Autonomous Decision Making Over Reproductive Health Service Utilization and Associated Factors Among Married Women in Illuababora Zone, South West Ethiopia:

Dessalegn Nigatu (✉ dessalegnigatu@gmail.com)

mettu University

Zerihun Bayabil

Zerihun Bayabil (ZB), Mettu Hamlin Fistula Hospital

Tarekegn Fekede

Tarekegn Fekede (TF), Mettu University

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Abstract

Objective Assess autonomous decision-making on RH-service utilization and its associated factors among married women in Illubabor zone, South West Ethiopia.

Methods: Community based comparative cross-sectional study was conducted among married women of 584(urban 292 and rural 292) married women of reproductive age group. The data were entered into EPI data version 3.1 and exported to SPSS version 20 computer software for analysis. Both Bivariate and multivariable logistic regression analysis was used. Level of significance was declared at a p value of <0.05

Results: A total of 288 in urban and 288 in rural married women were interviewed and yields a response rate of 98.6% both in urban and rural. Autonomous decision making in urban and rural was 55.2% [95% CI (52.7-64.6)] and 40.3% [95% CI (39.9-52.5)] respectively. In urban, being wives of government employed spouses [AOR 2.102 95% CI (1.16, 3.81)], knowledge on RH [AOR 3.33, 95% CI (1.20, 12.49)], above five years in marriage [AOR 1.91, 95% CI (1.19, 7.70)], were found to be predictors of women's autonomous decision making.

Conclusion: Urban women had better anonymously make decisions than rural on reproductive health service utilization. The study revealed that in urban settings those women who had marriage duration five and more than five years, being wives of government employed spouses had more likely decision making anonymously on reproductive health utilization but not in rural settings. Reproductive health interventions in the area should be promoted by considering empowering of married women on reproductive health service utilization.

Introduction

Understanding individuals, above all women's reproductive needs and identifying the key factors which influence reproductive negotiation process between husband and wife are necessary to formulate policies aimed at creating conducive environment to improve women's reproductive health, general well-being and their autonomous decision making (1, 2).

Reproductive health service utilization is important for the enhancement of both maternal and child health (3, 4), despite the fact that the women's right to decide on their own reproductive health issues were mastered by their respective husband (5) Lack of decision autonomous decision making may leads to poor health outcomes, and lack of protective against unsafe sex, STI and gender based violence(6, 7)

In Ethiopia, there are variations on contraceptive decision autonomous decision making both intra and inter regional states. It is highly exercised in Amhara and lower Somali 54.4% and 2% respectively(8, 9). Moreover, women's autonomous decision making also differs by their residency area; Urban versus rural residency. For instance, urban women 20% odds of make a decision than rural(10), urban married women has 55.9% odds of decision than their rural counterparts(11), in Honduras urban women has 25% odds of decision than rural(12) and in India urban has 27% odds of decision than their rural counterparts(13).

Despite to this, enhancing empowerment status of women contributes best approaches to improve autonomous decision making (14).

Moreover, multiple factors were associated with women autonomous decision making on reproductive health service utilization among those maternal age, socioeconomic status(15), educational status (16–19), and limited access to health services(20). In addition the community level autonomy (21), gender based violence (22), being patriarchal society(23) and residency area(24). Consequently, investigating the burden and its determinants of women autonomous decision making on reproductive health service utilization has paramount importance to empower women on their reproductive issues. Therefore, this study aims to identify and compare the magnitude of urban and rural women autonomous decision making on reproductive health service utilization.

Methods & Materials

Study design: Community based comparative cross-sectional study was conducted from May to July, 2020 among 584(urban 292 and rural 292) married women of reproductive age group.

Study population: All randomly selected married women in reproductive age group (15-49 years of age), who were resident of Dupa Town and surrounding rural kebele.

Study unit: Randomly selected married women in reproductive age group (15-49 years of age), who actually participate to the study were the study unit.

Inclusion criteria: Women in a marriage or consensual union and lived at least for six months in the area were included in the study.

Sample size determination

Sample size was determined using Epi INFO version 7 considering the following assumptions: level of significance (0.05),autonomous decision making (0.80) Proportion of rural married women autonomous decision making on contraceptive use $p=43.1\%$ and urban married women decision autonomous decision making on contraceptive use $p=55.9\%$ (22)With the consideration of non-response rate of 15%, this yielded a total sample of 584 Urban (292) and rural (292).

Sampling technique

Census was conducted in urban area (Dupa town) which is found in Darimu district, married women enumeration was carried out to identified married women of reproductive age group in area were the study was employed. In order to generate sampling frame, In rural area total number of married women of child bearing age group obtained from the family folder of the community health information system (CHIS) available at health post and record number, Then recoding the record number lists in ascending order to

make a frame and use table of random numbers to identify study participants. Based on these 2201 married women were identified from Dupa town and surrounding three rural kebeles, the three surrounding rural kebeles were selected randomly from the total of nine (9) surrounding rural kebeles within 10km radius of the town health center, proportion allocation for the three surrounding rural kebeles was based on number their married women of reproductive age group.

In this respect, from both urban and rural area the eligible identified married women of childbearing age were interviewed with simple random sampling technique, until the number of sample populations completed. In some conditions like married women of reproductive age group were away from home, the interviewer re-visited the household at least three times and if failed to get the respondent, it was excluded from the survey and noted as non- response.

Measurement

Structured questionnaire was used for interviewing selected participants. Four questions were used to construct composite score on autonomous decision making over RH-care service utilization. Based on these the women were asked “who in her family usually has the final say on the following decisions: 1.Skilled birth 2, antenatal care (ANC), 3, post-natal care (PNC) and 4.Modern contraceptive use. For each items the response was scored as: 2 if a woman made sole decision, 1 if she was involved with someone (husband/partner or someone else) and 0 otherwise; For non-users of modern contraceptives and ANC; if their main reason for non-use is opposition from others (husband, mother in law, relative, religion etc.) the value was assigned as 0 and 1 if otherwise. Eventually, married women decision-making on RH service utilization among study units was set as binary outcome variable by merging the two groups of women together those scored above the mean categorized as higher autonomous decision making whereas those who score less than mean score categorized as women with low decision autonomous decision making on RH care service utilization after developing mean score independently for each. [10, 20, 31].

Women knowledge of RH-service was assessed by considering knowledge regarding the components of RH- services essentially that addresses services such as modern contraceptive, safe child bearing, reproductive tract infections, cancers, sexually transmitted infections. HIV/AIDS, safer sexual behavior and key danger signs during labor and childbirth. The desired answer was coded as 1, otherwise 0. Totally 40 questions were asked to assess knowledge on RH, therefore, those mothers who scored above 70% (≥ 28) were knowledgeable, less knowledgeable otherwise [20].

Data collection procedure

The data were collected using semi structured pre tested questionnaire. The questionnaire was prepared in English then translated to Afan Oromo then back to English by different language expertise. The data were collected using interviewer administered questionnaire to feet majority of the respondent's characteristics.

The study subjects were interviewed about their reproductive health service utilization history and socio-demographic variables, autonomous decision making on RH-care service utilization.

Data quality management

Data collection instrument was developed after thoroughly revising related literatures and adopting questionnaires used in other similar studies by considering local conditions. The English version of the questionnaire translated to Afan Oromo/ naïve local language/ and translated back to English to check consistency by language expert. Before the actual data collection, the questionnaire was pre-tested on 5% of similar populations which reside in other adjacent district (Alge Sachi) not included in the survey and necessary modifications was made specifically on the understandability of specific item. Six Midwife nurse local language naïve data collectors & One Supervisor were recruited for actual data collection.

One day training was given to data collectors and supervisors. Completeness and consistency of the collected data was reviewed and checked every day by supervisors. Discussions were made with the interviewers at the end of the day and in the morning; corrective actions was taken timely to minimize errors committed during interview.

Data Entry and Analysis

The collected data were cleaned, edited, coded and entered into Epi data version 3.1 then exported to Statistical package for social sciences (SPSS) version 21.0. Descriptive analysis was carried out for each of independent variables. Multivariable Logistic regression model was used and variables with p-value less than 0.25 with bivariate analysis were entered into multivariable logistic regression; variables with p-value less than 0.05 at 95% Confidence interval were declared as statistically significant with outcome variable. Adjusted Odds ratio was used to test the degree of association and Goodness of fit of the final model was checked using Hosmer Lemeshow test of goodness of fit considering good model fitness at P-value > 0.05(0.664), Omnibus likelihood test <0.05(0.000).

Ethical approval and participants' informed consent

Ethical approval was given by the Institutional Review Board (IRB) of Mettu University Research Ethics Committee (Reference: ID 4275/2020). Written or recorded verbal informed consent was obtained from the participants, by the interviewer, immediately prior to the interview

All methods were carried out in accordance with relevant guidelines and regulations and Social Care Research and the Declaration of Helsinki.

Results

Socio-demographic Characteristics of the Respondents

A total of 576 (urban 288 and rural 288) women were participated in the study making the response rate98.6%. The mean (+ SD) age of the respondent was 30.24 (± 7.02) in the urban and 31.3 (± 7.24) rural respectively. In both categories, the large numbers of respondents were found in the age group of 25-34years. Most of the respondents were house wife (76.4%) in the urban and (96.2%) in the rural, one hundred thirty four (46.5%) in the urban and one hundred fifty nine (55.2%) in the rural was attended primary education (table 1).

Table 1

Socio-demographic variables of married women of reproductive age group in urban and rural of Darimu, South-West Ethiopia, 2020

Others, gurage*Tigrea*, other, Jehovah**

Reproductive health characteristics

In urban two hundred thirty seven married women (82.3%) and one hundred eighty seven rural women (64.9%) were knowledgeable. Near to one third of the respondents in urban 29.9% had history of first marriage age greater than twenty years and in rural (30.2%) was married at the age between sixteen to nineteen years. In urban women 129(42.4%), whereas 116(37.8%) in rural had 2-3 children. One hundred seventeen (29.5%) urban women and one hundred fourteen (19.8) of rural women were heard components of reproductive health, (Table 2)

Table 2

Demographic-characteristics and Reproductive health knowledge of married women of reproductive age group in Dupa town and surrounding kebeles, South-West Ethiopia, 2020

Characteristics	Category	Urban N (%)	Rural N (%)
Age category	15-24	70(24.3)	65(22.6)
	25-34	121(42)	142(49.3)
	35-49	97(33.7)	81(28.1)
Ethnicity	Oromo	200(69.4)	211(73.3)
	Amhara	76(26.4)	63(21.9)
	Others*	12(4.2)	14(4.5)
Religion	Orthodox	75(26)	43(14.9)
	Muslin	158(54.9)	181(62.8)
	Protestant	51(17.7)	62(21.5)
	Other**	4(1.4)	2(0.7)
Educational status of respondent	Unable to read and write	36(12.5)	51(17.7)
	Primary education	134(46.5)	159(55.2)
	Secondary education	95(33)	74 (25.7)
	Higher education	23(8)	4(1.4)
Educational status of husbands	Unable to read and write	28(9.7)	37(12.8)
	Primary education	142(49.3)	185(64.2)
	Secondary education	92(31.9%)	61(21.1)
	Higher education	26(9)	5(1.7)
Occupation of respondent	Governmental employee	23(8)	7(2.4)
	Merchant	45(15.6)	4(1.4)
	House wife	220(76.4)	277(96.2)

Characteristics	Category	Urban N (%)	Rural N (%)
Knowledge of RH	Knowledgeable	237(82.3)	187(64.9)
	Not knowledgeable	51(17.7)	101(35.1)
Age of first marriage	<16years	5(1.7)	9 (3.1)
	16-19years	104(36.1)	172(59.7)
	>20years	179(62.2)	107(37.2)
Number of children	1-2years	55(19.1)	57 (19.8)
	2-3years	123(42.7)	109(37.8)
	>5years	110(38.1)	122(42.4)
Birth interval	1-2year	195(67.7)	201(69.8)
	3-5years	93(32.3)	87(30.2)
Duration of marriage	1-2years	12(4.2)	19(6.6)
	3-4years	93(32.3)	86(29.9)
	>5years	183(63.5)	183(63.5)

Source of Reproductive health information

More than fifty presents of the respondents in urban and rural area their source of information about reproductive health was health extension workers 60.2% in urban and 53.1% in rural (Table 3).

Table 3

Source of reproductive health information among married women of reproductive age group in Illubabor zone, Dupa town and surrounding kebele, South-West Ethiopia, 2020

Variables	Urban (%)	Rural (%)
Health extension workers		
Yes	175 (60.2)	153 (53.1)
No	113 (39.2)	135 (46.9)
Other health professional		
Yes	139 (47.8)	92 (28.1)
No	149 (48.2)	196 (31.9)
Radio or Television		
Yes	74 (25.7)	22 (7.6)
No	224 (73.6)	266 (92.4)
Peer		
Yes	106 (63.2)	42 (14.6)
No	182 (36.9)	246 (85.4)
Husbands		
Yes	38 (13.2)	14 (4.9)
No	250 (86.8)	274 (95.1)
Others		
Yes	4 (1.4)*	2 (0.7)*
No	284 (98.6)	286 (99.3)

Other, Books and school*

Level of autonomous decision making over reproductive health service utilization

The study showed that, autonomous decision making on reproductive health service utilization among married women in the study area urban and rural 159(55.2%) and 116(40.3%) respectively had autonomous decision making over reproductive health service utilization (Table 4).

Table 4

level of autonomous decision making on RH-service utilization among urban and rural married women in Dupa town and surrounding rural kebeles, south west Ethiopia, 2020.

Settings	Decisions on	Lower decision	Higher decision
Urban	RH-care utilization	129(44.8%)	159 (55.2%)
Rural	RH-care utilization	172 (59.7%)	116 (40.3%)

Factors affecting autonomous decision making of married women

Bivariate analysis reveals: attending formal education of respondents and husbands, husband occupation, women occupation, knowledgeable about RH, and more than five years marriage duration shows statistical significant association for both urban and rural settings (**Table 5**).

In the multivariable logistic regression: urban attending formal education of respondent, being knowledgeable about RH and duration of marriage, occupation of husband and for rural women Rh-knowledge and formal education of husband were found to be significant of women autonomous decision making on RH service utilization(**Table 5**).

Table 5

Factors affecting married women autonomous decision making on reproductive health service utilization ,Illubabor Zone, Darimu district, urban and rural resident south west Ethiopia, 2020.

Setting	Variables	autonomous decision making		COR (95.0% C.I)	AOR (95.0% C.I)
		Lower N (%)	Higher N (%)		
Urban	Education of respondent				
	Unable to read & write	35(92.2%)	1(2.8%)	1	1
	Primary (1-8)	158(69%)	71(31%)	.063[.060,.419]*	0.045[.003, .62]*
	Secondary(9+) & above	6(26%)	17(73.9%)	.010[.001,.091]*	0.434[.079, .385]*
Rural	Education of respondent				
	Unable to read & writ	28(66.7)	14(33.3%)	1	1
	Primary (1-8)	79 (58.1)	57 (41.9%)	.69[.252, .734]*	2.64[.685, 3.27]
	Secondary(9+) & above	32(41.6)	45 (58.4)	.35[.210, .989]*	1.93[.961, 3.91]
Urban	Education of husband				
	Unable to read & write	12(44.4%)	15(55.6%)	1	—
	Primary (1-8)	99(44.8%)	122(91.7%)	0.11[.22,0.583]*	—
	Secondary(9+) & above	2(8.3%)	22 (91.7%)	0.11[.26,0.488]*	
Rural	Education of husband				
	Unable to read & write	36(97.3%)	1(2.7%)	1	
	Primary (1-8)	221(89.8%)	25((10.2)	.024[.001,0.134]*	.018[.002,.23]*
	Secondary (9+) & above	1(20%)	4(80%)	.006[.003,0.263]*	.004[.001,.098]*
Urban	Occupation of husbands				
	Farmer	30(19.6%)	123(80%)	1	1

	Merchants	16(76.2%)	5(23.8%)	13.12[4.45,38.65]*	3.386[.564,20.32]
	Government employee	43 (37.7%)	71(62.3%)	2.483[1.432,4.30]*	2.102(1.16, 3.81)*
Rural	Occupation of husbands				
	Farmer	94(59.1)	65(40.9)	1	1
	Merchants	44(48.9)	46(51.1)	.661[.23,0.90]*	1.01[.252,1.47]
	Government employee	1(16.7%)	5(83.3)	.138 [.16,0.211]*	2.06[.192,2.24]
Urban	Duration of marriage				
	<5years	84(80%)	21(20%)	.42[0.24,0.74]*	1.94[1.19, 7.20]*
	>5years	115(62.8%)	68(37.2%)	1	1
Rural	Duration of marriage				
	<5years	176(87.6%)	25(12.4%)	2.33[1.56,5.30]*	1.04[0.36, 2.99]
	>5years	82(94.35)	5(5.7%)	1	1
Urban	Knowledge				
	Knowledgeable	57 (56.4%)	44 (43.6%)	1	1
	Not Knowledge	32 (17.1%)	155(82.9)	.159[0.92,0.27]*	3.33[1.20,12.49]*
Rural	Knowledge				
	Knowledge	22(43.1)	29(56.9)	1	1
	Not Knowledge	8(3.4)	229(96.4)	.046[.019,0.113]*	4.08[5.27,14.02]*

AOR, Adjusted odds ratio, COR, crud Odds ratio, statistically significant at P-value <0.05*

159(55.2%) with [95% CI (52.7-64.6)] of urban currently married women had higher autonomous decision making on reproductive health service utilization compared to 116(40.3%) with [95% CI (39.9-52.5)] of married women in rural area. In urban being wives of government employed husband two times odds of [AOR 2.102, 95% CI (1.16, 3.81)], duration of marriage more than five years were about two times [AOR 1.91, 95% CI (1.19, 7.70)] and being knowledgeable on RH were three time odds of [AOR 3.33, 95% CI (1.20,12.49)] decision autonomous decision making on reproductive health service utilization and Married women who had formal education were less likely autonomous decision making over Reproductive health service utilization. Whereas, in rural area having Reproductive health knowledge were four times [AOR 4.08,

95% C.I (5.27, 14.02)] less likely autonomous decision making over RH-service utilization and being wives of formal educated husband were less likely to be autonomous decision making over Rh-health service utilization(**Table 5**).

Discussion

This study showed that Women in urban setup had greater autonomous decision making over reproductive health service utilization than the rural counterpart. 159(55.2%) with [95% CI (52.7-64.6)] of urban currently married women had higher autonomous decision making on reproductive health service utilization compared to 116(40.3%) with [95% CI (39.9-52.5)] of married women in rural area(22). The variation might be due to the fact that, in most parts of rural Ethiopia, women usually attained low education; low involvement in their healthcare decisions than urban women.

The finding of urban married women autonomous decision making is comparable with a cross sectional study conducted in southern Ethiopia, autonomous decision making on contraception use found that, 53.8% (25)and in Amhara region 54.4% (26). Higher than other mutual consent for contraceptive use, such as in (27), 30.7% , study done in Bangladesh 35%(28) incomparable with Ethiopian Somalia region mutual consent for contraceptive use (2%) (29).

The finding of rural married women autonomous decision making has similarity with a cross sectional study conducted in Bale found that, 39.5% regarding maternal and child health care decision (30) consistent with southern Ethiopia rural women autonomous decision making over contraceptive use 43.1%(31). Higher than the study conducted in Bangladesh 35% [11], SNNPR 30.7% [9], Honduras 25% [12], Malawi 28.75% [32] And Pakistan 28 % [33].The variation might be from Social factors and cultural difference contributes on autonomous decision making on RH-service utilization.

The finding of this study is lower in both urban and rural settings when compared with the cross sectional studies from Southern Ethiopia on married women that, 64.8% of urban women had autonomous decision making over contraceptive use [16]. The Ethiopian national level study that revealed 71.6% of rural women participate in own health care decisions [34]. This might be due to this study added other different components of RH components as composite variables. This discrepancy might be due to the fact that this study considered both rural and urban women in one district, whereas others might be regional, urban or rural. It might also be due to the difference in educational status, and cultural norms of the women in the study settings.

This study also revealed that, being wives of government employed spouses in urban, more likely to decided over RH service utilization than their counterparts, the finding of the study were comparably similar with the cross sectional study done in Mizan- Aman, being wives of government employed spouses were two times more likely to decide on family planning use [17].

This study revealed that urban married women who had formal education were less likely to decide over reproductive health service utilization than counterpart. The finding of this study were comparably lower

than the study conducted in East Wollega Zone, January, 2015, revealed that those respondents had formal education were more likely to decide on ANC[14] and Honduras[12]. Variation of the study could be Ethiopia, strong cultural and traditional backgrounds can influence, regarding women formal education.

This study also revealed that, being wives of husbands who had formal education were less likely to women's autonomous decision making in rural area those with husband did not had formal education. This study were comparably lower than, study conducted in Mizan-Aman, South Ethiopia, Women whose husbands had attended formal education were more likely to have a decision as compared to their counter parts[17].

This study revealed that urban women those in marital union for five and more were more likely to be higher autonomous decision making on RH service utilization than those who stay less than five years in marital union. This finding was consistent with study from Nekemte, West Ethiopia; which reports that women with more than five years duration were more likely to be decision maker than those who were in marital union less than five (32)

The study also indicated that both urban and rural married women were knowledgeable about RH components had three times in urban and four folds in rural had more likely to decided over reproductive health service utilization than those who had not knowledgeable. This finding is higher when comparing with study conducted in Gedo zone, revealed that, married women knowledgeable on contraceptive were decide two times more likely to than lowly knowledgeable [35]. This variation might be from socio cultural difference.

Conclusion

Urban-rural difference was found in the study area on autonomous decision making of reproductive health service utilization. Urban women had better autonomous decision making to make decisions on reproductive health service utilization than rural women. The study revealed that in urban settings those women who had marriage duration five and more than five years, being wives of government employed spouses had more likely autonomous decision making on reproductive health utilization but not in rural settings, in both settings urban and rural, married women were knowledgeable about RH components had more likely to autonomous decision making over reproductive health service utilization than those who had not knowledgeable. Hence, public health interventions targeting married women should be implemented.

Abbreviations

ANC: ante-natal care, **DHS:** demographic health survey, **HFD:** health facility delivery; **ICPD:** international conference on population and development, **IEC:** information, education and communication, **IRC:** international rescue committee, **LAM:** lactating amenorrhea methods, **MCH:** maternal and child health, **PNC:** post-natal care, **RH:** reproductive health **SDG:** sustainable development goals, **SPSS:** statistical

package for social science, **SRH**: sexual and reproductive health, **STDS**: sexually transmitted diseases, **STI**: sexually transmitted infections.

Declarations

Availability of Data and material

The datasets used and/or analyzed during the current study available from the corresponding author on reasonable request. The original data is available from Action for M.E. in an excel spreadsheet.

Data sharing

The original data is available with corresponding author on reasonable request.

Ethical Declaration

Ethical approval was given by the Institutional Review Board (IRB) of Mettu University Research Ethics Committee (Reference: ID 4275/2020). Written or recorded verbal informed consent was obtained from the participants, by the interviewer, immediately prior to the interview.

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Consent for publication

Not applicable.

Authors' contributions

Conceived and designed by ZB, DN and TF. ZB performed data analysis and interpreting of findings. DN prepares manuscript. All the authors read and approved the final manuscript

Competing interests

The Authors declare that they have no competing interests

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