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Women's Empowerment and Antenatal Care Utilization in Pakistan

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Women's Empowerment and Antenatal Care Utilization in Pakistan

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Abstract

This study aimed at examining the role of women's empowerment in antenatal care utilization among married women in Pakistan. The population of the study was based on secondary data from the Pakistan Demographic Health Survey 2017-18. A sample of 6,996 married women was selected, and the women reported their antenatal visits in the last five years. The descriptive, Chi-square, bivariate, and multivariate logistic regression methods were used for data analysis through SPSS. The results of the study showed that only 15% of women had adequate antenatal visits. Bivariate analysis showed that women who had higher income status, higher education, and were working in managerial positions had significantly adequate antenatal health care ($P<0.05$). Multivariate logistic regression results showed that women who had the power of decision making in their health care alone (OD-1.47; 95% CI- 1.04, 2.10), decided their mobility along with their husbands (OD-1.83; 95% CI-1.46, 2.30), had control over resources, their own mobile (OD-1.31; 95% CI-1.11, 1.55) and bank accounts (OD-1.75; 95% CI-1.37, 2.22), access to information resources—such as internet use (OD-1.84; 95% CI-1.53, 2.21), reading the newspaper (OD-1.18; 95% CI-1.00, 1.39), and watching TV (OD-1.69; 95% CI-1.38, 2.07)—and did not justify wife-beating (OD-1.42; 95% CI-1.20, 1.68) had adequate antenatal care. To enhance the maternal health of women, the government should take initiatives to formulate policies that improve women's status especially among those who had no education, had less decision-making power, lack of economic resources, and faced violence.

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Keywords: Antenatal care, Women's empowerment, Decision making, Pakistan.

Introduction

Maternal mortality is one of the greatest health and development concerns worldwide, especially in low-income countries like Pakistan (Paxton & Wardlaw, 2012). According to World Health Organization (WHO), for the last three decades, the maternal mortality rate (MMR) in Pakistan has declined but its decline change is minor. In 1990, the MMR was 384 per 100,000 livebirths, and in 2015, the MMR was 178 (WHO, 2016). The MMR condition is still worse in Pakistan than that of its neighboring countries like India, China, and Iran (WHO, 2019). With this high MMR, Pakistan would not be able to achieve its Millennium Development Goals (MDGs) ~~five~~ fifth target of reducing MMR to 140 per 100,000 live births by 2015 (WHO, 2015a).

In the reduction of maternal deaths, antenatal care (ANC) visits are a major factor contributing to the wellbeing and health of mothers and their children. Adequate ANC visits lower the rate of maternal and infant mortality and morbidity (Adam et al., 2005; Gajate-Garrido, 2013; WHO, 2014). Utilization of ANC depends on various factors such as distance to health care facilities, need and perception of women and their families for health care, social restrictions on freedom of the movement of women, cost of health care services, and the availability of health care services in the living areas of women (Bloom, Wypij, & Gupta, 2001).

The international reproductive health community has recognized the utmost importance of discussing gender-based inconsistencies in sexual relations and reproductive health decision-making as a fundamental right for the improvement of reproductive health care for both men and women (Kaczor, 2006), while poor health outcomes are considered to be the cause of gender-based power inequalities in Pakistani society (Kabeer, 2003). The aptitude of women to make decisions regarding their personal circumstances is considered to be the key element of their empowerment and works as a significant contributor to their overall development and strength in society. To sensitize the impact of gender differences and discriminations in household decision making in Pakistan, we looked into the lives of married women to envisage their level of participation in household decisions, which is directly linked with their health care issues and key household purchases.

Women's empowerment in decision making in family matters is positively associated with ANC utilization. On the other hand, economically empowered women are considered to have better opportunities of participation in family decision making processes, and it is also expected that women—who are employed and financially strong—are more likely to have control over household decisions (Akram, 2018). Equal access to financial resources in a family has become a human rights issue and is measured to be an important mechanism for decreasing mortality rates in the family (Mahmood, 2002).

In Pakistan, generally, men make decisions in various family matters without the consent of their life partners (Hou & Ma, 2012). Women are expected to accept these decisions even though they are not made with their consent. The traditional authority of men in terms of patriarchal structures especially in Pakistan hinders women's participation in decision making in their own lives (Amin, 1997; Hakim & Aziz, 1998). It is said that women are not capable of making decisions in family matters because they are less educated or have less experience in the social sphere when compared to men. This means that if women are educated and they possess enough social life experience, they would be credited to participate in decision making (Khurshid, 2016).

Women's decision making in reproductive health has largely been overshadowed by men's decisions in this area as they play an influential role in family matters. In addition, women seem to be less 'empowered' to take their own decisions as a right (Darteh, Doku, & Esia-Donkoh, 2014). Timely check-ups for pregnant women, adequate antenatal visits, and women's education levels are main catalysts for the reduction of maternal morbidity and deaths (Agha & Williams, 2013; Mumtaz & Salway, 2009). Complications in pregnancies on the bases of an absence of proper antenatal check-ups are reported, especially in rural areas proving that reproductive healthcare and women's empowerment go hand in hand (Adhikari, 2016).

Previous studies have measured the association between women's empowerment in decision making at the household level, control over economic resources, media use, and maternal health care utilization among pregnant women in Pakistan (Hearld, Anderson, & Budhwani, 2018; Sohn & Jung, 2020; Ullah, Majeed, & Ali, 2015). But no study has been conducted to show the association of women's empowerment in multiple dimensions including women's decision-making power at the household level, women's control over resources, women's rejection of domestic violence, and their access to the internet and electronic and print media. This study is carried out to determine the multidimensional aspects of women's empowerment with ANC utilization among childbearing age women in Pakistan.

Research Methodology

In this study, secondary data from the 2017-18 Pakistan Demographic and Health Survey (PDHS) was used, which was conducted by the National Institute of Population Studies, Islamabad, Pakistan and ICF International, Calverton, Maryland. It was the fourth national survey and conducted under the umbrella of the global Program of Demographic and Health Surveys. Trained interviewers collected the PDHS survey data from married women through a structured questionnaire.

The survey used a two stratified random sample design. During the first stage of data collection, the study area was established which was comprised of urban as well as rural areas of the four provinces of Pakistan as well as ICT, Gilgit Baltistan, and AJK. All these areas were divided into smaller units known as enumeration blocks. The enumeration blocks consisted of an average of 200-250 households that were further divided into low, middle, and high-income groups. In the second stage of data collection, the sample was collected by using systematic random sampling techniques in both urban and rural areas. A country representation sample of 15,671 households from 580 primary sampling units was selected. A total of 15,930 ever-married women aged 15-49 years were identified, out of them 15,068 women were successfully interviewed in PDHS, and their response rate was 94.6%. The comprehensive detailed methodology of survey design, data collection, and management has been described elsewhere (National Institute of Population Studies - NIPS/Pakistan & ICF, 2019).

For this study, data analysis was limited to a sample of (N=6996) ever-married women aged 15-49 years who reported at least one childbirth during the last five years in PDHS 2017-18. Association between ANC visits was measured by adjusted odd ratios (AOR) using logistic regression after controlling demographics (women's age, education, and occupation). Outcome variable antenatal care utilization defined the number of adequate ANC and inadequate ANC of women during pregnancy; for adequate ANC, the number of ANC visits were eight or more than eight while inadequate ANC was less than eight, as per the recommendation of the WHO for ANC visits, every mother ought to have at least eight ANC visits during the pregnancy for the safe delivery (WHO, 2016).

The demographics of the respondents were assessed by the questions regarding women age, education, wealth index, and occupation. Women's empowerment is a multi-dimensional phenomenon. It was measured through four directions: decision making power at household levels, control over resources, use of information resources, and justification of wife-beating.

Power of decision making of the women at the household level was assessed by four questions: who usually made about respondent health care, what to do with husband's earnings, who made decisions regarding visiting family or relatives, and who does large household purchases. All the questions were answered by option, decision taken by the respondent alone, the respondent with husband, the respondent with other, husband alone, someone else and other. These households' decision-making variables were recoded as decision taken by the respondent alone, the respondent alone and other, and husband alone, and someone and other. If women made decisions at the household level alone or joint, they were considered empowered women, and if decisions were taken by husbands alone and others then they were considered disempowered.

Women's control over resources was measured through four questions: if women had a mobile phone, account in a bank, a house, and land. If women said "yes" they had these assets, they were considered empowered and coded "1", otherwise if they said "no" it was coded "0". Access to use electronic and print media and internet was measured through five questions: if women used the internet, read newspapers, magazines, listened to the radio, and watched TV. If women were saying "yes" for access to use these information sources, they were empowered and it was coded "1"; otherwise, if they had no access to use them, it was coded "0".

In PDHS, wife beating questions were asked to the mothers regarding if they justified wife-beating or not and it was measured through six questions: if the wife went out without the husband's permission, the wife did not care for the children, the wife argued with her husband, the wife refused to have sex with her husband, the wife burnt the food, and the wife ignored in-laws. These six variables were computed. If women said "no" to these statements, meaning that they did not justify wife-beating, it was coded "0" and if women said "yes" to at least one of these statements, they justified wife-beating and it was coded "1".

Association between ANC utilization, socio-demographics, and women's empowerment indicators were measured by calculating odds ratios (OR) and adjusted odds ratios (AOR) with 95% confidence intervals (CI) using logistic regression by adjusting women's age, type of residence, the respondent's education, and occupation.

Results

Out of the total sample size—6,996—the mean age of women was 29.54 and the majority (25.2%) were between the ages of 30-34 years. 5,948 (85%) women had inadequate ANC visits. Most of the women—3,057 (43.7%)—had no education, 1,468 (21.0%) women belonged to the middle class in the wealth index, and most women—6,049 (86.5%)—were not working. Husbands of most of the women and others took household decisions, and fewer women had control over resources, access to information resources, and denied wife-beating (Table 1).

Table 1: Characteristics of Married Women of Reproductive Age (15-49) Who Gave Birth in the Last Five Years from PDHS 2017-18 (N=6996)

Characteristics	Frequency	%
Ages of the respondents (mean age = 29.54 years)		
15-19	264	3.8
20-24	1342	19.2
25-29	2096	3.0
30-34	1762	25.2
35-39	1113	15.9
40-44	3035	4.8
45-49	84	1.2
Type of place of residence		
Urban	3425	49.0
Rural	3571	51.0
Wealth index		
Poorest	1190	17.0
Poorer	1450	20.7
Middle	1468	21.0
Richer	1425	20.4
Richest	1464	20.9
Respondents' education		
No education	3057	43.7
Primary	1013	14.5
Secondary	1685	24.1
Higher	1241	17.7
Respondents' occupation		
Not working	6049	86.5
Professional/Managerial/Services/Sales	391	5.6
Agriculture (Self)	201	2.9
Skilled	310	4.4
Unskilled	42	0.6
Owns a mobile phone		
No	3756	53.7
Yes	3240	46.3
Has an account in a bank		
No	6503	93.0
Yes	491	7.0
Uses internet		
No	5935	84.8
Yes	1061	15.2
Person who usually decides on respondent health care		
Respondent alone	597	8.6
Joint (respondent, husband and other)	2625	38.0
Husband and other family members	3688	53.4
Person who usually decides on large household purchases		

Respondent alone	326	4.7
Joint (respondent, husband, and other)	2378	34.4
Husband and other family members	4206	60.9
Person who usually decides on visit to family or relatives		
Respondent alone	580	8.4
Joint (respondent, husband and other)	2465	35.7
Husband and other family members	3865	55.9
Person who usually decides what to do with money husband earns		
Respondent alone	370	6.4
Joint (respondent, husband and other)	2487	42.7
Husband and other family members	2962	50.0
Owns house		
Does not own house	6837	97.7
Respondent owns house alone and joint	158	2.3
Owns land		
Does not own house	6875	98.3
Respondent owns house alone and joint	119	1.7
Reads newspaper		
No	5670	81.1
Yes	1320	18.9
Listens to radio		
No	6322	90.4
Yes	674	9.6
Watches TV		
No	2690	38.5
Yes	4306	61.5
Justifies wife beating		
No	3733	55.7
Yes	2968	44.3
ANC utilization		
Inadequate ANC	5948	85
Adequate ANC	1048	15

Chi-square test showed that all the independent variables were associated with ANC utilization ($p<0.05$), except listening to the radio (Table 2).

Table 2: Association of Socio-demographic and Women's Empowerment Indicators with ANC Visits of Reproductive Age (15-49), PDHS, 2017-18.

Characteristics	ANC utilization		Chi square
	Inadequate ANC (n= 5948)	Adequate ANC (n= 1048)	
Age of the respondent			15.10**
15-19	230 (87.1)	34 (12.9)	
20-24	1159 (86.4)	183 (13.6)	
25-29	1763 (84.1)	333 (15.9)	
30-34	1467 (83.3)	295 (16.7)	
35-39	969 (87.1)	144 (12.9)	
40-44	283 (84.5)	52 (15.5)	
45-49	77 (91.7)	7 (8.3)	
Type of place of residence			143.8***
Urban	2733 (79.8)	692 (20.2)	
Rural	3215 (90.0)	356 (10.1)	
Wealth index			615.3***
Poorest	1148 (96.5)	42 (3.5)	
Poorer	1354 (93.4)	96 (6.6)	
Middle	1310 (89.2)	158 (10.8)	
Richer	1157 (81.2)	268 (18.8)	
Richest	979 (66.9)	484 (33.1)	
Respondents' education			623.4***
No education	2886 (94.4)	171 (5.6)	
Primary	904 (89.2)	109 (10.8)	
Secondary	1341 (79.6)	344 (20.4)	
Higher	817 (65.8)	424 (34.2)	
Respondents' occupation			24.07***
Not working	5147 (85.1)	902 (14.9)	
Professional/Managerial/Services/Sales	310 (79.3)	81 (20.7)	
Agriculture (Self)	189 (94.0)	12 (6.0)	
Skilled	261 (84.2)	49 (15.8)	
Unskilled	38 (90.5)	4 (9.5)	
Owns a mobile phone			244.3***
No	3426 (91.2)	330 (8.8)	
Yes	2522 (77.8)	718 (22.2)	
Has an account in a bank			177.2***
No	5631 (86.6)	872 (13.4)	
Yes	316 (64.4)	175 (35.6)	
Owns house			15.26***
Does not own house	5830 (85.3)	1007(14.7)	
Respondent owns house alone and joint	117 (74.1)	41 (25.9)	
Owns land			15.44***
Does not own house	5860 (85.2)	1015 (14.8)	

Respondent owns house alone and joint	86 (72.3)	33 (27.7)	
Person who usually decides on respondent health care			80.53***
Respondent alone	478 (80.1)	119 (19.9)	
Joint (respondent, husband and other)	2130 (81.1)	495 (18.9)	
Husband and other family members	3269 (88.6)	419 (11.4)	
Person who usually decides on large household purchases			54.66***
Respondent alone	267 (81.9)	59 (18.1)	
Joint (respondent, husband and other)	1926 (81.0)	452 (19.0)	
Husband and other family members	3684 (87.6)	522 (12.4)	
Person who usually decides on visit to family or relatives			100.3***
Respondent alone	477 (82.2)	103 (17.8)	
Joint (respondent, husband and other)	1967 (79.8)	498 (20.2)	
Husband and other family members	3433 (88.8)	432 (11.2)	
Person who usually decides what to do with money husband earns			41.09***
Respondent alone	308 (83.2)	62 (16.8)	
Joint (respondent, husband and other)	2028 (81.5)	459 (18.5)	
Husband and other family members	2599 (87.7)	363 (12.3)	
Uses internet			528.1***
No	5292 (89.2)	643 (10.8)	
Yes	656 (61.8)	405 (38.2)	
Reads newspaper			187.8***
No	4980 (87.8)	690 (12.2)	
Yes	962 (72.9)	358 (27.1)	
Listens to radio			1.29
No	5385 (85.2)	937 (14.8)	
Yes	563 (83.5)	111 (16.5)	
Watches TV			275.3***
No	2528 (94.0)	162 (6.0)	
Yes	3420 (79.4)	886 (20.6)	
Justifies wife beating			175.3***
No	2965 (79.4)	768 (20.6)	
Yes	2706 (91.2)	262 (8.8)	

*p<0.05, **p<.01, ***p<.001; Pearson's Chi square test

In the bivariate logistic regression, women's age, wealth index, level of education, and occupation were significantly associated with ANC visits (P< 0.05). Women who had control over resources like having a mobile phone (OR- 2.96, 95 % CI 2.56-3.40), an account in a bank (OR- 5.08, 95 % CI 4.38-5.89), a house alone or joint with husband (OR- 2.03, 95 % CI 1.41-2.91), land alone or joint with husband (OR- 2.21, 95 % CI 1.47-3.32), were more likely to be involved in adequate ANC as compared to women who had no control over resources. Women who had made decisions usually at the household level like deciding their health care alone (OR- 1.94, 95 % CI 1.55-2.43), jointly deciding with husbands to meet relatives or families (OR- 2.01, 95 % CI 1.75-

2.32), deciding large household purchases (OR- 1.66, 95 % CI 1.44-1.90), and jointly deciding what to do with the money husbands earned (OR- 1.62, 95 % CI 1.39-1.88), were significantly more likely to use ANC as compared to women whose husbands made decisions. Women who had access to use information sources like reading the newspaper (OR- 2.68, 95 % CI 2.32-3.10), watching TV (OR- 4.04, 95 % CI 3.39-4.81), and using internet (OR- 5.08, 95 % CI 4.38-5.89), had more adequate ANC visits (Table 3).

Table 3: Bivariate and Multivariate Logistic Regression of Women Empowerment and ANC Utilization of Married Women Who Gave Birth in the Last 5 Years (PDHS 2017-18).

Variables	OR with 95% CI	AOR with 95% CI
Age of the respondent		
15-19	1.62 (0.69 - 3.81)	2.29 (0.79 – 6.69)
20-24	1.74 (0.79 - 3.82)	1.57 (0.58 – 4.23)
25-29	2.08 (0.95 - 4.54)	1.45 (0.54 – 3.87)
30-34	**2.21 (1.01 - 4.84)***	1.42 (0.53 – 3.81)
35-39	1.64 (0.74 - 3.61)	1.22 (0.45 – 3.30)
40-44	2.02 (0.88 - 4.63)	1.62 (0.58 – 4.56)
45-49	1	1
Type of place of residence		
Urban	**2.29 (1.99 - 2.62)*****	1.05 (0.88 – 1.27)
Rural	1	1
Wealth index		
Poorest	1	1
Poorer	**1.94 (1.34 - 2.81)*****	1.43 (0.94 – 2.20)
Middle	**3.29 (2.32 - 4.67)*****	**1.75 (1.15 – 2.67)*****
Richer	**6.33 (4.52 - 8.85)*****	**2.54 (1.66 – 3.90)*****
Richest	**13.51(7.75 18.33)*****	**3.92 (2.53 – 6.10)*****
Respondents' education		
No education	1	1
Primary	**2.03 (1.58 - 2.62)*****	1.24 (0.92 – 1.67)
Secondary	**4.33 (3.56 - 5.26)*****	**1.78 (1.37 – 2.31)*****
Higher	**8.76 (7.21 -10.63)*****	**2.66 (1.98 – 3.57)*****
Respondents' occupation		
Not working	1	1
Professional/Managerial/Services/Sales	**1.49 (1.16 - 1.92)*****	**0.51 (0.36 – 0.71)*****
Agriculture (Self)	**0.36 (0.20 - 0.65)*****	1.02 (0.50 – 2.07)
Skilled	1.07 (7.83 - 1.46)	**1.57 (1.07 – 2.28)*****
Unskilled	0.60 (.214 - 1.69)	0.83 (0.24 – 2.86)
Owns a mobile phone		
No	1	1
Yes	**2.96 (2.56 - 3.40)*****	**1.26 (1.05 – 1.52)****
Has an account in a bank		
No	1	1
Yes	**3.57 (2.93 - 4.36)*****	**1.60 (1.23 – 2.10)*****

Owns house		
Does not own house	1	1
Respondent owns house alone and joint	**2.03 (1.41 - 2.91)*****	1.34 (0.85 – 2.11)
Owns land		
Does not own house	1	1
Respondent owns house alone and joint	**2.21 (1.47 - 3.32)*****	1.34 (0.79 -2.26)
Person who usually decides on respondent health care		
Respondent alone	**1.94 (1.55 - 2.43)*****	**1.38 (1.04 – 1.99)***
Joint (respondent, husband and other)	**1.81 (1.57 - 2.09)*****	0.97 (0.76 – 1.24)
Husband and other family members	1	1
Person who usually decides on large household purchases		
Respondent alone	**1.56 (1.16 - 2.09)*****	0.79 (0.51 – 1.21)
Joint (respondent, husband and other)	**1.66 (1.44 - 1.90)*****	0.86 (0.67 – 1.11)
Husband and other family members	1	1
Person who usually decides on visit to family or relatives		
Respondent alone	**1.71 (1.36 - 2.17)*****	1.17 (0.84 – 1.66)
Joint (respondent, husband and other)	**2.01 (1.75 - 2.32)*****	**1.75 (1.39 – 2.21)*****
Husband and other family members	1	1
Person who usually decides what to do with money husband earns		
Respondent alone	**1.44 (1.07 - 1.93)****	0.91 (0.60 – 1.39)
Joint (respondent, husband and other)	**1.62 (1.39 - 1.88)*****	0.98 (0.78 – 1.23)
Husband and other family members	1	1
Uses internet		
No	1	1
Yes	**5.08 (4.38 - 5.89)*****	**1.84 (1.53 – 2.21)*****
Reads newspaper		
No	1	1
Yes	**2.68 (2.32 - 3.10)*****	**1.18 (1.01 – 1.42)***
Listens to radio		
No	1	1
Yes	1.13 (0.91 - 1.40)	0.97 (0.77 – 1.23)
Watches TV		
No	1	1
Yes	**4.04 (3.39 - 4.81)*****	**1.69 (1.38 – 2.07)*****
Justifies wife beating		
No	**2.68 (2.30 - 3.10)*****	**1.42 (1.20 – 1.68)*****
Yes	1	1

*p<0.05, **p<.01, ***p<.001; OR- Odd Ratios; AOR-Adjusted Odd Ratios;
CI- Confidence Interval; 1= reference category

In a multivariate analysis, women's age, level of education, and occupation were adjusted. Different models were performed. In model 1, women who had mobile phones (AOR-1.31, 95%

CI-1.11, 1.55) and had accounts in a bank (AOR-1.75, 95% CI-1.37, 2.22) had more adequate ANC visits. In model 2, adequate ANC visits were common in women who had made their health care decisions alone (AOR-1.47, 95% CI-1.04, 2.10) and who had decided to visit family or relatives jointly with husbands (AOR-1.83, 95% CI-1.46, 2.30). In model 3, women who did not justify wife-beating (AOR-1.42, 95% CI-1.20, 1.68) had more adequate ANC visits than women who had justified wife-beating. In model 4, women who used internet (AOR-1.25, 95% CI-1.10, 1.40), read newspapers (AOR-1.25, 95% CI-1.10, 1.40) and watched TV (AOR-1.25, 95% CI-1.10, 1.40) had adequate ANC visits (Table 3).

Discussion

In the study, women's empowerment indicators were associated with adequate ANC utilization in Pakistan. Empowerment of women showed gender equality in household decision making. A study found that less empowered women faced more discrimination in access to resources and maternal health care services (WHO, 2015b).

Women who were living in urban areas were not significantly associated with ANC visits. The result of the study was not consistent with the previous studies that mentioned that women who were living in an urban setting were more likely to use maternal health care services (Mumtaz & Salway, 2007; Noh et al., 2019; Singh, Ponna, Upadrasta, Dudala, & Sadasivuni, 2017). This might be due to the use of the traditional method of deliveries in rural areas. Women's higher education was significantly associated with adequate ANC care. The results of previous studies had shown a positive association with the level of education of women and ANC utilization (Akram, Hamid, & Akram, 2019; Mumtaz & Salway, 2007; Qadr, Abbas, Hussain, 2019).

Women's income and occupation were such socio-economic factors that supported women to achieve the recommended ANC health care. The study revealed that the poorest women had less access to make decisions on ANC utilization as compared to the richest, richer, or even middle-class women in their life. There was no doubt that wealth was a symbol of power in society. It might lead to independence, autonomy, and might be related to education seeking decisions in the life of women. Women might have different empathetic views about autonomy-related issues (Fotso, Ezeh, & Essendi, 2009). In low-income countries, most women had to live in poverty; there wealth might be very significant in enhancing their confidence as well as self-esteem, and it might consequently give them the autonomy to make decisions regarding reproductive health choices and issues. It had been observed that the wealth index was a useful factor for making decisions in engaging in sexual activity and the use of a condom, which was suggested for improving the living conditions of women as well as reducing poverty in terms of a high number of children in a family and that it would improve women's health (Darteh et al., 2014).

The term women's empowerment commonly included the dimensions of women's freedom of movement, control over earned income, decision making related to economic matters, freedom from violence or fear of husbands, and decision making related to health care issues. A study mentioned that high autonomy women were more likely to receive ANC than those with 'low autonomy' (Pallikadavath, Foss, & Stones, 2004). Another study found that women with at least secondary education were more likely to go to a health facility in general or an adequate health facility as compared to those with no education (Fotso et al., 2009).

The study claimed that women's decision making about their health care and autonomy to meet their friends or relatives was positively associated with ANC utilization. The study stated that high autonomy in women would be interpreted into improved health-seeking behavior and subsequently to generate better health outcomes (Furuta & Salway, 2006). Therefore, the outcome

of the present study showed that most of the women decision-making indicators were positively associated with the ANC. This might be mentioned as women showed their intentions that these decisions should be taken based on mutual consensus between a husband and a wife. It was difficult to measure whether men were going to make these decisions because they had endorsed a dominant character due to patriarchal structure in the society or because their wives were submitting to them or decreasing participation in the decision-making process for some other reasons (Speizer, Whittle, & Carter, 2005).

The economic empowerment of women was associated with ownership of property and control over economic resources (Akram, 2018). In this study, women ownership of house or land was not associated with ANC visits, whereas women who had bank accounts were more likely to have adequate ANC visits as compared to women who did not have economic assets. This might be due to the lesser control women have on their property and social norms that do not allow women to manage their matters. In most cases, husbands controlled and looked after their wives' property. A study conducted in Pakistan highlighted that use of the mobile phone was positively associated with the economic empowerment of women (Batool, 2018). The findings of this study showed that women who were using mobile phones had more adequate ANC visits than women who were not using a mobile phone. Previous studies mentioned that using mobile phones among women increased maternal health care as well as timely visits among pregnant women (Lund et al., 2014; Shahjahan et al., 2012).

Women who had access to electronic, print media, and the internet were more likely to use ANC as compared to women who had no access to these things. Various studies conducted in Pakistan and other developing countries showed that women's exposure to media was positively associated with maternal health care utilization (Noh et al., 2019; Sohn & Jung, 2020; Tiruneh, Chuang, & Chuang, 2017). Media and use of ICTs could be an effective way of information dissemination and enhance health care information and motivate women to utilize proper health care. Health education programs were broadcast through different media sources and they played a vital role in health awareness and improving people's health, especially children and maternal care utilization (Tsawe et al., 2015).

Involvement of women in household decision making also determined the status of women’s empowerment in the household. Women who had power in decision making about health care were able to get adequate visits for ANC during pregnancy; decision on health care was statistically significant to the ANC utilization. Decision-making power within the household shaped greater confidence and capability to make decisions regarding their health. Women's autonomy was positively associated with ANC (Matsumura & Gubhaju, 2001). Several Asian studies revealed that the under-utilization of ANC was due to the lack of women's autonomy. Social bonds with others might influence women's decision to seek ANC by revealing their different thoughts (Abosse, Woldie, & Ololo, 2010; Agus & Horiuchi, 2012; Mumtaz & Salway, 2007). In developing countries like Pakistan, women have not had easy access to clinics for their checkups because their husbands had almost complete control over cash resources, and they thought ANC useless for their wives. It has been purely due to their traditional ways of thinking about the healthcare concerns of their wives. In most societies, women did not experience equality with men and often this would influence their access to health care (Simkhada, Teijlingen, Porter, & Simkhada, 2008).

Women who had decided jointly with husbands to meet their family or relatives were more likely to have adequate ANC visits than women whose decisions were made by their husbands. It was evident from the study that women's autonomy indices, except purchasing large household

items, had a strong positive association with the level of ANC. It was more specifically stated that women who alone or jointly could make the final decision for day-to-day household purchases and visiting families or friends were more likely to have received ANC in their last pregnancy than women who did not have such preferences in their lives (Woldemicael, 2010).

Conclusion

This study concluded that very few women utilized adequate antenatal care (≥ 8 ANC visits) according to the WHO recommendations. Adequate ANC utilization was common among those women who were considered empowered women who had higher education, higher economic status, were employed, had equal involvement in household decision making with husbands, controlled economic resources, access to ICTs and who did not justify wife-beating.

The results of the study would be helpful for the government and policy makers, particularly the results that highlighted women's empowerment indicatives (women who had decision making power, bank accounts, access to use media, and who had not justified violence) played a significant role in adequate ANC utilization among married women in Pakistan. Other influencing factors like respondents' education and respondents' wealth index could be noticed as highly associated with ANC utilization among married women. Therefore, the government should take initiatives in the formulation of policies and laws that promote women's education, empowering women through creating equal economic opportunities, spreading awareness about maternal health care and violence against women protections laws through information communication technologies, and providing an environment where they have the liberty to decide their own matters. These interventions were helpful in achieving adequate antenatal visits among married women in Pakistan.

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