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Social Factors Influence on Utilisation of Antenatal Care Among Married Women: A Quantitative Research Study Conducted in Khyber Pakhtunkhwa

Abstract

Pakistan is one of the developing countries with high maternal mortality rate 186/100000 live births. Sociologists argue that the social and demographic dynamics of society are one of the contributing factors to poor maternal health care. This study investigates the influence of social and demographic factors on the use of antenatal health care in district Buner, Khyber Pakhtunkhwa. A cross-sectional household survey approach was used, and data was collected from 470 married women aged 15-49 years. Statistical analysis explained that majority (75%) of married women stay in home during antenatal care in the study locale, in mountains areas 81.5 percent women stay in home during antenatal care checkup, and 71 percent stay in home in joint family. The study suggests that an awareness program should be started to reduce girl child marriages in Pakhtunkhwa and cash incentives should be started to encourage institutional antenatal care.

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Authors:

Ayub Rahman: MPhil Scholar, Department of Sociology, Abdul Wali Khan University Mardan, KP, Pakistan.

Hussain Ali: (Corresponding Author)

Assistant Professor, Department of Sociology, Abdul Wali Khan University Mardan, KP, Pakistan.

(Email: hussainali@awkum.edu.pk)

Fatma Awan: MPhil Scholar, Department of Sociology, Abdul Wali Khan University Mardan, KP, Pakistan.

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Cite Us



Title

Social Factors Influence on Utilisation of Antenatal Care Among Married Women: A Quantitative Research Study Conducted in Khyber Pakhtunkhwa

Authors:

Ayub Rahman

MPhil Scholar, Department of Sociology, Abdul Wali Khan University Mardan, KP, Pakistan.

Hussain Ali

(Corresponding Author)

Assistant Professor, Department of Sociology, Abdul Wali Khan University Mardan, KP, Pakistan.

(Email: hussainali@awkum.edu.pk)

Fatma Awan

MPhil Scholar, Department of Sociology, Abdul Wali Khan University Mardan, KP, Pakistan.

Abstract

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Pakistan is one of the developing countries with a high maternal mortality rate of 186/100000 live births. In Pakistan, 14% of women received antenatal care services from unskilled health services providers, and 12% of women sought ANC from local DAIs or traditional birth attendants. Sociologists argue that the social and demographic dynamics of society are one of the contributing factors to poor maternal health care. This study investigates the influence of social and demographic factors on the use of antenatal health care in district Buner, Khyber Pakhtunkhwa. A cross-sectional household survey approach was used, and data was collected from 470 married women aged 15-49 years. In the study, descriptive and regression analysis was used to explain the association between socio-demographic and antenatal care use in the study locale. Statistical analysis explained that the majority (75%) of married women stay at home during antenatal care in the study locale, in mountains areas 81.5 percent women stay at home during antenatal care checkups, and in joint families, 71 percent women stay at home during antenatal care checkup. The study suggests that an awareness program should be started to reduce girl-child marriages in Pakhtunkhwa and cash incentives should be started to encourage institutional antenatal care.

Keywords: Antenatal Care, Women, Social, Demographic, Age, Buner, Khyber Pakhtunkhwa

Introduction

Maternal health care is one of the sexual and reproductive health rights of all married women or in union with male partners around the world. Maternal

health refers to a woman's physical, mental, emotional, and social well-being before, during, and after pregnancy (WHO, 2020). Maternal health care services may save the lives of millions of women of



reproductive age; hence it has become a global priority. Despite attempts, maternal mortality remains high in many impoverished countries, despite efforts to enhance maternal healthcare services. Approximately 800 women die every day from preventable causes related to pregnancy and childbirth, with impoverished countries accounting for 99 percent of all maternal deaths (UNICEF, 2017). United Nations agencies stated that antenatal care is essential for both the mother's and the unborn child's health. Through this type of preventative health care, women can learn about healthy habits throughout pregnancy from qualified health professionals, better understand warning signs during pregnancy and childbirth, and receive social, emotional, and psychological support during this crucial period in their lives (UNFPA, 2005, UNICEF, 2017). According to the World Health Organization, ANC also provides women and their families with relevant information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including newborn care, promotion of early, exclusive breastfeeding, and assistance in deciding on future pregnancies, to improve pregnancy outcomes (WHO, 2015). World Health Organization stated that pregnant women should have at least eight prenatal appointments to detect and address issues as well as obtain vaccines. Even though prenatal care is critical for both mother and baby's health, many women do not receive eight sessions (WHO, 2015, Mellenbergh, 2003).

According to the 2019 State of the World Population Report, the Maternal Mortality Rate (MMR) in Pakistan is 178 per 100,000 live births (United Nations Population Fund [UNFPA], 2019). In Pakistan, the infant mortality rate (IMR) is 62 per 1000 live births. In Pakistan, approximately five million women become pregnant each year, with 15% of all pregnant women experiencing medical difficulties. Statistically, it is explained in PDHS, that still in Pakistan 49% of pregnant women had less than standard ANC visits (NIPS, 2019).

Behavioral researchers argue that delay in antenatal health care is not only due to supply-side constraints, but rather the social, cultural, geographical, and economic factors also restrict

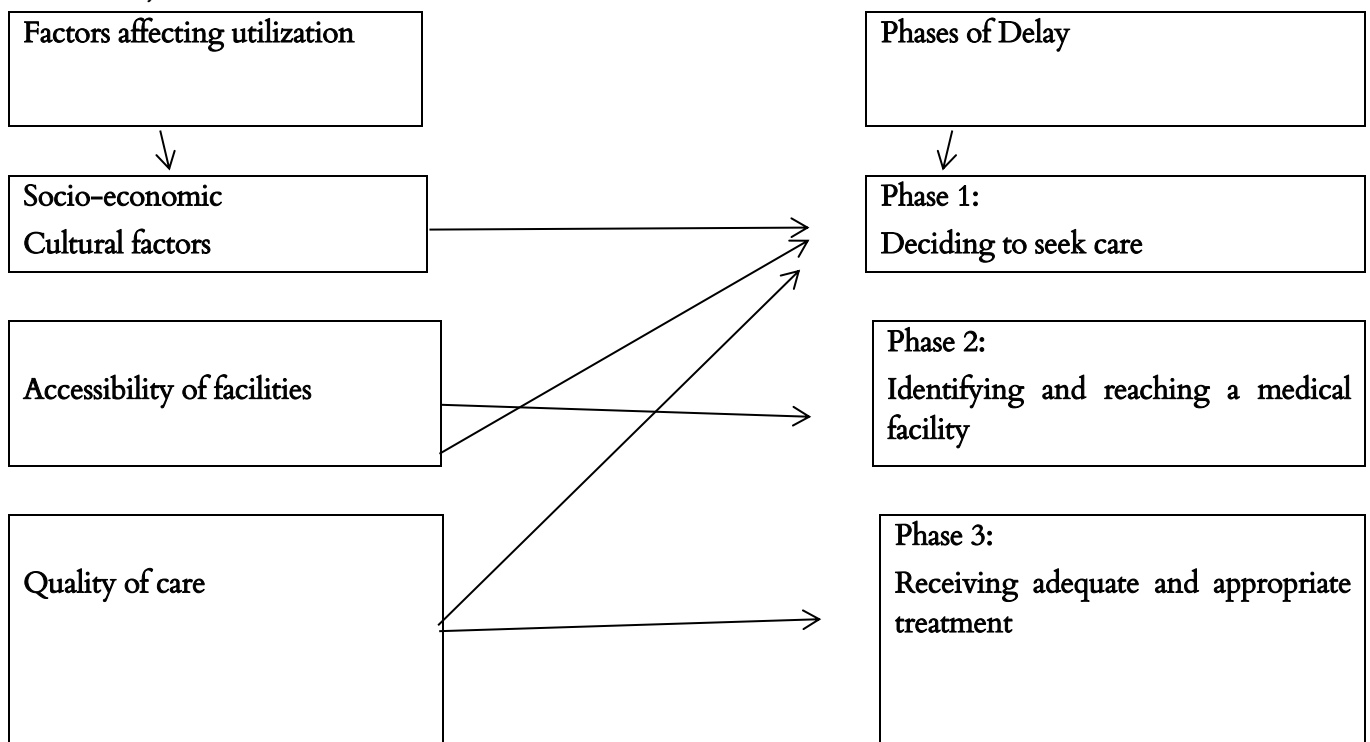
women's mobility to institutional antenatal health care in the patriarchal structure of societies. In Pakistan, institutional antenatal care is a challenge for women in the patriarchal structure of authority due to which they compromise their health and stay at home during pregnancy. Poor maternal health care is also statistically shown in Pakistan. Various research studies that not only are the supply side factors responsible for poor maternal health care but also that social factors additionally assume a significant part in deciding poor maternal medical care (Zakar, 2016). It is examined that poor maternal well-being is not a biological phenomenon rather it is a social phenomenon. Women are suffering due to their gender and position in the family and society. In many research studies, it is explained that women and their husbands' education and family size are among the contributing factors to the poor utilization of antenatal health care. In the study area, it is seen that women with low literacy prefer to stay at home for checkups and even delivery. In the study area, it is also shown that a husband with low literacy discourages his wife from outer mobility and institutional checkups. The same situation is also shown in other studies in developing countries. In the study area, it is revealed that most mothers are illiterate due to which they are unable to access and use maternal health care services (Zakar, 2017). In developing countries, most women are financially dependent on male family members due to illiteracy among women. They have no livelihood activities to earn and invest in on their own and children's basic needs. Due to financial dependency, men are the decision-makers to decide about women's health care and other basic needs (Ganle, 2014). Due to illiteracy and Lack of education, there is minimal opportunity for women as an employee. They are not directly earning handoff families. That is why they are considered as no earning hand of the family, and they are considered only the members to be fed by male family members. Improving women's employment and giving possibilities for them to work to become more economically independent will empower women, enhance their family decision-making, and so indirectly boost their usage of maternal health services (United States Agency for International

Development). In remote areas, transportation seems to be an important problem. In some villages, there is no transportation during working hours. So, in case of emergency, the lack of transportation leads to poor maternal health care, and pregnant women lose their lives (Takaeb, 2020; Sumankuuro, 2018). It is explained that women with financial autonomy can

easily invest in their health. In the study area, women have no financial autonomy and they depend on men to decide about women's health and other needs. To study the influencing factors the researchers, investigate the social and demographic factors that influence on use of antenatal health care in the study district "Buner".

Figure.1

Three Delay Model and Restriction to Use of Institutional Antenatal Care Services



Source: Three Delay models by Thaddeus and Maine (1994)

Methods

This research paper is developed from the MPhil thesis of the principal author of this paper. He completed his MPhil in Sociology from the Department of Sociology, Abdul Wali Khan University Mardan in 2022. In social sciences, researchers use various research approaches to explain or explore a social phenomenon. In social sciences, qualitative research approaches are used to explore an unexplored social phenomenon, while quantitative research approaches are used to explain a social phenomenon and develop an association or influence between two or more variables (Sileyew, 2019; Mann, 2003).

In the present research study, scholars used quantitative research design to describe and explain

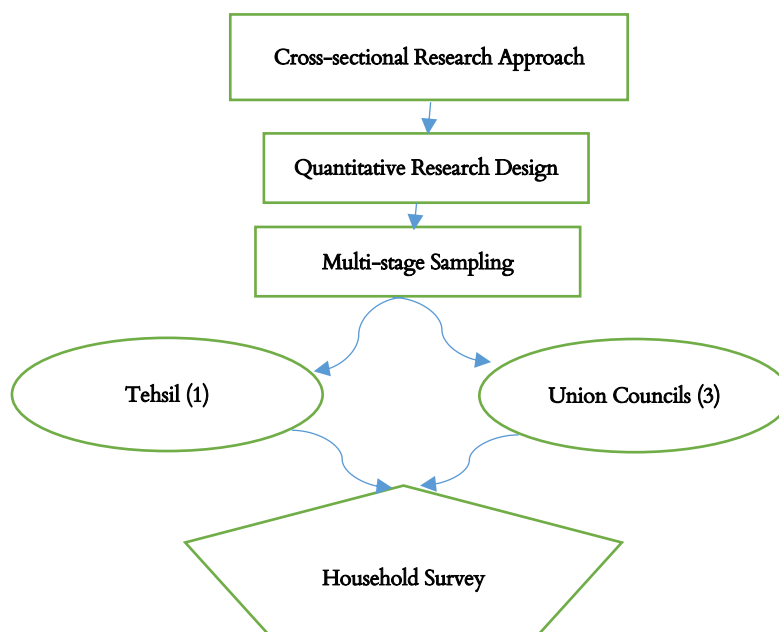
the association between decision-making as a social power and the use of institutional antenatal health care in the study locale. In probability sampling technique the research study used a simple random sampling technique with a household survey approach. In the study, married women were the study population, while married women aged 15-49 years having current pregnancy or given birth to a child last 12 months were selected as sample population. In the study all those women who were unmarried, having no childbirth history, and living temporarily in the study locale were excluded. This study was approved by the university statutory bodies namely Sub-ASRB, and Graduate Study Committee, Department of Sociology Abdul Wali Khan University Mardan. The present study statistics explain the views of 470

married women respondents permanently belonging to the study area district Buner, Khyber Pakhtunkhwa. The research study used multi-stage sampling as a probability sampling technique to divide the study locale into tehsils as administrative units and then into union councils as small sub-administrative units for service delivery and community development. Multistage sampling is a technique for acquiring a sample from a population that involves dividing the individuals from the smallest of these groups who are sampled from the population as it is divided into smaller and smaller groupings (Valerie, 1997). Researchers selected the sample population with the use of probability sampling techniques and distributed it among all the sample union councils. The researcher used a self-administered questionnaire for educated respondents, while for uneducated respondents an interview schedule was used. The data collection process was completed in three months and all the questionnaires were checked daily to identify any missing information in the questionnaires filled in and to discuss it with the research team. To analyze the statistical data descriptive statistics and regression analysis were used to draw the influence of social and

demographic factors on the use of antenatal care. The researchers explained demographic variables and geographical constraints in descriptive statistics while for association, a regression test was applied to check the influence of socio-demographic variables on antenatal care visits and checkups from institutions. The study locale is culturally rich and man-dominant where women's interaction with any man is not permitted and women alone outside mobility is restricted. In the study locale, women are not allowed to talk to any unknown person or sign any document. Considering the cultural restrictions on men's interaction with women (Todd, 1994), the researchers engaged a female research assistant, and verbal informed consent was recorded from all the study participants. The authors orient all the research team members on how to interact with respondents, how to start the data collection process, how to record and fill the tool of data collection, how to get consent, and how to store their filled questionnaires. The study area is already affected by militancy and Talibanization therefore, the research assistants were informed about security concerns, and they were informed to visit the field after sunrise and return before sunset.

Figure 2

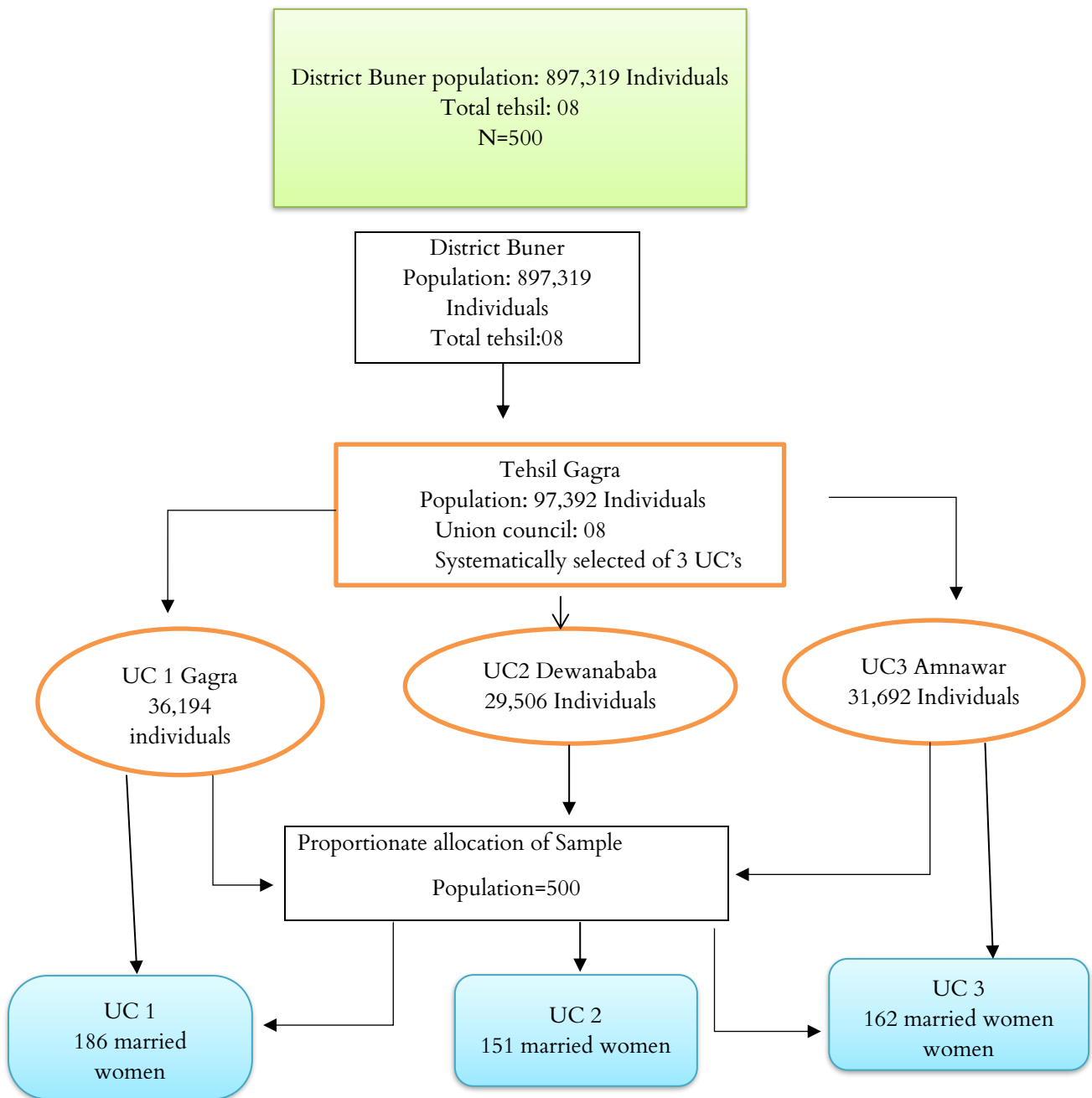
Research Design and Research Techniques



Source: Author (2022)

Figure 3

Study population and sampling population



Source: Author (2022)

Results and Discussion

Table 1 explains the descriptive statistics of socio-demographic characteristics of married women aged 15-49 years. Among the total 470 married women, 38.9 percent are in the age of 15-19 years at the time of their 1st marriage. The majority 43.6 percent of married women are aged 20-24 years at the time of

their 1st marriage. 15.1 percent of married women are aged 25-29 years at the time of their 1st marriage and a very less than 2.3 percent of married women are the age of 30 and above at the time of their marriage. Statistics in the table explain the current age of married women. Among the total respondents, the majority 35.7 percent are in the age category of 30

and above years. Similarly, one-fourth (24.9 %) of married women are currently in the age category of 25-29 years. 22.8 percent of married women are currently in the age category of 20-24 years and 16.6 percent of married women are currently in the age category of 15-19 years. The table revealed the age of a married woman's husband at the time of his marriage. Among the total respondents, the majority 45.1 percent of the married women's husbands are in the age category of 25-29 years at the time of their marriage. Similarly, more than one-third (35.3%) of the married women's husbands are in the age category of 20-24 years at the time of their marriage. 16.2 percent of the respondent's husbands are in the age category of 30-34 years at the time of their marriage. 1.9 percent of married women's husbands are in the age category of 15-19 years and 1.3 percent are in the age category of 35-39 years at the time of their marriage. Similarly, at least 0.2 percent of married women's husbands are in the age category of 40-45 years at the time of their marriage. The table describes the current age of married women's husbands. Among the 470 married women, nearly one-fourth (24.5%) of husbands are currently in the age category of 30-34 years. Similarly, 21.9 percent of the married women's husbands are currently in the age category of 25-29 years 21.1 percent are currently in the age category of 15-19 years, 11.3 percent of the married women are currently in the age category of 40-45 years and very less 2.1 percent of the married women's husband are currently in the age category of 45 and above years.

Table 2 indicates the socio-demographic characteristics of married women aged 15-49 years. Among the total 470 married women, the majority 51.9 percent of the married women's monthly income in rupees is in the category of PKR. 15001-30000. Similarly, 20.4 percent of married women are in the category of PKR. 30001-45000. 12.8 percent of married women's monthly income in rupees is in the category of PKR. 45001-60000. 4.9 percent of respondents whose monthly income is in the category of PKR. 0001-15000 and similarly the same 4.9 percent are in the category of PKR. 60001-75000. A very less 2.6 percent of married women whose monthly income is in the category of PKR. 75001-

90000 and in the category of above than PKR. 90000. The table explained the headed household of married women in the family. Among the total married women majority 39.6 percent of married women families are headed by father-in-law. Similarly, more than one-third (36.8 percent) of married women's families are headed by their husbands, 19.4 percent of married women's families are headed by their mother-in-law and very less than 4.3 percent of married women's families are headed by the married women themselves. The table statistics shows employment of the married women. Among 470 married women, the majority 84.3 percent married women are housewives. Similarly, 8.7 percent of married women are government employees, 3.6 percent of married women are self-employees and a very less 3.4 percent of married women are private employees. The table shows the employment of the respondent's husband. Among the total respondents, more than one-third (37.7%) of respondents' husbands are self-employed. Similarly, more than one-fourth (26.6%) of respondents' husbands are private employees. 18.3 percent are government employees and 17.4 percent married women's husbands are abroad. The table shows the education of married women. Among the total respondents, 39.8 percent of married are uneducated. Similarly, 17.7 percent of married women have higher and secondary education. 16.0 percent of married women have a middle education. 14.3 percent of married women have a primary. Very less (7.2 %) married women have graduated and 5.1 percent married women have education post-graduation. Statistics explained the education of the married woman's husband. Among the total married women, more than one-fourth (26.4%) of married women's husbands have graduated. Similarly, 21.7 percent of married women's husbands have higher and secondary education. 18.1 percent have post-graduation and 17.0 percent married women's husbands are uneducated. 13.0 percent of respondents' husbands have middle education and very less than 3.8 percent of married women's husbands have primary education. Table described the area of residence of married women. Among 470 married women, the majority 96.4

percent of the married women are living in rural areas and 3.6 percent of the married women are living in urban areas. The table shows the geographical area of women's residences. Among the total respondents, 72.2 percent of married women belong to mountains geographical area while 27.7 percent of the married women belong to the plain area of residence. The table stated the type of family of married women. Among 470 married women, the majority (59.4%) of the married women are living in joint families. Similarly, 29.1 percent of married women are living in the category of the nuclear family and a very small number (11.5%) of the married women are living in the category of extended family.

In inferential statistics, table 3 shows the association between the place of antenatal care checkups and socio-demographic characteristics of married women aged 15 and 49 years. The cross-tabulation shows that 15-19-year-old women's place of ANC is at home (75.6% vs 24.4%) as compared to women in the same age category with the hospital as a place of ANC checkup. The binary logistic regression shows that the odd ratio is 2.738 times higher among young married women with the home as the place of ANC checkup (OR 2.738, 95% CI (1.334-5.619) with a significant level of .006. It is also discussed in a study by Puett (2015), that home-based records for young married women aged 15-19 years assist pregnant women recall prenatal care visits, avoiding missed appointments, and increasing the frequency of antenatal visits (Puett, 2015). The cross-tabulation stated that married women aged 20-24 years prefer a home as a place for ANC checkups (72.0% vs 28.0%) as compared to women in the same age category with the hospital as a place for ANC checkups. The binary logistic regression demonstrates that the odd ratio is 2.208 times higher among married women with the home as a place of ANC checkup (OR 2.208, 95% CI (1.170-4.167). The significance level of association is .014. A study by WHO (2015) discussed that young married women aged 20-24 years chose the home for their ANC visits due to social and demographic factors, so socio-demographic variables appeared to be associated with the place of antenatal care checkup (WHO, 2015). The cross-tabulation explained that married women aged 25-29

years prefer a home as a place for ANC checkups (62.4% vs 37.6%) as compared to women in the same age category with the hospital as a place for ANC checkups. The binary logistic regression demonstrates that the odd ratio is 1.409 times higher than married women with home as a place of ANC checkup (OR 1.409, 95% CI (.776-2.259) with no significant association. The cross-tabulation indicates the association of the geographical area with the place of ANC checkups among married women. It is shown that married women living in the mountains prefer home as a place for ANC checkups (81.5% vs 18.5%) as compared to women living in the mountains with the hospital as a place for ANC checkups. The odd ratio is according to the binary logistic regression less than 0.239 times that women's preference for home as a place of ANC checkup with significance level of association is .001. According to EDHS (2016), the geographical area is inversely related to having at least four ANC visits for every one-kilometer increase in distance to the nearest ANC facility (WHO, 2015). The cross-tabulation explained the association between the head of a household of the family and with place of ANC checkup among married women. It is shown that married women-headed households prefer the home as a place for ANC checkups (30.0% vs 70.0%) as compared to the hospital as a place for ANC checkups. The odd ratio is 4.701 times greater among married women who had their ANC checkup at home, according to the binary logistic regression (OR 4.701, 95% CI (1.384-15.970). The significance level of association is .013. According to WHO (2016) report married women's utilization of ANC by themselves is crucial during pregnancy because married women know the time and complications during pregnancy (WHO, 2016). The cross-tabulation indicates that married women headed by their father-in-law prefer a home as a place for ANC checkups (70.4% vs 29.6%) as compared to hospitals as a place for ANC checkups. The odd ratio is 4.451 times greater among married women who had their ANC checkup at home, according to the binary logistic regression (OR 4.451, 95% CI (1.473-13.449). The significance level of association is .008. A study by Mahmood (2002) discussed that considering the father-in-law is the family's leader, his duties in

protecting maternal health have gotten a lot of attention in recent years (Mahmood, 2002).

The cross-tabulation revealed that married women headed by their husbands prefer the home as a place for ANC checkups (67.6% vs 32.4%) as compared with the hospital as a place for ANC checkups. The binary logistic regression demonstrates that the odd ratio is 3.158 times less than married women with home as a place of ANC checkup (OR 3.158, 95% CI (.846-11.786) with no significant association. The cross-tabulation shows the association of the education of married women with the place of ANC checkups. It is shown that husbands having primary education prefer a home as a place for ANC checkups (61.1% vs 38.9%) as compared to women's husbands with the hospital as a place for ANC checkups. The odd ratio is according to the binary logistic regression. The cost of an ANC checkup in a married woman's husband's house is 346 times cheaper (OR .346, 95% CI (.162-.736) with a significant level of association is .006. In various studies, it is discussed that education is considered an important associate of maternal health service utilization and married women's husbands give potential benefits both in pregnancy, as well as during ANC checkups, maternal and child health outcomes (Zakar, 2016; NIPs, 2019). The cross-tabulation shows that husbands having middle education prefer a

home as a place of ANC checkup (72.1% vs 27.9%) as compared to women's husbands with the hospital as the place of ANC checkup. The binary logistic regression demonstrates that the odd ratio is .426 times lower than married women's husband's house as ANC checkup location (OR.426, 95% CI (.136-1.330) with no significant correlation (OR.426, 95% CI (.136-1.330).

The cross-tabulation shows the association of family type with the place of ANC checkups among married women. A study by Allendorf (2007) discussed that women in nuclear families who have a healthier marital connection are more likely to use prenatal care, which is beneficial to their health (Allendorf, 2007). The cross-tabulation shows that married women with joint families choose the home place of ANC checkup (71.7% vs 28.3%) as compared to women who choose the hospital as the place of ANC checkup. The binary logistic regression demonstrates that the odd ratio is 3.771 times higher among married women of the nuclear family who choose home as a place of ANC checkup (OR 3.771, 95% CI (1.696-8.381) with a significant level of .001. A study by Hoelter (2004) discussed that women with joint families have stronger ties with their in-laws and are more likely to receive prenatal care, according to the study (Huang, 2013).

Table 1

Socio-demographic features of married women aged 15-49 years in Buner (N=470)

Socio-Demographic Variable	F	(%)
Married women age at the time of marriage in complete years		
15-19	183	(38.9)
20-24	205	(43.6)
25-29	71	(15.1)
30 and above	11	(2.3)
Current age of married women in complete years		
15-19	78	(16.6)
20-24	107	(22.8)
25-29	117	(24.9)
30 and above	168	(35.7)
Age of husband at the time of marriage in complete years		
15-19	09	(1.9)

Socio-Demographic Variable	F	(%)
20-24	166	(35.3)
25-29	212	(45.1)
30-34	76	(16.2)
35-39	06	(1.3)
40-45	01	(0.2)
Current age of husband in complete years		
20-24	99	(21.1)
25-29	103	(21.9)
30-34	115	(24.5)
35-39	90	(19.1)
40-45	53	(11.3)
45 and above	10	(2.1)

Table 2

Socio-demographic characteristics of married women aged 15-49 years (N=470)

Socio-demographic variables	F	(%)
Family monthly income in PKR		
0001-15000	23	(4.9)
15001-30000	244	(51.9)
30001-45000	96	(20.4)
45001-60000	60	(12.8)
60001-75000	23	(4.9)
75001-90000	12	(2.6)
Above than 90000	12	(2.6)
Headed household in the family		
Herself	20	(4.3)
Father in law	186	(39.6)
Husband	173	(36.8)
Mother in law	91	(19.4)
Employment of married women		
Housewife	396	(84.3)
Self-employee	17	(3.6)
Gov. employee	41	(8.7)
Private employee	16	(3.4)
Husband employment		
Self-employee	177	(37.7)
Govt- employee	86	(18.3)
Private employee	125	(26.6)
Abroad	82	(17.4)
Education of married women		
Uneducated	187	(39.8)
Primary	67	(14.3)
Middle	75	(16.0)
Higher and secondary	83	(17.7)

Socio-demographic variables	F	(%)
Graduate	34	(7.2)
Postgraduate	24	(5.1)
Education of her husband		
Uneducated	80	(17.0)
Primary	18	(3.8)
Middle	61	(13.0)
Higher and secondary	102	(21.7)
Graduate	124	(26.4)
Postgraduate	85	(18.1)
Area of women's residence		
Rural	453	(96.4)
Urban	17	(3.6)
Geographical area of women's residence		
Mountains	340	(72.3)
Plain	130	(27.7)
Family type of married women		
Nuclear family	137	(29.1)
Joint family	279	(59.4)
Extended family	54	(11.5)

Table 3

Association between Place of Antenatal Care and Socio-demographic characteristics among married women aged 15-49 years (N=470)

Socio-demographic variable	Place of ANC		OR,95 CI, EXP(B)	P-value
	Hospital F (%)	Home F (%)		
Current age of married women in complete years				
15-19	19(24.4)	59(75.6)	2.738(1.334-5.619)	.006
20-24	30(28.0)	77(72.0)	2.208(1.170-4.167)	.014
25-29	44(37.6)	73(62.4)	1.409(.776-2.559)	.260
30 and above	65(38.7)	103(61.3)	1.00	
Geographical area of women's residence				
Mountains	24(18.5)	106(81.5)	.239(.131-.436)	.000
Plain	134(39.4)	206(60.6)	1.00	
Headed household of family				
Herself	14(70.0)	06(30.0)	4.701(1.384-15.970)	.013
Father-in-law	55(29.6)	131(70.4)	4.451(1.473-13.449)	.008
Husband	56(32.4)	117(67.6)	3.158(.846-11.786)	.087
Mother-in-law	33(36.3)	58(63.7)	1.00	
Education of husband				

Socio-demographic variable	Place of ANC		OR,95 CI, EXP(B)	P-value
	Hospital F (%)	Home F (%)		
Uneducated	47(58.8)	33(41.2)	1.00	
Primary	07(38.9)	11(61.1)	.346(.162-.736)	.006
Middle	17(27.9)	44(72.1)	.426(.136-1.330)	.142
Higher and secondary	31(30.4)	71(69.6)	.908(.405-2.035)	.815
Graduates	35(28.2)	89(71.8)	.759(.367-1.569)	.457
Postgraduates	21(24.7)	64(75.3)	.941(.468-1.894)	.865
Family type of married women				
Nuclear family	42(30.7)	95(69.3)	3.499(1.592-7.691)	.002
Joint family	79(28.3)	200(71.7)	3.771(1.696-8.381)	.001
Extended family	37(68.5)	17(31.5)	1.00	

Conclusion and Recommendations

The study results concluded that education, family size, joint family structure, family monthly income, and husband's education and employment significantly influence the use of institutional antenatal health care. It is concluded that women with early pregnancies are staying at home due to their confinement to the domestic sphere, while in mountain villages women prefer home as a place of antenatal care due to lack of financing and transport facility. The study recommends that education should be increased among the family members with lessons

in the textbooks on mother and child health care. A community-level awareness-raising program should be started with the involvement of the local elected council to educate community members about the importance of standard antenatal health care visits. The government should start a cash incentive program for pregnant mothers to encourage antenatal healthcare visits to health facilities. The government should provide all the mother and child health care facilities during delivery in local health facilities to attract more pregnant women to get checkups from health services providers in local health facilities.

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