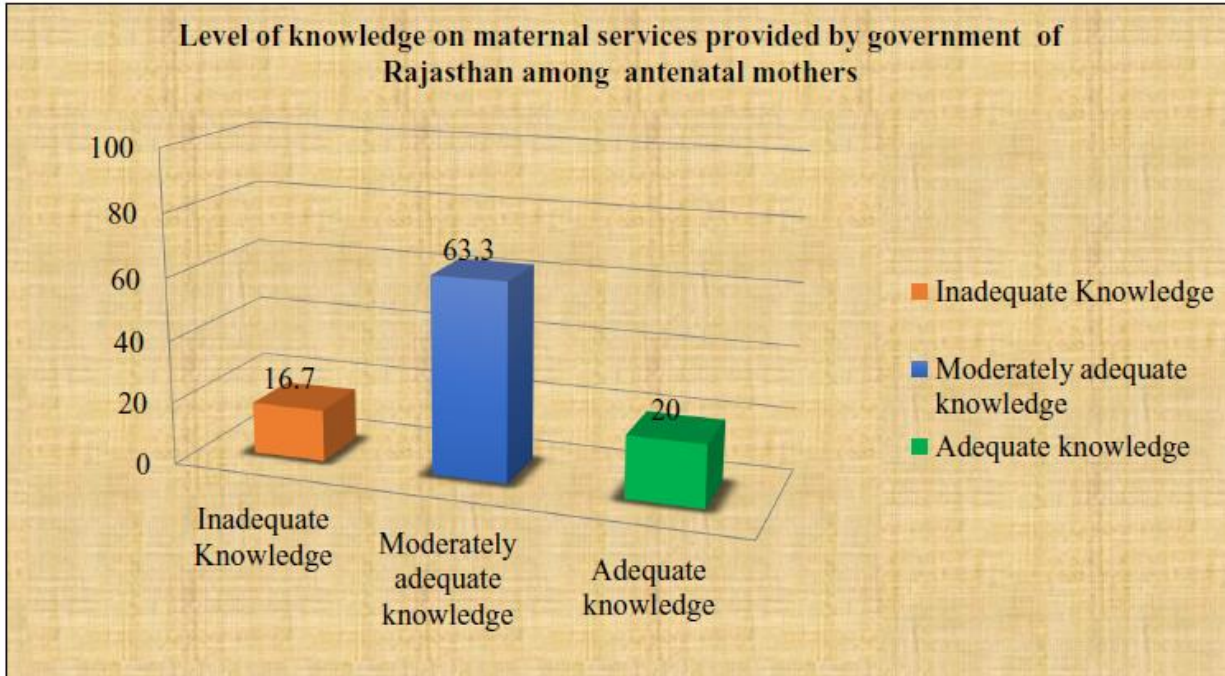


Figure -1: Shows that the majority 38 (63.3%) samples had moderately adequate knowledge, 10 (16.7%) samples had inadequate knowledge and 12(20%) had adequate knowledge regarding maternal services provided by government among antenatal mothers.

Table-3. Frequency and percentage distribution of utilization of maternal services provided by government among antenatal mothers

[N=60]

Level of utilization	Score	frequency	Percentage
Inadequate utilization	0-7	0	0
Moderately adequate utilization	8-14	39	65
Adequate utilization	15-20	21	35
Total	20	60	100

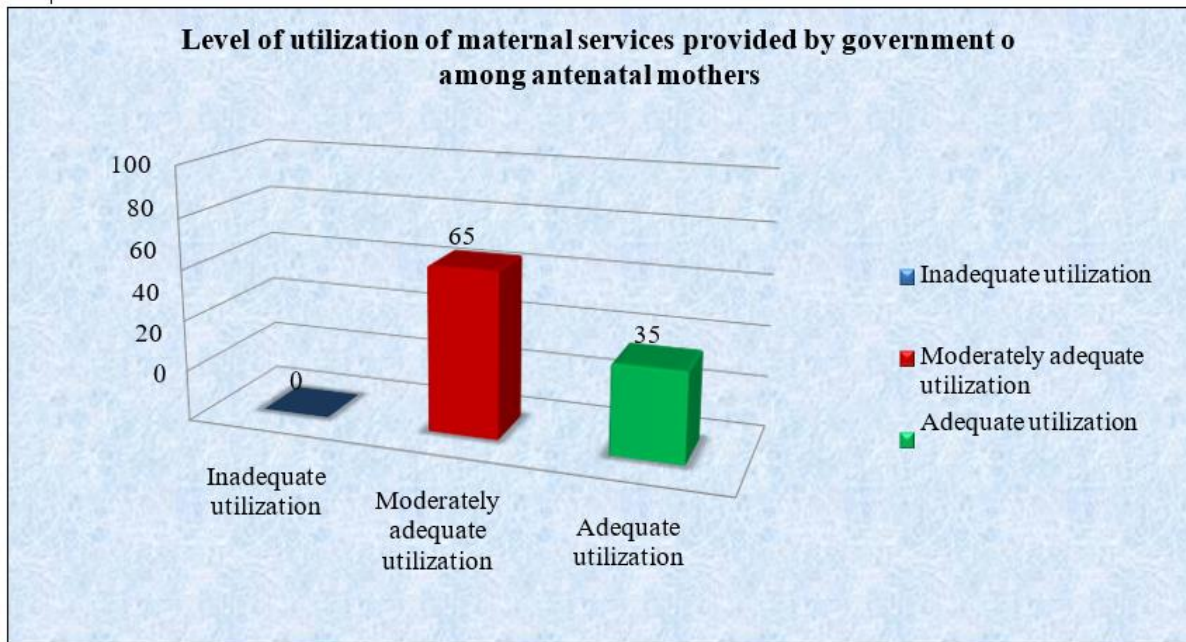


Figure 2: Bar Graph showing of utilization of maternal services provided by government among antenatal mothers

Figure-2: Shows that majority, 39 (65%) samples had moderately adequate utilization, 21 (35%) had adequate utilization and none of the samples were inadequately utilizing maternal services provided by government.

Chi square test was done to find the association between knowledge score of antenatal mothers and their selected demographic variables

3 Association between knowledge score and selected demographic variable

N=60

SL No	Demographic Variables	f	Inadequate	M. adequate	Adequate	χ^2 value	Tabulated value	df	Significance
1	AGE OF MOTHER IN YEAR								
	Below 20 years	2	1	1	0	23.172	12.592	6	S
	21-25 years	38	1	27	10				
	26-30 years	15	4	9	2				
	Above 30 years	5	4	1	0				
2	EDUCATION OF MOTHER								
	Primary	10	8	2	0	59.895	9.488	4	S
	Secondary	40	2	34	4				
	Graduate & above	10	0	2	8				
Graduate & above	10	0	2	8					
3	EDUCATION OF HUSBAND								
	Primary	4	3	1	0	21.071	9.488	4	S
	Secondary	31	6	23	2				
	Graduate & above	25	1	14	10				
Graduate & above	25	1	14	10					
4	TYPE OF FAMILY								
	Joint	40	7	26	7	0.478	5.991	2	NS
	Nuclear	20	3	12	5				

5	OCCUPATION								
	House wife	49	10	35	4	26.5 75	12.592	6	S
	Government job	3	0	0	3				
	Private job	4	0	2	2				
	Other	4	0	1	3				
6	NUMBER OF CHILDREN								
	1	30	2	25	3	20.3 19	12.592	6	S
	2	20	3	9	8				
	3	9	4	4	1				
	Above 3	1	1	0	0				
7	RELIGION								
	Hindu	54	8	36	10	9.9 84	9.488	4	S
	Christian	3	2	1	0				
	Sikh	3	0	1	2				
8	FAMILY INCOME								
	<10,000	6	2	4	0	22.9 30	12.592	6	S
	Rs 10,001 – 15,000	22	3	17	2				
	15001 – 20,000	20	5	13	2				
	>20,000 Rs	12	0	4	8				

S: significance at 0.05 level, NS: Non-significant DF- degree of freedom

Table 3. reveals that the demographic variables of antenatal mothers like “age in years ($\chi^2=23.172$, $df= 6$, tabulated value 12.592)”, **education of mother** ($\chi^2=59.895$, $df= 4$, tabulated value 9.488), **education of husband** ($\chi^2=21.071$, $df= 4$, tabulated value 9.488), **occupation**

($\chi^2=26.575$, $df= 6$, tabulated value 12.592), **number of children** ($\chi^2=20.319$, $df= 6$, tabulated value 12.592), **religion** ($\chi^2=9.984$, $df= 4$, tabulated value 9.488) and **family income** ($\chi^2=22.930$, $df= 6$, tabulated value 12.592) shows the significance association with knowledge score.

Hence conclude that there is significant association between knowledge score and mentioned demographic variables and reject the null hypothesis H0 and accept the research hypothesis H1.

The obtained chi square value of variable of **type of family** was less than the tabulated value, so there is no significant association between knowledge and variable **type of family** at the level of significance 0.05. Hence the null hypothesis was accepted and research hypothesis was rejected.

Chi square test was done to find the association between utilization score of antenatal mothers and their selected demographic variables

4.Association between utilization score regarding maternal services provided by government among antenatal mothers and selected demographic variable

SL No	Demographic Variables	f	Inadequate	M. adequate	Adequate	χ^2 value	tabulated value	df	Significance	
1	AGE OF MOTHER IN YEAR									
	Below 20 years	2	0	1	1	0.767	7.815	3	NS	
	21-25 years	3	0	24	14					
	26-30 years	1	0	10	5					
	Above 30 years	5	0	4	1					
2	EDUCATION OF MOTHER									
	Primary	1	0	10	0	14.396	5.991	2	S	
		0								
Secondary	4	0	27	13						
		0								

	Graduate & above	10	0	2	8				
3	EDUCATION OF HUSBAND								
	Primary	4	0	4	0	9.102	5.991	2	S
	Secondary	31	0	24	7				
	Graduate & above	25	0	11	14				
4	TYPE OF FAMILY								
	Joint	40	0	26	14	0.001	3.841	1	NS
	Nuclear	20	0	13	7				
5	OCCUPATION								
	House wife	49	0	36	13	10.325	7.815	3	S
	Government job	3	0	0	3				
	Private job	4	0	2	2				
	Other	4	0	1	3				
6	NUMBER OF CHILDREN								
	1	30	0	22	8	5.617	7.815	3	NS
	2	20	0	9	11				
	3	9	0	7	2				
	Above 3	1	0	1	0				

7	RELIGION								
	Hindu	54	0	37	17	5.869	5.991	2	NS
	Christian	3	0	2	1				
	Sikh	3	0	0	3				
8	FAMILY INCOME								
	<10,000	6	0	5	1	7.632	7.815	3	NS
	Rs 10,001 – 15,000	22	0	17	5				
	15001 – 20,000	20	0	13	7				
	>20,000 Rs	12	0	4	8				

S: significance at 0.05 level, NS: Non-significant

Table 5. reveals that the demographic variables of antenatal mothers like **education of mother** ($\chi^2=14.396$, $df= 2$, tabulated value 5.991), **education of husband** ($\chi^2=9.102$, $df= 2$, tabulated value 5.991) and **occupation** ($\chi^2=10.325$, $df= 3$, tabulated value 7.815) shows the significance association with utilization score.

Hence conclude that there is significant association between utilization score and mentioned demographic variables and reject the null hypothesis H02 for the above-mentioned demographic variables and we accept the research hypothesis H2.

The obtained chi square value of variable of age of mother, family income, religion, no. of children and type of family was less than the tabulated value, so there is no significant association between Utilization and variable- age of mother, family income, religion, no. of children and type of family at the level of significance 0.05. Hence the null hypothesis was accepted and research hypothesis was rejected.

Karl Pearson’s correlation coefficient method was used to find out the relationship.

6. Correlation between knowledge and utilization of maternal services provided by the government among antenatal mothers

N=60

Correlation between knowledge and utilization of maternal services	Total number of sample	Df	r value	Tabulated value	Level of significance	Remarks
	60	58	0.841	0.25	.05 level	Correlation is significant at the 0.05 level

Table 6. The findings show ($0 > r < 1$) the very strong positive correlation between knowledge and utilization of maternal services provided by the government among antenatal mothers. Means as the knowledge increases the utilization also increases. Statistically The tabulated value 0.25 is lesser than the 0.841 so it shows there is significant correlation between knowledge and utilization of maternal services provided by the government among antenatal mothers, $df(58) = 0.841, T < 0.25$

Hence conclude there is significant relationship between knowledge and utilization regarding maternal services provided by government at 0.05 level of significance and we reject the null hypothesis H03 and accept research hypothesis H3.

DISCUSSION

The study aimed to assess the knowledge and Utilization related to maternal services among antenatal mothers in a rural area, as well as to explore the association between these factors and selected demographic variables. The findings provide valuable insights into the current status of maternal services management in this population and have implications for nursing education, services, and practice.

The study found that the majority of participants exhibited average knowledge regarding

maternal services among antenatal mothers, with only a small proportion demonstrating adequate knowledge. Similarly, similar research conducted by Rezik et al. (2022) , which also reported suboptimal knowledge and Utilization levels among antenatal mothers in rural settings⁸. These consistent findings highlight the need for targeted educational interventions to enhance awareness and understanding of maternal services among antenatal mothers individuals residing in rural area.

The correlation analysis revealed a positive correlation between knowledge and Utilization scores, suggesting that individuals with higher levels of knowledge tended to exhibit better Utilization of maternal services. This aligns with the findings of a study conducted by Valerie et al. (2001), which similarly reported a positive association between knowledge and Utilization among maternal services.

CONCLUSION

The following conclusions were drawn on the basis of the findings of the study.

The majority of women have moderate knowledge of maternal services and their utilization provided by the government among antenatal mothers.

The findings show the very strong positive correlation between knowledge and utilization of maternal services provided by the government among antenatal mothers. Means as the knowledge increases the utilization also increases.