

WOMEN'S AUTONOMY AND ASSOCIATED FACTORS REGARDING MATERNAL HEALTH SERVICE UTILIZATION IN NEKEMTE TOWN, EAST WOLLEGA, ETHIOPIA, 2020.

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A THESIS SUBMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH, FACULTY OF PUBLIC HEALTH, DEPARTMENT OF HEALTH MANAGEMENT AND POLICY; IN PARTIAL FULFILLMENT FOR THE REQUIREMENT FOR MASTERS OF PUBLIC HEALTH (MPH) IN HEALTH MANAGEMENT AND POLICY.

SEPTEMBER, 2020

JIMMA, ETHIOPIA

| WOMEN'S AUTONOMY AND ASSOCIATED FACTORS REGARDING MATERNAL | |
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| HEALTH SERVICE UTILIZATION IN NEKEMTE TOWN, EAST WOLLEGA, ETHIOPIA | ٩, |
| 2020. | |

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Thesis declaration form

I, the undersigned, hereby declare that this thesis is my original work. The work has not been presented for degree in any university and source of materials used for the project has been acknowledged.

Thesis title: WOMEN'S AUTONOMY AND ASSOCIATED FACTORS REGARDING MATERNAL HEALTH SERVICE UTILIZATION IN NEKEMTE TOWN, EAST WOLLEGA, ETHIOPIA, 2020.

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ABSTRACT

Background: Women's autonomy encompasses the ability to obtain information and make decisions about one's own concerns; and have some control over finances and freedom of movement. Women's autonomy in healthcare decision making is central to the improvements of maternal and child health. Little is known about the women's autonomy and its associated factors on maternal health care service utilization in Nekemte town, East Wollega zone, Oromia regional state, Ethiopia.

Objectives: The objective of this study is to assess the women's autonomy of deciding on their maternal health service utilization and associated factors in Nekemte town.

Methods: Community based cross-sectional study was conducted on 410 married women having under two years children from February 21-March 20, 2020. Women's autonomy was measured by using the composite index of three constructs: Control over finance, decision making power and extent of freedom of movement. Single population proportion formula and systematic random sampling technique were used to get required sample. The list of eligible mothers who live in the selected kebeles was obtained from health extension worker family data, sampling frame corresponding to house number was prepared, then simple random sampling technique was used. For qualitative data the sample size was purposively determined. Face to face interview was used to collect data using structured questionnaires adapted from similar studies.

Descriptive statistics, binary and multiple logistic regression analysis were conducted by using SPSS version 22 analytical software to identify factors associated with autonomy of women.

Result: Out of the total 410 sampled women, interviews were conducted with 401 of them and the response rate was 97.8%.

More than half (57.1%) had higher autonomy of decision making regarding their maternal health service utilization.

Conclusion: women's autonomy of decision making plays a central role on their maternal health service utilization and still needs strong focus.

Keywords: women, autonomy, decision making, maternal health service utilization, Ethiopia.

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ABBREVIATION AND ACRONYMS

ANC Antenatal care

ETB Ethiopian Birr

EDHS Ethiopian Demographic and Health Survey

FGD Focus Group Discussion

MMR Maternal Mortality Ratio

MHSU Maternal Health Service Utilization

PNC Postnatal Care

SSA Sub-Saharan Africa

WHO World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background

Current literatures define autonomy in different ways. Many consider autonomy as "The ability to make decisions on one's own, to control one's own body, and to determine how resources will be used, without needing to consult with or ask permission from another person" and it can also be equated with the authority to make independent decisions, freedom from constraint on physical mobility and the ability to forge equitable power relationships within families(1).

Access to and control over resources, participation in economic decisions, self-esteem, mobility, and freedom from domestic violence are women's autonomy identified by researchers which play central role on maternal health service utilization(2).

Women's decision making autonomy determines the ability of healthcare seeking and visit health facilities. In developing countries women's status in the society usually limit their decision making power. And autonomy is very important in improving maternal health outcomes and women's empowerment. According to the 1994 United Nations International Conference on Population and Development increased gender equality among the family is necessary for achieving advances in all matters of development(3).

In low and middle- income countries maternal mortality remained the main public health problem. All over the world about 800 women die daily due to pregnancy related complications and 99% of them occur in low and middle income countries. More than half of these occur in sub-Saharan Africa and one third in South Asia. In these countries including Ethiopia, even though the government tried to minimize maternal mortality, it is still unacceptably high having considerably high maternal mortality ratio (MMR), 412 per 100,000 live births in 2016. Adequate and timely utilization of maternal health services can prevent these deaths. But, how well the cultures of the society give space for women to use maternal health service looked little. Many Studies showed that women's autonomy in health care decision making is likely to increase the utilization of maternal health care services(4).

In countries that are developing, women's autonomy in decision making and its associated factors have contribution in low utilization of maternal health services. Evidences show that adequate health service utilization and empowering the women on decision making about own health to have positive impact on improving maternal health care utilization and key to tackle maternal morbidity and mortality. So, exploring the status of women's autonomy in decision making and its associated factors is another dimension. Therefore, women's autonomy in decision making can be considered as an essential component affecting maternal health service utilization but has got little or no attention (5).

1.2. Statement of the Problem

Most maternal deaths are preventable. But there is unacceptably high number of mothers dying every day in Africa. According to the WHO (2017) report, everyday 810 women worldwide died from preventable causes related to pregnancy and childbirth and 94% of these deaths took place in low and middle-income countries(6,7).

Despite the general reduction, there exist disparities between developed and developing countries. Whereas developed countries have mostly overcome this problem; low-and middle-income countries account for about 94 percent of all maternal deaths. It continues to be a major challenge in Africa and the disparity is very high. For instance, Ghana as a developing country faced with high maternal mortality rate although some progress has been chalked; between 1990 and 2013, maternal mortality rate dropped from 760 to 380 per 100,000 live births whilst it stood at 319 by 2015. Skilled birth attendance (SBA) has been identified as an effective mechanism for mitigating the risks of maternal deaths during delivery(8,9).

Ethiopia is also one of the countries known by having high maternal mortality. The MMR was 871 per 100,000 in the year 2000, 673 per 100,000 live births in 2005; it was 676 per 100,000 in 2011 and 401 per 100,000 in 2017(10).

Evidence indicates that women believe that they have a direct effect on healthcare decision-making not only for themselves but also for their family in developed countries where MMR is very low like US. A substantial amount of women who are responsible not only for their own health have been found to have positive impact on improving maternal health care utilization, which in turn leads to decline maternal morbidity and mortality (11).

Opposite to developed countries, in the developing ones, the most important causes for the high mortality rate are the three delays: delays in (taking decision for seeking health care, accessing care and receiving health care in health institution). Cultural beliefs, financial problems, transportation problems and decision making power in household, which can be summarized by women's autonomy are considered as reasons for health care seeking delay and play a vital role for the utilization of health care service. Previous studies have also reported inconsistent effects of women's decision-making autonomy on the use of health services. This may be that virtually

all the existing studies aggregate three variables: control over finance, decision-making power, and extent of freedom of movement(12,13).

In developing nations, women are known by having little autonomy in many cultures and according to different studies women's autonomy and several associated individual, community, and healthcare related factors do have contribution to the underuse of maternal health services. Evidences found varying levels of health care decision-making autonomy in different countries and among different regions of the same country. In countries like Ghana and Uganda women with higher proportion of decision making, (46%) and (52%) respectively, had good maternal health service utilization. In Kenya and Tanzania women with high decision-making authority, 36% and 37% respectively, had poor maternal health care service utilization (14)

Throughout their pregnancy, only 19% of women made four or more antenatal care (ANC) visits, 11% had health facility delivery, and 9.7% of women received postnatal care (PNC) in the first 2 days after delivery(15). For women having better understanding of the determinants of their decision-making autonomy is very important. Higher decision-making practice is directly associated with good reproductive health service utilization and vice versa. According to analysis of gender inequities in women's access to reproductive health services between sub-Saharan African and South Asia, women's abilities to control earnings and influence household decision-making particularly about healthcare are positive predictors for maternal healthcare utilization. In Tajikistan similar observations have also been made on the positive effects of women's decision-making autonomy on their physical mobility(16).

Women's decision making power on their maternal health service utilization is found to be very much limited across many African countries. Husbands or other family members usually make these decisions, which have negative influences on maternal health service utilization(17). Whenever there is a need for the women to have healthcare services, they expected to wait for husband's decision. Some factors like poverty, distance to health care service, lack of education and awareness to use modern health care services, including reproductive health service, could lead to reduced autonomy level(18).

Women's autonomy is independently influenced by factors like socio-demographic statuses, control over earnings and partner's level of education which can be considered as important component affecting maternal health service utilization in many developing countries including Ethiopia, but has got little or no attention(19).

However, very few studies have examined the relation of socio-cultural factors, such as inequitable gender roles and women's autonomy within the household matters increase the use of maternal health services in the Ethiopian setting. There is limited or no research conducted on the study area regarding the self decision-making power of women on their maternal health care utilization, specially no study in sighted the impact of some traditions' (culture) on the autonomy of women. Therefore, this study aims to investigate the autonomy of women's decision making and associated factors regarding their maternal health care utilization in Nekemte town.

1.3. Significance of the Study

The finding of this study contributes to knowledge, which might give good reason for stakeholders' expectations of the role of women in decision making regarding their maternal health service utilization. It can help to inform health planners and program managers in Ethiopia to promote attitudes and practices that favor gender equality, in order to attain wider use of healthcare services among women, especially to encourage useful traditions and/ or discourage harmful traditions having impact on women's autonomy, base line for future/ further researchers, to use as secondary data. For policy makers it helps to consider strategies to increase utilization of maternal healthcare services if had been minimized due to having less autonomy and identify the impact of gender inequality on maternal autonomy.

CHAPTER TWO: LITERATURE REVIEW

2.1 The concept of autonomy in the context of women's health service utilization

Autonomy is the ability to obtain information and make decisions about one's own concerns and it facilitates access to material resources such as food, land, income and other forms of wealth, and social resources such as knowledge, power, prestige within the family and community. Women's ability to attend to their health and utilize health care facilities appropriately may depend in part on their decision-making autonomy. Women's autonomy in healthcare decision-making is extremely important for better maternal health care services. Women's autonomy is influenced by individual characteristics of a woman and socio-cultural norms and values of the society. In many societies, especially in developing or low-income countries, the status of women often limits their autonomy and ability to make decisions about many aspects of their own lives. Prior literature focused on couple's education, occupation and other socio-demographic characteristics i.e. age at marriage, age difference at marriage, numbers of children and sex of children for measuring the women's autonomy(20).

Women's autonomy has an important influence on their maternal healthcare-seeking behavior. Women's participation in domestic decision-making is strongly associated with ever —use of family planning. Women's autonomy is measured by using the composite index of three constructs of women's autonomy: control over finance, decision making power and extent of freedom of movement. It is also measured by women's participation in domestic decision making, attitudes toward wife beating, attitudes toward refusing sex with husband, and whether women said that getting permission to seek medical care is a big problem. Women's autonomy regarding maternal health service is an important factor in determining health seeking behavior(21).

2.2 Status of women's autonomy on decision making regarding their maternal health service utilization

According to study conducted in Ghana, on the decision making, number of women having power on their health service utilization, 22.01% decided by themselves on their own health care, 53.25% decided jointly with their partners and 24.78% and their decisions made by their

partners. As a result, 75.26% of women had health care decision making autonomy either alone or jointly. In this study it was identified that, low women autonomy, power inequalities at the household level between married couples has the ability to restrict health decision making autonomy of women which affects their health care utilization and other health outcomes(22).

In synthesized evidences from four of rural SSA countries concerning women's position of decision making on their health service utilization, the following condition have been observed.

Four countries namely: Ghana (1814 women), Kenya (2662 women), Uganda (3529 women) and Tanzania (4223 women) have high decision making authority=462, 362, 523, 372 respectively(23).

Another study conducted in Bale revealed that, less than half (41.4%) had higher autonomy regarding decision of their own health utilization. Among those who had autonomy, (65.2%) had regular access to source of money, of which 38.1% were able to use the money by their independent decision. Furthermore, 49.6% of the women were autonomous to take their children to health facilities while 43.9% of them were free to go to health facility for their own healthcare services, 56.7% of women had lower freedom of movement, 52.7% of women had higher financial controls(24)

2.3 Factors associated with women's autonomy regarding maternal health care utilization

The study conducted in Mediterranean region showed that a women's health care decision making autonomy is independently influenced by their educational level, control over earnings and partner's education(25).

According to study conducted in Bangladesh, demographic variables such as age of respondent, age at marriage, age differences between spouses, number of living children, respondent's educational level, occupation, partner's educational level, partner's occupation, monthly income, religion, using media were found to be associated with women's autonomy. Gender role expectations in Bangladesh are primarily male dominated and limit autonomous decision making of women when it comes to prenatal and postpartum care, and daily activities. Tradition dictates that Bangladesh women rely heavily upon their husband and mother-in-low for direction regarding healthcare, finances, and daily activities. As women get older they gain autonomy in

household decision making. A newly married daughter-in-law has less decision making power in the household and she is expected to perform household duties under the supervision of her mother-in-law who is the primary decision maker. Autonomous motility for most women was restricted and this prevents them from seeking care outside the home(26).

A study in rural SSA showed that women who were not visiting health care facilities were less likely to use ANC and skilled delivery services. According to the study conducted in Columbia, women who had some degree of autonomy were found to complete four or more ANC visits(27).

In many countries, women's autonomy is independently influenced by their socio-demographic statuses, control over earnings and partner's level of education in which it is key to determining health seeking behavior of maternal health(28).

Study findings in Ethiopia show that even though there is higher government effort made by constructing health institutions, producing highly educated professionals, health service utilization by women is not actually going in line with the government's effort which figured out that very fewer deliveries, that result in un acceptably high MMR maternal healthcare service utilization is below acceptable standards(29).

Urban women were more likely than rural women to have received ANC from a skilled provider (85% and 70%, respectively) and to have had four or more ANC visits (59% and 37%, respectively(30).

Studies from Ethiopia documented associations between individual, household, and community level factors with the use of maternal healthcare services. Evidences indicate that poverty continues to be an important determinant for non-use of skilled delivery assistance in Ethiopia. Women's community level female education also has stronger effect on the uptake of delivery assistance by skilled personnel(31).

Evidences in different countries indicated that, issues of access and autonomy to use of maternal health services vary, while also being affected by, economic and cultural elements like polygamous practices, which have been found to influence the rate of MHC utilization. It is often rejected by Christians while acceptable in Islamic religions in different countries(32).

Polygamous household environments place women in a competitive position in the family, where wives are considered rivals. In this family structure, the natural way to gain precedence is to have as many children as possible, and as such ignore female family planning practices. Nonetheless, when women in polygamous families want to practice family planning, their husbands and in-laws often do not agree and often punish women with violence(33). The male-female disparity in health and wellbeing has been well documented in developing countries and high levels of morbidity and mortality in women can often be indicative of female disadvantage relative to males. This is particularly thought to be the case where cultural norms and economic systems limit women's autonomy(34).

Remote and rural women's involvement in income generation activities is another aspect of women's empowerment, and it can be done by supporting them in entrepreneurship, including improved access to property and economic assets, training, microfinance and markets. There is a need for a specially designed empowerment program for women, where gender-stratified setting is high and women's low autonomy is largely the result of traditional factors. Above all, it is strongly argued that women's autonomy should enhance not just her education and employment(35).

2.4. Conceptual Frame work

This study seeks to examine women's autonomy and association between some traditions (cultural factors) on autonomy of women to decision making for maternal health service utilization. It assumes that women's autonomy is affected by their socio-demographic characteristics. Reviewed from published as well as grey literature on women's autonomy and the utilization of maternal health care services.

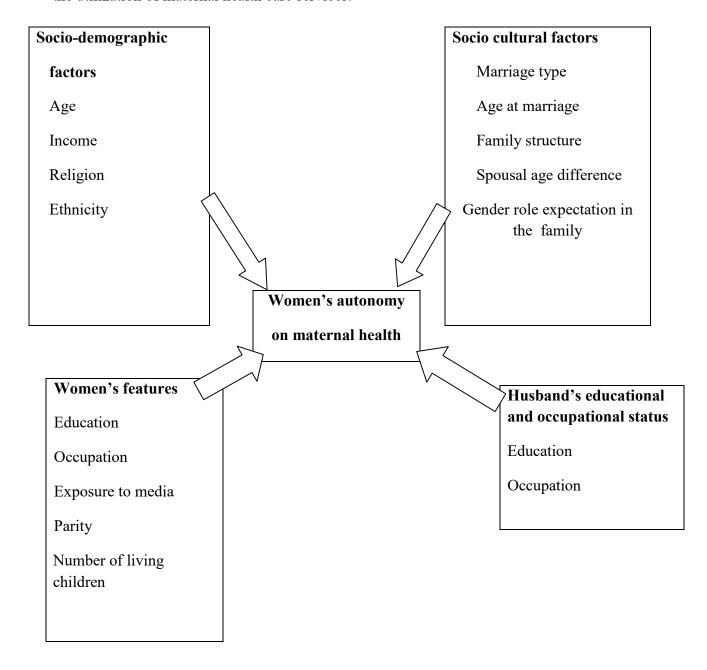


Fig: 1 conceptual framework on maternal autonomy, Adapted from (24).

CHAPTER THREE

OBJECTIVE OF THE STUDY

3.1 General objective

To assess the status of autonomy of women in deciding on their maternal health service utilization and associated factors among reproductive age group married women in Nekemte town, East Wollega zone, Ethiopia, 2020.

3.2 Specific objectives

- 1) To assess the status of autonomy of women in decision making on maternal health service utilization among reproductive age group married women in Nekemte town, East Wollega, Ethiopia, 2020.
- 2) To identify factors associated with autonomy of women's decision making on maternal health service utilization among the reproductive age group married women of Nekemte town, East Wollega, Ethiopia, 2020.

CHAPTER FOUR: METHODS AND MATERIALS

4.1. Study Area and Period

Nekemte town is one of the zonal towns in Oromia Regional State of Ethiopia which is found in

East Wollega zone 331kms far from Addis Ababa. It is inhabitedby132,711 residents of which

65,028 are females and 4,262 under one year children. According to report from Nekemte Town

Health Office, the number of women having under five years children is 13,442 and the number

of women in reproductive age group (15-49) is 29,369, of whom 4,605 are currently pregnant

women. The town is administratively divided by 7 kebeles. It has five governmental and 91

nongovernmental (including private) health facilities providing maternal health services. The

data was collected from February 21 to March 20, 2020.

4.2. Study Design

Community based, cross sectional study design by using quantitative and qualitative data

collection method was conducted.

4.3. Population and sample

Source population: All married women of reproductive age group from Nekemte town, having

one child under the age of 2 years and living.

Study population: A random sample of married women of reproductive age group who have at

least one under 2 years child in each kebele of Nekemte town.

Study unit: Individual woman.

4.4. Inclusion and exclusion criteria

Inclusion criteria: Women who fulfill the three eligibility criteria below were eligible for the

study: Women of reproductive age group

Married

Have at least one under 2 years age child

Exclusion criteria: Women who are critically ill during data collection period.

Those who participated in FGDs were excluded from the quantitative study.

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4.5. Sample Size Determination

The sample size for the study was determined using a single population proportion formula as follows: $n=(Z\alpha/2)^2 x p (1-p)/d^2$.

Where: \mathbf{n} = Sample size, $\mathbf{Z}\alpha/2$ = Confidence level at 95% = 1.96, \mathbf{p} = proportion of women who have high autonomy in decision making regarding their own health care from study conducted in similar region (41.4%) (24).

d= margin of error of 5%. The resulting sample size was 372. The calculated sample size was then adjusted for possible non-response rate of 10% making the final sample size (410).

4.6. Sampling technique

All kebeles were included for increasing the generalizability of the finding. The total sample size was proportionally allocated for the kebeles based on their population size to obtain the required number of study participants. The list of eligible mothers who live in the selected kebeles was obtained from health extension worker family data, sampling frame corresponding to house number was prepared. Based on this, the required number of participants was selected by using simple random sampling technique. For households with more than one eligible woman, interview was done by selecting a woman by using lottery method.

<u>Nekemte Town</u> <u>N=13,442 n=410</u>

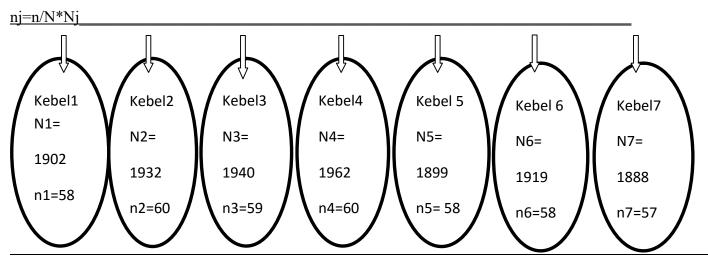


Figure 2: Schematic representation of sampling procedure

For qualitative data the sample size was purposively determined. A total of 4 FGDs were

conducted in selected kebeles (2 FGDs for women having under two years children, 2 FGDs for

community leaders, husbands, elders, religious leaders).

The information was systematically analyzed to explore the roles that community and religious

leaders and husbands play in maternal decision making in their health service utilization. All

transcripts were in Afan Oromo language and the researcher himself did the English translation.

The data gathered were coded based on the topic list, which include forms of community and

religious leaders and husbands involvement; advice given to the women; care and support given

during pregnancy, at delivery and in the post-natal period; birth preparations made by the couple

during the most recent birth; knowledge of husband's, community and religious leaders on

maternal health; and socio-cultural norms on husband's, community and religious leaders

involvement in maternal health. In this section, two FGDs were conducted with husbands,

community, religious leaders and two FGDs were conducted with women.

4.7. Study variable

4.7.1. Dependent variable

Autonomy of women in decision making on their maternal health service utilization.

Women's autonomy is measured by using the composite index of three constructs of women's

autonomy: control over finance, decision making power and extent of freedom of movement. A

composite measure for each construct was created using the sum of equal weighted binary (1 for

higher degree of autonomy versus 0=otherwise) and three input variables (2=stands for women

who were able to decide independently, 1= stands for joint decision and 0=otherwise). Based on

these values the overall score will be 27. Therefore, those women who scored more than or equal

to half of the total score i.e. 13.5 were considered as having higher autonomy while those who

scored less than 13.5 were said to have lower autonomy (24).

4.7.2. Independent variable

Socio-demographic variables: Age, monthly income, ethnicity, religion.

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Woman's status: Occupation, educational status, exposure to media, parity, number of living children.

Husband's status: Education, occupation

Socio-cultural factors: Marriage type, age at marriage, family structure, spousal age differences, gender role expectation in the family.

4.8. Data collection procedure and instrument

Face to face interview was used to collect data using structured questionnaires adapted from similar studies (24). The questionnaire was first prepared in English and it was contextualized to suit to the research objective and was translated into Afan Oromo.

The data was collected using pre-tested, and interviewer guided questionnaire. Six midwives selected from Nekemte referral hospital and Nekemte Health Center were recruited. And they were trained for two days for data collection.

We conducted a pre-test of the drafted interview in Arjo district. We interviewed 20(5% of the planned sample size) married women 15-49 years old. After completing all 20 interviews, the principal investigator and enumerators held a meeting to analyze the data for building up consensus in view of the pretest feedback and finalize the tools. For qualitative study, the principal investigator prepared open-ended and non directive FGD guide. Each FGD was conducted by a team composed of a note taker/recorder and a facilitator.

4.9. Data quality control

For quality, the data was collected by trained data collectors and pretesting of the instrument was made out of the study site before the actual data collection at Arjo town. During entry of data, double entry verification was checked using Epidata 3.1 and then exported to SPSS version 22 for analysis. The researcher with the supervisor have checked the data collection procedure and counterchecked the entries at random to ensure quality of data collection. Local language of residents (Afan Oromo) was used for collection as it contributes for the quality of data.

4.10. Data analysis

Data was analyzed by using SPSS version 22 statistical software. Descriptive statistics was used for determining frequency, percentage, mean and standard deviation as well as autonomy status.

All explanatory variables that showed statistically significant association in the binary logistic regression analysis with the outcome variable (women's autonomy) were entered to the multiple logistic regression. Hence, independent variables with p-value less than 0.25 at 95% confidence interval were screened as candidate under binary multiple logistic regressions. Under multiple logistic regression, the independent variables having value less than 0.05 were considered as significantly associated with dependent variable and being reported using both p-value and adjusted odds ratio.

The qualitative data obtained from participants' conversation was audio-taped, transcribed, translated and coded manually. Cut and paste was used for classifying and sorting information after wards categories were coded and similar categories were used to support quantitative findings. Finally the qualitative data was triangulated with quantitative data.

Decision-making power on health care utilization

The index for decision making power on health care utilization is composed of nine questions. Women were asked the question "who in her family usually has the final say on the following decisions": 1. Health care for yourself, 2.Health care for your child 3.Visit family or relative, 4.Number of children, 5.Use of maternal and child health (MCH) services; 6.Use of contraception 7.preference of delivery site, 8.Child immunization, and 9.Seeking advice or treatment from health personnel or your ill/ sick child? The possible responses for each item are respondent alone, respondent and husband/partner jointly, respondent and someone else, husband/partner alone and someone else. For each item the response will be scored as: 2 if a woman make sole decision, 1 if she is involved with someone (husband/partner or someone else) and 0 otherwise; the sum of the scores will be made to represent an overall index of a woman's decision making power as indicated by different studies (24). The maximum total score on decision making power is 18. Hence, those women who score more than or equal to nine are categorized as high decision making power where as those who score less than nine are categorized as low decision making power (24).

Decision making power over finance

The index of control over finance is composed of four items: whether the woman had regular access to a source of money(including both wages earned and gifts or support from family) and whether she state that she could spend this money without consulting anyone, who decides how the money she earned and her husband's earnings are used(24).

A score to each of the factors is given as that of index of decision making power responses, except that 1 and 0 for items with binary responses (i.e. yes or no responses). The total score on control over finance is 6. Those women with a score of three and above are considered as having high control over finance, while those women who score less than three said to be low control over finance(4).

Decision making power on freedom of movement

The index of freedom of movement consisted of three items pertaining to the woman's ability to leave the house without the company of another adult: whether she could go out to take a child to health facility, to visit family or relative and go to health facility for her own health care (24).

These items were seen with binary responses (yes or no). Hence, those with "yes" response is score 1 while those with "no" score is 0. The total score on freedom of movement is 3. Those women who score those more than or equal to one and half is considered as having high freedom of movement whereas those who score less than one and half are categorized as having low freedom of movement (4).

4.11. Ethical consideration

Ethical clearance was obtained from institutional review board (IRB) of Jimma University and institute of health science. Permission letter was obtained from East Wollega Zonal Health Department. Written consent was obtained from the respondent before conducting any data collection. The collected data was never be assessed by a third party person except the principal investigator and data collection facilitators and should be kept confidentially. Husbands (others) who were present during data collection, were provided with clear information about the purpose of the study and the data collection from respondent was carried out some meters far away and in a visible place. Permission to conduct FGDs was taken from community members and

individuals. Confidentiality with regard to their participation and anonymity with regard to their stored data was assured and each participant was asked for his or her written consent to participate in the study. Permission to audio-record discussion was also sought and obtained.

4.12. Data dissemination plan

The findings of this study will be presented to Jimma University Department of Health Management and policy and then disseminated to Jimma University Health Management and Policy department, East Wollega Zone Health Department, Nekemte Town Health Office and other concerned governmental and nongovernmental organizations working on maternal health. Conditions will be adjusted as much as possible to present it in various seminars and workshops and for publication on peer reviewed reputable journal.

4.13 Operational definitions

Women's autonomy: according to this study it is measured in terms of control over financial resources (economic autonomy), freedom of movement (physical autonomy), opportunity to participate in decisions (decision-making autonomy) about maternal and child health care utilization. From the overall score, means from the three dimension (27 score) those who score more than or equal to half, which is ≥ 13.5 (the mean score) out of the total score provided 27 for the three dimensions was categorized under having higher autonomy, while those who score below the mean score had lower autonomy (24).

The description of the three indexes one by one

Decision making power: According to this study it is measured by nine questions related to women's own children's health care having 18 total score, therefore, score ≥ 9 is said to have higher decision making power (24).

Freedom of movement: According to this study it is measured by three questions related to physical autonomy and those who score ≥ 1.5 is said to have higher freedom of movement (24).

Control over financial resources: In this study it is measured by 6 questions related to economic autonomy and those who score ≥ 3 is said to have higher autonomy over financial resource. Therefore, the summation gives us the total score (27) of which those who score greater than or equal to the mean (13.5) is said having higher autonomy (24).

Reproductive age mothers: Mothers from age of 15 to 49 (24).

Higher autonomy: under this study, it represents a woman who scored ≥ 13.5 from the given score by three dimensions (24).

Lower autonomy: under this study, it represents a woman who scored <13.5 from the given score by three dimensions (24).

CHAPTER FIVE: RESULT AND DISCUSSION

Out of the total 410 sampled women, interviews were conducted with 401 of them making a response rate of 97.8%.

5.1 Socio-demographic characteristics of women

The majority of respondents were under the age of 35 years. Women in the age groups of 26-30 constituted for 34.9% of the respondents. Women in the age group of 20-25 were 92(22.9%) and 5.7% were in the older age group. Forty percent 158(40%) of women had no income whereas about 133 (32.2%) were earning monthly income more than 4500 ETB. Majority of women were protestant believers 283(71%) and 29% were other than protestant religion followers. 319(79.6%) of women were Oromo followed by Amhara 61(15.2%) by Ethnicity. Fifty- four percent 218(54.4%) of the women were using media.

Table1: Socio-demographic characteristics of women, March 2020, Nekemte Town, Oromia, Ethiopia.

| Variables | N=401 | Percentage |
|------------------------------|-------|------------|
| Age of mother (years) | | |
| 20-25 | 92 | 22.9 |
| 26-30 | 140 | 34.9 |
| 31-35 | 81 | 20.2 |
| 36-40 | 65 | 16.2 |
| >40 | 23 | 5.7 |
| | | |
| | | |
| Monthly income of women[ETB] | | |
| 500-1500 | 44 | 11.0 |
| 1501-2500 | 69 | 17.2 |
| 2501-3500 | 32 | 8.0 |
| 3501-4500 | 36 | 9.0 |
| >4500 | 133 | 33.2 |
| Has no income | 87 | 21.7 |

| _ |
|---|

Thirty-six percent 146(36.4%) of women and 206(51.4%) of the husbands have attended tertiary education. Regarding husband/women occupation, 118(29.4%) of the women and 195(48.6%) of husbands are governmental employees. 152(37.9%) of the women were house wife and 13(3.2%) of the husbands were retired respectively.

Table2: Distribution of husband/women educational and occupational statuses, March 2020, Nekemte Town, Oromia, Ethiopia.

| Variables | N=401 | Percentage |
|----------------------------|-------|------------|
| Wife's education status | | |
| Illiterate | 35 | 8.7 |
| Read/write | 35 | 8.7 |
| Primary education | 77 | 19.2 |
| Secondary education | 108 | 26.9 |
| College graduate and above | 146 | 36.4 |
| Husband education status | | |
| Illiterate | 18 | 4.5 |
| Read/write | 16 | 4.0 |
| Primary education | 52 | 13.0 |
| Secondary education | 109 | 27.2 |
| College graduate | 206 | 51.4 |
| Occupation of wife's | | |
| Gov.employee | 118 | 29.4 |
| House wife | 154 | 38.4 |
| Daily laborer | 56 | 14.0 |
| Merchant | 56 | 14.0 |
| Farmer | 17 | 4.2 |
| Occupation of husbands | | |
| Gov. employee | 195 | 48.6 |
| Daily laborer | 91 | 22.7 |
| Merchant | 62 | 15.5 |
| Farmer | 22 | 5.5 |
| Unemployed | 18 | 4.5 |
| Retired | 13 | 3.2 |

5.2 Socio-cultural characteristics of women

Concerning table 3, distribution of socio-cultural factors, regarding age at marriage 275(68.6%) of the women married at age greater than 18 years and 386(96.3%) of the women have monogamy marriage type. Fifty five 222(55.4%) of the women's family structure was nuclear and sixty two 47(61.6%) of the partners have less than 5 years spousal age differences. 320(79.8%) of the women responded that the gender expectation in the society were equal.

Table 3: Distribution of socio-cultural factors, March 2020, Nekemte Town, Oromia, Ethiopia.

| Variables | N=401 | Percentage |
|------------------------------|-------|------------|
| Type of marriage | | |
| Monogamous | 386 | 96.3 |
| Polygamous | 15 | 3.7 |
| Age at marriage | | |
| Less than 18 years | 275 | 31.4 |
| Greater than 18 years | 126 | 68.6 |
| | | |
| Family structure | | |
| Nuclear | 222 | 55.4 |
| Extended | 179 | 44.6 |
| Spousal age differences | | |
| Less than 5 years | 247 | 61.6 |
| Moderate 6-10 years | 154 | 38.4 |
| Gender role expectation in a | | |
| family | | |
| Male dominance | 81 | 20.2 |
| Equal on every aspect | 320 | 79.8 |

5.3 The status of women's autonomy

Regarding decision making autonomy, women having higher decision making autonomy was 307 (76.6%). Concerning women's freedom of movement, 181 (45.7%) of women had higher autonomy of movement. Regarding control over finance, 261(65.2%) of women had higher autonomy of financial control.

The overall women's autonomy mean $(\pm SD)$ 14.7 (± 6.8) indicating that 229 (57.1%) of the women had higher autonomy while the remaining 172 (42.9%) had lower autonomy.

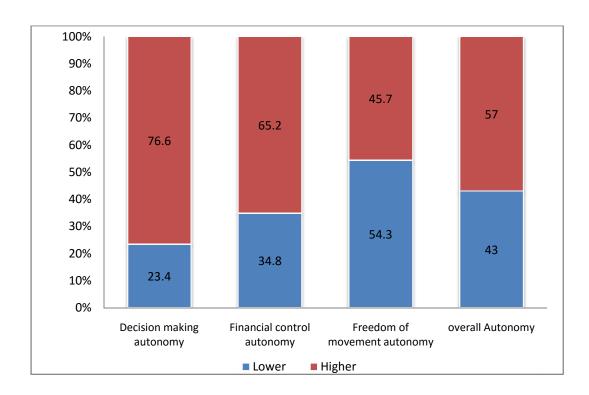


Figure 3: Women's autonomy measured through decision making power, control over finance and freedom of movement.

The binary logistic regression model showed that, sixteen independent variables were found to be candidate for multiple logistic regressions to decide factors associated with women's autonomy on their maternal health service utilization.

Table 5: Binary logistic regression model for factors associated with women's autonomy (Socio-demographic characteristics)

| Variable | Higher | COR | 95% CI | | P-value |
|----------------------------|-----------|--------|--------|-------------|---------|
| | Autonomy | | Lower | Upper | |
| Age of mother | | | | | |
| 20-25 years | 60(65.2) | | | | |
| 26-30 years | 58(41.4) | 1.326 | .769 | 2.287 | .310 |
| 31-35 years | 35(43.2) | 1.427 | .772 | 2.637 | .257 |
| 36-40 years | 32(49.2) | 1.818 | .951 | 3.478 | .071 |
| >40 years | 15(65.2) | 3.516 | 1.347 | 9.176 | .010 |
| Religion of mother | | | | | |
| Orthodox | 46(51.7) | | | | |
| Protestant | 173(61.1) | 2.781 | .915 | 8.457 | .071 |
| Catholic | 5(45.5) | 4.089 | 1.418 | 11.788 | .009 |
| Muslim | 5(27.8) | 2.167 | .450 | 10.439 | .335 |
| Ethnicity of mother | | | | | |
| Oromo | 188(59.9) | | | | |
| Amhara | 38(62.3) | 18.656 | 2.411 | 144.36 4 | .005 |
| Tigre | 2(28.6) | 21.478 | 2.633 | 175.18 9 | .004 |
| Others | 1(7.1) | 5.200 | .381 | 70.903 | .216 |

Table 6: Binary logistic regression model for factors associated with women's autonomy (Women Status)

| Variable | Higher | COR | 95% CI | | P- |
|----------------------------|-----------|-------|--------|-------------|------|
| | Autonomy | | Lower | Lower Upper | |
| Monthly income of mother | | | | | |
| 500-1500 ETB | 20(40.0) | | | | |
| 1501-2500 ETB | 19(33.3) | .176 | .078 | .399 | .000 |
| 2501-3500 ETB | 19(47.5) | .132 | .059 | .296 | .000 |
| 3501- 4500 ETB | 30(66.7) | .239 | .102 | .562 | .001 |
| >4500 ETB | 88(62.0) | .528 | .225 | 1.242 | .144 |
| has no income | 53(79.1) | .430 | .218 | .849 | .015 |
| Parity | | | | | |
| 1-2 | 92(57.1) | | | | |
| 3-4 | 87(57.6) | 1.040 | .617 | 1.753 | .883 |
| 5 and more | 50(56.1) | 1.060 | .625 | 1.799 | .828 |
| No of children | | | | | |
| 1-2 | 92(57.1) | | | | |
| 3-4 | 87(57.6) | 1.040 | .617 | 1.753 | .883 |
| 5 and more | 50(56.1) | 1.060 | .625 | 1.799 | .828 |
| Exposure to media | | | | | |
| No | 67(30.7) | | | | |
| Yes | 160(88.4) | 17.17 | 10.024 | 29.414 | .000 |
| Wife's educational status | | | | | |
| Illiterate | 15(42.9) | | | | |
| Read/write | 8(22.9) | .395 | .140 | 1.112 | .079 |
| Primary education | 34(44.2) | 1.054 | .471 | 2.362 | .898 |
| Secondary education | 57(52.8) | 1.490 | .691 | 3.214 | .309 |
| college graduate and above | 115(78.8) | 4.946 | 2.272 | 10.770 | .000 |
| Occupation of wife | | | | | |
| Merchant | 19(33.9) | | | | |
| Day laborer | 19(33.9) | .974 | .446 | 2.125 | .947 |
| Farmer | 8(44.4) | 1.558 | .528 | 4.596 | .422 |
| Governmental employee | 106(69.7) | 4.487 | 2.337 | 8.617 | .000 |
| House wife | 77(65.3) | 3.657 | 1.870 | 7.151 | .000 |

Table 7: Binary logistic regression model for factors associated with women's autonomy (Husband Status)

| Variable | Higher | COR | 95% | 6 CI | P-value | |
|----------------------------|-----------|-------|-------|-------|---------|--|
| Autonomy | | | Lower | Upper | | |
| Husband educational status | | | | | | |
| Illiterate | 11(61.1) | | | | | |
| Read/write | 10(62.5) | 1.061 | .265 | 4.243 | .934 | |
| Primary education | 30(57.7) | .868 | .290 | 2.596 | .800 | |
| Secondary education | 58(53.2) | .724 | .261 | 2.006 | .534 | |
| college graduate and above | 120(58.3) | .888 | .331 | 2.383 | .813 | |
| Occupation of Husband | | | | | | |
| Merchant | 36(58.1) | | | | | |
| Day laborer | 55(60.4) | 1.103 | .572 | 2.127 | .769 | |
| Farmer | 10(45.5) | .602 | .226 | 1.602 | .309 | |
| Unemployed | 111(56.9) | .954 | .535 | 1.702 | .874 | |
| Gov.employee | 7(38.9) | 1.135 | .388 | 3.320 | .817 | |
| Retired | 7(53.8) | .619 | .186 | 2.058 | .434 | |

Table 8: Binary logistic regression model for factors associated with women's autonomy (Socio-cultural events)

| Variable | Higher | COR | 95 | % CI | P-value |
|---|-----------|-------|-------|--------|---------|
| | Autonomy | | Lower | Upper | |
| Type of marriage | | | | | |
| Monogamous | 221(57.2) | | | | |
| Polygamous | 8(53.3) | 1.143 | .417 | 3.297 | .796 |
| Age at marriage | | | | | |
| Less than 18 years old | 86(68.3) | | | | |
| Greater than 18 years old | 143(52.0) | 1.985 | 1.274 | 3.092 | .002 |
| Gender Role | | | | | |
| Male dominance | 21(18.5) | | | | |
| Equality on every aspect of decision making | 208(66.7) | 8.883 | 4.841 | 16.300 | .000 |
| Family structure | | | | | |
| Nuclear | 117(52.7) | | | | |
| Extended | 112(62.6) | 1.500 | 1.004 | 2.241 | .408 |
| Spousal age difference | | | | | |
| Less than 5 years little | 144(58.3) | | | | |
| Moderate 6-10 years | 85(55.2) | .881 | .587 | 1.322 | .541 |

In the multiple logistic regression model, after adjusting for the potential confounders; monthly income of mother, mothers' educational status, occupation of mothers, exposure to media, age at marriage, and gender role expectations in the society were the final predictors of women's autonomy.

In this study monthly income of mothers with more than 4500 ETB [AOR: 11.616, (95% CI: 3.588-37.611)] were almost12 times more likely to be highly autonomous and monthly income of mothers between 3501- 4500 ETB [AOR: 6.011, (95% CI: 1.184-30.513)] and were 6 times more likely to be highly autonomous as compared to monthly income of mothers with less than 1500 ETB.

Regarding the educational status of the women, there is an increase with the odds of having higher autonomy as we go from read/write to college graduate and above. For read/write, primary, secondary and college graduate and above the AOR&CI at 95%, 0.712 [.151-3.367], 1.791[.537, 7.381], 1.865 [.495, 7.028], 6.223[1.481, 26.147], respectively. Those women having educational status graduate and above were 6 times higher odds of increased autonomy as compared to illiterate. Similarly, those government employees [AOR: 3.954, (95%C.I: 1.068-14.638] were almost 4 times higher odds of increased autonomy as compared to women whose occupational status were merchant.

Women who had exposure to media had almost 7 times a higher odds of having higher autonomy as compared to women those who had no exposure to media [AOR:6.747 (95% CI: 2.701-16.855].

The women those who married at age of ≤18 years are 2 times more likely to have higher odds of autonomy as compared to their counterparts (those who married above the age of 18 years old) [AOR=2.175, (95% CI: 0.967-4.891)]. Similarly, regarding gender role expectation, women who had equality on every aspect of decision making had higher odds of increased autonomy as compared to women who were male dominance [AOR: 39.643 (95% C.I:13.845-113.512)].

Table 9: Multiple logistic regression model for factors associated with women's autonomy (Socio-cultural events)

| Variable | Higher | AOR | 95 | % CI | P-value |
|---|-----------|--------|-------|---------|---------|
| | Autonomy | | Lower | Upper | |
| | (%) | | | | |
| Monthly income of mother | | | | | |
| 500-1500 ETB | 20(40.0) | | | | |
| 1501-2500 ETB | 19(33.3) | .769 | .217 | 2.718 | .683 |
| 2501-3500 ETB | 19(47.5) | 2.869 | .552 | 14.913 | .210 |
| 3501- 4500 ETB | 30(66.7) | 6.011 | 1.184 | 30.513 | .030 |
| >4500 ETB | 88(62.0) | 11.616 | 3.588 | 37.611 | .000 |
| has no income | 53(79.1) | 9.476 | 0.116 | 12.160 | .120 |
| Wife's educational status | | | | | |
| Illiterate | 15(42.9) | | | | |
| Read/write | 8(22.9) | .712 | .151 | 3.367 | .668 |
| Primary education | 34(44.2) | 1.791 | .537 | 7.381 | .303 |
| Secondary education | 57(52.8) | 1.865 | .495 | 7.028 | .357 |
| college graduate and above | 115(78.8) | 6.223 | 1.481 | 26.147 | .013 |
| Occupation of mother | | | | | |
| Merchant | 19(33.9) | | | | |
| Day laborer | 19(33.9) | 3.217 | .834 | 12.412 | .090 |
| Farmer | 8(44.4) | 1.102 | .161 | 7.527 | .648 |
| Governmental employee | 77(65.3) | 3.954 | 1.068 | 14.638 | .040 |
| House wife | 106(69.7) | 2.600 | .705 | 9.587 | .381 |
| Exposure to media | | | | | |
| No | 67(30.7) | | | | |
| Yes | 160(88.4) | 6.747 | 2.701 | 16.855 | .000 |
| Age at marriage | | | | | |
| Less than 18 years old | 86(68.3) | | | | |
| Greater than 18 years old | 143(52.0) | 2.175 | .967 | 4.891 | .060 |
| Gender Role | | | | | |
| Male dominance | 21(18.5) | | | | |
| Equality on every aspect of decision making | 208(66.7) | 39.643 | 13.84 | 113.512 | .000 |

5.5 Result of focus group discussion

The qualitative data indicate that there is a substantial involvement of husbands, community and religious leaders in maternal health care. Most of the FGD described supportive roles of husbands, community and religion leaders in the form of giving advice, making financial arrangements, and supporting woman to reduce the household work burden.

5.5.1 Decision making of health seeking in the family:

According to the majority of FGD participants, women should have decision making autonomy on their own health service utilization. They ought to have control over earnings, so that they will be able to go to the health facility to get appropriate services.

A 58 years old respondent said that "Women must have decision making autonomy in health care seeking but because of different reasons there are very few women who lack of decision making. They should have control over household income so that they can go to health facilities to seek maternal health services."

5.5.2 Women's use of maternal health services in health facility:

FGD women participants were also asked about the importance of ANC, delivery, PNC and other maternal health services. Most of the participants reported that women are expected to take the required maternal health services and they should be able to receive all the services as needed.

A 69 years old respondent said that "As maternal health services like ANC, delivery and PNC are important during pregnancy, while giving birth and after delivery women should get the services. As much as possible women should be free from economic, social and other influences that do not allow them."

5.5.3 Women's view in decision making of health seeking:

Women respondents were asked who makes more decision in their family regarding health seeking services. Most of the participants reported that both wife and husband had equal decision making power in their family regarding health care services.

A 37 years old respondent stated that "I support the idea that encourages women to involve in decision making. But there are some few families in which women's decision making is not practiced. This condition is not good and they must have decision making power on their health care seeking."

5.5.4 Social, religious and traditional practices regarding maternal health care services:

Some of the FGD participants elaborated that even though they have an interest to use services like family planning from health facilities, some religious believes prohibit the followers not to utilize. So do society's traditional practices.

A 68 years old respondent said "some religious believes do not allow their followers to take any oral or injectable contraceptive. Some traditions also do not permit members to go to health facility for delivery or to give birth rather pregnant mothers are expected to give delivery at home. This situation could be the reason for women to have lower autonomy on their health care utilization."

5.6 Discussion

This community-based study has attempted to assess the autonomy of women on decision making regarding their maternal health service utilization and associated factors in Nekemte town, Ethiopia. The study revealed that, women found to have higher autonomy of decision making regarding their maternal health service utilization was 57.1% in Nekemte town, East Wollega, Ethiopia.

This finding is somewhat higher compared to the study conducted in Ghana, which is nearly half (49.2%) of maternal health service utilization was independently decided by husbands and women have very little autonomy on deciding about their maternal health service utilization.

The finding is also higher than the study conducted in the same region, Bale zone, which only 41.4 % had higher autonomy on decision making on their maternal health service utilization (24). This difference may be due to the fact that the difference in the study area (this study involved the town women only) and study period in Ethiopia over the period of time (since the study

conducted in Bale) there is strong commitment and effort that has been made by Ethiopian government on maternal health.

In this study, women's monthly income was positively associated with women's autonomy. Those women with higher monthly income were more likely to be highly autonomous as compared to their counterparts. This finding is consistent with the Ethiopian national level study result that revealed women in the highest wealth quintile were highly decisive on health care utilization for their own health care services.

Regarding educational status, as we go from no formal education to tertiary education level, the odds of having higher autonomy increased. This finding is in line with the study conducted at Nepal(36). This might be due to the fact that well educated women can challenge their husband in order to have equal voice in decision making.

Women who had exposure to media had higher odds of having higher autonomy as compared to women who had no exposure to media. This finding is in agreement with the study conducted in Ethiopia.

Even though involvement in maternal health care service utilization is encouraged; certain cultural backgrounds in a society give no/little position for the women to decide their health issues which can be seen as a reason for mothers to utilize maternal health care services below countries demand.

Over all, this study showed that income (women's), educational status (women's), women's occupation, exposure to media, age at marriage and gender role expectation were significantly associated with women's autonomy. This indicates that empowerment of women in terms of education has irreplaceable role in enhancing them to decide on their maternal health service utilization autonomously.

5.7 Strength and limitation of the study

Although women's autonomy is a complex measure and there is no commonly agreed single definition for it, this study tried to address the most frequently used dimension of autonomy measures by different scholars. The study focused both on qualitative and quantitative dimensions of women's autonomy on utilization of maternal health care services. These might be

considered as the strength of the study. However, the study has limitations as mother might not recall her experience of visiting health care services autonomously for own and child health problems.

This study covered only autonomy on the utilization of deciding in one town but not maternal health care coverage in parallel with the status of autonomy due to the wideness of it and shortage of time and budget. The study was unable to assess women's autonomy to specific maternal and child health services (such as: ANC, delivery services, immunizations etc.) by which women's autonomy might not be interpretive to specific services.

5.8 Conclusion

The majority of women were found to have higher autonomy of decision making regarding their maternal health service utilization. Women's income, educational status, occupation, exposure of media, age at marriage and gender role expectation in the society (for instance, being in <18 years old age of marriage, having exposure to media) were positively associated with women's autonomy. As the income of women increases, there is an increase in level of autonomy and the same is true with educational status of women. Therefore, these factors should be taken into account while designing interventions.

5.9 Recommendation

Federal government: Best to stand for women (special attention) for the women on progressive and sustainable economic development or improvement.

Oromia Regional Health Bureau: Search mechanism by which it can discourage or encourage certain harmful/harmless traditional practices having positive/negative impact on the health seeking behavior of women, like polygamy, early marriage, through teaching the target society.

Nekemte Town Health Office: exert strong effort to improve the economic and educational status of women being in collaboration with concerned sectors so that their autonomy regarding health service utilization will be increased.

In general, targeted, community oriented and promotive strategies including women empowerment through involving them in income generating means such as small and micro enterprises are recommended.

There has to be mechanism like women capacity building or awareness creation for those who have low educational level and those who do not have access to media. Continuous life skill training (health education) for women to enhance their independent decision making regarding

their maternal health service utilization irrespective of their socio cultural or any personal background like parity, number of living children, economic status etc.

For this, different institutions, government offices, non-governmental organizations and policy developers could be able to take the responsibility.

Gender-based discrimination and socio-cultural perception of gender role at many levels prevent women from getting senior positions traditionally held by men that can affect the autonomy of women on decision making about maternal health service utilization.

The concerned women are also responsible to update themselves and equally compete with their men counterparts (not to be passive recipients but being active participant in any issues concerning their home and independently decide their maternal health service utilization).

Reference

- 1. Brunson EK, Shell-Duncan B SM. Women's autonomy and its relationship to children's nutrition. 2016.
- 2. Bhandari TR, Raman Kutty V, Sundari Ravindran TK. Women's autonomy and its correlates in western Nepal: A demographic study. PLoS One. 2016;11(1):1–9.
- 3. Ki-moon BAN. International Conference on Population and Development. Vol. 2, Indian medical tribune. 2014.
- 4. Olani A, Yadessa T, Yadessa F. Woman's autonomy on maternal health service utilization and associated factors in Ambo town, west showa zone, Ethiopia. Int J Multidiscip Res Dev [Internet]. 2019;(November).
- 5. Situ KC. Women's autonomy and maternal health care utilization in Nepal. 2013;72.
- 6. Organization WH, UNICEF U. Trends in Maternal Mortality [Internet]. World Bank Publications. 2015.
- 7. WHO. Trends in Mternal Mortality: 1990-2013. Estimates by WHO,UNICEF, UNFPA, The World Bank and the United Nations Population Division. World Heal Organ [Internet]. 2014;56.
- 8. Mendez A, Sawan M. Chronic monitoring of bladder volume: A critical review and assessment of measurement methods. Can J Urol. 2011;18(1):5504–16.
- 9. OMS. Trends in maternal mortality 1990 to 2015. Estimates developed by WHO, UNICEF, UNFPA and The World Bank. 2015;80.
- 10. Broussard NH, Page J, Tekleselassie TG, Ferede T, Reda HT. Ethiopian Demographic Health Survey. Youth and Employment in Sub-Saharan Africa: Working but Poor. 2017. 163–231 p.
- 11. Zureicz-Brown HN. Understanding global trends in Maternal Mortality. 2015.
- 12. Shrestha S, Bell JS, Marais D. An analysis of factors linked to the decline in maternal mortality in Nepal. PLoS One. 2014;9(4).
- 13. Cameron L, Suarez DC, Cornwell K. Understanding the determinants of maternal mortality: An observational study using the Indonesian Population Census. PLoS One. 2019;14(6):1–18.
- 14. 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;8:191–202.
- 15. KenyaNationalBureauofStatistics[KNBS]. Maternal Health Indicators in High-Priority Counties of Kenya. 2018;(110).

- 16. Tekelab T, Yadecha B, Melka AS. Antenatal care and women's decision making power as determinants of institutional delivery in rural area of Western Ethiopia. BMC Res Notes. 2015;8(1):1–8.
- 17. 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. 2019;1–12.
- 18. UNFPA, Swiss Tropical and Public Health Institute (Swiss TPH). Evaluation of UNFPA support to adolescents and youth 2008-2015. 2016;1(December):1–136.
- 19. Thapa DK NA. Women's autonomy and husbnnand's involvement in maternal health care in Nepal. 2015;
- 20. Chol C, Negin J, Agho KE, Cumming RG. Women's autonomy and utilisation of maternal healthcare services in 31 Sub-Saharan African countries: Results from the demographic and health surveys, 2010-2016. BMJ Open. 2019;9(3):1–9.
- 21. Kabakyenga JK, Östergren PO, Turyakira E, Pettersson KO. Influence of birth preparedness, decision-making on location of birth and assistance by skilled birth attendants among women in south-western Uganda. PLoS One. 2012;7(4).
- 22. Ganle JK, Obeng B, Segbefia AY, Mwinyuri V, Yeboah JY, Baatiema L. How intra-familial decision-making affects women's access to, and use of maternal healthcare services in Ghana: A qualitative study. BMC Pregnancy Childbirth [Internet]. 2015;15(1):1–17.
- 23. Sougou NM, Bassoum O, Faye A, Leye MMM. Women's autonomy in health decision-making and its effect on access to family planning services in Senegal in 2017: A propensity score analysis. BMC Public Health. 2020;20(1):1–9.
- 24. Nigatu D, Gebremariam A, Abera M, Setegn T, Deribe K. Factors associated with women's autonomy regarding maternal and child health care utilization in Bale Zone: A community based cross-sectional study. BMC Womens Health. 2014;14(1).
- 25. Oranization WH. Improving maternal and child health in South East Asia. J Heal Technol Assess. 2015;3(2):69–74.
- 26. Ghose B, Feng D, Tang S, Yaya S, He Z, Udenigwe O, et al. Women's decision-making autonomy and utilisation of maternal healthcare services: Results from the Bangladesh Demographic and Health Survey. BMJ Open. 2017;7(9):1–8.
- 27. Lowe M, Chen DR, Huang SL. Social and cultural factors affecting maternal health in rural Gambia: An exploratory qualitative study. PLoS One. 2016;11(9):1–16.
- 28. Osorio AM, Romero GA, Bonilla H, Aguado LF. Socioeconomic context of the community and chronic child malnutrition in Colombia. Rev Saude Publica. 2018;52:1–12.
- 29. Tekelab T, Chojenta C, Smith R, Loxton D. Factors affecting utilization of antenatal care in

- Ethiopia: A systematic review and metaanalysis. PLoS One. 2019;14(4):1–24.
- 30. CSA. Ethiopia Mini Demographic and Health Survey. 2014.
- 31. Mezmur M, Navaneetham K, Letamo G, Bariagaber H. Mezmur M, Navaneetham K, Letamo G, Bariagaber H. Individual, household and contextual factors associated with skilled delivery care in Ethiopia: Evidence from Ethiopian demographic and health surveys. PLoS One. 2017 Sep 14;12(9):e0184688. 2017;1–16.
- 32. CHITU WOMEHOMA PRINCEWILL, AYODELE S. JEGEDE, KARIN NORDSTRÖM, BOLATITO LANRE-ABASS and BSEA. Making in Research Participation Amongst Yoruba. Dev World Bioeth. 2018;17(1):40–9.
- 33. Gabrysch S, McMahon SA, Siling K, Kenward MG, Campbell OMR. Autonomy dimensions and care seeking for delivery in Zambia; The prevailing importance of cluster-level measurement. Sci Rep [Internet]. 2016;6(September 2015):1–7.
- 34. Singh S. Women's autonomy in rural india: Need for culture and context. Int Soc Work. 2010;53(2):169–86.
- 35. Cornish H, Walls H, Ndirangu R, Ogbureke N, Bah OM, Tom-Kargbo JF, et al. Women's economic empowerment and health related decision-making in rural Sierra Leone. Cult Heal Sex [Internet]. 2019;0(0):1–18.
- 36. Adhikari R. Effect of Women's autonomy on maternal health service utilization in Nepal: A cross sectional study.2016.

Appendices

| Annex I: Informed consent (English Version) |
|---|
| Dear applicant! Good morning? (good afternoon) |
| I am, I came as a data collector and I am inviting you to participate in |
| a study that examines autonomy of mothers on decision making regarding their maternal health |
| care and associated factor at Nekemte town. The information will be gathered during any time |
| respondents found to be volunteers. Reproductive aged mothers living in Nekemte town will be |
| recruited for the study. There is no potential risk intended monetary compensation involved for |
| participating in this study. It only costs your time of 30 to 40 minutes. This study does not bring |
| any harm to you and it does not have benefit in terms of fee. If you feel discomfort with the |
| questions, please feel free to drop at any time you want. Finally, what I want to assure you is that |
| your name and address will not be mentioned and handed over to others. However, the result will |
| be organized and documented and might be submitted to the concerned Health Organizations or |
| other bodies. |
| Sign below for your confirmation |
| I understand that if I decide at any time that I do not want to participate in this study, I can tell |
| the data collector and withdraw immediately. Participating in this study will not affect me any |
| way, confidentiality and anonymity will be maintained and it will not be possible to identify me |
| from any publication. |
| Respondent's NameSign Date |

Questionnaire of assessing maternal autonomy, adapted from different literatures.

Section 1.Socio demographic questions

| 1. Demographic Information | | | | | | | | |
|----------------------------------|---------------|---------|---------|------|---------|-----------|-----|------------|
| 1001.1 Sex | Male | | | | Female | remale | | |
| 1001.2 Age | | | | | | | | |
| 1001.3 Monthly Income | | | | | | | | |
| 1001.4 Marital Status | 1. Unmarrie | d | 2. Mai | ried | | 3. Wid | owe | d/Divorced |
| 1001.5 Religion | 1. | 2. Prot | testant | 3. C | atholic | 4. Mus | lim | 5. Others |
| | Orthodox | | | | | | | |
| 1001.6 Ethnicity | 1. Oromo | 2. Am | hara | 3. T | igre | 4. Gura | age | 5. Others |
| 1001.7 Parity | | | | | | | | |
| 1001 0 N 1 1 11 1 | | | | | | | | |
| 1001.8 Number of living children | | | | | | | | |
| | /1 1 1 | | | | | | | |
| W omen/ | husband statu | ıs | | | | | | |
| 1002.0 Educational status | 1. Illiterate | 2.Rea | d/write | 3. | | 4. | | 5. College |
| | | | | Pri | mary | Second- | - | graduate |
| | | | | edı | cation | ary | | |
| | | | | | | education | on | |
| 1002.1 Husband's educational | 1. Illiterate | 2.Rea | d/write | 3. | | 4. | | 5. College |
| Status | | | | Pri | mary | Second- | - | graduate |
| | | | | edı | ication | ary | | |
| | | | | | | education | on | |
| 1002.2 Occupation | 1. | 2. Da | - | 3.] | Farmer | 4. Gov. | | 5. Others |
| | Merchant | labore | er | | | employ | ee | |
| | | | | | | | | |

| 2. Monogamous | 3. Polygamous |
|---------------------------|------------------------------|
| | |
| | |
| | |
| 1. Less than 18 years old | 2. Greater than 18 years old |
| | |
| | |
| | |

| 1002.3 Husband's occupation | 1. | 2. Day | 3. Fari | mer | 4. Gov. | 5. Others |
|-----------------------------|----------|---------|---------|------|----------|-----------|
| | Merchant | laborer | | | employee | |
| | | | | | | |
| | | | | | | |
| 1002.4 Exposure to media | 1. Yes | | | 2. N | 0 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Socio-cultural factors

| 1002.7 Family structure | 1. Nuclear | 2. Extended |
|---------------------------|----------------------------|--------------------------------|
| | | |
| | | |
| 1002.8 Spousal age | 1.Less than 5 years little | 2. Moderate 6-10 years |
| differences | | |
| | | |
| 1002.9 Gender role | 1. Male dominance | 2. Equality on every aspect of |
| expectations in a society | | decision making |
| | | |

Section 2: Now I would like to ask you some questions related to your role in decision making (women's autonomy) regarding your own and your child health care.

| Section 2.A | Section 2.A Questions to assess women's decision making power at household level | | | | | | |
|-------------|---|-----------------------------|-------------|--|--|--|--|
| Probe que | Probe questions from Q1002.2-1003.8. "Who in your family usually has the final say on the | | | | | | |
| following o | lecisions": | | | | | | |
| Q1003.0 | Health care for yourself? | Someone | Description | | | | |
| | | else1 | | | | | |
| | | Husband/partner2 | | | | | |
| | | Husband /partner or someone | | | | | |
| | else3 | | | | | | |
| | Respondent and husband/sb. | | | | | | |
| | | Jointly4 | | | | | |
| | | Respondent | | | | | |
| | | alone5 | | | | | |
| | | | | | | | |
| | | | | | | | |
| Q1003.1 | Health care for your child? | Someone | 1,2,3=0 | | | | |
| | | else1 | 4=1 | | | | |
| | | Husband/partner2 | 5=2 | | | | |
| | | Husband /partner or someone | | | | | |

| | | olco 2 |
|---------|----------------------------|-----------------------------|
| | | else3 |
| | | Respondent and husband/sb. |
| | | Jointly4 |
| | | Respondent |
| | | alone5 |
| | | |
| Q1003.2 | Visit family or relatives? | Someone |
| | | else1 |
| | | Husband/partner2 |
| | | Husband /partner or someone |
| | | else3 |
| | | Respondent and husband/sb. |
| | | Jointly4 |
| | | Respondent |
| | | alone5 |
| | | |
| Q1003.3 | The number of children | Someone |
| | you want to have? | else1 |
| | | Husband/partner2 |
| | | Husband /partner or someone |
| | | else3 |
| | | Respondent and husband/sb. |
| | | Jointly4 |
| | | Respondent |
| | | alone5 |
| | | |
| Q1003.4 | Use family | Someone |
| | planning/contraception? | else1 |
| | | Husband/partner2 |
| | | |

| | | Husband /partner or someone |
|----------|--------------------------|-----------------------------|
| | | else3 |
| | | |
| | | Respondent and husband/sb. |
| | | Jointly4 |
| | | Respondent |
| | | alone5 |
| | | |
| Q1003.5 | Antenatal care need | Someone |
| | during pregnancy? | else1 |
| | | Husband/partner2 |
| | | Husband /partner or someone |
| | | else3 |
| | | Respondent and husband/sb. |
| | | Jointly4 |
| | | Respondent |
| | | alone5 |
| | | |
| Q1003.6 | Where to be the place of | Someone |
| | your delivery? | else1 |
| | | Husband/partner2 |
| | | Husband /partner or someone |
| | | else3 |
| | | Respondent and husband/sb. |
| | | Jointly4 |
| | | Respondent |
| | | alone5 |
| | | |
| <u> </u> | | |

| Q1003.7 | Your child vaccination? | Someone | |
|---------|-----------------------------|-----------------------------|--|
| | | else1 | |
| | | Husband/partner2 | |
| | | Husband /partner or someone | |
| | | else3 | |
| | | Respondent and husband/sb. | |
| | | Jointly4 | |
| | | Respondent | |
| | | alone5 | |
| | | | |
| Q1003.8 | Seeking advice or | Someone | |
| | treatment from health | else1 | |
| | personnel or your ill/ sick | Husband/partner2 | |
| | child? | Husband /partner or someone | |
| | | else3 | |
| | | Respondent and husband/sb. | |
| | | Jointly4 | |
| | | Respondent | |
| | | alone5 | |
| | | | |

| Section 2. | B Questions to assess women' | s freedom of movement | | | |
|--|---|-----------------------|------------|--|--|
| Q1003.9 | Would you leave your home alone without asking another adult (husband /partner or someone?) | Yes1 No2 | 1=1 2=0 | | |
| Q1004.0 | Would you leave your home alone without asking another adult (husband /partner or someone permission to go to health facility for your own health care? | Yes1 No2 | | | |
| Q1004.1 | Would you leave your home alone without asking another adult (husband /partner or someone permission to visit family or relatives? | Yes1 No2 | | | |
| Section-2 C Sections to assess women's control over financial resource | | | | | |
| Q1004.2 | Do you have regular access to a source of money (both your wage and your husband's wage?) | Yes1 No2 | | | |
| Q1004.3 | If yes to question Q1004.2, do you spend without consulting anyone? | Yes1 No2 | | | |
| Q1004.4 | Who usually decides how the money you earn is used? | Someone else | | | |

| Q1004.5 | Who usually decides how your husband's/partner's earnings is used? | Someone else Husband/partner Husband /partner or some | 2 eone else3 |
|-------------------------------|--|---|------------------------|
| | | Respondent alone | 5 |
| Check the q | uestionnaire to make sure that | all the questions have been | responded accordingly. |
| Name of nterviewer_Checked by | | Signature | Date |
| Supervisor's Name | | Signature | Date |

FGD Guide

| Target: Married women of reproductive age group having at least one underfive children | | | | | |
|---|--|--|--|--|--|
| Name of village: | | | | | |
| Pace of discussion | | | | | |
| Time started Time ended | | | | | |
| Name of moderator | | | | | |
| Name of note taker | | | | | |
| Introduction | | | | | |
| Good morning/afternoon participants? You are welcome to this discussion. I am/we are | | | | | |
| from Jimma University post graduate school. We would like to discuss and explore your | | | | | |
| view regarding women's autonomy in maternal health service utilization. The purpose of | | | | | |
| this discussion is to provide information useful in designing investigations to further | | | | | |
| maternal mortality in Ethiopia. We hope that your answers and discussion to our | | | | | |
| questions will be important to understand the situation and it will be helpful to improve | | | | | |
| maternal health care in this area. Feel free to discuss among yourselves and ask for | | | | | |
| clarification where necessary. All the information is strictly confidential and nothing you | | | | | |
| will say makes us unhappy. You don't have to reveal any personal information if you | | | | | |
| don't want to, but if you are willing to share your experiences; it will be very helpful to | | | | | |
| us in understanding women decision making issues. I/we would request that you be | | | | | |
| audible and speak one at a time, so that all your important views are understood and | | | | | |
| written down. We also have tape recorder that will help us to capture the discussion to | | | | | |
| ensure that we do not miss anything. We expect our discussion will last about 45-60 | | | | | |
| minutes. | | | | | |
| If you have any question that is not clear, you can ask. | | | | | |
| Are you willing to participate? Yes No | | | | | |

Interview guide for FGDs

- 1. What are the main health problems affecting women in this community?
- 2. Is it important that women should get services like ANC, delivery, PNC in health facility? Why? Probe: For both answers who are saying yes and no.
- 3. Who is responsible for making decisions in health seeking in your family?
- 4. Does lack of decision making power on health care services affect material health?
- 5. In your opinion what makes women not to use maternal health care services? Probe: distance, transportation, religion, sex of attendants? What are the religious and traditional practices of community regarding this?

Thank you very much for your participation!!