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Women's Empowerment and Associated Factors on Contraceptive use in Sheka and Bench Maji Zone, South West Ethiopia

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Abstract This study seeks to examine the associations between women's empowerment and associated factors on contraceptive use in Sheka and Bench Maji zone. A community based cross-sectional study design was conducted from August 10-20, 2016 and the source populations were all married women or who are living with a partner. Nine hundred ninety four women were selected using single population proportion technique. The outcome of interest in this analysis was use of any contraceptive method. Factor analysis was employed to determine theoretically meaningful dimensions of empowerment from seventeen components. The corresponding empowerment factor scores, socio-demographic characteristics, and gender related variables were used as independent variables for further analysis in a Binary logistic regression analysis. In this study 393(39.5 %) women reported to be use of any contraceptive method at the time of interview. In the final Binary logistic regression model that included the indicators of women's empowerment, dimensions representing independent socio - economic decision, attitude towards domestic violence and Attitudes toward refusing sex were positively associated with contraceptive use except women's attitudes toward refusing sex. Moreover, women discuss about family planning with health profession (OR=3.067, 95% CI: 2.099, 4.481), women attain better education level (OR=1.467, 95% CI: 1.019, 2.138), partner permit family planning (OR=2.870, 95% CI: 1.702, 4.839) and living in urban area were more likely influence on contraceptive use. Finally our result suggest that different targeting strategies to improve women's use of contraception, as well as men's awareness and involvement in family planning via women's empowerment in Sheka, Bench Maji and Keffa zone, South West Ethiopia.

Keywords Empowerment, Contraceptive use, Women

1. Introduction

Women's empowerment is defined, "A process by which those who have been denied the ability to make a strategic life choices acquire such ability". Male participation and acceptance of changed roles are essential for women's empowerment [1]. Substantial research has examined the relationship between women's empowerment and their reproductive health. Research generally finds that women's empowerment is associated with contraceptive use. Some scholars propose that women's empowerment increase with education and economic status and thereby influences fertility [1, 2]. Family planning also has significant economic benefits for families and for society as a whole (Gribble, 2012). By slowing the growth of a population, women have more earning potential and families are able to devote more resources to each child, resulting in reductions of poverty [3, 4]. Despite the known benefits of family planning, globally more than 120 million women aged 15 to 49 who are married or in a union have an unmet need for family planning [5]. Accordingly, in many developing countries, most of decisions regarding sexual activity, fertility, and contraceptive use are made by men [6].

Currently, family planning service is offered as free of charge in both governmental and NGO health facilities in Ethiopia, including hospitals, clinics, health centers and health stations. However, according to the result of Ethiopian Demographic and Health Survey which is conducted in 2011, Ethiopia is among countries with low contraceptive prevalence rate 29%, 20% and 57% among married women, all women age 15-49 and sexually active unmarried women, respectively, at national level. In addition, according to EDHS result the prevalence rate of use of any contraceptive method varies notably by region, ranging from 63 percent in Addis Ababa to 4 percent in the Somali region, and 25.8 percent in the SNNP region [7].

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Factors that influence contraceptive use are multifaceted and challenging. Different studies show that socio-demographic, socio-cultural, socio-economic [8] and women's empowerment [9, 10] factors mostly affected women's knowledge and use of contraception.

Sub-Saharan Africa has the highest average fertility rate in the world. In 2009 the total fertility rate (TFR), or the average number of births per woman, was 5.1 more than twice that in South Asia (2.8) or Latin America and the Caribbean (2.2). Similarly he average contraceptive prevalence rate (22%) is less than half that of South Asia (53 percent) and less than a third that of East Asia (77%) [11].

Although many United Nations member countries, particularly those in the developed world, have strong family planning programs, this is not the case in Sub-Saharan Africa countries including Ethiopia, where despite a rise in contraceptive prevalence, many women continue to have unmet need for contraception [5]. The resultant high fertility is associated with high levels of maternal mortality, especially among the poorest communities.

In Ethiopia, women's participation in their own matters and women's benefit from social, economic and political spheres is low. Traditional, social and economic values constrain the rights of women and their opportunities to direct their own lives or participate in and contribute to community and national development [12].

A study conducted by Birhan research and development consultancy in four region of Ethiopia (Amhara, Oromia, SNNPR and Tigray) show that current use of modern contraceptive was a little lower (22% in Tigray, 27% each for Amhara and Oromia, and 18% in SNNPR). These figures are significantly higher if we look at urban areas alone: (50% in Tigray, 44% in Oromia, 38% in Amhara, and 32% in SNNPR) [13].

A woman's ability to control her fertility and the method of contraception she uses are likely to be affected by her self-image and sense of empowerment. A woman who feels that she is unable to control other aspects of her life may be less likely to feel she can make decisions regarding fertility. She may also feel the need to choose methods that are easier to conceal from her husband or partner.

Although much of the literature examined socio-demographic, economic and related factors that affect reproductive health outcomes related to contraceptive use in different areas, there is limited research exploring the effect of women's empowerment which is multidimensional on the use of contraceptive methods in our country, especially in this specific study area. Therefore, the main aim of this study was to explore the determinants of family planning services focusing on women's empowerment and other related factors among women in Sheka and Bench Maji Zones, South West Ethiopia.

2. Material and Methods

A community based cross-sectional survey has been be carried out to investigate the effect of women empowerment and other related factors on contraceptive use. The study population consisted of all women age 14 to 49 who were married or living together with a partner and lived in the study area for at least six months earlier to data collection in Sheka and Bench Maji zone at study time.

The sample size was calculated using a formula for estimation of a single proportion according to the following assumptions: 28% prevalence of under-five children with acute respiratory infection [14], with 95% confidence interval and 4% marginal of error (d). As a multistage sampling technique was employed to identify study subjects, the default value of deff, the sample design effect, should be set at 2.0 unless there is supporting empirical data from previous or related surveys that suggest a different value [15]. Also 10% was added for non-responses. Thus, the final sample size was 1065.

In our study stratification method were applied, *urban* as stratum one and *rural* as stratum two. One rule for stratification is that each stratum created should, ideally, be as different as possible. Urban and rural populations are different from each other in many ways (type of employment, source and amount of income, average household size, fertility rates, etc.) while being similar within their respective sub-groups. Therefore, by using simple random sampling method four woredas, Yeki, Sheko, Semen Bench, and Gura Fereda in rural part and two town administrations, Mizan-Aman and She Bench are selected.

Even if a proper sampling frame did exist, most of the sample would live in different communities far away from each other, and the time and expense involved in contacting them would be prohibitive. One solution we proposed is to use *two-stage sampling* as follows:

i The population is first divided into *clusters (districts)*, and a list of these *first-stage units* (or primary sample units) is drawn.
ii A random sample of first-stage units (districts) is then selected from this list.
iii In each of the selected first-stage units, a sampling frame of the *second- stage units* (*kebeles/ wards*) is drawn up,

A method of selecting one household to be the starting point and a procedure for selecting succeeding households after that has been applied. One possibility is to choose some central point in a town, such as the market or the central square; choose a random direction from that point count the number of households between the central point and the edge of town in that direction; select one of these houses at random to be the starting point of the survey. The remaining households in the sample should be selected to give a wide-spread coverage of the enumeration area. If the number of women in the selected wards is less than the required sample size, we are shifted to the nearest kebele.

Data has been collected using structured questionnaire by administering face to face interviewing of the respondent. In addition to English, the questionnaires was translated into

national (Amharic) and local major languages like, Benchigna and Shekigna. Before the start of fieldwork, the questionnaires were pretested in all major local languages to make sure that the questions were clear and could be understood by the respondents. Twenty data collectors are recruited living in the study sub-districts to interview the targeted respondent. They have taken intensive six-days training by the investigators on interviewing techniques, responsibilities, observational, data recording, approaches to communicate with respondents.

Independent variables

The dependent variable contraceptive use was classified into two categories: non-use (coded as 0) and use (users coded as 1) indicating respondents' use of any method (modern or traditional) of contraception at the time of the survey.

Independent variables

Independent variables included a number of empowerment and gender-related variables. Women's empowerment was measured on the individual level and along several dimensions as suggested in earlier studies [16].

i Economic empowerment: It was assessed using questions related to a woman's income contribution relative to her husband's, decisions about how each partner's income would be used and decisions about major and daily household purchases.

ii Socio-cultural empowerment: It could be measured by asking women who decided whether they could visit their family and relatives.

iii familial and interpersonal dimensions: who made decisions about health care for the woman, and whether the woman thought she and her partner wanted the same number of children

iv Attitudes about gender roles: attitudes toward wife beating, attitudes toward refusing sex.

v Other gender related indicators likely to impact women's contraceptive was included in the study women's age at first sex, age at first cohabitation, and ideal number of children

vi Socio-demographic characteristics which the literature indicates as likely to influence women's status and their reproductive behavior, including respondent's age, employment status, level of education, inter spousal education difference and wealth index as controlled variables.

Data processing

We conduct the analyses in three steps. In the first phase, respondents' characteristics has been described and the distribution of the dependent and independent variables were explored. Moreover, we can estimate means and prevalence rates of contraception, women's empowerment indicators, other gender-related factors, and socio-demographic characteristics.

Second, a factor analysis was employed to uncover the underlying structure of the observable data from the survey responses. Since there is no prior theory on the structure of these responses, we assumed that any individual indicator may be associated with any factor. Therefore, the correlation coefficients between the factor and original variable (factor loadings) was used to understand the structure of latent factors in the model. Third, to examine the pathway in our conceptual framework multivariable logistic regression analysis used to examine the determinants of contraceptive use among married women, focusing on the impacts of women's empowerment.

Factor Analysis

The goal of factor analysis is to reduce "the dimensionality of the original space and to give an interpretation to the new space, spanned by a reduced number of new dimensions which are supposed to underlie the old ones" [17], or to explain the variance in the observed variables in terms of underlying latent factors" [18].

The factor analysis model is given by

$$\boldsymbol{X = LF + \varepsilon}$$

Where $\mathbf{L}_{pxm}$ is a matrix of unknown constants called factor loading

$$\boldsymbol{L_{pxm}} = \begin{bmatrix} \boldsymbol{l_{11}} & \boldsymbol{l_{12}} \ldots & \boldsymbol{l_{1m}} \\ \boldsymbol{l_{21}} & \boldsymbol{l_{22}} & \boldsymbol{l_{21}} \\ \ldots & \ldots & \ldots \\ \boldsymbol{l_{p1}} & \boldsymbol{l_{p2}} & \boldsymbol{l_{pm}} \end{bmatrix}$$

$\boldsymbol{F = [F_1, F_2, \ldots, F_m]}$ and $\boldsymbol{\varepsilon = [\varepsilon_1, \varepsilon_2, \ldots, \varepsilon_p]}$

The coefficient $\boldsymbol{l_{ij}}$ is the loading of the i^{th} variable on the j^{th} factor.

Binary Logistic Regression

Regression methods are essential to any data analysis which attempts to describe the relationship between a response variable and any number of predictor variables. Thus logistic regression is used in a wide range of applications leading to binary dependent data analysis [20]. The estimated coefficients tell us the increased or decreased chance of a child having ARI given a set of level of the determinant factors while controlling for the effects of other variables in the model. The likelihood-ratio test was used to check the overall fit of the models and compare both models. Odds ratio and 95% confidence intervals (CIs) were calculated for the final model. All analyses were conducted in SPSS version 20.

The logistic regression model for explaining data is given by,

$$P_i = P(y_i = 1|x_i) = \frac{e^{X_i\beta}}{1 + e^{X_i\beta}}$$

$$= \frac{\exp(\beta_0 + \beta_1 x_{11} + \beta_2 x_{12} + \cdots + \beta_p x_{1p})}{1 + \exp(\beta_0 + \beta_1 x_{11} + \beta_2 x_{12} + \cdots + \beta_p x_{1p})},$$

$$i = 1, 2, \ldots., n$$

Where, $P(y_i = 1|x_i)$ is the probability of i^{th} child having ARIs given child's characteristics x_i, and $\beta \epsilon R^p, \beta = (\beta_0, \beta_1, \ldots, \beta_p)^T$ is a vector of unknown logistic regression

coefficients with dimension of $(p+1)x1$.

Odds, Log odds and Odds Ratio

$$\text{Odds} = = \frac{p(y=1|x)}{p(y=0|x)} = \frac{p(y=1|x)}{1-p(y=1|x)} = \frac{P}{1-P}$$

The odds indicates how often something (e.g., y=1) happens relative to how often it does not happen (e.g., y=0), and ranges from 0 when $p(y=1|x)=0$ to ∞ when $p(y=1|x)=1$. the log of the odds known as the logit ranges from $-\infty\ to\ \infty$.

3. Results and Discussion

3.1. Result of Descriptive Statistics

A total of 994 currently married women or live with partner in reproductive age group were included in the study. The initial population consisted of 1065 women. Out of this 994 (93.3%) currently married women or live with partner in childbearing age group were selected and studied in the analysis and others were excluded due to incompleteness and inconsistency of data on the variables which are considered as important for the analysis.

From the sampled women, about 39.5% of the women were using contraceptive with high prevalence among married women (42.7%) and 24.1% couple live with partner in Sheka and Bench Maji Zone, South west Ethiopia. The result of table 1 reveals that 79.2% of women comes from urban rural area with lower prevalence of contraceptive use (34.2%) as compared to women's comes from rural area with 59.9% of them use contraceptive.

Table 1. Distribution of Reproductive and knowledge characteristics women related Factors Analyzed with contraceptive use among women Sheka and BM, Zone, South west Ethiopia, (August 2016)

Variables	Frequency	Currently use FP		DF	Chi-square	p-value
		No	Yes			
Place of residence						
Rural	787(79.2%)	65.8	34.2	1	45.36	.000*
Urban	207(20.8%)	40.1	59.9			
Current marital status						
Married	824(82.9%)	57.3	42.7	1	20.4	.000*
Live with partner	170(17.1%)	75.9	24.1			
Knowledge of family planning						
No	28(2.8%)	85.7	14.3	1	7.69	.006*
Yes	966(97.2%)	59.7	40.3			
Do u want more children						
Yes	559(56.2)	55.8	44.2	2	11.83	.003*
No	349(35.1)	67	33			
I don't know	86(8.7)	64	36			
Permission of partner about FP						
Yes	117(11.8%)	76.9	23.1			
No	747(75.2%)	56	44	2	26.28	.000*
I don't know	130(13.1%)	71.5	28.5			
Decision on FP						
Wife	460(46.3%)	58.9	41.1			
Husband	83(8.4%)	68.7	31.3	3	5.28	.152
Together	443(44.6%)	60	40			
Others	8(0.8%)	87.5	12.5			
FP can make problem in relation						
Agree	322(32.4%)	70.8	29.2	1	21.32	.000*
Disagree	672(67.6%)	55.5	44.5			
Discussion about FP with your partner						
No	254(25.6%)	68.9	31.1	1	10.15	.001*
Yes	740(74.4%)	57.6	42.4			
Can you refuse not having sex						
Yes	383(38.3%)	64.8	35.2	2	12.46	.002*
No	443(44.6%)	54.4	45.6			
I don't know	168(16.9)	66.7	33.3			

*significant at 5%

As far as decision on family planning concerned this particular study result show that 46% of decision related to family planning held by wife with high contraceptive use (41.1%) as compared to decision held by husband (31.3%). Regarding the choice of the method 46.8% of the decision on the methods of contraceptive held together by husband and wife.

The age of the respondents ranges from 15-49 years. Of the women interviewed, the majority (72.4%) were aged below 35 years, and two fifths (41%) had 3–5 living children. Nearly three out of five women (59.5%) were illiterate, and three out of five of their husbands (42.6%), were illiterate.

A total of 97.2% of women had heard of any contraception methods. Indeed 91.6% of respondents wants to know more about methods of contraceptive with high prevalence of use contraceptive (41.1%) as compared to lower prevalence those didn't want to know more about family planning (22.9%).

With regard to empowerment, 44.5% of the women reported having the power to take at least one decision independently, and 62% took at least one joint decision with their husband.

It was noted that age at first marriage was as early as 4 years and as late as 35 years indeed the mean and median age at first marriage sexual intercourse for was 18.13 and 18 respectively. Similarly the mean and median age at first sexual intercourse for women in this particular study area was 17.55 and 18 respectively. This suggests that women's in this particular study area generally begin sexual intercourse at the time of their first marriage.

3.2. Result of Factor Analysis

Five factors measuring women empowerment were extracted using varimax rotation from the twenty variables in the factor analysis and these factors accounted for 62.7% of total variance explained. The majority of the variables used in the factor analysis have high loadings (in most cases greater than 0.7), confirming that the rotated factors reasonably represent the original variables. The component matrix and factor loadings are presented in table 3. We obtained factor scores for each respondent on the four factors extracted from the fifteen variables and these were used as the key independent variables in the final multivariate model. We named the four factors representing women's empowerment indicators as follows:

The variables/components that load highly on factor one seem to all relate to wife beating. Therefore we might label this factor Attitudes toward wife beating. The variables/components that load highly on factor two all seem to relate to different aspects decision; therefore, we might label this factor social and economic decision in household. The four questions that load highly on factor three all seem to relate to media; therefore, we might label this factor media exposure.

The questions that load highly on factor four all contain some components related to refusing sexual intercourse, therefore, we might label this factor Attitudes toward refusing sex. Finally, variables/components that load highly on factor five seem to relate to women's mobility outside home, therefore, we might label this factor physical mobility.

Table 2. Socio demographic characteristics of women Sheka and BM, Zone, South west Ethiopia, (August 2016)

Wife beating is justified if wife …	**Yes**	**No**	**I don't know**	
Goes out without telling husband	24.3%	68.6%	7.1%	
Neglects the children	22.5%	70.4%	7.1%	
Argues with husband	16.8%	78.9%	4.3%	
Refuses to have sex	24%	65.5%	10.6%	
Burns the food	21.5%	70.4%	8.1%	
Knowledge of law against wife beating	77.9%	10.3%	11.7%	
Listening radio	73.3%	26.7%		
Reading magazine	38.2%	61.8%		
Watching TV	61.8%	38.2%		
Reading tract	39.3%	60.7%		
Discuss with community	26.1%	73.9%		
Respondent involved in decisions (alone or jointly) about ...	**Wife**	**Husband**	**Together**	**Other**
her health care	28.5%	15.5%	55.9%	0.5%
major household purchases	18.9%	23.8%	56.9%	0.4%
visits to family and relatives	16.8%	17.4%	65.2%	0.5%
Earnings money	24.5%	23.1%	51.3%	1.1%
	Minimum	Maximum	Mean	
Age of the respondent	15	45	31.38±7.263	
Age at first marriage	4	35	18.12±2.921	
Age at first sex	10	30	17.55±2.491	

Table 3. Factor loadings based on factor analysis with Varimax rotation for 20 items measuring aspects of women's empowerment, Sheka and BM; Zone, South west Ethiopia, (August 2016)

Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Variance accounted for	19.61%	16.31%	11.88%	9.42%	5.58%
Eigenvalue	3.923	3.262	2.36	1.883	1.116
0=Others; 1=husband; 2=Together; 3=wife					
Who can decide on your payment		0.573			
Who usually decides how the money that you earn will be used?		0.873			
Who can decide on your HH expenditure		0.778			
Who can decide on your HH invitation		0.845			
Who usually decides how your husband's/partner's earnings will be used:		0.896			
Wife beating is justified if ….(0=Yes; 1=No)					
If you go out without permission	0.820				
If you are not take care the children in well	0.810				
If you are not agree with your husband	0.687				
If u r not willing in sex	0.736				
If you are burn food	0.787				
If she has sex with other men?	0.742				
Last month have					
last month have you seen about FP in TV			0.611		
In last month have you heard about FP in Radio			0.629		
In last month have you read about FP in Magazine			0.858		
In last month have you read about FP in Poster			0.860		
Is that justifiable refuse to have sex when...0=No; 1=Yes					
She has recently given birth?				0.885	
Can u ask your partner to use condemn if u want?				0.544	
She knows her husband has sex with other women?				0.856	
….0=No; 1=Yes					
Can you travel necessary places without being escorted?					0.835
Can you going out alone for medical help?					0.820

3.3. Results of Multiple Logistic Regression Analysis

Two models were fitted to examine the effects of women's empowerment on contraceptive use. Table 4 presents the estimates, adjusted odds ratios, and 95% Confidence Intervals (CI) of the two models. In the first model, socio-economic and gender-related indicators were entered and in the second model, these control measures were entered with women's empowerment factor scores to assess their net effect on women's use of contraception.

In the first model, most of the socio-economic and gender-related controls included in the analysis were significantly associated with contraceptive use. Women Place of residence, education level, marital status, Partner approval family planning, contraceptive make problem, Discuss about family planning with health professionals and current age the women found to be significant predictors for status of women using contraceptive. The likelihood of using contraceptive was significantly associated with place of residence. Women's who living in urban were 3.455 times more likely use contraceptive than in rural controlling for other variables in the model (OR=3.455; 95% CI: 3.259-5.061). Women's who living in urban were 3.455 times more likely use contraceptive than in rural (OR=3.455; 95% CI: 3.259-5.061). The log of the odds of women use contraceptive was negatively related to current age of the women. Indicating that the older the women less likely using contraceptive. In contrary age at first cohabitation show positive association with contraceptive use. Similarly, the likelihood of contraceptive use increase with an increasing a women age at first cohabitation.

This study also indicated that those women whose husband's approve using contraceptives were almost three times more likely to use contraceptives. Similarly this study also show that women's perception about contraceptive makes a problem show significant association with women contraceptive use. In other word women's disagree that contraceptive makes women infertile is 43% more likely use contraceptive as compared to those agree.

Table 4. Maximum Likelihood Estimates for Multiple Binary Logistic Regression of predicting contraceptive use among women Sheka and BM zone south west, Ethiopia (Aug, 2016)

Variable(level)	Model one			Model two				
	$(\widehat{\beta})$	Sig.	Exp(B)	B	Sig	Exp(B)	95% C.I. for EXP(B) Lower	Upper
Place of residence								
Rural (ref)								
Urban	1.143	.000	3.136	1.240	.000	3.455	2.359	5.061
Respondent Education								
No education (ref)								
Primary education	.412	.027	1.510	.389	.039	1.467	1.019	2.138
secondary or above	-.397	.064	.672	-.406	.061	.666	.435	1.019
Marital status								
Married (ref)								
Live with partner	-.579	.010	.560	-.495	.032	.609	.387	.959
Partner ideal number of child the same								
Yes(ref)								
More	-.170	.585	.844	-.152	.483	.859	.561	1.314
Less	.518	.019	1.679	.330	.017	1.391	1.061	1.825
Partner permit FP								
No (ref)								
Yes	1.145	.000	3.143	1.054	.000	2.870	1.702	4.839
FP make a problem								
Agree (ref)								
Disagree	.743	.000	2.101	.701	.000	2.017	1.435	2.834
Discuss about FP with health professionals								
No (ref)								
Yes	1.005	.000	2.733	1.121	.000	3.067	2.099	4.481
Age	-.035	.004	.965	-.044	.001	.957	.932	.982
Age at first cohabitation	-.896	.001	.408	-.858	.001	.424	.253	.712
Attitudes toward wife beating				.979	.001*	2.663	1.474	4.811
Social and economic decision				.527	.013*	1.694	1.119	2.563
Media exposure				.222	.004*	1.249	1.074	1.452
Attitudes toward refusing sex				.432	.000*	1.541	1.165	2.187
Constant				-3.036	.000*	.048		

In the second model, most of the empowerment indicators generated from factor analysis were significantly associated with women's contraceptive use. Independent socio-economic decision, media exposure attitude towards domestic violence and Attitudes toward refusing sex showed significant association with women contraceptive use.

A pint increase in independent socio-economic decision making 54% increase in the odds of using contraceptive rather not used contraceptive (OR=1.541 95% CI=1.165-2.187). Similarly women attitudes toward refusing sex, that is, women who reject that justifiable refuse to have sex, was associated 11% increase in the likelihood of contraceptive use.

The final model also show that women's attitude towards domestic violence, that is, women who reject the notion that wife beating is justified, was 2.67 times more likely use contraceptive as compared to women accept the notion that wife beating is justified.

3.4. Discussions of the Result

Women's empowerment is a complex concept that is often difficult to operationalize. Most studies of women's empowerment and family planning so far have only examined a single or a few aspects of empowerment. The current study measures the multiple dimensions of empowerment and used a factor analysis to outline these dimensions, and explores the associations between different dimensions of women's empowerment and contraceptive practice based on the data collected from August 10-20, 2016 on Sheka and Bench Maji zone, south west Ethiopia. The result which obtained discussed as follows:

The descriptive analysis of the study revealed that 39.5% of the women reported currently used any contraceptive method. Which is higher than the EDHS result for Ethiopia

(29%).

The results displayed in Table 4 show that the likelihood of using contraceptive was significantly associated with place of residence. Women's who living in urban were 3.455 times more likely use contraceptive than in rural. This result is in line with study conducted in Ethiopia and Sub-Saharan countries [20, 21].

The result of ordinal logistic regression analysis shown in Table 3 describes that mother education level was positively associated with uptake of family planning services for those with a primary-level of education compared to those with no education. This finding is similar to previous reports from experience in developing countries and Results from five Asian countries [22, 23]. This may be More educated women tend to have the knowledge and are motivated to use reproductive health services.

Similarly variable representing the difference between a husband/partner's ideal number of children and his wife's ideal number was significant. When a husband's ideal number of children was larger than his wife's, she was 44% less likely to use contraceptive than both have equal ideal number of children. This result is similar with study done in Tanzania [24]. This may due to that men who subscribe strongly to such beliefs have increased sexual decision making power and are more likely to be perpetrators of violence.

This study also indicated that those women whose husband's approve using contraceptives were almost three times more likely to use contraceptives. This is in line with the previous studies in Pakistan and Ethiopia [25, 26, 27]. This implies that male involvement has an important role on the use of contraceptives.

The study revealed that most dimension of women's empowerment factors were significantly associated with use of contraceptives. Hence, dimensions of women's empowerment representing women independent socio-economic decision making, attitudes toward refusing sex, attitude towards domestic violence and women's media exposure had a positive association with contraceptive use. These findings were consistent with the previous studies conducted in Rural Kenya, Nepal and Eritrea [28, 29, 2].

Table 4 model two, when all dimensions of empowerment were included in the model, the results show that the use of contraception is dependent on the women's household socio-economic decision, women's attitude towards domestic violence, media exposure and women's attitudes toward refusing sex. The higher the score of empowerment in each of these dimension, the higher the likelihood that a woman would report using contraception.

From dimensions of empowerment women attitude towards physical mobility was not significantly associated with current contraceptive use of women in this particular study area. In other word, contraceptive use behaviors of women do not depend on whether women can make decisions about visit families and friends [30]. This finding was congruent with a study done in Egypt by [31].

4. Conclusions and Recommendations

In conclusion, this study points out important associations between several dimensions of women's empowerment and contraceptive use. From multiple logistic regressions living in urban area, being literate, partner/husband approve family planning, discuss with health profession about family planning and disagreement on contraceptive can make problem shows positive effect on current status of women using contraceptive. In contrary women living with partner/ not married, current and age at first cohabitation showed that negative effect on women currently using contraceptive.

Finally, the effect of women empowerment extracted from factor analysis; attitudes toward refusing sex, attitudes toward wife beating, and socio- economic decision in household found to be most significant predictors for current status of women using contraceptive. Hence, we conclude that women's empowerment is an important determinant of contraceptive use in this particular study area.

The above findings are expected to update knowledge of reproductive empowerment of women and help policy planners to develop strategic plans. The concerned body should give attention on adoption of family planning services for couples who are living in rural areas of south west Ethiopia. Moreover, encouraging communication between couples and involving men more in family planning are key, while most couples agree on reproductive matters, husbands who oppose contraception or worry about its side effects often prevent their wives from using it.

The family planning program should strengthen its efforts to encourage husbands to support women's economic and social autonomy. Because improving gender equity in the family will help women to be responsible stewards of their family' resources. Finally the finding implies that women's empowerment must be integrated into family planning programming in this particular study area. Since as the women empower either in economic or health matter they will better use contraceptive. Further research is needed to identify the extent of male involvement in family planning in this particular study area.

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