Open Access Journal of Contraception

Dovepress
open access to scientific and medical research

Open Access Full Text Article

ORIGINAL RESEARCH

Married Women's Decision-Making Power in Family Planning Use and its Determinants in Basoliben, Northwest Ethiopia

This article was published in the following Dove Press journal:
Open Access Journal of Contraception

Berhanu Alemayehu[1]
Getachew Mullu Kassa[1]
Yohannes Teka[1]
Liknaw Bewket Zeleke[1]
Amanuel Alemu Abajobir[2]
Addisu Alehegn Alemu[1]

[1]College of Health Sciences, Debre Markos University, Debre Mark'os, Ethiopia; [2]Maternal and Child Wellbeing Unit, African Population and Health Research Center, Nairobi, Kenya

Background: Women's decision-making power influences the use of family planning. It is one of the denied fundamental rights of women, particularly in developing countries.

Objective: This study was aimed to assess married women's decision-making power in the use of family planning and its associated factors among married reproductive age women in Basoliben, Amhara, Ethiopia, 2018.

Methods: A community-based cross-sectional study was conducted among married reproductive age women from March 1 to 30, 2018. A multistage simple random sampling technique was employed in selecting study participants. Data were collected using structured questionnaires and analyzed through SPSS 20 software. The binary and multiple variable logistic regression models were fitted to identify factors associated with women's decision-making power on family planning use. Statistical significance was declared at p-value less than 0.05.

Results: A total of 734 married women aged 18–49 years are making a 98% response rate included in this study. The level of married women's decision-making power in family planning among married women was 80%; 95% CI (76.9, 82.8). Monthly income (AOR=2.2; 95% CI: 1.1, 4.2), husband's desired number of children of <3 (AOR=9.9; 95% CI: 3.6), husband's desired time for additional child after 3 years postbirth (AOR=4.0; 95% CI: 1.9, 8.5) and women's information on any contraceptive (AOR=9.6; 95% CI: 2.4, 39.0) were factors significantly associated with married women's decision-making power in family planning.

Conclusion: Married women's decision-making power in family planning use was optimal. Household monthly income, husband's desired ideal number of children, husband's desired time when to have another child and information about any contraceptive methods were predictors of their decision-making power on family planning use. There should be awareness creation of family planning methods to increase its utilization.

Keywords: decision-making, married women, family planning, Amhara, Ethiopia

Background

Family planning (FP) refers to a conscious effort by couples to limit or space the number of children through the use of contraceptive methods.[1] FP safeguards individual health and rights, preserve natural resources, and improves the economic outlook for families and communities.[1,2] Low FP usage is considered as a major issue for many developing countries where poor maternal and child health care services are practiced.[2,3] More than 222 million women's pregnancies in developing countries are unplanned.[4,5] In sub-Saharan Africa, only 17% of married women are

Correspondence: Addisu Alehegn Alemu
College of Health Sciences, Debre Markos University, Debre Markos, Ethiopia
Email addisua4@gmail.com

submit your manuscript | www.dovepress.com
DovePress
http://doi.org/10.2147/OAJC.S250462

using contraceptives as compared to 50% in North Africa and the Middle East, 39% in South Asia, 76% in East Asia and the Pacific and 68% in Latin America and the Caribbean.[2,6]

Women's decision-making power is the most important factor affecting the use of family planning methods.[5,7-9] Empowering and improving autonomy of women on decision-making on contraceptive and other reproductive health issues is critical for the community as a whole.[10–14] Its importance is great especially, for low-income countries like Ethiopia where one in ten teenagers is giving birth.[15] The majority of women in developing countries are denied their fundamental rights.[1,2,16,17] Though husbands have an important role in FP uptake and in preventing unintended pregnancies,[18] they are under collective decision-making of their husbands on issues that affect their reproductive live.[7,19-21] They are often forced to bear a large number of children and only less than one-fourth of women can decide on contraceptive use by themselves.[3,10,22,23] In societies where contraceptive use is low, children are exposed to illnesses and deaths due to the lack of appropriate health and other social services care from their parents and the rest of the family members.[2,6]

The Ethiopian Federal Ministry of Health (FMoH) has applied multi-pronged approaches to reduce maternal and newborn morbidity and mortality.[16] However, family planning usage is still low especially in rural settings.[1,3,7,10,24] Therefore, the objective of this study was to assess married women's decision-making power on the use of family planning and its associated factors among married women in Basoliben district, Amhara, Ethiopia.

Methods

Study Design, Area, Period and Population

A community-based cross-sectional study was conducted among married reproductive-aged women in Basoliben district from March 1 to 30, 2018. The district is located 322 km far from Addis Ababa, the capital city of Ethiopia. There were a total of 25 kebeles (the smallest administrative unit in Ethiopia) in the district[25] with an estimated total population of 169,089. More than half (51.5%) of the estimated population were reproductive-aged women[26]. There were five public health centers, one primary hospital, four drug vendors, and five private clinics provided family planning services in the district.[25]

Sample Size Determination and Sampling Technique

The sample size for this study was calculated using a single population proportion formula considering the following assumptions: proportion of married women who had decision-making power was 67%,[5] 95% CI, 5% margin of error, 10% non-response rate and design effect of 2 (since multi-stage sampling technique was employed). Accordingly, the final calculated sample size for this study was 748. A multistage sampling technique was used to select the study participants. In the first stage, five out of 25 kebeles were selected using a simple random sampling technique. Then, a total of 748 married reproductive-aged women were selected using simple random sampling techniques using a table of random generation. The list of study population was obtained from health extension workers (the lowest health professionals working at health posts) in the study area. Before data collection, a sampling frame was designed by numbering the list of married reproductive-aged women using the registration book. In this process, the number of women to be included was proportionally allocated to each selected kebele (Figure 1).

Data Collection Techniques and Instruments

Data were collected using a structured questionnaire. The tool was adapted from different studies for assessing women's decision-making power on family planning usage and factors influencing it.[3,5,23] Before data collection, the questionnaire was prepared in English then translated into Amharic. A one-day training was given to data collectors and supervisors on the objectives, confidentiality of information, respondents' rights and on the techniques of the interview. Following the training, the tool was pretested among 5% of the sample size at Amended woreda (other than selected) and amendments were made to the data collection questionnaire based on the findings of the pretest. Data on socio-demographic characteristics, women's reproductive related history, knowledge about contraceptive methods and women's decision-making power were

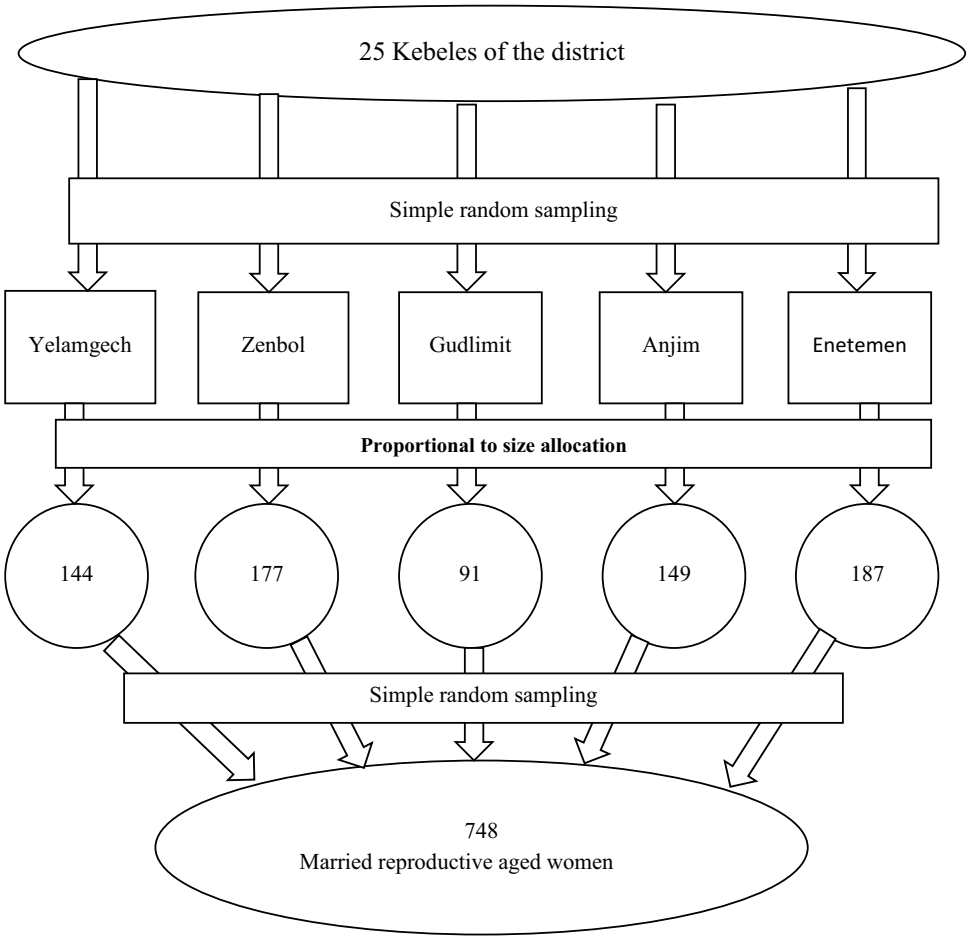

Figure 1 Schematic presentation of sampling procedure for married women's decision-making power on family planning use and its associated factors among married reproductive age women in Basoliben district, Amhara, Ethiopia, 2018.

collected from married women through interviewer-administered questionnaire by eight trained data collectors.

Data Quality Control, Processing and Analysis Procedures

The quality of the data was assured through careful design and pretesting of the data collection tool, proper training and close supervision of the data collectors and proper handling of the data by the principal investigators. The data were coded, cleaned and entered into Epi-Data version 4.2 and exported to SPSS version 20.0 statistical software for analysis. Descriptive analysis was computed for all variables and presented using graphs and tables. Bivariate analysis was carried out to test differences in women's decision-making power on family planning usage by independent variables. Binary and multivariable logistic regressions were employed to identify the predictors of women's decision-making power on FP usage. Those variables with p-value less than 0.2 in the bivariate analysis were entered in the multivariable logistic regression model. Finally, variables with p-value less than 0.05 in the multivariate logistic regression were considered as statistically significantly associated with women's decision-making power on FP usage. The results from logistic regressions were expressed using their Odds Ratios (OR) with 95% Confidence Intervals (CIs).

Definitions of Terms

Decision-making power: The ability of women to freely make the decision individually, discuss with their partners about FP needs and choice.[3,19]

- A score of 1 was given if women decide independently or together by discussing on FP and RH

issues. Zero (0) was scored by partners who decide independently.[3,19]

- Then, woman who scored below the mean was considered as having no decision-making power and those who scored greater or equal to the mean were considered as having decision-making power.[3,19]
- Knowledge about family planning: married women who know at least one method was considered as knowing a family planning method.[3]

Fertility preference: The desire to have another child in the near future or not.[3,19]

Ethics Approval and Consent to Participate

The study was done in accordance with the declaration of Helsinki. Ethical clearance was taken from Debre Markos University College of Health Science ethical review committees. A formal permission letter was obtained from the district government administrator of Basoliben district before data collection for each kebele. Written informed consent was taken from all study participants after a clear description of the objectives of the study and its procedures by the data collectors before proceeding data collection.

Results

Socio-Demographic Characteristics of the Study Participants

A total of 734 women were included in the study which gives a response rate of 98%. The mean age (± SD) of study participants was 30.23 years (±7.76), and ranges from 18 to 49 years. Nearly half (48.5%) of the participants were housewives. Two-third (65%) of participants were unable to write and read, and only 16.2% attended primary education. The majority (97.1%) of study participants reside in a rural residential area. One-fourth (26.2%) of the participants' family income was below 700 ETB and around one-third (34.8%) of the participants had a monthly income of 700–1000 ETB. More than one-third (37.9%) of the participants had a family size of 3–4. About 55.6% of participants' husbands were unable to write and read, similarly majority (94.3%) of participants' husbands were farmers (Table 1).

Reproductive History and Preference of Study Participants

The number of currently living children of married women ranged from null to nine; 103 (14.0%) of them had no children, 152 (38.7%) had more than four children and the rest had one to two children. The desired ideal number of children ranged from zero to 11 for women and zero to 12 for their partners. The larger proportion (45.4%) of women and their husbands (46.7%) desired to have 3–4 children. Similarly, desired time to have additional child by woman and their partners after 2 years was 30.7% and 32.0%, respectively (Table 2).

Awareness of Contraceptive Methods

The majority (96.2%) of the study participants heard about contraceptives, 618 (84.2%) of the study participants used the modern contraceptive method. The majority (57.1%) of users used injectable; similarly, 39.8% users used implants. Majorities (70.7%) reason for using contraceptive was birth spacing and three-fourth (76.5%) of users took the method from health posts (Table 3). The majority (96.6%) of the participants know injectable, whereas 76.7% and 66.3% of participants know implants and pills, respectively (Figure 2). HEWs were the source of information for 78.6% of the participants; however, television was for only 2.1% of participants (Figure 3).

Decision-Making Power on Family Planning Use

Eighty-four (11.4%) of the total married women reported that they made decisions on the number of children by themselves, whereas 106 (14.4%) of participants FP usage was decided by their husbands alone. The remaining 544 (74.2%) of participants decided jointly with their husbands on FP usage. Regarding birth intervals, the majority (78.1%) participants made decisions jointly with their husbands, while (10.8%) and (10.6%) of participants had decision on birth interval by their husbands alone and by themselves alone, respectively (Table 4). More than three-fourth (78.5%) of participants' decision on the contraceptive use made by their husbands alone, and (76.4%) participants' husbands alone made decision on the type of contraceptive. The proportion of women who scored mean and above on the decision-making power indexes for independent decision-making and joint decision-making were 14.2% and 65.8%, respectively. The overall proportion of women who have the decision-making power on family planning use was 80% (Table 5).

Table 1 Socio-Demographic Characteristics of Married Women in Basoliben, Amhara, Ethiopia, 2018

Variables	No	%
Age (in year)		
< 25	183	24.9
25–29	205	27.9
30–35	169	23.0
>35	177	24.1
Duration of living with the current husband (in year)		
<5	152	20.7
5–10	290	39.5
11–15	141	19.2
>15	151	20.6
Educational status		
Unable to read and write	477	65.0
Able to read and write	138	18.8
Primary level education	119	16.2
Religion		
Orthodox	734	100.0
Occupation		
Housewife	356	48.5
Farmer	357	48.6
Merchant	21	2.9
Residence		
Urban	21	2.9
Rural	713	97.1
Partners educational level		
Unable to read and write	408	55.6
Able to read and write	205	27.9
Primary level education	121	16.5
Monthly income (in ETB)		
<700	192	26.2
700–1000	256	34.8
1001–1500	178	24.3
>1500	108	14.7
Family size		
<3	106	14.4
3–4	278	37.9
4–6	203	27.7
>6	147	20
Husband' occupation		
Farmer	692	94.3
Merchant	42	5.7

Table 2 Reproductive History and Preference of Married Reproductive-Aged Women in Basoliben, Amhara, Ethiopia, 2018

Variables	No	%
Number of living children		
0	103	14.0
1–2	284	38.7
3–4	195	26.6
>4	152	20.7
Fertility preference by a woman		
Unable to have a child	57	7.8
Do not want another child	224	30.5
Want to have another child	453	61.7
Fertility preference by a husband		
Unable to have a child	38	5.2
Do not want another child	226	30.8
Want to have another child	470	64.0
Desired no children by a woman		
<3	150	20.4
3–4	333	45.4
≥5	251	34.2
Desired no children by a husband		
<3	250	34.1
3–4	343	46.7
≥5	141	19.2
Desired time to have additional child by woman		
Before 2 years	225	30.7
2–3 years	281	38.3
After 3 years	228	31
Desired time for additional child by a husband		
Before 2 years	235	32
2–3 years	244	33.3
After 3 years	255	34.7

Factors Associated with Decision-Making Power on Family Planning Use

Accordingly, monthly income, husband's desired ideal number of children, husbands' desire when to have another child and information about contraceptive methods were factors associated with decision-making power on family planning use.

The odds of decision-making power on family planning among married women whose monthly income was 700 to 1000 ETB and 1001 to 1500 ETB was about 2.2 times (AOR =2.2; 95% CI: 1.1, 4.2) and 2.7 times higher and (AOR = 2.7; 95% CI: 1.1, 6.8) more likely to have decision-making power on family planning than whose monthly income was less than 700ETB, respectively. Women whose husband's desire to have less than 3 children and 3–4 children were 9.9 times (AOR = 9.9; 95% CI: 3.6, 27.8) and 2.1 times (AOR = 2.1; 95% CI: 1.1, 4.2) more likely to have decision-making power on family planning than whose husband's desire number of children

Table 3 Usage and Awareness of Contraceptive Methods Among Married Reproductive-Aged Women in Basoliben District Amhara, Ethiopia, 2018

Variables	No	%
Heard about contraceptive methods	N=734	
Yes	706	96.2
No	28	3.8
Current contraceptive use	N=734	
Yes	618	84.2
No	116	15.8
Contraceptive used	N=618	
Pills	5	0.8
Injectable	353	57.1
Implant/Norplant	246	39.8
IUCD	11	1.8
Tubal ligation	3	0.5
Length of contraceptive used	N=618	
Less than 2 years	89	14.4
2–4 years	408	66.0
Greater than 4 years	121	19.6
Purpose of the contraceptive method used	N=618	
For limiting the number of children	181	29.3
For birth spacing	437	70.7
Source of the contraceptive method used	N=618	
Hospital	14	2.3
Health center	131	21.2
Health post	473	76.5

was ≥5, respectively. Similarly, husband's desired time to have additional child within 2–3 years and after 3 years was 1.9 times (AOR = 1.9; 95% CI: 1.1, 3.6) and 2.1 times (AOR = 2.1; 95% CI: 1.1, 4.1) more likely to have decision-making power on family planning than whose husband's desire to have additional child is before 2 years, respectively. Moreover, participants who know any contraceptive method were 9.6 times (AOR = 9.6; 95% CI: 2.4, 39) more likely to have decision-making power on family planning than those who do not know any contraceptive method (Table 6).

Discussion

Empowering women increase family planning utilization[27] which reduces maternal and neonatal mortality.[28,29] However, in developing countries, women are the neglected population in decision-making.[20,27] They are usually dependent on their partners' decision on family planning usage and reproductive issues.

The current study was conducted to assess the level of married women's decision-making power towards contraceptive use and its associated factors in Basoliben woreda, northwest Ethiopia. Accordingly, the current study showed the overall decision-making power of married women on family planning use was 80%. While the independent decision-making power was only 14.2% and decision-making power jointly with their husband was 65.8%. This was higher than previous studies conducted in Nigeria,[30] India,[9,31] Honduras[32] and Pakistán.[33] It was also higher than studies done in Ethiopia; Mizan Aman,[5] Addis Ababa[34] and Dawro Zone.[23] However, the women's independent decision-making power on family planning usage was lower

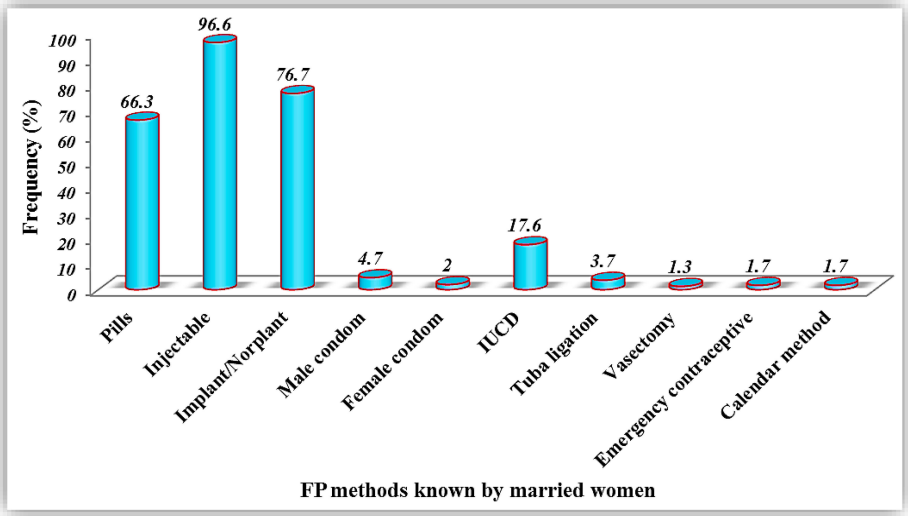

Figure 2 Awareness of contraceptive methods by married reproductive-aged women in Basoliben district, Amhara, Ethiopia, 2018 (n=734).

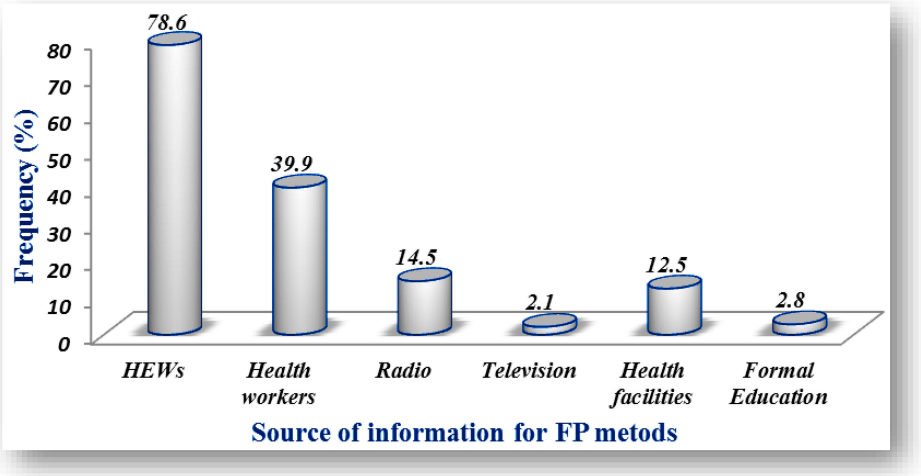

Figure 3 Sources of information about contraceptive methods for married reproductive-aged women in Basoliben district, Amhara, Ethiopia, 2018 (n=734).

than the studies done in Ethiopia[34] and India.[9] This difference might be due to the socio-cultural differences in the study population. This might be due to that decision related to children has an impact on having better decision-making power.[35]

Similarly, the current study revealed household monthly income, husband's desired number of children, husband's desire when to have another child and information on contraceptive methods were found to be significant predictors of married women's decision-making power on family planning usage. This study revealed that household monthly income was positively associated factor of women's decision-making power. Those women earned household monthly income 700 to 1000 ETB and 1001 to 1500 ETB were 2.2 and 2.7 times more likely to have decision-making power on

Table 4 Measurement of Decision-Making Power on Family Planning Use Among Married Reproductive-Aged Women in Basoliben District, Amhara, Ethiopia in 2018

Decisional Issues	Decision Maker					
	Woman Alone		Husband Alone		Jointly	
	No	%	No	%	No	%
Decision on the number of children	84	11.4	106	14.4	544	74.1
Decision on when to have children	78	10.6	79	10.8	577	78.6
Decision on birth interval	80	10.9	81	11.0	573	78.1
Decision on contraceptive use	95	12.9	63	8.6	576	78.5
Decision on type of contraceptive method choice	104	14.2	69	9.4	561	76.4
Decision on where to get a contraceptive method	117	15.9	62	8.4	555	75.6
Decision on women RH service need	44	6.0	55	7.5	635	86.5
Decision on women RH expenses	22	3.0	68	9.3	644	87.7
Overall decision-making power						
Minimum score		0.0		0.0		0.0
Maximum score		8.0		8.0		8.0
Mean score		0.85		0.79		6.36
Std. Dev		1.89		2.03		2.67
The proportion of women scored ≥mean		14.2		20.0		65.8

Table 5 The Overall Decision-Making Power on Family Planning Use Among Married Reproductive-Aged Women in Basoliben District Amhara, Ethiopia, 2018

Variables	No	%
The Independent decision-making power of women		
Yes	104	14.2
No	630	85.8
Joint decision-making power of women and husband		
Yes	483	65.8
No	251	34.2
Overall married women decision-making power		
Yes	587	80.0
No	147	20.0

family planning methods, respectively, than whose monthly income was <700 ETB. This was in agreement with studies in Nepal,[36] Malaysia[37] and the Ethiopian national-level study[24] that reported higher household monthly income or in general women in the highest wealth quintile were highly decisive on health care utilization for their health care services utilization. This might be due to they have media exposure. It is evidenced that media exposure increase FP utilization.[38]

is study also showed participants' husband desired number of children and desired time to have additional child were factors associated with their decision-making power on family planning utilization. Those participants' husbands desired number of children less than 3 and 3–4 were 9.9 and 2.1 times more likely to have decision-making power on FP, respectively, than whose husbands desired number of ≥5. However, those their husbands' desired time for additional child within 2–3 years and after 3 years were 1.9 and 4.3 times more likely to have decision-making power on FP usage than whose husbands desired time to have additional child was less than 2 years, respectively. Moreover, this study revealed married women who had information on any contraceptive method were 9.6 times more likely to have decision-making power on FP usage than those who had not. It is in line with the previous studies.[10,19,34,39,40] This might be due to information about contraceptive develops autonomy for FP usage.[10,41]

Limitation of the Study

This study is not without limitations. It has all the limitations of cross-sectional study design.

Table 6 Factors Associated with Decision-Making Power on Family Planning Use Among Married Reproductive-Aged Women in Basoliben District, Amhara, Ethiopia, 2018

Variables	Married Women's Decision-Making Power				COR (95% CI)	AOR (95% CI)
	Yes		No			
	No	%	No	%		
HH monthly income						
<700 ETB	135	18.4	57	7.8	1	1
700–1000 ETB	202	27.5	54	7.4	1.6 (1.03,2.4)	2.2 (1.1, 4.2)*
1001–1500 ETB	149	20.3	29	4.0	2.2 (1.3,3.6)	2.7 (1.1, 6.8)*
>1500 ETB	101	13.8	7	1.0	6.1 (2.7,13.9)	2.9 (0.9, 8.7)
Desired no children by a husband						
<3	219	29.8	31	4.2	3.2 (9,5.4)	9.9 (3.6, 27.8)***
3–4	271	36.9	72	9.8	1.7 (1.1,2.7)	2.1 (1.1, 4.1)*
≥5	97	13.2	44	6.0	1	1
Desired time for additional child by a husband						
Before two years	81	20.4	41	10.3	1	1
Within 2–3 years	120	30.2	32	8.1	1.9 (1.1,3.3)	1.9 (1.1, 3.6)*
After 3 years	110	27.7	13	3.3	4.3 (2.2,8.5)	4.0 (1.9, 8.5)***
Knows any contraceptive method						
Yes	569	77.5	137	18.7	2.3 (1.04,5.1)	9.6 (2.4, 39.0)**
No	18	2.5	10	1.4	1	1

Note: Statistically significant at P<0.05 = *, P < 0.01 = ** and P < 0.001 = ***.

Conclusion

The overall married women's decision-making power on family planning use was not low. Household monthly income, husband's desired ideal number of children, husband's desired time when to have another child and information about any contraceptive methods were statistically significant factors of married women's decision-making power on family planning use. There should be awareness creation on family planning methods to increase its utilization.

Abbreviations

HEWs, health extension workers; FP, family planning; FMoH, Federal Ministry of Health; SPSS, Statistical Package for Social Science; CI, confidence interval; COR, Crude odds ratio; AOR, adjusted odds ratio; SD, standard deviation; ETB, Ethiopian Birr; RH, reproductive health; IUCD, intra uterine device.

Data Sharing Statement

The data that support the findings of this study are available to the corresponding authors upon reasonable request.

Acknowledgment

We would like to acknowledge Debre Markos University for allowing us to conduct this study.

Author Contributions

All authors made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; took part in drafting the article or revising it critically for important intellectual content; gave final approval of the version to be published; and agree to be accountable for all aspects of the work.

Disclosure

The authors declare that they have no competing interests in this work.

References

1. Kaewkiattikun K.Effects of immediate postpartum contraceptive counseling on long-acting reversible contraceptive use in adolescents. *Adolesc Health Med Ther*.2017;Volume 8:115–123 p. doi:10.2147/AHMT.S148434
2. Ahman E, Shah I. Unsafe abortion: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008.*J Obstet Gynaecol Can*. 2011;31(12):1149–1158.
3. Eshete A, Adissu Y. Women ' s joint decision on contraceptive use in gedeo zone, Southern Ethiopia: a community based comparative cross-sectional study. *Int J Fam Med*. 2017;2017.
4. Brueggemann I. Family planning in the 21st century: perspective of the International Planned Parenthood Federation. *Int J Gynecol Obstet*. 1997;58(1):93–100. doi:10.1016/S0020-7292(97)02857-9
5. Belay AD, Mengesha ZB, Woldegebriel MK, Gelaw YA. Married women's decision making power on family planning use and associated factors in Mizan-Aman, South Ethiopia: a cross sectional study. *BMC Womens Health*. 2016;16(1):12. doi:10.1186/s12905-016-0290-x
6. Bremner J, Frost A, Haub C, Mather M, Ringheim K, Zuehlke E. World population highlights: key findings from PRB's 2010 world population data sheet. *Popul Bull*. 2010;65(2):1–12.
7. Uddin J Gendered power dynamics and unmet need for family planning among married women in Bangladesh. 2014;
8. Osamor PE, Grady C. Women's autonomy in health care decision-making in developing countries: a synthesis of the literature. *Int J Womens Health*. 2016;8:191. doi:10.2147/IJWH.S105483
9. Reed E, Donta B, Dasgupta A, et al. Access to money and relation to women's use of family planning methods among young married women in rural India. *Matern Child Health J*. 2016;20(6):1203–1210. doi:10.1007/s10995-016-1921-4
10. Geleta D, Birhanu Z, Kaufman M, Temesgen B. Gender norms and family planning decision-making among married men and women, rural Ethiopia: a qualitative study. *Sci J Public Health*. 2015;3(2):242–250. doi:10.11648/j.sjph.20150302.23
11. Saravanakumar P, Varakumari JE. A comparative study on women empowerment in urban and rural setting in Tamil Nadu. *Int J Community Med Public Health*. 2019;6(3):1108–1111.
12. Index GI. Human development reports, United Nations Development Programme; 2019. Available from: http://hdr undp org/en/composite/GII.
13. Kofuor E, Darteh M, Dickson KS, Doku DT. Women ' s reproductive health decision-making: a multi-country analysis of demographic and health surveys in sub-Saharan Africa. *PloS One*. 2019;14:1–12.
14. Wulifan JK, Mazalale J, Kambala C, Angko W, Asante J, Kpinpuo S. Prevalence and determinants of unmet need for family planning among married women in Ghana-a multinomial logistic regression analysis of the GDHS, 2014. *Contracept Reprod Med*. 2019;8:1–14.
15. Kassa GM, Arowojolu AO, Odukogbe ATA, Yalew AW. Trends and determinants of teenage childbearing in Ethiopia: evidence from the 2000 to 2016 demographic and health surveys. *Ital J Pediatr*. 2019;45(1):153. doi:10.1186/s13052-019-0745-4
16. FMoH E. Health Sector Transformation Plan. HSTP 2015/16-2019/20. August; 2015.
17. Chatterjee S Poverty reduction strategies—Lessons from the Asian and Pacific region on inclusive development. 2005;
18. Kriel Y, Milford C, Cordero J, et al. Male partner influence on family planning and contraceptive use: perspectives from community members and healthcare providers in KwaZulu-Natal, South Africa. *Reprod Health*. 2019;16(1):89.
19. Kpebu SEA Women's empowerment and family planning: a quantitative study from the Ghana Demographic and Health Survey 2008. The University of Bergen; 2014.
20. Bourey C, Stephenson R, Bartel D, Rubardt M. Pile sorting innovations: exploring gender norms, power and equity in sub-Saharan Africa. *Glob Public Health*. 2012;7(9):995–1008. doi:10.1080/17441692.2012.709259
21. Hausmann R The global gender gap report 2009. In World Economic Forum; 2009.
22. Mason AD, Badiani R, Van Nguyen T, Patrick K, Del Carpio X Toward gender equality in East Asia and the Pacific. A companion to the world development report. World Bank East Asia Pacific Reg report Washington, DC World Bank. 2012;
23. Bogale B, Wondafrash M, Tilahun T, Girma E. Married women's decision making power on modern contraceptive use in urban and rural southern Ethiopia. *BMC Public Health*. 2011;11(1):342. doi:10.1186/1471-2458-11-342

24. (MoFED) M of F and ED. Ethiopia: 2010 MDGs Report: Trends and Prospects for Meeting MDGs by 2015. 2010;
25. WoFED. Basoliben woreda Finance and Economic Development Office annual plan. Yejube; 2017.
26. CSA. Population and housing census of Ethiopia. Result for Amhara Region. 2007.
27. Do M, Kurimoto N. Women's empowerment and choice of contraceptive methods in selected African countries. *Int Perspect Sex Reprod Health*. 2012;38(01):23–33. doi:10.1363/3802312
28. Teferi E, Garoma S. Married women's access to resources and decision making power in Nekemte Town, West Ethiopia. *El Mednifico J*. 2014;2(4):334–340. doi:10.18035/emj.v2i4.249
29. El-Zanaty FH, Way AA Egypt demographic and health survey, 2005. Ministry of Health and Population; 2006.
30. Osamor P, Grady C. Factors associated with Women's health care decision-making autonomy: empirical evidence from Nigeria. *J Biosoc Sci*. 2018;50(1):70–85. doi:10.1017/S0021932017000037
31. Patrikar SR, Basannar DR, Sharma MS. Women empowerment and use of contraception. *Med J Armed Forces India*. 2014;70(3):253–256. doi:10.1016/j.mjafi.2013.12.014
32. Speizer IS, Whittle L, Carter M. Gender relations and reproductive decision making in Honduras. *Int Fam Plan Perspect*. 2005;31(03):131–139. doi:10.1363/3113105
33. Saleem A, Pasha GR. Women's reproductive autonomy and barriers to contraceptive use in Pakistan. *Eur J Contracept Reprod Health Care*. 2008;13(1):83–89. doi:10.1080/01443610701577107
34. Darge T. Gender power relations in reproductive decision-making: the case of migrant weavers of Addis Ababa, Ethiopia. *J Sci Dev*. 2014;2(1).
35. Bogale B, Wondafrash M, Tilahun T, Girma E. Married women ' s decision making power on modern contraceptive use in urban and rural southern Ethiopia. *BMC Public Health*. 2015;11(1):342.
36. Acharya DR, Bell JS, Simkhada P, Van Teijlingen ER, Regmi PR. Women's autonomy in household decision-making: a demographic study in Nepal. *Reprod Health*. 2010;7(1):15. doi:10.1186/1742-4755-7-15
37. Shuid S. *Role of the State and Market in Low Cost Housing Provision: The Case of Open Registration System (ORS) for Low Cost House Buyers in Malaysia*. Cardiff University; 2011.
38. Sharan M, Valente TW. Spousal communication and family planning adoption: effects of a radio drama serial in Nepal. *Int Fam Plan Perspect*. 2002:16–25.
39. Sultana AM. Cross sectional study on decision-making power of working and non-working women in family planning and reproductive health and rights in gombak, Malaysia. *J Womens Health Issues Care*. 2014;3(2):1000140.
40. Becker S, Fonseca-Becker F, Schenck-Yglesias C. Husbands' and wives' reports of women's decision-making power in Western Guatemala and their effects on preventive health behaviors. *Soc Sci Med*. 2006;62(9):2313–2326. doi:10.1016/j.socscimed.2005.10.006
41. Woreda D, Bogale D, Minda Z. Decision-making power of married women on family planning use and associated factors in Dinsho Woreda, South East Ethiopia. *Open Access J Contracept*. 2020;15–23.