ORIGINAL ARTICLE

Barriers Related to Antenatal Care Utilization at Primary Health Care Level in Pregnant Women of Hazro District Attock, Pakistan

BUSHRA ASIF ALI KHAN[1], HUMAIRA MAHMOOD[1], SADAF JAMIL[2], MUHAMMAD ARFAN HADYAIT[3], RAWSHAN JABEEN[4]
[1]Department of Public Health Sciences Armed Forces Postgraduate Medical Institute (AFPGMI), National University of Medical Sciences (NUMS), Rawalpindi,
[2]Rural Health Centre, Tehsil Ekka Ghund, District Mohmand, Khyber Pakhtunkhwa, Pakistan
[3]Quality Control Labs, Department of Fisheries, Punjab, Lahore, Pakistan
[4]Department of Pediatric and child health, Agha Khan University, Karachi
Correspondence to Muhammad Arfan Hadyait, Email: marfan39@gmail.com, Cell: +923324615068

ABSTRACT

Background: Maternal and newborn mortality is a global public health issue. Pakistan is lagging much behind in target of improving maternal and child health due to underutilization of antenatal care services.

Aim: To determine utilization of the ANC services by pregnant women and barriers in utilization of ANC services at primary health care level of Hazro District Attock.

Methods: This cross-sectional study was conducted in Hazro of District Attock, Pakistan with sample size of 425 pregnant women in their third trimester selected by simple random sampling technique over a period of six months from Jan 2021 to Jun 2021. A structured Questionnaire was used for the data collection regarding the barriers related to utilization of antenatal care services by interview. Analysis was done using SPSS version 23.

Results: The mean age of women was 27.76 ± 5.41 years with 75.8% were from rural side. In socioeconomic status 60.5% women had high, 33.4% had middle and 6.1% had low status of socioeconomic. The complete utilization of antenatal cares were observed in 62.8% women. We found distance of health care facility (p=0.006), transport availability (p=0.0001), cost of transport (p=0.0001), availability of personnel and services (p=0.006), ambulance availability (p=0.006) and working hours of health care facility (p=0.004) as a main barriers.

Practical implication: The results of current study will help in providing MCH services at door step with proper planning to minimize the barriers in utilization of ANC services for the community.

Conclusions: We conclude that Utilization of MCH services by pregnant women at primary care level in Hazro of District Attock was low i.e. 62.8%. The barriers in the utilization of MCH services at PHC level were financial poverty crisis, distance of antenatal care facility, transport availability, cost of transport, poor medical facilities, absence of ambulance and working hours are important barriers in seeking and availing antenatal care services.

Keywords: ANC services, pregnant women, barriers, utilization, primary health care level, District Attock

INTRODUCTION

Maternal and newborn mortality is a global public health issue and one of the key indicators of socioeconomic status of a country[1]. According to a UN estimates global maternal mortality ratio (MMR) declined from 342 deaths to 211 deaths per 100,000 live births during 2000 to 2017 which is still far from achieving Sustainable Development Global Goal (SDGG) of 70 maternal deaths per 100,000 live births. Majority of these deaths occur in the developing countries mostly during delivery, labour and immediate postpartum period due to many factors which can be avoided by improving antenatal care (ANC) services[2].

ANC provides significant medical services to pregnant women in terms of the disease diagnosis, screening and disease prevention. ANC may save lives when used in accordance with suggested procedures and timelines. Pregnant women are advised by WHO to attend minimum four ANC consultations. Evidence suggests a link between fewer ANC visits and a higher risk of perinatal death in low- and middle-income settings[3].

Similarly, the global neonatal mortality was reported to be 2.5 million in the year 2018 showing an average annual rate of reduction of 2.6 per cent from 1990 to 2018. An analysis of regional statistics revealed that neonatal mortality was highest in sub-Saharan Africa followed by South Asia, with each estimated at 28 and 26 deaths per 1,000 live births respectively in year 2018[4]. Pakistan is much behind in achieving SDGG target of maternal and neonatal mortality which is reported to be 178 per 100,000 live births and 42 per 10,000 live births respectively. An effective health care provided to pregnant females and the newborns can reduce approximately 80% of maternal deaths and up to two thirds of neonatal deaths. Maternal and child health services are simple, cost effective and low technology interventions which can cope with this challenge[5].

However, the utilization of these services varies in different regions of the world especially in low and middle income countries where they are less utilized because of many social and cultural barriers along with resource constraints.According to a meta-analysis, utilization of antenatal care services in Ethopia is reported to be 63.7%[6].

Different studies conducted in Pakistan reported the long distance of facility, transport cost, inconvenient facility working hours and non-availability of doctors as the major barriers in utilization of these service[7]. Pakistan is lagging much behind in achieving the SDG's target of improving maternal and child health due to underutilization. Also at present no single detailed study was conducted at primary health care levels to address the barriers in the utilization of ANC services.

This study was help in identifying the utilization of these services and barriers perceived by pregnant females leading to better understanding of the ground situations so that measures can be taken to address these hurdles resulting in improved maternal and child outcomes.

METHODOLOGY

This Cross Sectional Study was conducted on Pregnant Females residing in Tehsil Hazro, District Attock, Pakistan. Sampling technique used was Simple Random Sampling Technique, Sample Size was 425 pregnant female in their third trimester were selected over a period of six months from January 2021 to June 2021 after informed consent and permission from ethical committee.

Development of instrument: A detailed questioner was prepared for the collection of data from the pregnant females.

Data Collection Procedure: Developed structured questionnaire was used for the data collection regarding the barriers related to utilization of the ANC services among pregnant females by interview method.

Data analysis plan: Data analysis was done by using the software SPSS version 23. Descriptive Statistics was done for the patient

socio-demographic variables. Univariate analyses was run between utilization of MCH services and the barriers. Association was assessed using chi square test. A p-value (p<0.05) was considered significant.

RESULTS

The mean age of women was 27.76±5.41 years with 75.8% were from rural side. Most of the women in education were under matric i.e. 66.6%. Also their spouse in education were under matric i.e. 59.8% and 89.6% had working occupation. In socioeconomic status 60.5% women had high, 33.4% had middle and 6.1% had low status of socioeconomic. The intention of pregnancy was planned in most of the women i.e. 68.7%. The non-utilization of antenatal cares were observed in 7.8% women, partial utilization of antenatal cares were observed in 29.4% women and complete utilization of antenatal cares were observed in 62.8% women.

Table 1: Socio-Demographic Profileand utilization of antenatal care of pregnant women

Study variables		f(%)
Age (years), mean±SD		27.76±5.41
Residence Status	Urban	103(24.2%)
	Rural	322(75.8%)
Education of Female	Illiterate or read and write	104(24.5%)
	Primary	179(42.1%)
	Secondary	130(30.6%)
	University or higher	12(2.8%)
Occupation of Spouse	Working	381(89.6%)
	Non-working	44(10.4%)
Education of Spouse	Illiterate or read and write	64(15.1%)
	Primary	190(44.7%)
	Secondary	160(37.6%)
	University or higher	11(2.6%)
Socio Economic Status (Based on Modified Fahamy and El-sherbini social score)	High (>15)	252(60.5%)
	Middle (11- 14)	142(33.4%)
	Low (< 10)	26(6.1%)
Intention of Pregnancy	Unplanned	17(4.0%)
	Ambivalent	116(27.3%)
	Planned	292(68.7%)
No. of Antenatal Visits	Non utilization (0-1 visits)	33(7.8%)
	Partial utilization (2-3 visits)	125(29.4%)
	Complete utilization (≥ 4 visits)	267(62.8%)

Table-2 shows the results of barriers that faced women during the utilization of antenatal cares. We found distance of health care facility (p=0.006), transport availability (p=0.0001), cost of transport (p=0.0001), availability of personnel and services (p=0.006), ambulance availability (p=0.006) and working hours of health care facility (p=0.004) as a main barriers. We also find a significant

relation between utilization of antenatal cares and socioeconomic status of study women. Financial and poverty crises was also a major barrier in current research.
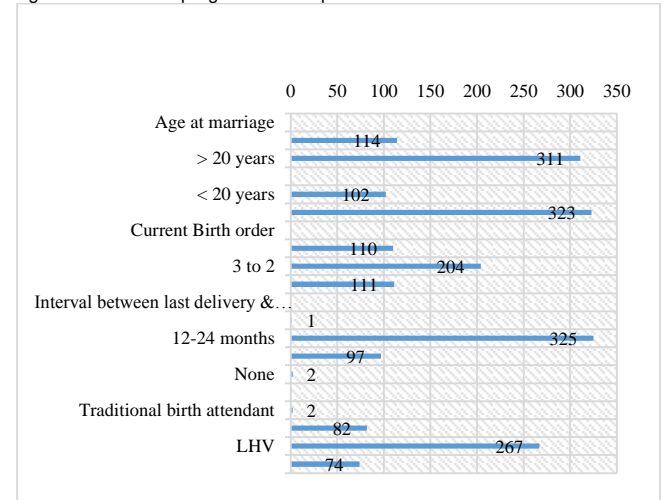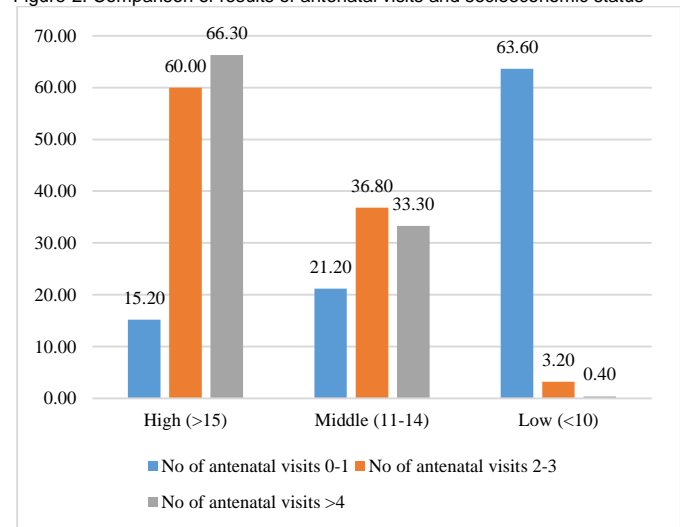
Figure-1: Results of pregnant female profile

Figure-2: Comparison of results of antenatal visits and socioeconomic status

Table 2: Barriers in utilization of antenatal care among pregnant women

Barriers		No of antenatal visits			Total	p-value
		0-1	2-3	≥4		
Distance of health care facility	Yes	27(81.8%)	70(56.0%)	140(52.4%)	237(55.8%)	0.006
	No	6(18.2%)	55(44.0%)	127(47.6%)	188(44.2%)	
Transport Availability	Yes	30(90.9%)	73(58.4%)	137(51.3%)	240(56.5%)	0.0001
	No	3(9.1%)	52(41.6%)	130(48.7%)	185(43.5%)	
Cost of Transport	Yes	32(97.0%)	80(64.0%)	127(47.6%)	239(56.2%)	0.0001
	No	1(3.0%)	45(36.0%)	140(52.4%)	186(43.8%)	
Roads condition	Yes	19(57.6%)	58(46.4%)	146(54.7%)	223(52.5%)	0.257
	No	14(42.4%)	67(53.6%)	121(45.3%)	202(47.5%)	
Availability status of health personnel and services	Yes	28(84.8%)	76(60.8%)	133(49.8%)	237(55.8%)	0.0001
	No	5(15.2%)	49(39.2%)	134(50.2%)	188(44.2%)	
Availability of ambulance services	Yes	25(75.8%)	72(57.6%)	129(48.3%)	226(53.2%)	0.006
	No	8(24.2%)	53(42.4%)	138(51.7%)	199(46.8%)	
Waiting time in receiving health care	Yes	18(54.5%)	64(51.2%)	145(54.3%)	227(53.4%)	0.840
	No	15(45.5%)	61(48.8%)	122(45.7%)	198(46.6%)	
Working hours of facility	Yes	28(84.8%)	98(78.4%)	173(64.8%)	299(70.4%)	0.004
	No	5(15.2%)	27(21.6%)	94(35.2%)	126(29.6%)	

DISCUSSION

The study was conducted in Hazro of District Attock to determine the utilization of ANC services and to explore the barriers in the utilization of ANC services at primary health care levels by pregnant women. In our study we found 62.8% females completely used ANC services

Pregnant women's health status mainly depends upon the quality of delivery and antenatal care services accessible to them. Sarfraz et al., examined the experiences of local community on usage of antenatal and childbirth care facilities. They also find less utilization of MCH services by pregnant female. Maternal mortality remains a main public health issue, with low utilization of antenatal and delivery care in Pakistan[8].

In a study by Narayana et al., results showed 93% mothers had received full ANC services[9]. Another study from rural Mysore by Vasuki et al., also observed high rate (94.95%) of utilization of full antenatal services during their pregnancy[10]. These utilization of services were high from our study results.

Study done in Uttarakhand by Chimankar et al., revealed that mother education level has positive effect on using full ANC. Highly educated women are significantly 5 times more likely to receive antenatal care as compared to women who do not have a single year of education.[11] In our study the education level of mother is low and it impact on the utilization of MCH services. People with primary education were more likely to take ANC than people unable to read or write. Education has a known effect of reducing fertility, and empowering women with decision-making ability[12].

In current study 60.5% females had high socio economic status and 62.8% females completely used MCH services. Narayana et al also reported ANC utilization was significantly higher in women belonging to SES class I and II and houses with richest wealth index.[9] Much similar results were reported by another study conducted in India in which they reported among 89% registered females 83% used ANC services[13].

Poverty and financial crisis are the hindrances in seeking ANC services. Distance, cost of transport and its availability are the barriers in reaching health care facility. Poor medical facilities, absence of ambulance and working hours are also important barriers in seeking and availing health care services.

A number of pregnant women, especially in rural areas, do not seek ANC services due to long distance[8]. The cost of getting antenatal care facilities was seen as one of the inhibiting factors which affecting decision to seek antenatal treatment, especially in rural areas. Also though access to antenatal services is free, mothers cannot bear travel expenses to and from the health center, paying for medicine, examinations, and medical cards[14].

A comprehensive program for prenatal care services is offered by MCHs in Hargeisa, Somaliland. Yet, only 20% of pregnant women use prenatal care services, according to national statistics, which shows that the use of these services is minimal. According to some theories, the low rates are a result of patients' lack of faith in conventional home birth attendants as well as their healthcare practitioners in MCHs[15]. Long wait times for prenatal care have been shown to discourage pregnant women from attending health facilities for antenatal care, according to earlier research that have been undertaken[16].

Nisar et al conducted a study to explore the barriers in utilization of ANC services among pregnant women of rural and urban settings as in Pakistan only 37% pregnant women visiting ANC services four times during pregnancy. The findings of their study showed in facilitating factors main barriers were availability of qualified doctors and staff, trust on them, recommendations from friend, family member or LHW, availability of quality services i.e. lab facility and medical equipment, low cast and easily accessible. General barriers were financial issues, long distance to health facility, family support and education[17].

Milkowska et al., examined the barriers in utilization of maternal health services in Myanmar. The study results showed that 41.7% late antenatal care was underutilized and attendance of antenatal care was associated significantly with household income, geographical setting, transportation access and education[14].

Uldbjerg et al., conduct a study with aim to identify the barriers in the utilization of ANC services in Uganda.

The study showed that mains barriers were care poor quality, medical staff poor attitude, practices of socio-cultural, lack of husband and their family support, institutional structures, health centers procedures regarding HIV testing and transportation[18].

CONCLUSION

In our study we conclude that Utilization of MCH services by pregnant women at primary care level inHazroof District Attockwas low i.e. 62.8%.The barriers in the utilization of MCH services at PHC level were financial poverty crisis, distance of antenatal care facility, transport availability, cost of transport, poor medical facilities, absence of ambulance and working hours are important barriers in seeking and availing antenatal care services.As compared with other studies in our country utilization of MCH services rate is low so there is need to conduct a comprehensive study at national level to increase the rate of ANC services utilization.We recommend a study with longer duration and large sample size may be conducted to briefly address the problems in details.So there is need to implement and formulate intervention packages with the help of these findings to make common in society four visit to ANC services during pregnancy. Provide MCH services at door step with proper planning to improve the maternal health

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