UTILIZATION OF MATERNAL AND CHILD HEALTH SERVICES AMONG WOMEN ADMITTED IN MATERNITY WARD OF A HOSPITAL OF SIDDHARTHANAGAR MUNICIPALITY

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ABSTRACT

INTRODUCTION

Maternal and child mortality is a global issue which could be prevented by the utilization of maternal and child health (MCH) services. The main objective of this study was to find out the utilization of MCH services among women admitted in maternity ward of a hospital.

MATERIAL AND METHODS

Cross-sectional descriptive study was conducted to find out the utilization of MCH services among 150 women admitted in maternity ward of a hospital. Non-probability purposive sampling technique was used to select the sample and semi-structured interview schedule was used to collect the data and collected data was analyzed with SPSS version 16.

RESULTS

The study showed that 100% of the women had utilized antenatal services, 98.67% delivered their baby in health centres and utilized postnatal services. During pregnancy, women got health education on danger signs (66.67%), avoidance of sexual intercourse (54%), and birth preparedness (44%). Cent percent of the children utilized at least one child health services, 80% were breastfed within hour of birth, and 93.24% of women were not aware of administration of vitamin K to their newborn. Ethnicity, religion, education, occupation, age at marriage, gravida, parity, history of abortion or child death and number of live children of women, education and occupation of spouses were significantly associated ($p<0.05$) with utilization of maternal health services.

CONCLUSION

It is recommended that nurses and health personnel should provide health education focusing on birth preparedness, danger signs of mother and baby, and should inform about administration of vitamin K to mother.

KEYWORDS

Child health services, Maternity, Maternal health services, Utilization.

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INTRODUCTION

Globally about 295,000 women died during and following pregnancy and childbirth in 2017. The majority of these deaths (94%) occurred in low-resource settings, and most could have been prevented.[1] Sub-Saharan Africa and Southern Asia accounted for approximately 86% of the estimated global maternal deaths in 2017. Southern Asia accounted for nearly one-fifth (19.66%).[2]

The high maternal and neonatal mortality rates in South Asia and Sub-Saharan Africa can be contributed to the lack of health services for delivery. A study from the Department of Health Services conducted in Bangladesh, India, Pakistan, Kenya, Nigeria, and Tanzania shows more than half of the births in these countries were delivered outside a health facility and within each countries, the poorer, less educated and rural women had higher unmet need for maternal care services.[3] The maternal mortality ratio in Nepal decreased from 539 maternal deaths per 100,000 live births to 239 maternal deaths per 100,000 live births between 1996 and 2016. In 2016, roughly 12% of deaths among women of reproductive age were classified as maternal deaths.[4]

Maternal health is the health of women during pregnancy, childbirth and the postpartum period and maternal health care services are antenatal care (ANC), delivery care and postnatal care (PNC) services.[5] Early and frequent ANC attendance during pregnancy is important to identify and mitigate risk factors in pregnancy and to encourage women to have a skilled attendant at childbirth. Postnatal care improves the health of both the newborn and mother.[6]

Objectives of this study was to find out the utilization of MCH services among women admitted in maternity ward and to identify the association between socio-demographic variables with utilization of maternal health services.

MATERIAL AND METHODS

A cross-sectional descriptive research design was conducted to find out the utilization of MCH services among women admitted in maternity ward of a Universal College of Medical Sciences -Teaching Hospital (UCMS-TH) of Siddharthanagar Municipality, Nepal. Population of the study was all the multiparous women admitted in postnatal ward of UCMS-TH and had given birth within last three years preceding date of data collection.

Sample size was calculated based on Slovin's formula [n = N / 1+N(e)^2] where, n = number of samples, N = total population (206 multi-mothers in a month), e = margin of error (0.05). Assuming 10% non-response rate total sample size was 150. Non-probability purposive sampling technique was used for sample selection. Semi structured interview schedule was used for data collection from 10 July to 10 September, 2020. A descriptive statistics and inferential statistics (chi-square tests) were used to find out the association between socio-demographic variables with utilization of maternal health services with SPSS version 16. Ethical and administrative approval was obtained from the concerned authorities prior to data collection. Written informed consent was obtained from each respondent by clarifying the objective of the study.

RESULTS

Regarding socio-demographic variables of respondents, 48.67% were between age group of 25-29 years. Regarding ethnicity, 40% were Madhesi and 66% respondents belong to Hindu religion. About 41% of respondents can read and write and 26% of the respondents were engaged in services. Forty-six percentage of respondents got married at the age of 15-18 years. About 55.33% of the respondents live in joint family and 17.36% of the respondents had abortion or child death and 66% of the respondents had two children.

Regarding respondents' spouses, 50% were between 26-30 years of age, 42.67% could read and write, 31.33% were service holder and 90.67% of respondent's spouses were involved in family decision making.

Table 1. Utilization of antenatal services (n = 150)

Variables	Frequency	Percentage
Frequency		
2 times	4	2.67
3 times	6	4.00
4 or more times	140	93.33
Trimester of first visit		
First	57	38.00
Second	92	61.33
Third	1	0.67
Investigations		
Blood test	150	100.00
Urine test	150	100.00
Stool test	29	19.33
Ultrasound	148	98.67
Medicines taken		
Iron	150	100.00
Albendazole	147	98.00
TD vaccine	150	100.00
Anti-malarial prophylaxis	30	20.00

Table 2. Utilization of intranatal and postnatal services (n= 148)

Variables	Frequency	Percentage
Delivery in health center (n=150)	148	98.67
Vitamin A administration	147	99.32
Immediate breastfeeding within 1 hour after birth	120	81.08
Maternal incentives	147	99.32
Nyano jhola	16	10.81
Postnatal check-up	148	100.00
Frequency of PNC		
Within 24 hours	81	54.73
Within 72 hours	66	44.59
Within 7 days	138	93.24
Within 42 days	133	89.86

Regarding health education 97.97% of the respondents received health education on intake of iron tablet, and breast feeding followed by postnatal check-up (97.29%), sexual intercourse (90.54%), family planning (85.81%) and danger signs (39.86%).

Table 3. Utilization of child health services

Child health services	Frequency	Percentage
Inj vitamin K (n=148)		
Yes	8	5.33
No	2	1.33
Don't know	138	93.24
Chlorhexidine ointment (n=150)		
Yes	92	61.33
No	9	6.00
Don't know	49	32.67
Immediate breastfeeding (n=150)	120	80.00
Immunization (n=150)	150	100.00

Table 4. Utilization of maternal health services (n = 150)

Utilization of maternal health services	Frequency	Percentage
Partial	104	69.30
Complete	46	30.70

Table 5. Association between respondent's socio-demographic variables and utilization of maternal health services (n = 150)

Variables		Utilization of MHS		χ^2 value	*p*-value
		Partial	Complete		
Age of women	20-24 years	36 (76.6 %)	11 (23.4 %)	2.013	0.365
	25-29 years	47 (64.4 %)	26 (35.6 %)		
	30-34 years	21 (70 %)	9 (30 %)		
Ethnicity of women	Pahadi	20 (30.4 %)	32 (69.6 %)	38.460	< 0.001
	Madhesi and Tharu	53 (80.3 %)	13 (19.7 %)		
	Musalman	31 (96.9 %)	1 (3.1%)		
Religion	Hindu	72 (63.2 %)	42 (36.8 %)	8.520	0.004
	Muslim and others	32 (88.9 %)	4 (11.1 %)		
Education	Illiterate	10 (100 %)	0 (0 %)	61.591	< 0.001
	Can read and write	57 (93.4 %)	4 (6.6 %)		
	Basic	16 (80 %)	4 (20 %)		
	Higher secondary	17 (50 %)	17 (50 %)		
	Above higher secondary	4 (16 %)	21 (84 %)		
Occupation	Only home maker	29 (82.9 %)	6 (17.1 %)	48.764	< 0.001
	Farmer	32 (88.9 %)	4 (11.1 %)		
	Labor	14 (100 %)	0 (0 %)		
	Self-employee	19 (70.4 %)	8 (29.6 %)		
	Service holder	10 (26.3 %)	28 (73.7 %)		

There were significant association of ethnicity, religion, education and age of marriage of women age at marriage, gravida, para, abortion or child death and number of live children with utilization of maternal health services.

Education and occupation of respondent's spouse were significantly associated with utilization of maternal health services

DISCUSSION

The study revealed that 100% of the respondents did antenatal check-up which is consistent with study[7] which shows that 97% had visited at least one antenatal check-up during their pregnancy. The study showed that 93.33% of the respondents visited four or more times for antenatal check-up and 61.33% visited ANC in the second trimester. The findings are not consistent with study,[4] which shows 70% of the sample visited four or more times for antenatal check-up with health care providers and with the study[8] which shows that 69% started ANC visits in the second trimester. The findings of the study showed that 38% of respondents had ANC visited in first trimester which is not consistent with study[4] which shows two-thirds of respondents have their first visit in first trimester.

Regarding investigations during pregnancy, cent percent of the respondents did blood and urine test. These findings are not consistent with study[4] which shows that 76% did urine test, and 66% did blood test. The study showed that 99% of the respondents had done USG during pregnancy and 19.33% respondents did stool test.

The findings of the study showed that, 100% of the respondents had taken iron tablet and TD vaccine in last pregnancy which are not consistent with study[4] which shows 91% take iron tablets or syrup during pregnancy and 89% of women's most recent births were protected against neonatal tetanus.

The study found that 98% and 20% of the respondents had received antihelmenthic (albendazole) and anti-malarial prophylaxis. The respondents got health education during last pregnancy, nutrition (99.33%), hygiene (92%), cessation of smoking (89.33%), rest and exercise (88.67%), cessation of alcohol (80.67%), avoid long travel (70.67%), danger signs (66.67%), avoidance of sexual intercourse (54%), clothing (45.33%) and birth preparedness (44%).

The study revealed that 98.67 % of the respondents had delivered in health centres. It is not consistent with study[9] which shows 59% of women delivered their last child at health facility.

The findings of the study showed that, among 148 respondents who delivered their previous child at health facility, 99.32 % received Vitamin A after delivery. The study revealed that 54.73% of the respondents had received postnatal care within 24 hours of giving birth. It is consistent with study[10] shows 54% of the women revived postnatal care within 48 hours of giving birth.

The findings of the study found that respondents received health education on rest and exercise (44.59%), danger sign of postnatal mother (42.57%), newborn care(41.89%) and danger signs of newborn (39.86%). The study found that 69.3% of the respondents partially utilized maternal health services and only 30.7% of the respondents utilized complete

maternal health services in their previous pregnancy.

Regarding child health services, the study found that Chlorhexidine ointment was applied on 61.33% of the newborn and 80% of respondents initiated breastfeeding within 1 hour after birth. The findings are not consistent with study[4] which shows that Chlorhexidine was applied on 39% of newborns and 55% of children are breast fed within one hour.

The study showed that 5.33% of newborns received injection vitamin K, but 93.24% of respondents were not aware of administration of injection vitamin K to their newborn.

The study revealed that religion (p<0.004), education (p<0.001), and number of live children (p<0.035) are significantly associated with utilization of maternal health services. It is consistent with the study[11] which shows religion, literacy level and parity of respondents were significantly associated with utilization of maternal health services.

The study revealed that ethnicity (p<0.001), occupation (p< 0.001), age at marriage (p<0.001), gravida (p<0.003), para (p<0.009), abortion or child death (p<0.005) and number of live children (p<0.035) were significantly associated with utilization of maternal health services. Similarly, education (p<00.001) and occupation (p<0.001) of respondent's spouse are significantly associated with utilization of maternal health services.

CONCLUSION

On the basis of findings, it is concluded that more than two-thirds of women partially utilize maternal health services. Cent percentage of women visit health canters for antenatal check-up at least once, majority of the women have done four or more ANC visits and nearly two-thirds of women visit in second trimester of previous pregnancy. The women receive less health education on danger signs of pregnancy, avoidance of sexual intercourse, clothing and birth preparedness during antenatal visit. Almost all women delivered in health facility and receive vitamin A capsule. More than half of the women receive postnatal care within 24 hours of giving birth. Less than half of the women receive health education on rest and exercise, danger signs of mother and newborn and newborn care during postnatal period.

Out of five, four newborn are breast fed within one hour of birth and chlorhexidine ointment was applied on more than three-fifth of newborns. Cent percentage of newborns receive BCG vaccine but the most of women are not aware of administration of injection vitamin K to their newborns. It is further concluded that, ethnicity, religion, education, occupation, age at marriage, gravida, parity, abortion and child death, number of live children are statistically significant with utilization of maternal health services. Similarly, spouse education and occupation are statistically significant with utilization of maternal health services.

IMPLICATIONS

The findings of the study might be helpful to nurses and health personnel to give more emphasis of health education regarding birth preparedness, danger signs of pregnancy, newborn care, danger signs of postnatal mother and newborn. The findings might be helpful to provide baseline information for further research.

LIMITATIONS

The study was conducted by using non probability purposive sampling technique, it lacks external validity and was conducted in hospital setting of urban area so, and it cannot generalize in rural areas.

RECOMMENDATIONS

It is recommended that, nurses and health personnel should provide health education focusing on birth preparedness, danger signs of pregnancy, newborn care, danger signs of postnatal mother and newborn.

Nurses should clearly inform to postnatal mothers regarding administration of injection vitamin K and application of chlorhexidine ointment to newborn.

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