



Magnitude and determinants of women's participation in household decision making among married women in Ethiopia, 2022: Based on Ethiopian demographic and health survey data

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ABSTRACT

Introduction: Women's strong decision-making abilities are essential to reducing maternal mortality rates. Because women's involvement in decision-making would increase uptake for healthcare services like maternal healthcare, which includes prenatal care (ANC), postnatal care (PNC), and facility delivery. Studies have revealed that women's decision-making autonomy is low, particularly in underdeveloped nations like Ethiopia. Investigating potential factors that may influence women's participation in household decision-making is the primary goal of this study project.

Methods: Secondary data analysis was carried out using data from the 2016 Ethiopian Demographic and Health Survey (EDHS). For the final analysis we used a weighted sample of 10,223 currently married women. All the frequencies and the percentages in the result section are weighted. The model's fitness was assessed using the Hosmer-Lemeshow test. It is the best fit (p value = 0.19). Variables with p values ≤ 0.2 in the bi-variable binary logistic regression analysis were included in the multivariable binary logistic regression analysis. The Adjusted Odds Ratio (AOR) with 95% confidence interval (95% CI) was computed. Variables with a P-value of less than 0.05 in the multi variable binary logistic regression analysis were declared as statistically significant predictors of the outcome variable.

Result: The overall magnitude of women's participation in decision making among was 70.55% (CI: 69.65, 71.42). Residence (rural; AOR: 0.83, 95% CI: 0.70, 0.980), educational status (None educated; AOR: 0.43, 95% CI: 0.30, 0.62, primary education AOR: 0.49, 95% CI: 0.34, 0.69), religion (protestant AOR: 0.72, 95% CI: 0.64, 0.81), Muslim; AOR: 0.87, 95% CI: 0.78, 0.96, Others; AOR: 0.66, 95% CI: 0.50, 0.87), wealth index (poor; AOR: 0.70, 95% CI: 0.63, 0.79, middle; AOR: 0.75, 95% CI: 0.66, 0.85), working status (Not working; AOR: 0.73, 95% CI: 0.66, 0.80), husband working status (husband not working; AOR: 1.69, 95% CI: 1.43, 2.0) and sex of

Abbreviations: AOR, adjusted Odds Ratio; COR, Crude Odds ratio; CI, Confidence interval; EDHS, Ethiopia Demographic and Health Survey; WPDM, women's participation in decision making and; WHO, World Health Organization.

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household head (female heads; AOR: 1.29, 95% CI: 1.08, 1.54) were statistically significant factors.

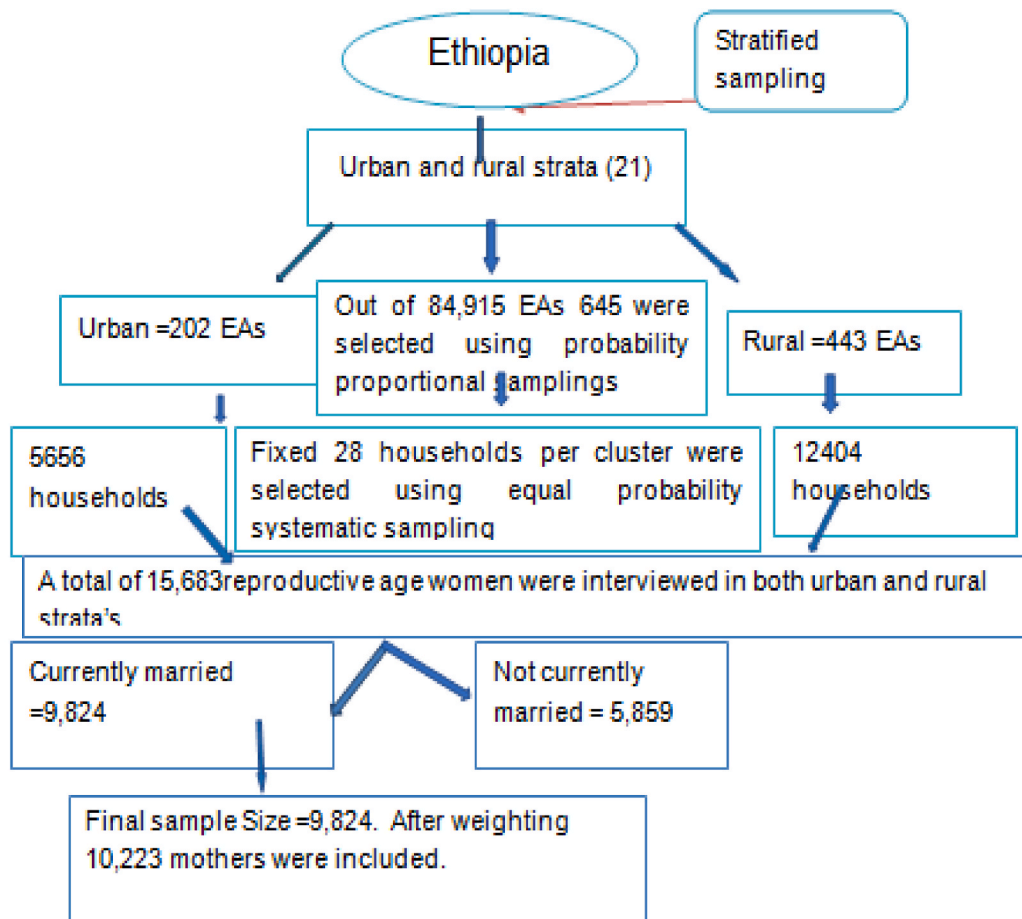
Conclusion: Generally women’s participation in household decision making in our study was high (70.55%). It is highly affected by socio demographic and economic characteristics of women and husbands characteristics. This study indicates that educating women, improving their economic status through employment opportunities, empowering women to be head of household will enhance their participation on household decision making.

1. Introduction

Women’s Empowerment in the context of gender is defined as both a process and its results that enable individuals to get power, develop confidence, increase awareness, enhance mobility and choices, improve control over resources, and make decisions [1]. Women’s empowerment by increasing their participation in political, social and economic life is one of the main goal of democratic and participatory movements, as well as women’s organizations, throughout the world [2].

The advancement of women’s empowerment, as well as the usage of maternity, neonatal, and child healthcare, depends heavily on women’s autonomy in decision-making [3]. Strong women’s decision-making power is essential to reduce the magnitude of maternal mortality because limited women’s autonomy prevents maternal healthcare use, such as prenatal care (ANC), postnatal care (PNC), and delivery at a facility [4].

The socioeconomic, emotional, fertility decision, usage of contraception, and sexual lives of women are all impacted by the lesser decision-making power of women [5,6]. The welfare of the individual, the local community, as well as the welfare of the nation are all



N.B EAs= Enumeration Areas

Fig. 1. Schematic representation of the sampling procedures in the study of women’s participation in decision making and associated factors (N=10,223: weighted), Ethiopia, 2022.

impacted by decisions made at the household level [7].

The ability of women to participate in decision-making is crucial for the growth of societies and nations [8], and as a result, efforts are being made by the international community to increase women's access to decision-making. One of the Sustainable Development Goals, establishing gender equality and empowering all women and girls, serves as evidence of this [9].

Even if women's participation in a decision making will increase the uptake of healthcare services, poverty reduction, and household economic growth, studies have shown that the decision-making autonomy of women is low, specifically in developing countries including Ethiopia [7,10,11].

As far as our knowledge, there is no prior research on this issue considering the three main areas of decision making in the household (decision on the woman's own health care, major household purchases, and visits to the woman's family or relatives) in Ethiopia. Therefore the main purpose of this research project is to investigate the potential determinants of women's participation in decision making. The finding from this study will provide an input for policy makers, program designers and project managers to design appropriate interventions incorporating gender mainstreaming issues in the whole process of project and program implementations.

2. Methods

2.1. Study setting, study design, period

This study was conducted in Ethiopia using the fourth Ethiopian demographic and health survey data (EDHS, 2016). EDHS 2016 were conducted from January 18, 2016, to June 27, 2016 [12]. Ethiopia is the second most populous country in Africa next to Nigeria. Ethiopia is federally decentralized into ten regions and two city administrations [12]. Ethiopia has a total estimated 118,977,453 population [13]. The 2016 EDHS was cross-sectional by design. Secondary data analysis was performed using evidence from the EDHS 2016 data set which the latest national survey conducted in nine regional states and two administrative cities. The EDHS was based on 645 enumeration areas.

2.2. Data source, study population and sampling procedure

All of the nation's geographical regions and administrative centers were included in the sample for the DHS survey. Enumeration areas (EAs) were used in the first stage of the survey's stratified sample process, and homes were included in the second stage. In each region, there were urban and rural areas. The probability allocation was then done according to sample size. 645 enumeration areas (EAs) were chosen for the 2016 DHS. 202 of the EAs came from urban areas, while 443 from rural ones [12].

The individual record (IR) data set from the 2016 EDHS was used in this investigation. The data was obtained from the measure DHS website (<http://www.measuredhs.com>) through online request and anyone can access it through an online request as an authorized user. Interviews were conducted with 15,683 women of reproductive age across urban and rural strata, of whom, 9,824 were already married (currently living with husband or partner). The final analysis includes a weighted sample of 10,223 women who are currently married. The result section's frequencies and percentages are all weighted. The summary of the sampling technique was described as follows (Fig. 1).

2.3. Variables and measurements

The outcome variable in this study was women's participation in decision making on the major household decisions. Women are considered to participate in household decisions if they make decisions alone or jointly with their husband in all three of the following areas: the woman's own health care, major household purchases, and visits to the woman's family or relatives [12]. It was dichotomized as (yes/no).

The independent variables were socio-demographic and husband related characteristics such as age, educational level, place of residence, wealth index, religion respondents working status, husband residency, husband education, husband working status, sex of household head and age of household head as well as media exposure and health insurance coverage.

Education status: was measured using the status of respondent's formal education and had four categories such as no education, primary education, secondary education and higher education. The higher education component consists the diploma and above levels of education.

Wealth index: In the EDHS report, wealth index was measured using principal component analysis (PCA) and it had five categories such as Poorest, Poorer, Middle, Richer, and Richest. In our study, we created three categories such as "Poor," "Middle," and "Rich by combining the richest with the rich and the poorest with the poor,

Religion: Orthodox, Muslim, Protestant, Catholic, traditional followers, and others are subcategories of religion in the 2016 EDHS. In our study, the first three variables were independently encoded, whereas Catholic and traditional religious followers were combined into the other category of variable.

Media exposure: Respondents were considered as having media exposure, if they Watch television (TV) or listening to radio or reading newspaper all or one of them less than once a week or at least once a week.

2.4. Data processing and analysis

Every step of the Ethiopian Demographic and Health Survey was carried out in accordance with the international ethical standards of the DHS program [14]. This study used the extracted data from EDHS 2016 individual record (IR file) folder. The data extraction was done using STATA version 14 software. Before analysis, data was cleaned using frequency; listing and sorting to identify any missed values. The model fitness was assessed using Hosmer-Lemeshowtest. It was best fitted (p value = 0.19). Variables with p value ≤ 0.2 in the bi variable binary logistic regression analysis were included in to the multivariable binary logistic regression analysis. The Adjusted Odds Ratio (AOR) with 95% confidence interval (95% CI) was computed. Variables with a P -value of less than 0.05 in the multi variable binary logistic regression analysis were declared as statistically significant predictors of the outcome variable.

3. Result

3.1. Socio demographic characteristics of respondents and their husbands

Out of 10,223 currently married women participated in this study, about 84% were from rural area. Six thousand two hundred fifty three (61.17%) respondents had no formal education. Only 4.12% of respondents had higher education. Five thousand three hundred fifty seven (52.41%) of the study participants had no their own work. Orthodox religion followers constitute the largest proportion (40.49%) of all religion categories.

Regarding the educational status of husbands, it ranged from 6.97% for higher education to 46.59% for no education. About 91% of husbands lived with their wife. Only 12.76% of women were household head (Table 1).

Table 1

Socio demographic characteristics of currently married women and their husbands in the study of women participation in decision making and associated factors (N = 10,223: weighted), Ethiopia, 2022.

Variables	Categories	Frequency (%)	Women participation in decision making	
			No (%)	Yes (%)
Age	15–19	588 (7.75)	188 (31.93)	400 (68.07)
	20–24	1,710 (16.72)	532 (31.09)	1,178 (68.91)
	25–29	2,402 (23.50)	681 (28.34)	1,721 (71.66)
	30–34	2,049 (20.04)	561 (27.39)	1,488 (72.61)
	35–39	1,613 (15.77)	498 (30.88)	1,115 (69.12)
	40–44	1,064 (10.40)	311 (29.25)	753 (70.75)
	45–49	798 (7.81)	240 (30.11)	558 (69.89)
Residence	Urban	1,658 (16.22)	317 (19.12)	1,341 (80.88)
	Rural	8,565 (83.78)	2,694 (31.45)	5,871 (68.55)
Education	No education	6,253 (61.17)	1,991 (31.85)	4,262 (68.15)
	Primary	2,895 (28.32)	846 (29.21)	2,049 (70.79)
	Secondary	654 (6.40)	121 (18.47)	533 (81.53)
	Higher	421 (4.12)	53 (12.56)	368 (87.44)
Religion	Orthodox	4,139 (40.49)	1,050 (25.37)	3,089 (74.63)
	Protestant	2,289 (22.39)	762 (33.30)	1,527 (66.70)
	Muslim	3,540 (34.63)	1,103 (31.15)	2,437 (68.85)
	Others	255 (2.49)	96 (37.46)	159 (62.54)
Wealth index	Poor	4,027 (39.39)	1,368 (33.97)	2,659 (66.03)
	Middle	2,057 (20.12)	672 (32.68)	1,385 (67.32)
	Rich	4,139 (40.49)	970 (23.44)	3,169 (76.56)
Working status	Not working	5,357 (52.41)	1,787 (33.36)	3,570 (66.64)
	Working	4,866 (47.59)	1,224 (25.15)	3,642 (74.85)
Health insurance	No	10,182 (99.60)	3,007 (29.54)	7,175 (70.46)
	Yes	41 (0.40)	3 (7.71)	38 (92.29)
Husband residency	Living with her	9,315 (91.12)	2,779 (29.83)	6,536 (70.17)
	Staying elsewhere	908 (8.88)	232 (25.56)	676 (74.44)
Husband education	No education	4,763 (46.59)	1,479 (31.06)	3,284 (68.94)
	Primary	3,772 (36.90)	1,137 (30.14)	2,635 (69.86)
	Secondary	975 (9.54)	263 (26.93)	712 (73.07)
	Higher	713 (6.97)	132 (18.45)	581 (81.55)
Husband working status	Not working	927 (9.07)	208 (22.42)	719 (77.58)
	Working	9,296 (90.93)	2,803 (30.15)	6,493 (69.85)
Sex of household head	Male	8,919 (87.24)	2,700 (30.28)	6,219 (69.72)
	Female	1,304 (12.76)	310 (23.80)	994 (76.20)
Age of Household head	15–24	501 (4.90)	159 (31.80)	342 (68.20)
	25–34	3,263 (31.92)	932 (28.58)	2,331 (71.42)
	35–44	3,123 (30.55)	913 (29.22)	2,210 (70.78)
	45–54	1,904 (18.62)	533 (27.99)	1,370 (72.01)
	≥ 55	1,432 (14.01)	473 (33.05)	959 (66.95)

3.2. Magnitude of women's participation in decision making (WPDM)

The overall magnitude of women's participation in decision making (WPDM) among currently married women in Ethiopia was 70.55% (CI: 69.65, 71.42). Women's participation on visits to family or relatives, respondent's health care and large household purchases were 83.76%, 81.40% and 78.21% respectively (Table 2).

WPDM also varied across different characteristics of respondents. For example, WPDM differs by residency. About 69% of rural women made decision alone or jointly with their husband/partner while about 81% of urban women make decision. It was also different by educational level. It ranged from 68.15% among non-educated women to 87.44% among women who have higher education. WPDM also varied by husband education and sex of the household head. Among women whose husband is non-educated, 68.94% of women participate in decision making while 81.55% of women whose husband has higher education participate in decision making. In female headed households, 76.20% of women participated in decision making while it was 69.72% in male headed households (Table 1).

3.3. Factors associated with WPDM

Among twelve independent variables tested in multivariable analysis, eight variables (residence, education, religion, wealth index, working status of respondents, and husband working status, sex of the household head and age of the household head) are statistically significant.

The odds of women's participation on decision making (WPDM) among rural women was reduced by 17% (rural; AOR: 0.83, 95% CI: 0.70, 0.98) compared to urban women. The odds of WPDM among non-educated women was reduced by 57% (None educated; AOR: 0.43, 95% CI: 0.30, 0.62), and among women with primary education it was reduced by 51% (primary education AOR: 0.49, 95% CI: 0.34, 0.69) compared to women with higher education. The odds of WPDM among protestant women was reduced by 28% (protestant AOR: 0.72, 95% CI: 0.64, 0.81), among Muslim women it was reduced by 13% (Muslim; AOR: 0.87, 95% CI: 0.78, 0.96) and among others it was reduced by 34% (Others; AOR: 0.66, 95% CI: 0.50, 0.87) compared to orthodox women. The odds of WPDM among poor women was reduced by 30% (poor; AOR: 0.70, 95% CI: 0.63, 0.79), and among middle economic status women was reduced by 25% (middle; AOR: 0.75, 95% CI: 0.66, 0.85) compared to rich women. The odds of WPDM among women who were working was reduced by 27% (Not working; AOR: 0.73, 95% CI: 0.66, 0.80) compared to women who are working. The odds WPDM among women whose husband is not working was increased by 69% (husband not working; AOR: 1.69, 95% CI: 1.43, 2.0) compared to women whose husband had work. The odds of WPDM among women in the female headed households was increased by 29% (female heads; AOR: 1.29, 95% CI: 1.08, 1.54) compared to women in male headed households (Table 3).

4. Discussion

This study assessed the magnitude of women's participation on decision making and its determinant among married reproductive age women using the fourth EDHS dataset. The findings of this study revealed that about 70.55% of women participate in household decision making. This finding is lower than the findings from Ghana (75%) [15] and northwest Ethiopia (75.1%) [3]. This finding was higher than findings from Ghana (52.8%) [16], Nigeria (38.9%) [11], Nepal 47.1% [17] of women took decisions on their own health care alone or jointly with their husband, 52.8% on making major household purchases and 56.6% for visits to family/friends and Senegal (6.26%) [18]. This difference may be due to socio demographic difference of the study participants. For example in the study of north west Ethiopia, the study participants were from urban [3] in which urban women's are likely to be educated and economically empowered than rural women [19].

According to our study the potential predictors of women's participation in decision making are women's residence, education, religion, wealth index, working status of respondents, husband working status, sex of the household head and age of the household head.

Women's place of residence was significantly associated with their participation in decision making. This shows that women living in rural setting had less participation in decision making. This finding was supported by a study in Bangladesh [20]. This can be explained by women in rural areas may have lower educational levels than the urban in which women face a lack of economic opportunities that impact their decision making and empowerment [20]. This implies, programs which are developed on women

Table 2

The magnitude of WPDM married women in the study of women participation in decision making and associated factors (N = 10,223: weighted), Ethiopia, 2022.

Component of decision	Category	Frequency (%)
Decides on visits to family or relatives	Yes	8,563 (83.76)
	No	1,660 (16.24)
Decides on respondent's health care	Yes	8,324 (81.40)
	No	1,899 (18.60)
Decides on large household purchases	Yes	7,995 (78.21)
	No	2,228 (21.79)
Decides on visits to family or relatives, respondent's health care and large household purchases.	Yes	7,212 (70.55)
	No	3,011 (29.45)

Table 3

Bi-variable and multi-variable logistic regression result women in the study of women participation in decision making and associated factors (N = 10,223: weighted), Ethiopia, 2022.

Variables	Categories	COR (CI)	AOR (CI)
Age	15–19	.91 (.73, 1.15)	.92 (.71,1.20)
	20–24	.95 (.79, 1.14)	.91 (.73,1.15)
	25–29	1.08 (.91, 1.29)	1.01 (.82,1.25)
	30–34	1.14 (.95, 1.37)	1.12 (.92, 1.37)
	35–39	.96 (.80, 1.16)	.94 (.77, 1.15)
	40–44	1.04 (.85, 1.27)	1.01 (.82, 1.25)
Residence	45–49	Ref	Ref
	Urban	Ref	Ref
Education	Rural	.51 (.45, .58)	.83(.70, .98)*
	No education	.30 (.23, .41)	.43 (.30, .62)**
	Primary	.34 (.26, .46)	.49 (.34,.69)**
	Secondary	.63 (.44, .89)	.80 (.55,1.16)
Religion	Higher	Ref	Ref
	Orthodox	Ref	Ref
	Protestant	.68 (.60, .76)	.72 (.64, .81)**
	Muslim	.75 (.68, .83)	.87 (.78, .96)*
Wealth index	Others ^a	.56 (.43, .73)	.66(.50, .87)*
	Poor	.59 (.54, .65)	.70(.63,.79)**
	Middle	.63 (.56, .70)	.75 (.66, .85)**
Working status	Rich	Ref	Ref
	Not working	1.49 (1.27, 1.75)	.73 (.66, .80)**
Husband residency	Working	Ref	Ref
	Living with her	Ref	Ref
Husband education	Staying elsewhere	1.23 (1.06, 1.44)	.86 (.70, 1.06)
	No education	.50 (.41, .61)	1.15 (.88,1.49)
	Primary	.52 (.42, .64)	1.12 (.87, 1.44)
	Secondary	.61 (.48, .77)	.95 (.73,1.24)
Husband working status	Higher	Ref	Ref
	Not working	1.49 (1.27, 1.75)	1.69 (1.43, 2.0)**
Sex of household head	Working	Ref	Ref
	Male	Ref	Ref
Age of Household head	Female	1.39 (1.21,1.59)	1.29 (1.08, 1.54)*
	15–24	1.05 (.85, 1.31)	1.09 (.85, 1.41)
	25–34	1.23 (1.07,1.41)	1.20 (1.02, 1.41)*
	35–44	1.19 (1.04,1.36)	1.16 (1.01, 1.35)*
	45–54	1.26 (1.09, 1.47)	1.26 (1.08, 1.47)*
Media exposure	≥55	Ref	Ref
	No	.72 (.65, .79)	1.05 (.94, 1.18)
	Yes	Ref	Ref

Key: Bold indicate the significant explanatory variables with their adjusted odds ratio and confidence interval, other ^a = traditional and catholic, Ref = reference category, * Significant at $p < 0.05$ and ** Significant at $p \leq 0.001$.

empowerment should give especial attention for rural women.

This study also discovered a significant relation between women's participation in decision-making and their educational attainment. This was supported by other findings from Ghana [21] and Nepal [17] Women who are highly educated had higher participation in decision making, because education increases women's empowerment by improving their knowledge, abilities, and self-confidence [22,23]. Education used to empower people and will provide autonomy [24], provides more equal decision-making within the household and improves employment chances [24–26], and reduces the risk that gender-based violence may occur [27, 28]. This results can also be attributed to Women who have received education are more likely to have the knowledge necessary to negotiate their participation in household decisions, and women with more education are likely to be in a better position to have paid work [21]. This implies that increasing women's enrollment to education and increase their attainment to higher level of education should be made a cross cutting issue by ministry of education and other program managers.

Additionally, the study showed that women with high household wealth indexes had higher participation in decision making. This finding is supported by findings from, Ghana [21], Burkina Faso [29] and Nepal [17], demonstrating that as comparison to women from poorer households, women from wealthier households were more likely to participate in decision-making, either jointly or individually. This may be explained by women in poor household are likely to be uneducated and they may lack the knowledge and skill of negotiating decision as well will have limited purchasing power. This study also revealed that women working status had significant association with their participation in decision making. This finding was supported by findings from Burkina Faso [29] and Nepal [17] which showed that Women's participation in household decisions is enhanced while they are working. This is due to the fact that women who are working will have capacity to afford costs related to their own health care as well as other major purchases which in turn limits women's participation in decision making regarding their own health care, household purchases or visiting family or friends [17,29].

Improving women's participation in income generating activities and increasing their employment rate is very much important.

5. Strengths and limitations

We believe our study had several strengths as we used nationwide data which increases the representativeness of the finding and we also included the three major components of women's decision making power such as decision on the woman's own health care, major household purchases, and visits to the woman's family or relatives. However, using secondary data limit the researcher to measure all possible factors such as culture and tradition-related factors. Since the source of the data was self-report, the accuracy of the data could be affected by recall bias.

6. Conclusion

Generally women's participation in household decision making in our study was high (70.55%). It is highly affected by socio demographic and economic characteristics of women (women's residence, education, religion, wealth index, working status of respondents, husband working status, and sex of the household head and age of the household head). This study indicates that educating women, improving their economic status through employment opportunities, empowering women to be head of household (raising women's autonomy) will enhance their participation on household decision making.

Declaration

Ethics approval and consent to participate

Ethics approval was not required for this study. Because of this study was conducted based on EDHS data which is available by request from the measure DHS website <http://www.measuredhs.com>. The data was collected anonymously after receiving the ethical clearance from the central statistical agency (CSA) and consent from the participants during the survey and used anonymously during the current analysis. All methods of this research were done following the declaration of Helsinki.

Author contribution statement

Desalegn Anmut Bitew: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Wrote the paper.

Desale Bihonegn Asmamaw; Tadele Biresaw Belachew; Wubshet Debebe Negash: Analyzed and interpreted the data; Wrote the paper.

Data availability statement

Data will be made available on request.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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