Original Article

Demographic Barriers Causing Impaired Utilization of Antenatal Care in Rural Population of Muzaffarabad Azad State of Jammu & Kashmir

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Abstract

Objective: To find out an impact of socio demographic characteristics of women which limit their utilization of antenatal care.

Methodology: Descriptive type of cross sectional survey was directed in rural areas of Muzaffarabad Azad State of Jammu & Kashmir during June to December 2019. Over 500 reproductive age (15-40) women with history of at least one child birth during the study period were included. The systematic sampling technique was used to collect the sample. Questionnaire was comprised of close-ended questions to explore the highlighted issue.

Results: 53.2% (266) of the respondents were found with no antenatal care in the previous pregnancy whereas 27.4% (137) attained first trimester ANC. Out of the total respondents investigated for this study only 16.8% (84) attended 5-6 ANC visits throughout their pregnancy. Slightly higher than two-fifth means (47.4%) women received ANC care from doctor whereas 42.8% (214) received care from traditional birth attendant. Age of women is significantly associated (P value=0.000) with utilization of antenatal care. Utilization of antenatal care by women (below 30 years) old are 0.36 times higher than women above 30 years old. There is significantly association of husband age with utilization of antenatal care. The women of older spouse (above 30 years) old are 3.45 times more likely to have antenatal care throughout antenatal period than whose husbands are below 30 years old. Educational status of women has strong association with ANC utilization as educated women are 5.23 times more likely to receive antenatal care during pregnancy. Place of residence is also significantly associated (P value=0.000) with uptake of antenatal care. Women from rural areas of Muzaffarabad are lagging behind in seeking medical care during pregnancy than the women from urban area. Economical status of household is significantly connected with pursuing of antenatal care.

Conclusion: On the basis of research finding, this is need of hour to focus attention towards women of rural area, as women in rural areas are deprived in all walks of life including education, employment and in decision making regarding health. Furthermore, empowerment of women is a step towards change in her status, particularly in family and society in general. Moreover, empowered women can take health seeking decisions autonomously.

Key Words: Antenatal Care; Binary Logistic Regression Model; Odd Ratio, Confidence Interval

Cite this article as: Zia MS, Hanif S, Arooj S, Khan MA, Hussain Z, Shehzadi I. Demographic Barriers Causing Impaired Utilization of Antenatal Care in Rural Population of Muzaffarabad Azad State of Jammu & Kashmir. J Soc Obstet Gynaecol Pak. 2021; 11(2):106-111.

Introduction

Health care providing weaknesses fencing our health care system that prohibit vulnerable people from getting vital medical care facilites, or so as to provide foundation for them to get compromised health care, in contrast to elite class. Maternal health attributes to the comfort of women around peri-conceptional, antenatal, intrapartum

Authorship Contribution: [1,2]Substantial contributions to the conception or design of the work, acquisition, analysis, or interpretation of data for the work, Drafting the work or revising it critically for important intellectual content, Final approval of the version to be published, 3,4[5,6] Active participation in active methodology

Funding Source: none
Conflict of Interest: none

Received: Jan 4, 2021
Accepted: May 28, 2021

and the postpartum period. Whereas motherhood is often an cheering and pleasurable experience for many of women, but for some unfortunate ones it is joined with suffering, illness and in some cases death (WHO, 2004). WHO cited 88% to 98% deaths related to pregnancy can be halted by providing great health care supporting labor and delivery (World Health Organization). The one and only main considerable way of saving the lives and protecting the health of mothers and offspring is maternal health care during antenatal period (WHO, 1996). Antenatal care (ANC) is frequently employed health scrutiny system with possibility to improve the perinatal morbidity and death rate through addressing the medical ailments, highlighting and minimizing associated risks factors and aiding women to modify the behavioral aspects attributed to poor outcomes. (United States Department of Health and Human Services, 2010)

World Health Organization recommends ANC model, for women of developing countries with low risk pregnancy, consisting minimum of four visits with vital assessment of BP, urine and blood baseline investigations, and facultative measurement of weight and height at every checkup. Substantial significance has been given to ANC in developed countries from a long time leading to significant success in falling off risk factors associated with neonatal & maternal mortality. The developed countries ANC schedule has been implemented by WHO ANC programme with some amendments for local settings in mainly low and middle resources countries (WHO, 2002).

One of the study showed interrelationship of antenatal care with residential patterns of women i.e who live in rural areas receive not as much of sufficient antenatal care as compare to women living in urban areas (Epstein et al, 2009). Numerous studies has indicated that less developed countries (with scarce resources) limited visit to health facility throughout antenatal period is correlated with greater threat of prenatal death (Mortality). In present scenario of pandemic covid 19 Pakistan has lost many mothers due to lesser health care utilization. Aarnio*et al.* (2013) pointed out that in rural Malawi 99.2% of husband told that their wives availed ANC, hospital based deliveries are 62.1% while 33.8% deliveries at home, TBAs conducted 4.1% births, 60.9% of home economics matters are dealt by male members whereas both members of a couple are involved in 27.8% of cases. 78.4% decisions about antenatal medical care is made by husband alone. According to Mumtaz et al. (2012) there is too little awareness of the intensely rooted multi-dimensional inequity set in societal structures, such as power dynamics of gender specific and class discrimination that may underlie poor women's rationalization from health care systems in Pakistan. This situation indicates an immense health hazards for women and newborn equally who are attaining compromised ANC in rural settings. A number of researchers have found that women from rural settings are seeking ANC at insufficient margins due to obstacles of going after maternal health care. Hence the rationale of this study is to overcome the limitations leading to poor antenatal care by highlighting socio- demographic factors causing impaired utilization of antenatal care among women in Muzaffarabad Azad Jammu and Kashmir rural areas. The findings of the study will help health care professionals to integrate highlighted factors while formulating policies regarding antenatal care.

In order to understand research problem, it is necessary to give brief overview of region in which study was conducted. Azad Jammu and Kashmir (AJK) is self governing state administered by Pakistan. Muzaffarabad is the capital of Azad Jammu and Kashmir. Eighty-eight percent of the total population lives in rural areas. People of Azad Jammu and Kashmir speak Urdu, Hindko, Pahari and Gojri languages. Economy of Azad Jammu and Kashmir largely depends on Agriculture while literacy rate of the region is seventy percent. AJK health sector is facing shortage of health workforce and it is worse in terms of availability of female health care providers in rural areas. Maternal Mortality rate of Azad Jammu and Kashmir is higher as compared to Pakistan that is 201 per 1000 population (Planning & Development Department, 2013).3

There are a lot of known hurdles to access antenatal care for women all over the Pakistan and Azad State of Jammu & Kashmir. Abbasi et al. (2013) in their study on causes of anemia in pregnant women revealed that in Muzaffarabad Azad Kashmir 60.7% cases were found with pregnancy affected by anemia, noncompliant with iron supplements were 47% of cases, 57% cases did not change their diet during pregnancy, 47.3% cases were found with hemorrhagic diseases. The cases older than 35 years had anemia 1.817 times higher than other age groups. The study showed that family type has significant influence over ANC seeking behavior of pregnant women as part of elementary family are found to visit health facility more frequently during pregnancy as compared to joint family system .

Methodology

Study was conducted in District and Capital of Azad state of Jammu & Kashmir, Muzaffarabad. The city was selected to study socio demographic barriers in access to antenatal care due to susceptibility of area as this is mountaneous, hard to reach area where transportation is the major factor leading to negligible heath care delivery services. One more rationale of area selection for research is that this is apparently least researched topic over here to best of our knowledge.

500 mothers of reproductive age group (15-49) with history of at least one child to explore socio demographic hurdles in having access to antenatal care in their previous pregnancy. Sampling was carried out through systematic sampling technique.

A close ended questionnaire was developed including all the variables like demographic variables, practices of settlement power at home and especially planning for child birth, approach of women in availing skilled medical information during antenatal period. Data were collected during the period of June 2019 to December 2019.

Present study used one dependent variable that is received antenatal care or not whereas independent variables are age and education of women & husband, occupation of husband and women ,family structure, decision making authority within family, nature of relationship of women with in-laws ,parity of women. For binary logistic regression some variables were recorded or combined into two categories because responses in the original categories were too small for statistical analysis. Those variables are age (less than 30 & above 30) ,family type (nuclear & joint), parity (1-3 & above 3) ,monthly income (less than 15000 & above 15000) whereas the education levels of women and their husbands were recoded into three categories of “primary”, “higher” and “illiterate.”

Data was analyzed by univariate, binary, and multivariate logistic regression models in SPSS in order to find out the relationship between women’s different socio-demographic characteristics and their health care access during pregnancy.

Results

As the table I shows one third of the respondents were in the age group of 30-40 years. Almost two thirds of the respondents’ husbands were above 40 years old. Sixty percent of the women were from rural areas because majority of the people in Muzaffarabad lives in rural settings. Respondents living in nuclear family system (44.6%) than joint (38%) and extended family (17.4%). Slightly higher than half of women (53%) were having more than four children. Data clearly showed majority households (65.2%) were headed by male member of family, which indicates patriarchal family system. Results also indicate that (34.8%) households are headed by female members which shows “typical” patriarchal family structure is also changing in the region.

Table I: Percentage distribution of respondents by demographic characteristics (n=500)

Characteristics	Variable	(n)	%
Age of respondents (yeas)	<30	163	32.6
	30-40	193	38.6
	>40	144	28.8
Age of husband (years)	<30	23	4.6
	30-40	158	31.6
	>40	319	63.8
Residence	urban	200	40
	Rural	300	60
Family type	Nuclear	223	44.6
	Joint	190	38
	Extended	87	17.4
Number of children	1	37	7.4
	2	145	29
	3	53	10.6
	≥4	265	53
House hold head	father in law	68	13.6
	Mother in law	174	34.8
	Husband	258	51.6
Sex of household head	Male	326	65.2
	Female	174	34.8

40.6% studied women were illiterate, similarly (36.2%) of husbands were also illiterate. More than half (56.6%) women were housewives. It can be deduced that a major proportion of female sector remained at home carrying out their domestic chores due to illiteracy and geographic hurdles. Eighty seven percent of the women were doing extra job along with household tasks that is animals handling, sewing, knitting and other domestic trading for which they were paid. 45.8% of husbands were wage workers in offices in different sectors. Thirty six percent women were having the average household monthly income above 20000 rupees. A large proportion of interviewed were from patriarchal family where advocacy regarding medical care within family were formulated by father in law (42.2%), mother in law (31.2%) or husband (26.6%). The respective data pinpoint the subordinate level of female within domiciliary domain. So decision making power is under control of in laws and spouse. Troublesome relationships with in laws were found in (49.4%) of the women. 51.6% of interviewed were boosted by in laws to sek health care advice during antenatal, intra partum

and postpartum period from trained or untrained health workers.

Table II: Distribution of respondents according to socioeconomic status (n=500)

Characteristics	variables	N	%
Education of respondents	Secondary	94	18.8
	Higher secondary	67	13.4
	Graduation	53	10.6
	Master	83	16.6
	Illiterate	203	40.6
Education of husband	Secondary	90	18.0
	Higher secondary	30	6.0
	Graduation	52	10.4
	Master	147	29.4
	Illiterate	181	36.2
Respondent's occupation	Working	217	43.4
	housewife	283	56.6
Aside from housework any other work	Yes	437	87.4
	No	63	12.6
Paid work	Yes	437	87.4
	No	63	12.6
Husband's occupation	Manual worker	135	27.0
	Office worker	229	45.8
	Businessman	136	27.2
Monthly income of household	<10000	124	24.8
	10000-15000	170	34.0
	15000-20000	26	5.2
	>20000	180	36.0
Health decision	Father in law	211	42.2
	Mother in law	156	31.2
	Husband	133	26.6
Relationship with in laws	Many difficulties	247	49.4
	Few difficulties	173	34.6
	No in laws	80	16.0
In laws attitude towards maternal health care	Encouraging	258	51.6
	Discouraging	242	48.4

Table III depicts that 53.2% (266) did not remain part of antenatal care in the period of last gravidity. Among 53% (265) of women, the parity was found to be more than 3. Among those who received ANC, only 27.4% (137) got benefit from care in early trimester. Only a minimal proportion of women (16.8%, n=84) attended 5-6 ANC visits. Only 47.4% (237) interviewed avail ANC from medical doctor whereas 42.8% (214) seek care from traditional birth attendant. Lack of encouragement from husband and in-laws, low income and non-availability of healthcare provider can serve as impeding factors. Moreover, rural women are also stuck in house work and hardly found time to travel to see a doctor. More than half (52%) of the women who received the care during pregnancy went to private hospital. Fifty five percent of the women received care during pregnancy because they had medical problems. It shows that women do not visit health practitioners routinely in pregnancy but only when they found some health issue.

Data represented in table IV indicate that odds of females more than 30 years of age are 0.36 times less likely to take advantage of antenatal care, significantly associated (p=0.00) with utilization of ANC. In addition,

Table III: Distribution of respondents according to Maternal health care utilization (n=500)

Characteristics	Variables	N	%
Received ANC	Yes	234	46.8
	no	266	53.2
Parity	1	37	7.4
	2	145	29.0
	3	53	10.6
	>3	265	63.0
Timing of first ANC visit	Not received	266	53.2
	Ist trimester	137	27.4
	2nd trimester	38	7.6
	3rd trimester	59	11.8
Number of ANC visit	No visit	228	45.6
	1-2	65	13.0
	3-4	75	15.0
	5-6	84	16.8
	7& above	48	9.6
Complication during pregnancy	No complication	286	57.2
	Hemorrhage	125	25.0
	Hypertension	82	16.4
	Diabetes mellitus	7	1.4
ANC attendant	doctor	237	47.4
	Nurse/midwife	35	7.0
	TBA	214	42.8
	No one	14	2.8
Place of ANC	Home	90	18.0
	Private hospital	260	52.0
	Public hospital	150	30.0
Reason of first ANC	Had problem	275	55.0
	Just for check-up	225	45.0

age of husband is also substantially attributed with utilization of ANC as husband > 30 years of age are 3.45 times higher to make decision regarding antenatal care utilization during the course of gravidity. Women from rural areas of Muzaffarabad are 0.00 times less likely to seek antenatal care. Type of family is undoubtedly interrelated with pursuit of antenatal care during pregnancy as odd of women from joint type of family are 0.01 times less likely to utilize ANC. Parity has significant association with employment of antenatal care as female with parity >3 are 0.42 times less likely to ANC. Head of family has remarkably influence over utilization of antenatal care (p=0.00) as families headed by husband have 0.49 times less likely to reuptake expert medical care by women during course of gravidity. Family head gender plays a vital role in utilization of expert medical advice if females are heading the family then utilization of ANC is 1.51 times higher among women according to study results. Educational status of women is also fundamentally associated with approach to seek ANC as highly educated women are 5.23 times more likely to undertake health care during pregnancy. The job nature of women has vital influence on health care advice reuptake as housewives are 0.13 times less likely to

Table IV: Socio- demographic factors against utilization of antenatal care (ANC) (n=500)

characteristics	Variables	Odds ratio (OR)	CI Lower	CI upper	P value
Age of respondents (years)	<30	1.00			0.000
	>30	0.36	0.24	0.55	
Age of husband (years)	<30	1.00			0.000
	>30	2.34	0.95	5.72	
Residence	Urban	1.00			0.000
	Rural	0.00	0.00	0.00	
Family type	Nuclear	1.00			0.000
	Joint	0.01	0.00	0.04	
Number of children	1-3	1.00			0.000
	>3	0.42	0.23	0.77	
Household head	In laws	1.00			0.000
	husband	0.49	0.16	1.50	
Sex of household head	male	1.00			0.000
	Female	1.51	0.62	3.68	
Education of respondents	Primary	1.00			0.000
	Higher	5.23	3.08	8.85	
	Illiterate	0.62	0.62	0.36	
Education of household head	Primary	1.00			0.000
	Higher	0.05	0.00	0.41	
	Illiterate	0.00	0.00	0.04	
Respondent's occupation	Working	1.00			0.000
	Housewife	0.13	0.09	0.204	
Paid work	Yes	1.00			0.000
	no	0.03	0.01	0.10	
Household occupation	Manual worker	1.00			0.000
	Office worker	4.22	2.62	6.79	
	Businessman	3.62	2.15	6.09	
Monthly income of earner	<15000	1.00			0.000
	>15000	5.06	3.44	7.44	
Health decision	Husband	1.00			0.000
	In laws	0.09	0.05	0.14	
Relationship with in laws	No in laws	1.00			0.000
	Many difficulties	0.11	0.06	0.19	
	Few difficulties	2.71	1.48	4.95	
In laws attitude towards MCH	Encouraging	1.00			0.000
	Discouraging	0.05	0.03	0.08	

receive ANC. Females with less salary packages are 0.03 times behind in receiving ANC and significantly associated (p-0.00). Same is the case with husband occupation as odds of wives of office workers are 4.22 times more likely to utilize antenatal care. Economic status of a house remains one of major influence over health care facilities utilization as females with household income > 15000 are 5.06 times more likely to reuptake ANC. Advocacy and decision taking power plays a vital role in utilizing ANC as families where women, depend upon decision taking by in laws, are 0.28 times lagging behind in receiving care during pregnancy. Similarly, households where health decisions are made by in laws women are 0.09 times less likely to receive ANC. The complexity of relationship of female with in laws is undoubtedly correlated with getting benefits from ANC as odds of less complex relationships with in laws are 2.71 times more likely to use antenatal care. Odds of complex relationship attitude of in laws are 0.05 times less likely to utilize antenatal care.

Discussion

This study describes that various constitutional and socio demographic factors have significant influence over utilization of medical care activities in women belongs to male dominating society. inhabited patterns of patients affects medical care utilization services as women from rural area are far behind in taking advantage from ANC due to certain social constraints, such as less income, education, family type and in-laws attitude. Urban areas with elite class have easy access to health care facility gives better chances of health care utilization as found in others studies (Tran et al. 2012, Kululangaet al. 2011). Mumtaz&Salway (2007) also explained that female avail systematized services during and after antenatal period based on socio demographic characteristics as above secondary attend hospital facility 9.46 times higher, rich 2.17 times and urban 1.53 times than illiterate, poor and rural women respectively.

Decisions of pregnancy and institutional care utilization during conception are typically taken by husband & in laws rather than through mutual consensus of both partners which additionally pinpoint the submissive position of female partner in rural Muzaffarabad. These findings are also shared by Ajaz and Ahmed (2013) who explained that one more factor affecting female behavior to get benefit from health services is nature of tie-in with in laws as female with complex relations with in laws are lagging behind in availing social services and do not attend ANC during and after pregnancy. Elderly reproductive aged women are found to be least interested in taking benefit from health services during period of gravidity most likely due to their previous experience of births and pregnancy so they feel themselves as confident enough to cope with any rising health problem additionally they are overburdened with responsibilities of children brought up, family members, maintain social relation and so get time with difficulty to get benefits from medical services during pregnancy. These findings are also supported by Delvaux et al (2001) who found that multigravida women, had at least two previous children, were least interested in getting health services in new pregnancy if she has uneventful pregnancies previously. Education is found positively associated with antenatal care during pregnancy. Chen et al (2007) also found that education is another determinant strongly associated with uptake of maternal

health services as ANC attending females percentage were found to be 89% with secondary education, 70% with primary education while illiterate females are found to be having limited attention to avail ANC.

It is found that professional line females are more self-determining and independent in taking decision regarding utilization of all types of health facilities during pregnancy. Self-earning empowered women affects women's easy approach to health facility in addition working women has more social contacts. As already found in another study conducted in Muzaffarabad, stipend jobs have rising proportion of attaining health seeking practices (Arooj et al. 2013). Profession of spouse has remarkably associated with utilization of ANC as wives of laborers are less likely to avail ANC. Most of the women assessed for the study seek care from customary healers and do not approach a trained health care provider. It is also found that women choose health care facilities on the basis of family support or lack which hinders their ANC attendance.

Conclusion

Antenatal care is an important determinant in improving health of mother and child. This paper explored socio-demographic factors restricting women to access antenatal care. Rural, poor and less educated women are found as vulnerable group in terms of use of ANC. In present study education showed significant influence on women's behavior towards uptake of antenatal care. Education creates awareness and enables women to tackle those hurdles that hinder their wellbeing. There is need to design strategies to empower rural women and also focus on family members particularly household head to bring about change in traditional mind set of people so that maximum proportion of women ensure antenatal care utilization. Moreover, information regarding antenatal care should be disseminated on priority basis especially in rural areas of Azad Kashmir.It is also needed to conduct qualitative study in area for more in depth exploration of socio demographic factors affecting women's utilization of antenatal care.

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