The Association of Women's Participation in Decision Making With Antenatal Health Care Access and Utilization in Pakistan

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Abstract
The World Health Organization (WHO) and other international reproductive health community considered reproductive health accessibility and utilization as basic human right. Reproductive health as a right includes determining the number, timing and spacing of children. Despite some progress recently, still considerable challenges continue to exist in the area of sexual and reproductive health. According to WHO (2008) 358,000 women died in 2008 due to maternal health complication. It is alarming situation to share that over 90 percent of those death are take place in Africa and Asia. Among the various factors one of the major contributing factors to poor maternal health care access and utilization is women decision making at domestic sphere. The main objective of the study is to identify the association between women decision making and Antenatal Care (ANC) access and utilization. The present research paper is based on the Pakistan Demographic and Health Survey (PDHS) report carried out by the National Institute of Population Studies (NIPS), Islamabad, Pakistan and ICF International, Calverton, Maryland between October 2012 and March 2013. In PDHS the 12,943 households were interviewed, a total of 14,569 ever-married women aged15-49 years were identified, of whom 13,558 were successfully interviewed, yielding a response rate of 93%. In the present research study researcher calculated odd ratios (OR) and adjusted odd ratios (aOR) with 95% confidence intervals (CI) using logistic regression model. Major findings show that majority 81.97 percent ever married women were not involved as earning hand in the family and household purchase. Similarly, more than fifty percent (56.27%) ever married women were not involved in decision regarding access and utilization of maternal health care in Pakistan. It is concluded that women's decision making plays a significant role in determining antenatal health care access and utilization, women with more decision making power are more likely to access and use antenatal health care.

Key Words: *Women Decision Making; Pakistan; Reproductive Health Care*

1. Introduction

The WHO and international reproductive health community has acknowledged the importance of addressing gender disparities in sexual relations and reproductive health decision making as fundamental to improving the reproductive health and rights of both women and men (WHO, 2005; Shaikh, 2004). Gender-based power inequalities can contribute to women poor health outcomes ((Mumtaz, 2007). Reproductive rights are central to human rights, especially the human rights of women (Petchesky, 2003). They derive from the recognition of the basic right of all individuals and couples to make decisions about reproduction free of discrimination, coercion or violence. They include the right to the highest standard of health and the right to determine the number, timing and spacing of children. They comprise the right to safe childbearing, and the right of all individuals to protect themselves from HIV and other sexually transmitted infections (UNFPA, 2005). Despite some progress, considerable challenges continue to exist in the area of sexual and reproductive health. Reproductive health problems are the leading cause of women's poor maternal health and maternal mortality worldwide (Khan, 2006). Research studies highlighted that maternal mortality and morbidity due to sexual and reproductive health accounted for 18 per cent of the total disease burden globally and 32 per cent of the disease burden among women of reproductive age in 2001(WHO, 2009). More than half a million women in the developing world die during pregnancy and childbirth due to preventable causes, with over 90 per cent of those in Africa and Asia (Thapa, 2013; Zureick-Brown, 2013; Kumar, 2010).

According to various research studies there are many factors contributing to poor maternal health care in developing countries. Among these factors women decision making in domestic sphere is positively associated with the antenatal health care access and utilization (Furuta, 2006). There are various family matters on which men generally took decisions. Women are quite often not even consulted. This is because of the feeling among men that women are incapable of expressing their decisions, due to illiteracy among them (Jan, 2008). Beside the illiteracy economic dependency on men family members also restrict women to decide about her reproductive health care access and utilization (Thapa, 2013). The research studies stated about employee women that who are employed and receive cash are empower in domestic as well as her own reproductive health care decision making. A report shows (WHO, 2012) The women reside in rural areas in developing countries are restricted to domestic sphere for reproductive health care and only permitted to visit *DAI/TBA* in nearby within village. Furthermore, very few women are directly involved in household purchase. According to research studies conducted in South Asia stated about gender discrimination which is commonly prevail in developing countries, including Pakistan. According to PDHS (2012-13) these gender discrimination and inequality reported at household decision making especially about reproductive health care access and utilization. Among the respondents from PDHS (2012-13) more than 50 percent women shared the final decision maker about their maternal health care are husband and very few shared about the joint decision making toward maternal health care (PDHS 2013).

The present study is carried out to determine the association of women decision making with antenatal health care access and utilization. Women autonomy indicators are important predictors of maternal and child health-care utilization (Bloom, 2001). The

strong positive effect of women's sole decision-making in visiting family or relatives on use of antenatal care and child immunization is particularly impressive. On the other hand, the loss of significance of other dimensions of women's decision-making when socio-economic factors are controlled for indicates that some health-care seeking behaviors are more dependent on socio-economic factors like education and employment. The results show that most socio-economic indicators have strong influence on both women's decision-making autonomy and on maternal and child health-care utilization (Matsumura, 2001).

Women decision making indicators that associated to the antenatal health care utilization were Involvement in the decision of their own health care, involvement in the decision about making major household purchases, and visits to family or relatives, decision on respondent and women's decision making in general, sexual and reproductive health in particular have largely been gendered within power relations with men playing influential roles in women's decision making. By extension, women are perceived to be less 'empowered' to take their own decision as a right. Women education and wealth index are the two main factors which contribute to the empowerment of women as compared to men (Acharya, 2010). The concept of decision making has diverse connotation depending on the nature of the discourse being discussed, the intention of the user and the prevailing legal and global instruments.

Many researches had been recently conducted in developing countries to analyze Antenatal Care (ANC) Utilization (Peters, 200). These research studies found that factors strongly associated with underutilization of antenatal care services were infants, infants from low household wealth index and with low maternal. Others associated factors identified included mothers reporting distance to health facilities as a major problem, mothers less exposure to mass media and mothers reporting no obstetric complications during pregnancy.

Various studies focused socio-economic factors such as access, distance, parents' occupation, wealth, and education. Studies have consistently shown that women's educational attainment, social status, household wealth and decision-making power are associated with care – seeking behaviors for maternal health services and maternal survival (Ahmed, 2010; Amin, 2010).

The aim of this study is to find out the association of women decision making with antenatal health care access and utilization among reproductive age (15-49 years) in Pakistani women.

2. Material and Methods

In the present research study respondents are selected from Pakistan Demographic and Health Survey (PDHS) carried out by the National Institute of Population Studies, Islamabad, Pakistan and ICF International, Calverton, Maryland between October 2012 and March 2013. A nationally representative household-based sample was obtained by a two-stage, stratified, random sample design. During the first stage, from the universe of all urban and rural areas of the four provinces of Pakistan and Gilgit Baltistan, all urban cities and towns were divided into smaller areas known as enumeration blocks. The enumeration blocks contained an average of 200-250 households that were further categorized into low-, middle-, and high-income groups. In both urban and rural areas, households were selected in the second stage by the

systematic random sampling technique. In the 12,943 households interviewed, a total of 14,569 ever-married women aged15-49 years were identified, of whom 13,558 were successfully interviewed, yielding a response rate of 93%. The sample size of ever married women who given birth during last five years (n=7461) was used for finding out the socio-demographic factors (*Age, Education, Wealth, Respondents' occupation, Husband's Education and Husband's Occupation*) and decision making factors (*Decision on spending Respondents Earning, Decision on spending husband earning, Decision on Health Care, Decision about Visit to Family or Relatives, Decision on Large Household Purchases*) that associated with antenatal health care utilization.

In the present research study ANC are measured with two indicators as number of appropriate visits and inappropriate visits, for appropriate visits the number of antenatal health care visits are four (4) or more than four (4) while, for inappropriate visits are less than four (4), as per the recommendations of the World Health Organization. The results were analyzed by cross tabulation, binary and multiple logistic regressions. Association between antenatal health care visits and socio demographics and all other decision making indicators were assessed by calculating odd ratios (OR) and adjusted odd ratios (aOR) with 95% confidence intervals (CI) using logistic regression model. Researcher used different models for multiple binary logistic regressions by taking age, wealth, respondents education and husband occupation as constant model and added socio demographic and all other decision making indicators one by one to the constant model until the adjusted ratio reached to its final stage.

3. Findings & Results

Table: 1

Socio-Demographic & W*omen* D*ecision* M*aking indicators of the ever married women of reproductive age (15-49)* years in Pakistan

Characteristics	***Frequency***	***Percentage***
Age (in years)		
15-19	*246*	*3.3*
20-24	*1464*	*19.6*
25-29	*2165*	*29.0*
30-34	*1802*	*24.2*
35-39	*1173*	*15.7*
40-44	*460*	*6.2*
45-49	*151*	*2.0*
Women Education Status		
No education	*4121*	*55.23*
Primary	*1065*	*14.27*
Secondary	*1373*	*18*
Higher	*902*	*12*
***Husband Education* Status**		
No education	*2293*	*30.8*
Primary	*1014*	*13.6*
Secondary	*2441*	*32.7*
Higher	*1689*	*22.6*
Wealth index		

Poorest	*1623*	*21.7*
Poorer	*1483*	*19.8*
Middle	*1429*	*19.15*
Richer	*1423*	*19.07*
Richest	*1503*	*20.1*
Husband Occupation		
Not working	*197*	*2.6*
Managerial	*836*	*11.2*
Skilled	*3192*	*42.7*
Unskilled	*3234*	*43.3*
Women O*ccupation*		
Not working	*5936*	*79.5*
managerial	*178*	*2.3*
Skilled	*553*	*7.4*
Unskilled	*793*	*10.6*
Decision on Women Income		
Involved in Decision Making	*987.*	*81.97*
Not Involved in Decision Making	*217*	*18.02*
***Decision* on Husband Income**		
Involved in Decision Making	*2644*	*35.95*
Resp. Not Involved in Decision Making	*4709*	*64.04*
Women Decision Making on Health Care		
Involved in Decision Making	*3221*	*43.72*
Not Involved in Decision Making	*4146*	*56.27*
Decision on Household Purchases		
Involved in Decision Making	*2781*	*37.73*
Not Involved in Decision Making	*7370*	*62.26*
Decision on Family Visits		
Involved in Decision Making	*3055*	*41.45*
Resp. Not Involved in Decision Making	*4315*	*58.54*

4. Results: Socio Demographic status of the Ever Married Women Age (15-49) Years

Among the total sample size (7461) of ever-married women aged 15–49 years, more than one forth (29%) were in the age of 25-29 years. More than fifty percent of the Respondents (55.23%) have no education. Nearly one forth (21.7%) of the respondents were poorest as per wealth index. Nearly one third (32.7%) of the respondents' husband has secondary education only. The 43.3 % of women's husband were belonging to unskilled working class. More than third forth (79.5%) of the respondents were belonging to unemployment.

4.1 Women Decision Making

Among the ever married women majority (81.97%) of the respondents were involved in the decision about their earning however the same (81.97%) respondents were not involved in the decision about their husband earning. More than fifty percent (56.27%) of the ever married women faced constraint in the decision regarding their health care access and utilization. Nearly two third of the respondents (62.26%) were not

involved in the decision about the large household purchases of their family. Further it is alarming to share that nearly two third (58.54%) of the respondents shared that decisions about their visit to the other family member and relatives were taken by their male family members.

Table: 2

Characteristics	**Association of Socio-D*emographic* & Women D*ecision* M*aking* *indicators with ANC visits of reproductive age (15-49)* years in Pakistan**			
Age of the Respondent	***Inappropriate visits***	***Appropriate visits***		
15-19	***Frequency, %***	***Frequency, %***	***OR, 95% C.I***	***P. Value***
20-24	*153, (3.3)*	*93, (3.2)*	*1.00*	*0.57*
25-29	*883, (19.3)*	*581, (20.2)*	*1.08, (0.820-1.430)*	*0.37*
30-34	*1283, (28)*	*882, (30.7)*	*1.13, (0.882-1.484)*	*0.35*
35-39	*1065, (23.2)*	*737, (25.6)*	*1.13, (0.865-1.498)*	*0.69*
40-44	*745, (16.3)*	*428, (14.9)*	*0.94, (0.712-1.255)*	*0.002*
45-49	*337, (7.4)*	*123, (4.3)*	*0.60, (0.432-0.835)*	*0.001*
	118,(2.6)	*33, (1.1)*	*0.46, (0.289-0.732)*	
Wealth Index				
Poorest	*1402, (30.6)*	*221, (7.7)*	*1.00*	
Poorer	*1141, (24.9)*	*342, (11.9)*	*1.90, (1.578-2.291)*	*< 0.001*
Middle	*971, (21.2)*	*458, (15.9)*	*3.00, (2.499-3.583)*	*< 0.001*
Richer	*717, (15.6)*	*706, (24.5)*	*6.24, (5.239-7.447)*	*< 0.001*
Richest	*353, (7.7)*	*1150, (40)*	*20.66, (17.171-24.875)*	*< 0.001*
Women *Education*	*3274, (71.4)*	*847, (29.4)*	*1.00*	
No education	*614, (13.4)*	*451, (15.7)*	*2.83, (2.461-3.276)*	*< 0.001*
Primary	*521, (11.4)*	*852, (29.6)*	*6.32, (5.536-7.218)*	*< 0.001*
Secondary	*175, (3.8)*	*727, (25.3)*	*16.05, (13.393-19.254)*	*< 0.001*
Higher				
Husband Education	*1843, (40.3)*	*450, (15.7)*	*1.00*	
No education	*708, (15.5)*	*306, (10.7)*	*1.77, (1.495-2.096)*	*< 0.001*
Primary	*1352, (29.5)*	*1098, (38.0)*	*3.29, (2.896-3.758)*	*< 0.001*
Secondary	*668, (14.6)*	*1021, (35.6)*	*6.26, (5.432-7.214)*	*< 0.001*
Higher				
Husband occupation	*143, (3.1)*	*54,(1.9)*	*1.00*	
Not working	*361, (7.9)*	*475,(16.5)*	*3.48, (2.476-4.904)*	*< 0.001*
Managerial	*1709, (37.3)*	*1483,(51.6)*	*2.29, (1.668-3.167)*	*< 0.001*
Skilled	*2371,(51.7)*	*863,(30)*	*0.96, (0.698-1.331)*	*0.823*
Unskilled				

Women *Occupation*				
Not working	*3540, (77.2)*	*2396, (83.2)*	*1.00*	
Managerial	*48, (1)*	*130, (4.5)*	*4.001, (2.862-5.594)*	*< 0.001*
Skilled	*355, (7.7)*	*198, (6.8)*	*0.824, (0.687-0.988)*	*< 0.001*
Unskilled	*640, (14)*	*153, (5.31)*	*0.353, (0.294-0.424)*	*< 0.001*
***Decision* on women income spending**				
Women I*nvolved in decision* making	*662 (79.9%)*	*365 (85.7)*	*1.501, (1.087-2.073)*	*0.014*
Women *Not involved in decision* making	*156 (20.1)*	*61 (14.3)*	*1.00*	
Decision on women *health care*				
Women *involved in decision* making	*1732(38.32)*	*1489(52.28)*	*1.763, (1.603-1.939)*	*< 0.001*
Women *Not involved in decision* making	*2787(61.67)*	*1359(47.71)*	*1.00*	
Decision on large household purchases				
Women *involved in decision* making	*1523(33.68)*	*1258(44.15)*	*1.556, (1.414-1.714)*	*< 0.001*
Women *Not involved in decision* making	*2998(66.31)*	*1591(55.84)*	*1.00*	
Decision on visit to family or relatives	*1696(37.51)*	*1359(47.700)*	*1.519, (1.382-1.671)*	*< 0.001*
Women *involved in decision* making	*2825(62.48)*	*1490(52.29)*	*1.00*	
Women *Not involved in decision* making				

Decision on husband earning				
Women *involved in decision* making	*1470(32.62)*	*1174(41.23)*	*1.449, (1.315-1.597)*	*< 0.001*
Women *Not involved in decision* making	*3036(67.37)*	*1673(58.76)*	*1.00*	
Women *Overall autonomy*				
Women *involved in decision* making	*1220 (27)*	*988 (34.71)*	*1.43,(1.299345-1.591267)*	*<0.001*
Women *Not involved in decision* making	*3299 (73)*	*1858 (65.28)*	*1.00*	

4.2. The Association of Socio-Demographics with Antenatal Health Care (ANC) Access and Utilization

Among the married women 25-29 years old attended nearly one third percent (30%) appropriate visits for ANC while less than one third percent women attended (28%) inappropriate visit. However, by applying binary logistic regression on age and outcome variable (number of visits), the age was statistically insignificant. In the selected women the appropriate visits for antenatal health care were 1150 (40%) and inappropriate visits were 353 (7.7%) belong to the richest class. The odd ratio for appropriate number of antenatal health care visits of the richest class was 20.66 times higher than the women belong to the poorest class. Wealth index of the selected women was statistically significant for which Confidence interval value was (CI. 17.171-24.875). After adjustment of age, education, husband occupation the wealth index was statistically significant to the ANC (adjusted OR, 95% CI. 7.681(6.224-9.480). Higher educated married women attended antenatal health care in the selected sample size as that their number of antenatal health care visits were 727 (25.3%) while inappropriate antenatal health care visits were 175 (3.8%). The odd ratio for appropriate number of antenatal health care visits of the higher educated women was 16.058 times higher than the women whose did not have any education (OR16.058, CI 13.393-19.254). After adjustment of age, husband occupation and wealth index the higher educated women was significantly associated with the increases antenatal health care visits (adjusted OR, 95% CI. 5.658,(4.690-7.070).

The appropriate number of antenatal health care visits were 1021 (35.6%) and inappropriate number of visits were 668 (14.6%) of those women whose husbands were highly educated. The odd ratio of appropriate number of antenatal health care visits of the higher educated husband was 6.260 times higher than the husband whose did not have any education (OR6.260, CI 5.432-7.214). The appropriate for antenatal health care visits of women whose husbands were belonging to the managerial class were 475 (16.5%) and inappropriate visits were 361 (7.9%). The odd ratio for appropriate visits of husbands

belong to the managerial class was 3.484 times greater than those whose husband did not do any work (OR 3.484, CI 2.476-4.904). After adjustment of age, education and wealth index the variable husband education was statistically significant to the antenatal health care utilization. (Adjusted OR 1.62, CI, (1.098390-2.395831). The antenatal health care for ever married women belong to the managerial class was high than the other classes. The number of appropriates visits in the managerial class were 130 (4.5%) and inappropriate antenatal health care visits were 48 (1%). The odd ratio for appropriate visits was 4.001 times higher than the women not attached with any type of work. (OR4.001, CI 2.862-5.594).

4.3. The Association of Women Decision Making with Antenatal Health Care (ANC) Access and Utilization

Majority of the women (5.7%) involved in decision making were make appropriate visits which is very less in difference with women not involved in decision making having inappropriate (79.9%). The odd ratio for appropriate antenatal health care visits of women involved in decision making is 1.501 times higher than women not involved in decision making (OR 1.501, CI 1.087-2.073). While taking respondent's age, respondent education, husband occupation and income as constant and applied multiple logistic regression on respondent earning the association of the decision on respondent earning's was statistically insignificant for which the adjusted odd ratio was (Adjusted OR 0.89), and confidence interval was (CI.615118- 1.295675).

Among the married women more than fifty percent (52.28%) with appropriate visits are directly involved in decision making and inappropriate visits of ANC were more than one third percent (38.32 %). The odd ratio of the respondents involved in the decisions was 1.763 times greater than the respondents who not involved in the decision (OR, 1.763, CI, (1.603-1.939)) Taking respondent's age, education, income and husband occupation as constant and by adding decision on respondent health care to the constant model the association of the decision on respondent health care was statistically significant for which the adjusted odd ratio was (adjusted OR1.34, CI, (1.199461-1.502637)).

Among the selected women, nearly fifty percent (44.15%) women decision about large household purchases having appropriate visits for antenatal health care and inappropriate visits for antenatal health care were one third percent (33.68 %). The odd ratio for appropriate antenatal health care visits of the women involved in household purchases was 1.556 times higher than the women not involved (OR 1.556, CI, (1.414-1.714)). By adjusting constant model large household purchases was statistically significant to the appropriate antenatal health care visits (adjusted OR, 1.25, CI, (1.116657-1.405790)). Appropriate visits for antenatal health care of the ever married women who involved in decision regarding family visits or relatives were (47.70 %) and inappropriate visits were (37.51 %).The odd ratio for appropriate antenatal health care visits of women involved in decision was 1.519 times higher than the women not involved (OR 1.519, CI, (1.382-1.671)). After adjustment of the constant model decision on family visits was statistically significant to the ANC (adjusted OR, 1.27, CI, (1.135719-1.424875)). The selected women who took decision about husband earning, their appropriate visits for antenatal health care were (41.23%) and inappropriate visits were nearly one third percent (32.62 %) The odd ratio for ANC was 1.449 times greater

than the category in which the decision about husband earning was taken by other family members. (OR, 1.449, CI (1.315-1.597). Women with overall autonomy have more than one forth percent (27 %) appropriate visits while inappropriate visits were one third percent (34.71 %). The odd ratio for antenatal health care utilization of women involved in overall all decision of the family was 1.43 times higher than those not involved in the overall decisions of the family. By adjusting constant model to the overall autonomy it was statistically significant to the ANC (adjusted OR 1.25, CI (1.109114-1.412656)). At the last model while adjusting all factors to each variable of the ANC, some of the factors (socio demographic factors) were significant like Wealth (adjusted OR, 7.04, CI (3.821643- 12.979054)), Women education (adjusted OR 3.96, CI (2.424978- 6.495491)), Husband occupation (adjusted OR, 4.99, CI (1.310806- 19.011124)), while the rest of others were insignificant to the ANC.

Table # 3

Factors associated with ANC	***Model 1 Adjusted OR, 95 CI***	***Model 2 Adjusted OR, 95 CI***	***Model 3 Adjusted OR, 95 CI***	***Model 4 Adjusted OR, 95 CI***	***Model 5 Adjusted OR, 95 CI***	***Model 6 Adjusted OR, 95 CI***	***Model 7 Adjusted OR, 95 CI***
Age							
30-34 year	*0.92,(0.689741.261551)*	*0.84,(0.203-2.5199)*	*0.8,(0.645-1.1605)*	*0.85,(0.624-1.1689)*	*0.85,(0.64-1.1748)*	*0.86,(0.629-1.1774)*	*0.84,(0.28-2.5239)*
Wealth *Richest Class*	*6.98,(5.635995-8.663978)*	*7.17,(3.9004-13.21)*	*7,(5.6339-58.69061)*	*6.95,(5.6039-8.641)*	*7.03,(5.6627-8.733)*	*6.98,(5.6273-8.680)*	*7.04,(3.823-12.979)*
Women Edu.(H)				*5.32,(4.3122-6.569)*	*5.29,(4.2863-6.532)*	*5.38,(4.3626-6.639)*	*3.96,(2.4248-6.495)*
Hsb. Occ(M)	*5.55,(4.500-6.833)*	*4.06,(2.5026-6.610)*	*5.15,(4.1761-6.371)*				
	1.62,(1.0980-2.395)	*5.06,(1.39-19.058)*	*1.62,(1.0985-2.4074)*	*1.61,(1.0949-2.394)*	*1.61,(1.0946-2.394)*	*1.62,(1.093-2.4061)*	*4.99,(1.316-19.011)*
Women Earning *Women. Inv. in decision*		*0.89,(0.615118-1.295675*					*0.84,(0.560900-1.269042)*

Women. H Care *Women Inv. in decision*	*1.34,(1.199461-1.502637)*			*1.24,(0.820504-1.882870)*
Large Household purchase *Women Inv. in deci.*		*1.25,(1.116657-1.405790)*		*1.09,(0.673788-1.793762)*
Family/Relative Visits *Women Inv. in deci.*			*1.27,(1.135719-1.424875)*	*1.11,(0.707283-1.764796*
Women Autonomy *Women Inv. in decision.*			*1.25,(1.109114-1.412656)*	*0.71,(0.394388-1.278995)*

5. Discussion

The women's autonomy were measured from women's freedom of movement; discretion over earned income; decision making related to economic matters; freedom from violence or intimidation by husbands; and decision making related to health care access and utilization. The maternal health study that generated the data used for this paper only collected variables that relate to women's decision-making autonomy (Fotso, 2009). "*Antenatal care: provision and inequality*" high autonomy' women who receiving antenatal care were 1.4 % and 1.3 % relative to those with 'low autonomy'.

The present study mainly covered the association between women decision making and antenatal health care access and utilization. Among the sample size majority of the women who gave birth to any child during last five years did not attain the appropriate visit for antenatal health care utilization while the women who get proper ANC utilization was subject to their decision making power in domestic sphere. During the study it was find out that socio-demographic factors like education, wealth and husband occupation were highly significant to the ANC visit while the rest of other demographic factors like women age, occupation and their husband education were insignificant. During the study when Socio-demographics factors such as Age, Wealth, Respondent Education and Husband Occupation was taken as constant model, the decision making factors like women large household purchases, decision on women health care, decision on family visits and women overall autonomy were statistically significant to the ANC visits while in the last model in which all variable were adjusted

to each variable, all decision making factors became insignificant some of socio-demographic variables like women education, wealth and husband education remain significant in the present study and strongly associated with ANC visits.

The study recommended that highly educated women were attended appropriate visits for ANC, the study results shows that as much the education of the women increased, its significance with the ANC access and utilization increased. Women with at least secondary education were more likely deliver in a health facility in general or in an appropriate health facility compared to uneducated women ($p < 0.01$). Women's income and occupation were as socio economic factors support their proper antenatal health care access and utilization (Shavers, 2007). Poorest women, because they are likely to be uneducated, may have a different understanding of autonomy-related issues. The study conducted on "*Reproductive health decision making among Ghanaian women*" recommended that the Richest, richer and middle women as per wealth index were more likely to make decision on ANC utilization as compared to those in the poorest category (Gyimah, 2006). (*Reproductive health decision making among Ghanaian women*) Wealth in its self may represent power. It may lead to independence, autonomy and may be related to education. For women in a developing country like Ghana where majority women live in poverty, wealth may be very important in boosting the confidence and self esteem of women, and may consequently give them the autonomy to make decision regarding reproductive health choices in domestic sphere (Darteh, 2014). The relationship between wealth index and decision making on engaging in sexual intercourse and condom use suggests that reduction in poverty or improving the living conditions of women would go a long way to improve their reproductive health decision making and hence their health (Sherwin, 2000).

Higher autonomy of women would translate into improved health seeking behavior and consequently, into better health outcomes (Shaikh, 2008). However, in the present women decision making indicators were positively associated with the ANC access and utilization; as a result women decision on their earning, family visits and health care access and utilization did not find any association with ANC in the selected model for multivariate analysis. Women opinions about reproductive decisions were not always consistent with their reports about who actually did make these decisions in their household, and the patterns of inconsistency were different for women and men. On the other hand, the proportions of men and women reporting that the man in their household did not make decisions he should be responsible for were roughly equal. Given that the data for men and women are not linked, it is difficult to determine whether men are making these decisions because they are playing a dominant role or because their wives are deferring to them or declining to participate in the decision-making process for some other reason.

Among the selected model, decision on respondent health care positively affected the outcome variable of the study, and the women who had empower in decision making about health care by their selves were able to get appropriate visits for ANC during pregnancy, decision on health care was statically significant to the antenatal health care utilization in all the applied test as cross tabulation binary logistic regression, multiple binary logistic regression. Decision - making power within the household (Oyediran, 2005) and builds greater confidence and capability to make decisions regarding their own

health (WHO, 2003). Women's autonomy is positively associated with ANC but subject to socio demographic characteristics of the respondents. Many studies conducted in Asian region suggested that lack of women autonomy is one of the leading cause of under-utilization of ANC. Social ties with others may influence a woman's decision to seek ANC by exposing her to different ideas and by imparting information about providers. In some developing countries men often control the cash, making it difficult for women to pay for healthcare or for transportation to clinics. In most societies women do not experience equality with men and often this one highly influenced their access to health care (Simkhada, 2008).

Women with appropriate ANC visits were empowered in the large household purchases, result of the study shows that women took decision about large household purchases were able to get proper ANC utilization, large household purchases was statically significant to the antenatal health care utilization in all the applied test as cross tabulation binary logistic regression, multiple binary logistic regression. Women's autonomy indices, except on purchasing large household items in Eritrea, have a strong positive association with the level of antenatal care obtained. More specifically, women who can make the final decision alone in making day-to-day household purchases, visiting families or friends and those who disagree with wife beating are more likely to have received antenatal care in their last pregnancy than women who do not have a final say.

5.1 Study limitations

The present research study was confined to ever married women in reproductive age (15-49) years. Secondly the women access and utilization of ANC visits were only measured with women's autonomy as independent variable. Finally, ANC access and utilization as outcome variable was measured as number of visit not able to assess the quality of ANC and health service provider in the health facility.

5.2 Conclusion

Women's decision making power plays a significant role in determining antenatal health care access and utilization, women with more decision making power are more likely to use antenatal care access and utilization. But the present study shows that not all women decision making factors were statistically associated and significant with ANC, like decision on respondent earning (adjusted OR, *0.89,CI (0.615118- 1.295675)*) ,respondent occupation (adjusted OR, 95% CI. 1.206(0.821-1.773)), were not statically associated with ANC after applying multiple logistic regression. However, decision on respondent health care (adjusted OR, *1.34, CI (1.199461- 1.502637),* decision on large household purchases (adjusted OR, *1.25, CI (1.116657-1.405790)*)), decision on family visits (adjusted OR*1.27 CI, (1.135719-1.424875)*) and women overall autonomy (adjusted OR *1.25, CI (1.109114-1.412656)*) were significant to the ANC access and utilization after applying multiple logistic regressions. The last model of multiple logistic regression indicated that adjusting all factors to each variable of the model, some of the factors (socio demographic factors) were significant like Wealth (adjusted OR, 7.04, CI (3.821643- 12.979054)), Women Education (adjusted OR 3.96, CI (2.424978-6.495491)), Husband occupation (adjusted OR, 4.99, CI (1.310806- 19.011124)), while the rest of all (Decision making factors) were insignificant to the Antenatal Care (ANC) utilization.

References

Acharya, D. R., Bell, J. S., Simkhada, P., Van Teijlingen, E. R., & Regmi, P. R. (2010). Women's autonomy in household decision-making: a demographic study in Nepal. *Reproductive health*, *7*(1), 15.

Amin, R., Shah, N. M., & Becker, S. (2010). Socioeconomic factors differentiating maternal and child health-seeking behavior in rural Bangladesh: A cross-sectional analysis. *International journal for equity in health*, *9*(1), 9.

Bloom, S. S., Wypij, D., & Das Gupta, M. (2001). Dimensions of women's autonomy and the influence on maternal health care utilization in a north Indian city. *Demography*, *38*(1), 67-78.

Darteh, E. K. M., Doku, D. T., & Esia-Donkoh, K. (2014). Reproductive health decision making among Ghanaian women. *Reproductive health*, *11*(1), 23.

Fotso, J. C., Ezeh, A. C., & Essendi, H. (2009). Maternal health in resource-poor urban settings: how does women's autonomy influence the utilization of obstetric care services?. *Reproductive Health*, *6*(1), 9.

Furuta, M., & Salway, S. (2006). Women's position within the household as a determinant of maternal health care use in Nepal. *International family planning perspectives*, 17-27.

Gyimah, S. O., Takyi, B. K., & Addai, I. (2006). Challenges to the reproductive-health needs of African women: on religion and maternal health utilization in Ghana. *Social science & medicine*, *62*(12), 2930-2944.

Jan, M., & Akhtar, S. (2008). An analysis of decision-making power among married and unmarried women. *Stud. Home Comm. Sci*, *2*(1), 43-50.

Khan, K. S., Wojdyla, D., Say, L., Gülmezoglu, A. M., & Van Look, P. F. (2006). WHO analysis of causes of maternal death: a systematic review. *The lancet*, *367*(9516), 1066-1074.

Kumar, S. (2010). Reducing maternal mortality in India: Policy, equity, and quality issues. *Indian Journal of Public Health*, *54*(2), 57.

Matsumura, M., & Gubhaju, B. (2001). Women's Status, Household Structure and the Utilization of Maternal Health Services in Nepal: Even primary-leve1 education can significantly increase the chances of a woman using maternal health care from a modem health facility. *Asia-pacific population journal*, *16*(1), 23-44.

Mumtaz, Z., & Salway, S. M. (2007). Gender, pregnancy and the uptake of antenatal care services in Pakistan. *Sociology of health & illness*, *29*(1), 1-26.

Oyediran, K. A., & Isiugo-Abanihe, U. C. (2005). Perceptions of Nigerian women on domestic violence: Evidence from 2003 Nigeria Demographic and Health Survey. *African journal of reproductive health*, 38-53.

Petchesky, R. P. (2003). *Global prescriptions: gendering health and human rights*. Zed Books.

Peters, D. H., Garg, A., Bloom, G., Walker, D. G., Brieger, W. R., & Hafizur Rahman, M. (2008). Poverty and access to health care in developing countries. *Annals of the New York Academy of Sciences*, *1136*(1), 161-171.

Shaikh, B. T., & Hatcher, J. (2004). Health seeking behaviour and health service utilization in Pakistan: challenging the policy makers. *Journal of public health*, *27*(1), 49-54.

Shaikh, B. T., Haran, D., & Hatcher, J. (2008). Women's social position and health-seeking behaviors: is the health care system accessible and responsive in Pakistan?. *Health care for women international*, *29*(8-9), 945-959.

Shavers, V. L. (2007). Measurement of socioeconomic status in health disparities research. *Journal of the national medical association*, *99*(9), 1013.

Sherwin, S. (2000). A relational approach to autonomy in health care. *Readings in health care ethics*, 69-87.

Simkhada, B., Teijlingen, E. R. V., Porter, M., & Simkhada, P. (2008). Factors affecting the utilization of antenatal care in developing countries: systematic review of the literature. *Journal of advanced nursing*, *61*(3), 244-260.

Thapa, D. K., & Niehof, A. (2013). Women's autonomy and husbands' involvement in maternal health care in Nepal. *Social Science & Medicine*, *93*, 1-10.

Thapa, D. K., & Niehof, A. (2013). Women's autonomy and husbands' involvement in maternal health care in Nepal. *Social Science & Medicine*, *93*, 1-10.

World Health Organization. (2009). *Women and health: today's evidence tomorrow's agenda*. World Health Organization.

World Health Organization. Reproductive Health, World Health Organization. Family, & Community Health. (2005). *Selected practice recommendations for contraceptive use*. World Health Organization.

Zureick-Brown, S., Newby, H., Chou, D., Mizoguchi, N., Say, L., Suzuki, E., & Wilmoth, J. (2013). Understanding global trends in maternal mortality. *International perspectives on sexual and reproductive health*, *39*(1).