THE ASSOCIATION OF WOMEN EMPOWERMENT DIMENSIONS WITH ANTENATAL CARE UTILIZATION AMONG MOTHERS ATTENDING DELIVERY AND POSTPARTUM SERVICES AT JIMMA TOWN PUBLIC HOSPITALS, OROMIA REGION, SOUTH WEST ETHIOPIA

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JIMMA, ETHIOPIA
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JIMMA UNIVERSITY
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ABSTRACT

***Background**: - Women empowerment is a multidimensional global development goal. Women in developing countries are exposed to disempowerment. Which leads women to mortality and morbidity by inhibiting them from determinant maternal care like antenatal care. It is impossible to decrease maternal mortality without sufficient and timely antenatal care. However, the association between women empowerment and antenatal care utilization was understudied. Therefore, this research aimed to assess the association of women empowerment dimensions with recommended antenatal care utilization.*

***Objectives: -** To assess the association of women empowerment dimensions with antenatal care utilization among mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, South West Ethiopia, 2022.*

***Method: -** A facility-based cross-sectional study was conducted among 305 mothers selected by systematic random sampling from July 1 – August 31, 2022. A structured interviewer-administrated questionnaire was used for data collection. The collected data were entered into Epi-data version 4.6 and then exported to the SPSS version 26. Pearson correlation, Bivariate and multivariate linear regression were used to determine the association between the women empowerment dimension and antenatal care utilization.*

***Result**: Out of 305 respondents, 301(99.1%) gives their complete responses. The finding shows that about 12%; 95% CI(8.5-16.2) utilized recommended antenatal care contact.Multivariate linear regression shows freedom of movement (*β=1.176 ,ρ=0.00*) a high self-efficacy (β=0.046, ρ=0.00), self-esteem(β=0.088, ρ=0.00), an internal locus of control (β =0.062, ρ=0.00), and labor force participation (β =0.624, ρ= 0.001), Age at first marriage (β=0.087,ρ=0.003)were all associated with recommended antenatal care utilization.*

***Conclusion and Recommendation-** Women empowerment dimensions have a positive and statistically significant association with antenatal care utilization. Only one in ten mothers utilized recommended antenatal care contacts. So to improve recommended antenatal care utilization by mothers, empowerment of women by health professionals, hospitals, and other stakeholders is very important.*

***Key words:-**Women, antenatal, empowerment, recommended, Jimma, Ethiopia.*

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
ANC4+	Antenatal care four and above.
DHS	Demographic and Health Survey
EDHS	Ethiopian Demographic and Health Survey
JMC	Jimma Medical Center
LMICs	Low and middle-income countries
MSc	Masters of Science
DHS	Demographic and Health Survey
SDG	Sustainable Development Goal
SPSS	Statistical Package for Social Science
SNNPE	Southern Nation, Nationalities, and Peoples of Ethiopia
SWPER	Survey-based Women empowerment
UN	United Nations
USA	United State of America
WHO	World Health Organization
MCH	Maternal and child healthcare

CHAPTER ONE

1. INTRODUCTION

1.1 Background

Women empowerment is a multidimensional global development concern. Due to the complex nature of women empowerment dimensions, scholars have tried to explain them in numerous ways (1,2). Naila Kabeer articulated; it is about the process by which those who have been denied the ability to make strategic life choices acquire such ability through agency, resource, and achievement (3). Bill and Milinda Gates Foundation under multidisciplinary theorists agree with these three conceptual domains of women empowerment. This theorist defined it as an expansion of strategic life choices, strengthening of the voice, and expanding women's aspirations(4). Oxfam GB explained the same domain as personal or 'power within, relational or 'power-to', and environmental or 'power-over' by the level it can happen (5). Depending on this, most scholars agreed to measure women empowerment dimensions using about eleven crucial dimensions which are classified under the above three domains and these are a locus of control, self-efficacy, self-esteem, attitude to gender norms, decision-making participation, freedom of mobility, education, labor force participation, exposure to media, age at pivotal life events which includes age at marriage and child birth (5–8). These theoretical views of women's empowerment may guide the measurement, and advance the field (9)

Sustainable development goal (SDG) suggests that women empowerment is essential for development, reproductive health outcomes, and pregnancy (10)(11). Because of this, it became the interest of researchers to measure and empower women for sustainable development (12,13). The dimensions of women empowerment has a strong association with women seeking antenatal care and reproductive health service (1,14). Antenatal care is life-saving care provided by skilled health professionals to pregnant women. It stands for prevention, health promotion, and management of pregnancy-related disease for the positive outcomes of pregnancy and future reproductive life (15,16). After SDGs were adopted, WHO recommends at least 8 contacts for normal pregnant women, to decrease the burden of maternal mortality(17). Additionally; women empowerment help in the antenatal period for a healthy lifestyle improves women nutritional status and increases seeking health care for ANC, all of which are expected to reduce maternal mortality(18,19). It is an accepted fact that lack of antenatal care results in higher perinatal maternal mortality rates; nonattendance seems related more to a lack of empowerment than ignorance (20).

1.2 Statement of the problem

Globally women empowerment and maternal health are key indicators of sustainable development (21). Women in developing countries had been exposed to disempowerment and had lower access to healthcare (22,23). They lack decision-making power, marginalized from labor force participation, domestic violence, child marriage, adolescent pregnancy, poverty, and illiteracy (22). Low women empowerment is one of the most critical attributes behind high maternal mortality and morbidity that can be prevented (24).

Until recently, 810 pregnant and childbearing women died daily due to preventable causes (25). From this, Africa shares 50% of the preventable maternal mortality ratio, while developed nation shares 0.6% (26). In addition, every 11 seconds a pregnant woman or newborn dies somewhere in the world and 94 percent of all these maternal deaths still occur in low and middle-income countries especially Sub-Saharan Africa (27–30). Low empowerment exposes women to mortality and morbidity by inhibiting them from life-saving care during pregnancy (27,31–33). The primary reason for preventable daily maternal mortality is failure to utilize ANC(34,35). Lack of empowerment is a barrier to antenatal care utilization (26). If women are empowered and utilized antenatal care, it can prevent three-fourths of maternal morbidity and mortality (25). Due to this, SDG 5 focuses on the empowerment of girls and women, and then goal 3 aims to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030(36).

There is a great discrepancy between developed and developing countries regarding maternal healthcare utilization. In the UK women utilize ten antenatal care visit, in the USA, fourteen visits for a normal pregnancy is recommended (37). But in Sub-Saharan Africa, only 53% of women utilized four antenatal care contact(25), and only 6.8% of women utilized currently recommended antenatal care contact(38). Ethiopia like several sub-Saharan African countries admitted 401/100,000 maternal mortality and 33/1000 neonatal mortality which makes amongst unfair share of adverse maternal health outcomes in the world. To mitigate this Ethiopia adopted 2016 WHO model of eight contacts to reduce maternal and perinatal mortality and morbidities(39)

In Ethiopia, while substantial progress has been made, antenatal care utilization remains unacceptably low even during the previous four-visit model(40). The most recent national report shows(2019 DHS) ANC4+ was 43% (41). In addition, only 1% of rural Ethiopian women utilized 8 visits of antenatal contact (42). This may be due to the low proportion of empowered women in the country which report shows only 6 % of married Ethiopian women were empowered(43).

Women empowerment is possible means to increase ANC utilization (44). It includes decision-making, locus of control, self-efficacy, self-confidence, self-esteem (5,7,8), education, household decision-making,non-justifying wife beating, freedom of mobility, labor force participation, and accessing information suggested to increase ANC utilization (45–47). Despite their importance in maternal health and antenatal care utilization, these women empowerment dimensions have been overlooked in previous research (28,45,48–50). Because of this, the currently available evidence of women empowerment dimensions and their association with antenatal care utilization are inconsistent, limited to DHS data, and a majority of dimensions were not studied (34,51).

So to the best of the researcher's search is concerned, there is no published evidence regarding the association of women empowerment dimensions with current recommended antenatal utilization in Ethiopia using commonly accepted women empowerment dimensions. As a result, the purpose of this study is to determine the association of women empowerment dimensions with recommended antenatal care contact among mothers who attended delivery and postpartum services at Jimma town public hospitals in Jimma town, Southwest Ethiopia, in 2022.

1.2 Significance of the study

Women empowerment is an important determinant for programs and policies to reduce maternal mortality and improve overall maternal health(26). The findings of this research will help participants of this study by identifying the predictors of antenatal care utilization and enhancing their health care utilization. It will help as input for policymakers and stakeholders to accelerate antenatal care utilization. It helps healthcare providers and Jimma town public hospitals to utilize evidence of the association of women empowerment dimensions and its association with antenatal care utilization to expand a program of newly recommended antenatal care utilization. Furthermore, it will help researchers by being a reference for future researchers who are interested in researching the women empowerment dimension, the magnitude of current recommended antenatal care utilization, and its predictors. Finally, it will help humanitarian organizations interested to work on antenatal care utilization.

CHAPTER TWO

2. LITERATURE REVIEW

The Sustainable Development Goals (SDGs) emphasized the need for an indicator of women empo werment so that it can be tracked, compared across settings, and stakeholders held responsible(9). Without consensus on measurement, it is unclear whether measures of empowerment operate in the same way in different countries since it may be affected by contexts like culture and religion. Thus, to withstand such inappropriate measurement of dimensions of women empowerment and its association with antenatal care, theoretically and logically suggested dimensions have to be used(6). Women empowerment has been considered the goal and as well as crucial for health-seeking during pregnancy(52). The current recommendation for antenatal care has moved above women survival and toward positive child experience and motherhood, which is based on the SDG empowerment of women. It is focused on women-centered, human rights-based, respectful, and compassionate care of pregnancy (53,54). Studying women empowerment and ANC utilization demands more attention to meet this life-saving goal.

2.1 Magnitude of Recommended antenatal care utilization

Facility-based cross-sectional study finding from China after the WHO recommendation was endorsed, shows 39.93% of the women received ANC contact at least eight times. About 16.66% of the women received ANC at least 11 times. The mean number of ANC visits was 6.95 ± 3.45 with a range from 1 to 28 times. The previously recommended number of antenatal care in China was more than five visits before a new recommendation was replaced (55).

Multi-nation data shows about 74% of Jordanians, 30% of Albanians and 43% of Ghanaians women receive greater than 8 recommended antenatal care. Pooled prevalence recommended 8 contact which includes Senegal, Uganda, and Zambia 13% (56). This finding shows heterogeneity in the prevalence of 8 or more ANC contacts across countries and a low prevalence of 8 or more ANC contacts. The research was done only one year after the recommendation was endorsed.

Community-based cross-sectional study findings from Pakistan show that only 15% of women utilized recommended antenatal care contact(57).

Community Survey from Cameroon indicates only 6.3% of mothers had recommended ANC contact. This study was done after the WHO recommendation was adopted in Cameroon. The study investigated different factors and it pointed to targeting empowering women as an intervention and removing all barriers associated with accessing ANC (58). Another finding from Cameroon also shows 8.9% of women had at least eight ANC contacts. In addition compliance with 2016 WHO ANC guidelines for a positive pregnancy experience was a significant association with receiving a higher number of ANC interventions before delivery (59).

Community-based cross-sectional data(DHS) analysis from Benin shows 8% of mothers utilized recommended 8 ANC contact. It Includes samples of those who followed ANC after the new guideline of ≥ 8 ANC was endorsed (60).

A policy brief from Kenya shows only 0.5% of mothers are utilized. Increasing antenatal care contact improves continuum maternity care. If women adhere to antenatal care visits, they have a high probability to utilize all components of antenatal care (61)

In Sub-Saharan African nations findings shows Cameroon about 7.8%, Gambia 4.3%, Sierra Leone 25%, and Libya 26.7% utilized recommended antenatal care contact(62).In addition to this evidence from 36 Sub-Saharan countries shows the pooled magnitude of eight or more ANC visits in sub-Saharan African countries was 6.8% (38). This scarce literature shows there is a small number of mothers utilizing WHO-recommended ANC in developing countries, especially in Sub-Saharan Africa. (41). Regarding the magnitude of newly recommended antenatal care, analysis from DHS shows only 1% of rural Ethiopian women utilized 8 contacts of antenatal care(42).

These findings show a wide difference in the magnitude of recommended antenatal care throughout the nations. While it's better in a more developed country like china it's lower in less developed countries of Sub-Saharan Africa. To searching of the researchers were concerned there is no available data on recommended antenatal care for positive childbirth experiences in Ethiopia regardless of its endorsement.

To summarize, for more than a decade WHO recommends four visit for developing country in order to provide basic antenatal care to setting where few professionals and resource limited. Mothers from developed countries already utilizing greater than eight contact even before recommendation of WHO (37).The current recommended antenatal care for positive childbirth experience development was more than six years. But, the magnitude of utilization was very low among developing countries.

2.3 The Association Of Women Empowerment Dimensions With ANC Utilization

2.3.1 The association of different dimensions of women empowerment with ANC utilization

This consists of ways of getting information, education, age at first marriage, and age of mother at first childbirth (6) (sometimes they called social empowerment collectively (10)). Different findings show that women empowered through information, education, age at first marriage, and age at first childbirth (as known as social empowerment) have a significant association with recommended antenatal care utilization. For instance, Pakistan community survey analysis shows that women those free from child marriage and adolescent pregnancy, educated, and have exposure to media utilize antenatal care two times more frequently than others (63). As well, as findings from the Bangladesh community survey shows that women who have media exposure, education, increased age at first marriage, and age at first childbirth 97% of them utilized more recommended antenatal care (49). A community-based cross-sectional study from South Africa shows that reduced ANC visits were common among adolescents; It shows adults are more mature and had better knowledge about pregnancy-related requirements than adolescents (64). Another Systematic review finding from west and central Africa shows antenatal care utilization was lowest among mothers who give birth during adolescence (65). Another finding from South Africa shows teenagers might not be aware of the symptoms and signs of pregnancy, which could affect reduced visits for ANC (66)

A community-based cross-section study finding from Cameroon also indicates that reading newspapers/magazines, listening to the radio, and watching television increase women utilization of recommended antenatal care(60). Furthermore, a community survey from Jimma Zone, Ethiopia shows that media exposure is an important predictor of antenatal care utilization. It also reports child marriage is commonly harmful practiced (67). Generally, the empowerment of women is much needed for sustainable development including their healthcare utilization.

If women left unempowered, child marriage, adolescent pregnancy, and illiteracy will be generational since they are the creators, teachers, and developers of any human generation(68)

2.3.2 The association of household decision-making with ANC utilization

Decision-making is a key dimension of women empowerment(4). Literature review from Africa shows, women are marginalized and invisible in decision-making. Women's involvement in decision-making was a key component of women empowerment(69). Some research shows a significant association between decision-making and antenatal care utilization.

A community survey from Indonesia showed that women who are involved in household decision-making utilize antenatal care more than those who did not participate in the household decision(70). A community-based national survey from Tajikistan shows women decision-making on their health care, large household purchases, family visits, and household expenses have an association with antenatal care utilization(71).

In Ethiopia community-based survey shows, women who did not participate in any household decisions making were much less likely to receive antenatal care compared with women participating in household decisions making(72). The Systematic review which includes Ethiopia shows that household decision-making participation directly affects ANC care utilization(73).In another way, the community-based cross-sectional study finding from Jimma Zone reveals that joint decision-making with the husband was more effective than decision-making by women alone on ANC follow-up(67). But, a comparative community-based cross-sectional study from Wombera woreda, Ethiopia showed women who decide on their health care alone use more antenatal care than those household decisions made by the husband alone or jointly (74). Generally, decision-making participation in the household was revealed to be an important determinant of antenatal care utilization. Some inconsistencies in the literature may reveal the requirement for further research on the issue.

2.3.3 The association of justification of wife beating with ANC utilization

The justification of wife-beating is the attitude of women to justify the beating of their husbands under different circumstances, which means whether they accept if their husbands beat them(75).

A community-based cross-sectional study from Pakistan shows a woman who does not justify wife-beating uses ANC more than twice as often as those who justify it(76). Community Survey from Bangladesh shows, women who would not justify wife-beating were more likely to utilize more antenatal care utilization(77).

Another community-based cross-sectional study from Nigeria shows disagreement with wife-beating was associated with higher odds of attending recommended antenatal care utilization(78).

In Ethiopia different from the above literature, three demographic and health survey findings show that there is no statistical association was found between the justification of wife beating and antenatal care utilization (79). Unfortunately, this shows inconclusive findings on the justification of wife-beating and antenatal care utilization. This may be because of the unreported nature of IPV or due to secondary data from which the analysis was done.

2.3.4 The association of freedom of mobility with ANC utilization

Freedom of movement is the ability to move freely without restriction out of home for but not limited to a market, bank, work, and health care facility. The ability to move freely in spaces and to choose actions in those spaces is a fundamental reflection of empowerment which is directly associated with women's healthcare seeking. Women are tied to the home because of different reasons like Social, Religious, and Cultural Norms, caregiving duties at home, and fears of the risk of harassment from men (80).

Finding from Pakistan shows that having freedom of movement has a significant association with at least 8 ANC contract utilization. It shows restriction of women to the home has an association with antenatal utilization (57). Scoping review from LMIC shows, women who have no freedom of movement most likely do not utilize antenatal care. It shows lack of freedom of movement affects their health not only by restricting them from a health facility but also in mental health problems related to the abuse, such as anxiety or depression, and decreases their follow-up of antenatal care (81).In Ethiopia, a Bale Zone community-based cross-sectional study shows that 56.7% of women had lower freedom of movement and it has a significant association with antenatal care utilization (82). Generally, freedom of movement is one of the most fundamental dimensions of empowerment which is easily and mostly restricted and affects their health (80)

2.3.5 The association of locus of control with ANC Utilization

According to a facility-based survey finding from North Carolina, health locus of control refers to the belief that health is in one's control (internal control) or is not in one's control (external control). The external locus of control is associated with negative health outcomes, whereas the internal locus of control is associated with favorable healthcare utilization (83).

Another facility-based cross-sectional study finding from Thomas Jefferson University USA shows that locus of control is an important predictor of healthcare utilization, and internal locus of control increases the frequency of healthcare visits. The finding further shows one's with a more internal locus of control believes that one is responsible for one's health and not another powerful person, chance, or luck (84). Another finding from a community-based cross-sectional study from Nigeria shows that; Women's internal locus of control was a significant predictor of utilization of antenatal care visits (85).

A quasi-Experimental study finding from Egypt shows premarital women shows that locus of control has an association with healthy behavior and motivation which may lead to a positive healthier preconception period and healthier pregnancies in the future (24).

Generally, locus of control is less studied intrinsic dimension of women empowerment which can determine antenatal care utilization of mothers.

2.3.6 The association of Self-Esteem with ANC utilization

Self-esteem is a self-evaluation that indicates, self-worth. It is classified as high when a person feels that they have value for themselves and low when a person believes that they do have not much self-value (85). A facility-based descriptive study from Tamilnadu shows self-esteem as a personality variable that captures the way people generally feel about themselves and its stepping stone for women empowerment. It points out that high self-esteem has a positive impact on the individual's healthcare utilization (86). A community-based mixed study done on Albania's mothers shows self-esteem has a significant impact on seeking health care like ANC. Those who have high self-esteem are motivated to take care of themselves and strive to achieve personal aspirations and objectives so that, they may use much more antenatal care (87). Community-based cross-sectional study finding from Nigeria shows women with low self-esteem were less likely to utilize antenatal care (85). As researchers' search is concerned; there is no finding which shows the association between antenatal care utilization and self-esteem in Ethiopia.

2.3.7 The association of self-efficacy with ANC utilization

Self-efficacy is the belief in one's ability to perform specific behaviors in specific situations(24). It determines how people feel, thinks, motivates themselves, and behave which can affect their healthcare utilization (88). Quasi-experimental study finding from Gowa Regency, Indonesia shows that increased self-efficacy has significantly associated with maternal and child health care utilization(89). According to a cross-sectional study finding from Java, Indonesia, women with high self-efficacy utilize antenatal care three times more than women with low self-efficacy(90). An experimental study from Iran shows a significant statistical relationship between self-efficacy and ANC utilization. In addition, self-efficacy was more powerful, such that it can predict 63% of changes in maternal prenatal care behaviors(91). As the researcher's search is concerned; there is no finding which shows an association between antenatal care utilization and self-esteem in Ethiopia.

2.3.8 The association of labor force participation with ANC utilization

Community-based cross-sectional study finding from Bangladesh shows that employed and working women utilize more than those who do not work. It indicates that working women are more competitive while competing roles give women greater excess to extra familiar sources of information and resources increasing their potential autonomy in a family setting(50).

A cluster of the random trial finding from Burkina Faso shows that working women were five more times likely to report using ANC services than the women who were not working(92).

A systematic review of Sub-Saharan African countries shows labor work participation has an association with the amount of antenatal care contact. It shows that beyond being a source of funds for sponsoring ANC use, employment can also increase women's exposure and access to information on ANC, thus further promoting utilization(93). East African multi-country analysis shows that Labor work participation influences the completeness of antenatal care utilizations through accessing income and societal influence(94). Findings from a community-based survey in Kenya show that mothers who participated in labor work utilize two ANC more than those who do not participate (95).

Generally, all women empowerment dimensions were suggested to increase antenatal care utilization in different parts of the world regardless of its inconsistencies and focuses on few dimensions. The majority of the study regarding women empowerment and antenatal care utilization focused on DHS variables like household decision-making, justification of wife beating, and educational status. To utilize women empowerment dimesnions as means to increase antenatal care utilization, studying other dimensions of women empowerment is important.

2.5 Conceptual Framework

The conceptual framework is adapted from relevant literature (4–7,85,91). It consists of independent variables for women empowerment dimensions such as locus of control, self-esteem, self-efficacy, decision-making, justification of wife beating, social independence(age at first childbirth, age at first marriage, media utilization, educational status), and freedom of movement, As well, dependent variable antenatal care utilization.

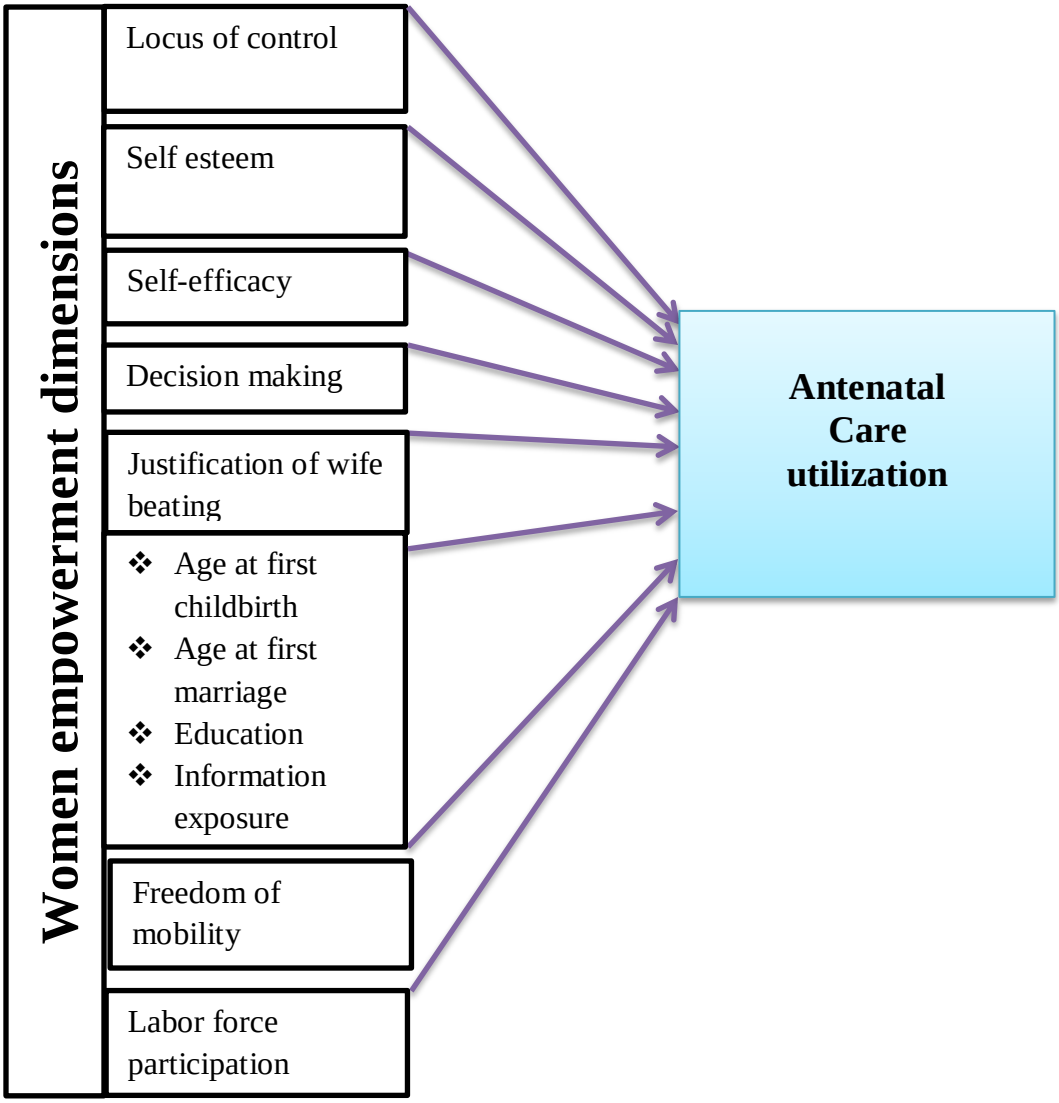

Figure 1: Conceptual framework of a study on the association of women empowerment dimension with antenatal care utilization at Jimma town public hospital, South West Ethiopia 2022.

(Solid arrow shows the association intended to be studied)

CHAPTER THREE

3. OBJECTIVES

3.1 General objective

To assess the association of women empowerment dimensions with antenatal care utilization among mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, South West Ethiopia, 2022.

3.2 Specific objectives

To identify the magnitude of recommended antenatal care utilization among mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, and South West Ethiopia, 2022.

To determine the association of women empowerment dimensions with antenatal care utilization among mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, and South West Ethiopia, 2022.

CHAPTER FOUR

4. METHODS AND MATERIALS

4.1 Study Area and Period

The study was conducted at Jimma Town Public Hospitals. Jimma town has two public hospitals, namely Jimma Medical Center and Shanan Gibe Hospital located 356 km from Addis Ababa, the capital city of Ethiopia. JMC covers about fifteen million people under its catchment area in the southwest part of Ethiopia. Jimma Medical Center(JMC) is the leading teaching and tertiary hospital in Southwest Ethiopia, providing services for approximately 15,000 inpatients, 160,000 outpatient attendants, 11,000 emergency cases, and 3888 deliveries annually. Besides this, the hospital will serve as a teaching, health, and research center. Shanan Gibe Hospital is a general hospital on average it gives services to 2040 deliveries annually. The total estimated two-month average of women attending delivery and postpartum services at both hospitals was about 988 women.
The data were collected from July 1-August 31, 2022.

4.2 Study design

A facility-based quantitative cross-sectional study was employed.

4.3 Source population

All mothers attending delivery and postpartum services were the source population for this study.

4.4. Study populations

All mothers attending delivery and postpartum services at Jimma town public hospitals who fulfilled the eligibility criteria and were available during the data collection period were the study population of this study.

4.5 Study Unit

Individual women who give birth and postpartum during the data collection period at Jimma town public hospitals.

4.6 Eligibility Criteria

4.6.1. Inclusion Criteria

All postpartum mothers who attended delivery and postpartum care service and willing to participate were included.

4.6.2. Exclusion criteria

All women with major psychiatric problems were excluded from the study.

4.7 Sample Size determination and Sampling procedure

The sample size was determined by using a single population proportion formula. The estimated number of mothers who attended delivery and postpartum services at JMC and Shenen Gibe hospitals was taken by considering the average of the one-year monthly reports before data collection started taken from both hospitals. Then sample size was calculated by considering the estimated two months report of both hospitals which was 988.

By considering the following assumptions: Za/2= standard score value for 95% Confidence level for two sides normal distribution which is 1.96; p= the proportion of recommended antenatal care utilization taken from relevant literature which is 47.5%(67);' d' margin of error, 0.05.

$$\mathbf{N}=\frac{\left(\frac{\boldsymbol{za}}{\mathbf{2}}\right)^2 * \boldsymbol{p} * (\mathbf{1}-\boldsymbol{p})}{\boldsymbol{d2}} \quad \text{then} \quad N=\frac{(1.96)^2 * 0475(0.525)}{0.0025} \quad n=383$$

Since the estimated number of a mother attending delivery and delivery postpartum in Jimma town public hospital was 988 which was less than 10,000 correction formula was used.

$$\mathrm{nf}=\frac{n}{1+\frac{n}{N}} \quad \mathrm{nf}=\frac{383}{1+\frac{383}{988}} \quad =277$$

Then by adding a 10% non-response rate, the final minimum sample considered for the study was 305.

4.7.1. Sampling technique and schematic presentation

A systematic random sampling technique was used to select postpartum mothers after proportional allocation to each hospital by considering the recent one-year average delivery and postpartum service utilized. Then at Jimma medical center, 648, and at Shanan Gibe Hospital, 340 Only immediate postpartum women were included to decrease the re-enumeration of women.

The sampling interval(K) was calculated by dividing the total number of women by the calculated sample size (N/n=988/305=3). Every three mothers attending delivery and postpartum services was interviewed. The exit interview was conducted after selecting the first respondent randomly by lottery method from the postnatal ward.

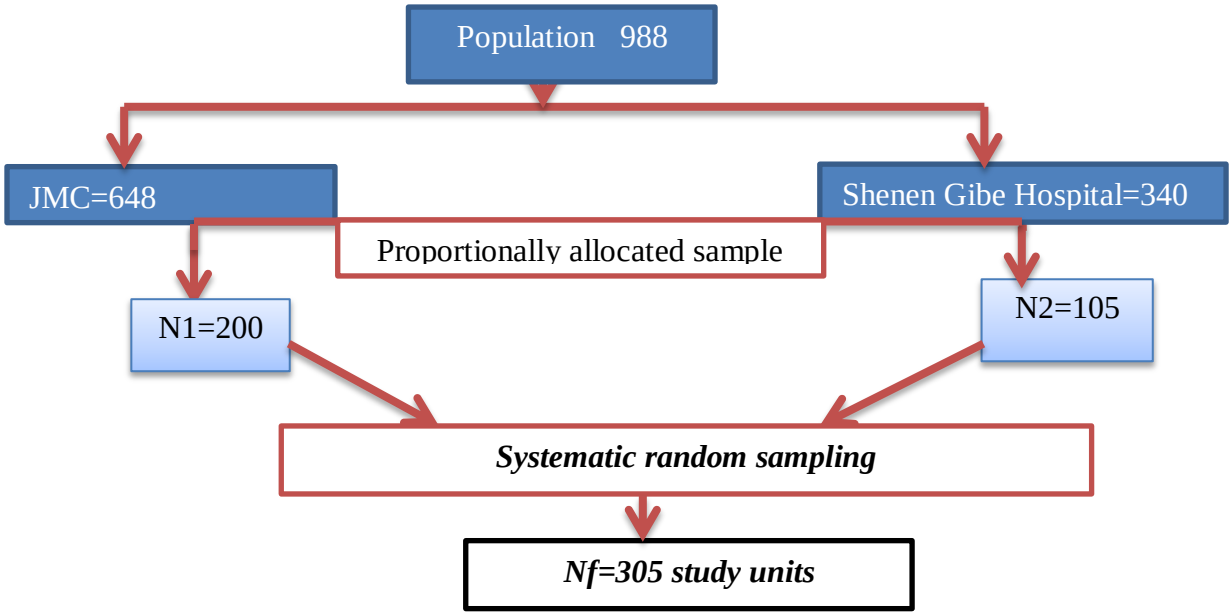

Figure 2:Schematic presentation of sampling procedure of the study, association of women empowerment dimensions with adequate antenatal care utilization at Jimma town public hospitals,

Keys: N1=proportion allocated for JMC, N2 proportion allocated for Shenen Gibe Hospital, Nf=over all sample size,Np= proportion for individual hospital

4.8 Study variables

Dependent Variable:-

Antenatal care utilization

Independent Variables:-

Women empowerment dimensions

Age at first marriage

Age at first childbirth

Education

Decision making

Justification of wife beating

Freedom of mobility

Locus of control

Self-esteem

Self-efficacy

Labor force partciaption

4.9 Operational definitions and definitions of terms

Women empowerment:- The process by which those who have been denied the ability to make strategic life choices acquire such an ability(3).

Women Empowerment dimensions:- Refers to eleven dimensions commonly used to measure women empowerment, by which women are expected to be empowered (5,7).

Justification of wife-beating is:- The justification of wife-beating is the attitude of women to justify the beating of her partner under different circumstances (75)

Justification of wife-beating: Was measured by asking whether women justified wife-beating under five conditions. If a mother is justified under one circumstance of all five questions she is 'justify' and coded as '0'; if she does not justify under all circumstances she was coded as '1' she is 'non-justify' (77).

Media Utilization: At least once weekly exposure of women to one of the media like radio, television, internet, and newspaper and coded as '1' if they utilized; otherwise coded as '0' and not utilized (63,96).

Household Decision making: The total score of all five items on decision-making power was 10; if no participation "0" if she decide jointly "1" if she can decide alone "2" was given. More score shows more decision-making power(82).

Freedom of mobility: Freedom of mobility was assessed by responses from the 6 items which were coded as (0, not at all, 1 jointly, and 2 alone); those with a total score of ≤9 were considered as 'not free to movement' and coded as ''0" and those scored greater than 9 were coded as "1" and considered as 'free to movement' (97).

Antenatal care utilization:- The number of antenatal care contacts pregnant mothers had with a health care provider, at a health facility, for the need of pregnancy care. Current recommended number of antenatal care contact for pregnant women is eight and above(16).

Recommended antenatal care utilization: Minimum antenatal care contacts recommended by WHO. It refers to antenatal care provided by skilled health personnel to pregnant mothers at least eight times(40).

Self-efficacy: Self-efficacy refers to belief in one's ability to perform specific actions in specific contexts. It is perceptions that influence whether or not a health behavior change is initiated, how much effort is devoted, and how long it is maintained in the face of obstacles and failures (24).

Self-efficacy: The self-efficacy scale has composed of ten items scored on a 4-point Likert scale. The overall score ranged from 10 to 40. The participants had to choose between four alternatives score as exactly true =4, moderately true =3, hardly true =2, and no at all true =4. The higher score shows more increased self-efficacy (90,98).

Self–esteem: Self-esteem is a self-evaluation that indicates, self-worth. It shows how a person feels that they have value for themselves(99).

The self-esteem: The scale has composed of ten items and scored on a 4-point likert scale ranging from strongly agree (4), agree (3), disagree (2), and strongly disagree (1). Negative statements scoring was reverse coded. The maximum score was 40 and the higher score shows high self-esteem (99).

Locus of control: The degree to which people believe they can control events and outcomes in their own lives is referred to as the locus of control. It is divided into two types: internal and external locus of control. Those with a high internal locus of control believe that events in their lives are the result of their actions, whereas those with a low external locus of control believe that events in their lives are primarily the result of outside forces acting on them (e.g., other people, fate, chance) and it shows intrinsic empowerment of women (24)(7)

Locus of control: The scale has composed of seven items and scored on five points Likert; (1)strongly disagree, (2)disagree, (3)Neither agree nor disagree, (4)agree, (5)strongly agree. Negatively stated items were reverse-coded. Then, the total score ranged from 7 to 35 with a greater score showing the internal locus of control and less score indicating the external locus of control and coded as (85)

Women participation in labor force: All six items were scored from 18 and if mothers scored less than 9 mothers were considered as not participated and coded as "0'" and mothers who scored greater or equal to 9 were considered as participated and coded as "1"(100).

Postpartum care: - Post-partum care is care that is provided to a mother and newborn baby after delivery and within the first 42 days after childbirth. This study, it shows women who are in the immediate postpartum period(101).

Education: Depending on their year of schooling they coded as '0' no formal education, '1' elementary,'2' secondary,'3 'preparatory, diploma or above(102).

Age at first childbirth: The age of the woman at her first pregnancy. Childbirth at less than 19 years old is commonly called adolescent childbirth(64).

4.10. Data collection procedure

4.10.1. Data collection Instrument

Data were collected by a structured interviewer-administered questionnaire. All tools for the dimensions of women empowerment were adapted from various relevant literature used to measure women's empowerment. The items regarding the justification of wife-beating, household decision-making participation, and other age-related variables have been adapted from SWPER Global which was validated by DHS (96)(it has a reported Cronbach alpha of (0.72)(96)). Seven Locus of control items were adapted from Psychological Coping Resources by Pearlin and Schooler(103)(reported Cronbach's reliability statistic of (0.78)). The self-esteem was measured by the Rosenberg self-esteem scale(104). Rosenberg's Self-esteem scale was used to measure this women empowerment dimension and previously reported Cronbach's alpha was 0.70 (85,98). Self-efficacy was measured by using the General self-efficacy scale(GSES) developed by Schwarzer and Jerusalem and widely used across the world, including for women empowerment and it has reported Cronbach's alphas 0.76 - 0.90(105)(7).

Women participation in labor force is adapted from the previous study and is measured through six items (100). The tool for freedom of mobility has 6 items adapted from previous women empowerment research(reported Cronbach's α = .84)(97). The tool for measuring ANC utilization and socio-demography was adapted from an existing survey in Ethiopia that reported Cronbach's alpha(0.976)(106). The tool was prepared in English and translated to Afaan Oromo and Amharic before data collection by a professional translator.

4.10.2. Data collection personnel

Three female BSc Midwives were recruited for data collection under the supervision of one more experienced BSc Midwife on data collection.

4.11 Data analysis, processing, and presentation

The data were coded and entered into Epidata Version 4.2 and then exported to SPSS Version 26 for analysis. Negatively coded questions were reverse-coded. Then the data were recorded, for analysis, and further cleaning was done. Descriptive analysis (frequencies, percentages, and means) was done. To find the relationships between the women empowerment dimension and antenatal care utilization Pearson correlation analysis was done. Then the linear regression analysis was conducted to know how much the independent variable explains the antenatal care utilization. Before fitting the linear regression model, the assumptions were checked. The assumption of linearity was checked and satisfied using a scatter plot. Normality was checked by plotting histogram and P-P plots and homoscedasticity was satisfied by plotting to scatter plot of standardized residuals against the standardized predicted values and it was randomly distributed. Shapiro-Wilk test was insignificant(ρ=0.082). The Durbin-Watson statistic was used to check the assumption of independence of errors and autocorrelations. The value of the Durbin Watson in this data was 1.597 which was within the normal range. The multicollinearity assumption was checked through the Variance Inflation Factor (VIF), tolerance test, and correlation matrix. Age at first marriage was excluded with highly correlated with age at first childbirth(r=0.944). Hence the maximum VIF score was 3.886. The simple linear regression analysis was done to see the association between dependent and independent variables those which were significant at a ρ-value of less than or equal to 0.25 were a candidate for multivariable linear regression

Finally multivariable linear regression was done to see the association between the predictor and the outcome variables. In multivariable, all candidate variables were entered. ß-coefficients, ρ-value at 95% CI were used to show predictors of antenatal care utilization. A ρ-value of less than 0.05 will be taken as statistically significant. Results were summarized and presented by tables, charts, and graphs.

4.12 Data Quality handling

A pretest was done on 10 %(30) of the sample population at Wollega University Referral Hospital before actual data collection. Data collected for the pretest was checked for completeness, recorded, entered into Epi Data version 4.2, and exported to SPSS version 26.0. The internal consistency of the scales was assessed (their Cronbach alpha's values were: Freedom of movement 0.839, Locus of control 0.793, Self Esteem 0.89, Self-efficacy 0.907, Decision making 0.73, Wife –beating 0.80, Labor force participation 0.949,). Depending on the pretest; data collection time was estimated, and some modifications such as logical order and rewriting items that are difficult for understanding were done as well.

Data collection was supervised by a supervisor and a couple of days of training was given for data collectors on the objective of the study, data collection tools and procedures, how to approach respondents, and how to keep confidentiality. Data were checked for completeness on every item before data entry by the researcher.

4.13 Ethical Consideration

Ethical clearance was obtained from the institutional review board (IRB) of the Institute of the health of Jimma University. Written permission was obtained from the respective hospitals (JMC and Shanan Gibe Hospital). All participants were informed of the purpose of the study and that their participation is voluntary. Verbal informed consent was received from all participants of greater than 18 years and informed assent was taken from those aged less than 18 and informed consent was taken from a partner or guardian. To keep the confidentiality of the study subject's name and any personal identifiers were not included in the data collection format; instead, a code number was used. They were assured that their identity will not be identified with their response and that it is completely confidential.

4.14 Dissemination of the findings

The result of this study will be submitted to Jimma University, Institute of Health, Faculty of Health Sciences, School of Nursing. The research output will be presented at different relevant scientific conferences. An attempt will be made to publish in the peer-reviewed reputable journal.

CHAPTER FIVE

5. RESULT

5.1 Characteristics of study participants

Among a total of 305 study subjects involved in study 301(99.1) were provided a full response. Four questionnaires were rejected due to incomplete information. More than half of the mothers were from urban(52.2%). The Maximum and minimum ages of participants were 15 to 40 respectively, while the mean age of participants was 26.35±4.94. More than half (53.4%) of them were in the age range of 25 to 34 years, and the majority of them were Muslims (73.4%)(Table-1).

Table 1: Characteristics of mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia, 2022(n=301)

Variables	Category	Frequency	Present
Residence	Rural	144	47.8
	Urban	157	52.2
Religion	Muslim	221	73.4
	Orthodox	40	13.3
	Protestant	40	13.3
Marital status	Married	301	100%
Age	15-19	28	9.3
	20-24	91	30.2
	25-29	113	37.5
	30-34	48	15.9
	35-39	20	6.6
	40-44	1	.3
Awareness regarding the importance of regular ANC follow up	Yes	301	100%
At least one ANC follow up	Yes	295	98
	No	6	2
Place of follow up	Health post	19	6.3
	Health center	173	57.5
	Primary hospital	35	11.6
	Referral hospital	37	12.3
	Private hospital/specialty clinic	31	10.3%

5.2 Descriptive of women empowerment dimensions

About eleven dimensions of women empowerment were studied. About three-fifths (60.1%) of mothers had freedom of mobility under different circumstances. In addition, about 39.5 %(119) mothers non-justified wife-beating, and 64.5% had at least one weekly media utilization.

Table 2: Description of women empowerment dimensions among mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia,2022 (n=301)

Empowerment Dimension	Category	Frequency	Present
Freedom of movement	Not free	120	39.9
	Free	181	60.1
Justification of wife-beating	Justify	182	60.5
	Non-justify	119	39.5
Labour force participation	Not participated	175	58.1
	Participated	126	41.9
Media Utilization (TV, Radio, newspaper, internet) exposure at least once weekly.	Not utilized	107	35.5
	Utilized	194	64.5

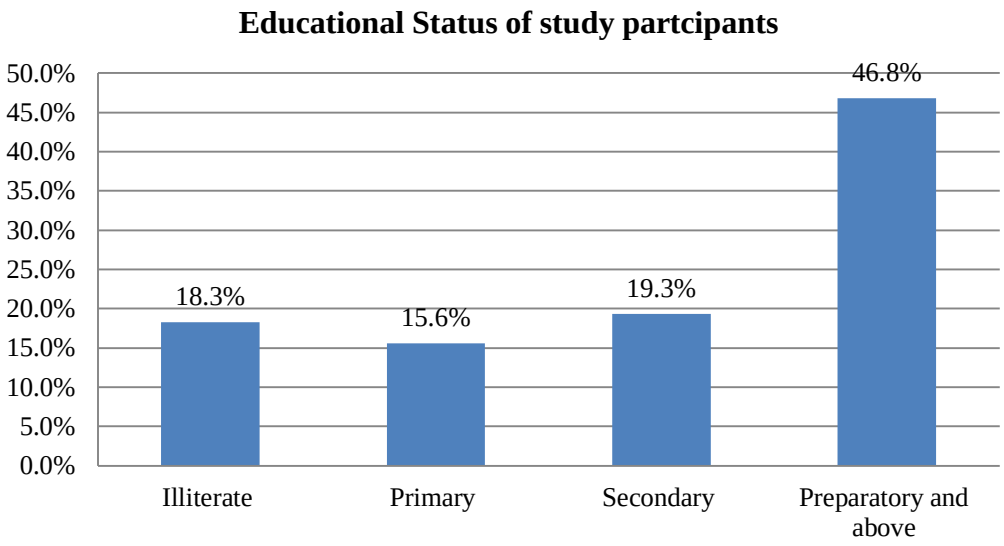

Figure 3: Educational status of mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia, 2022(n=301)

Regarding their educational dimension of empowerment about 46.8(141) mothers have the educational status of preparatory and above and only 18.3% were illiterate(Figure-3).

The self-efficacy scale response of mothers was a minimum 12 and a maximum 40 score with a mean of 26.51±8.53. And Self-esteem scale response of mothers was a minimum 11 and a maximum 39 score with a mean of 27.12± 6.32. The locus of control scale response of mothers was a minimum 7 and a maximum 35 score with a mean of 18.47±7.54.

The Decision-making scale response of the mother was a minimum 0 and a maximum 10 score with a mean of 4.52±1.3. The mean age at first marriage was 19.89±2.93 .The mean age at first childbirth was 21.33±3.23

Table 3:Descriptive statistics of women empowerment dimensions of mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia, 2022(n=301)

Variables	Minimum	Maximum	Mean	SD
Self-efficacy	12	40	26.51	8.53
Self-esteem	11	39	27.12	6.32
Locus of control	7	35	18.47	7.54
Decision making	0	10	4.52	1.3
Age at first marriage	14	29	19.89	2.93
Age at first childbirth	15	35	21.33	3.23

5.3 Antenatal care utilization of mothers

Regarding antenatal care utilization of mothers, the minimum antenatal care utilization was 0 and the maximum utilization was 9 with mean 4.41±2.10 (Table-4).

Table 4: Description of antenatal care utilization of mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia region, Southwest Ethiopia, 2022

Number of contacts	Frequency	Percent
0	6	2
1	11	3.7
2	49	16.3
3	48	15.9
4	46	15.3
5	55	18.3
6	32	10.6
7	18	6
8	31	10.3
9	5	1.7
Total	301	100

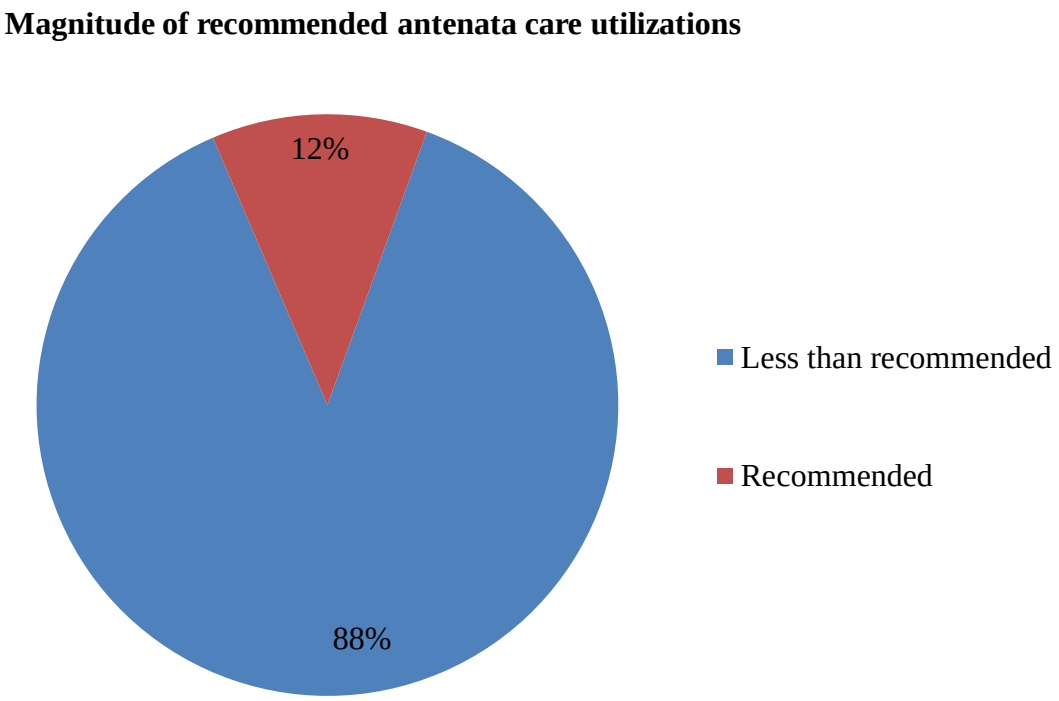

Figure 4: Magnitude of recommended antenatal care utilization of mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia, 2022(n=301)

From all mothers participated in this study only 12%(36) utilized eight and above recommended antenatal contact (12%, 95% CI(8.5-16.2))(Figure-4)

5.4 The Association Of Women Empowerment Dimensions And Antenatal Care Utilizations

5.1.2 The Correlation Of Women Empowerment Dimension And Antenatal Care Utilization

The Pearson correlation was used to examine the relationship between the women empowerment dimension and antenatal care utilization. The significant correlation was declared at $\rho \leq 0,05$ and the strength of the correlation was expressed by the Pearson correlation coefficient(r). There were positive and statistically significant correlations between antenatal care utilization and all women empowerment dimensions included in the study except decision-making, education, wife beating justification, and antenatal care utilization(Table 5).

Statistically, a significant correlation was declared at $\rho \leq 0.005$ to indicate the significance of association of women empowerment dimensions and antenatal care utilizations. The Pearson correlation shows there is a statistically significant positive correlation between self efficacy($r=0.338$, $\rho \leq 0.01$), freedom of movement($r=0.339, \rho \leq 0.01$), locus of control($r=0.329$, $\rho \leq 0.0$),labor force participation ($r=266$, $\rho \leq 0.01$), age at first marriage($r=0.245, \rho \leq 0.01$) age at first pregnancy ($r=0.221, \rho \leq 0.01$) and antenatal care contact (Table-5).

Table 5:Pearson correlation analysis of the association of women empowerment dimension and antenatal care utilization of mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia, 2022(n=301)

Variables	DM	SeC	SE	LC	ES	MU	WB	FM	AFC	**ANCu**	LF	AM
Decision-making (DM)	1											
Self-efficacy(SeC)	.179**	1										
Self-esteem(SE)	0.042	0.11	1									
Locus Of Control(LC)	0.1	.223**	0.093	1								
Educational status(ES)	0.003	0.09	.156**	0.025	1							
Media utilized(MU)	.170**	0.04	0.035	0.052	0	1						
Wife beating (Non justify) (WB)	-0.06	.163**	0	0.047	-0.1	0.033	1					
Free to movement(FM)	-0.02	0.05	0	-0.01	0.04	0.076	0	1				
Age at first childbirth(AFC)	.175**	0.01	0.059	0.093	0.02	.406**	0.1	-0.01	1			
ANC utilization(ANCu)	**0.113**	**.338****	**.289****	**.329****	**0.11**	**.213****	**0**	**.339****	**.221****	1		
Labor force Participated (LF)	0.053	0.11	0.052	0.034	-0.1	0.11	0.1	.210**	0.002	**.266****	1	
Age at first marriage (AM)	.174**	0.03	0.09	.122*	0.03	.414**	0.1	-0.02	.944**	**.245****	0	1

** Correlation is significant at 0.01 level (2-tailed); * Correlation is significant at the $\rho \leq 0.05$ level (2-tailed)

5.4.2 Bivariate and Multivariate Linear regression.

Bivariate linear regression analysis was done to identify candidate variables for multivariable linear regression. All eleven women empowerment dimensions were entered one by one(Table 6). All dimensions with ρ≤.0.25 was considered for multivariable linear regression.

Table 6: Bivariate linear regression analysis of study association of women empowerment dimension with antenatal care utilization among mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia, 2022(n=301)

Predictors variables	**Unstandardized coefficient**				**95% CI for β**
	β	**Std. Er**	**T**	**ρ**	
Media utilization(utilized)	0.933	0.247	3.772	0.000*	0.446, 1.420
Education: Preparatory and above(R)					
Education: No formal education	-0.488	0.332	-1.47	0.143*	-1.14, 0.165
Education: Primary	-0.667	0.352	-1.897	0.059*	-1.358, 0.025
Education: Secondary	0.198	0.326	0.609	0.543	-0.442, 0.839
Movement(Free to move)	1.450	0.233	6.225	0.000*	0.992, 1.909
Locus of control	0.092	0.015	6.034	0.000*	0.062, 0.122
Self-esteem	0.070	0.013	5.212	0.000*	0.044, 0.096
Self –efficacy	0.083	0.013	6.200	0.000*	0.057, 0.110
Decision making	0.181	0.093	1.959	0.51	-0.001, 0.364
Wife beating (non-justify)	-0.142	0.248	-.574	0.566	-0.630, 0.345
Labor force (participated)	1.132	0.237	4.780	0.000*	0.666, 1.598
Age at first marriage	0.175	0.040	4.375	0.000*	0.96 , 0.254
Age at first childbirth	0.140	0.036	3.928	0.000*	0.070, 0.210

R=reference, C.I confidence interval * Significant at ρ≤0.25

From simple linear regression 8 candidate variables were selected for multivariable linear regression by having a p-value of less than 0.25. But the age at first marriage was left because of highly correlated with age at first childbirth. The candidate variables were entered into a multiple linear regression model to assess the ability of women empowerment dimensions prediction of antenatal care utilization.

Women empowerment dimensions like locus of control, self-esteem, self-efficacy, freedom of movement, labor force participation, and age at first childbirth were positively and statistically significant predictor of antenatal care utilization(Table 7).

Locus of control is a positive and significant predictor of antenatal care utilization (β =0.062, ρ=0.00). As the locus of control increases antenatal care utilization increases. Self-esteem was statistically significant and positive predictor of antenatal care utilization (β=0.088, ρ=0.00). As self-esteem increases, the antenatal care utilization increases. Self-efficacy is a significant predictor of antenatal care utilization (β=0.046, ρ=0.00). As self-efficacy increases antenatal care utilization increase.

Labor force participation is a significant predictor of antenatal care utilization (β =0.624, ρ= 0.001) which indicates labor force participation in the past twelve months either force for someone or the government through paid in cash or in-kind increase the antenatal care. Those participated in labor force utilized more antenatal care than those who did not participated. In addition, as age at first child birth increases by years the antenatal care utilization increases(β=0.087,ρ=0.003).

Freedom of movement was positive, and statistically significant predictors of antenatal care utilizati ons(β=1.176,ρ=0.000).Those who have freedom movement utilize more antenatal care utilization than those who do not have freedom of movement(Table-7).

Table 7: Multiple linear regression analysis results of study association of women empowerment dimension with antenatal care utilization among mothers attending delivery and postpartum services at Jimma town public hospitals, Oromia Region, Southwest Ethiopia

Predictors variables		**Unstandardized coefficient**				**95% CI for β**	
		β	Std. Error	T	ρ	Lower	Upper
Locus of control		0.062	0.012	5.129	0.00*	0.038	.086
Self-esteem		0.088	0.011	8.115	0.00*	0.067	0.110
self –efficacy		0.046	0.011	4.202	0.00*	0.024	0.067
Freedom of movement(Free)		1.176	0.184	6.382	0.00*	0.813	1.538
Labor force (Participated)		0.624	0.185	3.377	0.001*	0.260	0.987
Media Utilization(Utilized)		0.34	0.203	1.678	0.094	0.094	0.740
Age at first childbirth		0.087	0.029	2.966	0.003*	0.029	0.144
Education	Preparatory and above (R)						
	Elementary	-0.36	0.251	-1.433	0.153	0.853	-0.134
	No formal education	-0.353	0.234	-1.51	0.132	0.132,	0.107

*$F(9,291)=31.045, \rho=0.000$ Maximum VIF= 3.886 and P<0.000, $R^2=0.488$ * Indicate significant value at p<0.05.CI=confidence interval.*

CHAPTER SIX

6. DISCUSSION

This study was done to assess the association of women empowerment dimensions with antenatal care utilization. The result shows that only one in ten women utilized recommended antenatal care utilization. In addition, there is a positive statistically significant association between the women empowerment dimension and antenatal care utilization. The linear regression model shows about six women empowerment dimensions that can predict the antenatal care utilization of mothers.

6.1 Magnitude Of Recommended Antenatal Care Utilization

The finding shows that about 12% 95% CI(8.5-16.2) utilized WHO-recommended antenatal care contact. This is consistent with findings from Cameroon DHS 8.9% (59), Benin 8% (60), and pooled prevalence in five developing countries 13% (56). This may be due to the closeness of the socio-economic status of those countries. The finding of the current study is lower when compared with the finding from China 40% (55), Jordan 74%, Albania 30%, Ghana 43% (56), Sierra leone 25%, and Libya 26.7% (62).This might be justified by the difference in time in the adaption of the guideline, and health policies of the countries. The findings are higher when we compare with the finding from Gambia 4.3%(62) Kenya 0.5% (61), and pooled prevalence in Sub-Saharan countries 6.8% (38). The possible reason may be due to the facility-based setting of the current study and the majority of the population is from urban. This implies that more commitment is required to increase recommended antenatal care utilization of mothers.

6.2 The Association of women empowerment dimension with ANC utilization.

This result shows that there is a statistically significant and positive association between the women empowerment dimension of self-efficacy and antenatal care utilization[β=0.046,95% CI(0.024, 0.067)] which is congruent with studies in Indonesia (90), Iran (91), and Stanford University (88). This may be due to that self-efficacy shows clear empowerment of women and it encourages motivation and cues to encourage decision-making (98).In addition, as their self-efficacy increases mothers set challenging goals and maintain strong commitment which may increase their antenatal care utilization (88). It implies that self-esteem is important in facilitating recommended antenatal care utilization.

The current study indicates mother participation in labor force has a positive, statistically significant association with more antenatal care utilization(β=0.624,95%, ρ=0.001). This agree with the finding from Bangladesh (50), Sub-Saharan countries (93), East African countries (94), and Kenya(95). The possible reason may be labor force participation provides a chance to generate income to seek health care and widen their social network and increase their awareness (93).

Self-esteem has a statistically significant association with antenatal care utilization(β=0.088, ρ=0.000).This study shows that as mothers' self-esteem increases, antenatal care utilization increases. Others findings also state the same finding. For instance two findings from Nigeria (85,87) and WHO report (54). A possible explanation for this might be high self-esteem provides the strength and flexibility to take a change of life and the motivation to take care of themselves(87). An implication of this is that future ANC provisions have to emphasize psychological and emotional support which may motivate mothers for utilizing more ANC.

Locus of control has a statistically significant association with antenatal care utilization(β=0.062,ρ=0.000). More women have an internal locus of control more they utilize antenatal care contact. This finding agree with other finding from Thomas Jefferson University (84), and Egypt (24), Nigeria (85). Further, the finding supports the statement that the internal locus of control is associated with more healthcare utilization (83). A possible explanation for this may be that mothers with a more internal locus of control believe that one is responsible for one's health and not another powerful person, chance, or luck (84). It implies the requirement of psychological support to increase recommended antenatal care utilization.

Having the freedom of movement has a statistically significant positive association with antenatal care utilization, when we compare with those with low freedom of movement [β=1.176,ρ=0.000). Other findings from Pakistan (57), Scoping review of LMIC (81) and Bale Zone, Ethiopia(82) show consistent findings. This may be due to the restriction of freedom of movement on women inhibiting them from working outside of the home, school, social network, and even health facility which affects their antenatal care utilization

Finally, age at first childbirth has a statistically significant association with antenatal care utilization. As their age at first childbirth increases, their antenatal care utilization increase[β=0.087, ρ=0.003) This is in line with finding from South Africa(64); West and Central African(65); South Africa (66) and Ethiopia(42). The possible reason may be older mothers being more mature and having better knowledge about the pregnancy-related requirement, In addition , teenagers might not be aware of the symptoms and signs of pregnancy, which could affect reduced visits for ANC. Further, adolescent childbirth put them under the strong disempowerment(66). This implies that adolescent girls may be benefited from delaying childbearing through more utilizing antenatal care while they are adult enough.

6.3 Limitation And Strengths

6.3.1 Strength

The current study assessed the magnitude of currently new recommended antenatal care utilizations which gives updated information. Additional Women empowerment dimensions other than EDHS variables were included. In addition, it assessed the association of the women's empowerment dimension with antenatal care utilization by using all commonly agreed dimensions of women empowerment dimensions.

6.3.2 Limitations

The scientific communities should consider the following limitations while generalizing the findings of this study. First, social desirability bias may have been introduced since the nature of the questionnaire. Second, a causal relationship can not be established because of the nature of the study design used in the current study.

CHAPTER SEVEN

7. CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

This study aimed to assess the association of women empowerment dimension with antenatal care utilization. And in specific, it assessed the magnitude of recommended antenatal care utilization. This study shows a statistically significant and positive association between women empowerment dimensions(labor force participation, locus of control, self-esteem, freedom of movement, age at first childbirth, and self-efficacy)and ANC utilization. In addition, the study shows only one in ten women utilized recommended antenatal care contact.

7.2 Recommendations

Based on the findings of this study, the following recommendations were forwarded to different concerned bodies:

Jimma zone health office(JZHO): To enhance recommended antenatal care utilization and increase antenatal care utilization; JZHO should consider labor force participation, locus of control, self-esteem, freedom of movement, age at first childbirth, and self-efficacy. This can be made through refreshing health extension workers and other ANC care providers with training on the advantage of these dimensions. Providing community awareness through mass media regarding this important women empowerment dimensions to increase antenatal care.

Policymakers: to implement women empowerment-related policy to increase recommended antenatal care utilization. Especially through strengthening women's participation in labor force, enhancing policy which protect women from adolescent childbirth, and safeguarding their freedom of movement which increase antenatal care utilizations.

JUMC and Shenen Gibe Hospital: They should emphasize integrating women empowerment dimensions such as self-esteem, self-efficacy, and locus of control into counseling services provided for mothers during other maternal health services to increase antenatal care utilization of mothers.

Furthermore, the searcher recommends that healthcare professionals: Should increase their support for mothers by giving information and counselling on self-esteem, self-efficacy, participation in labor force, and freedom of movement to increase antenatal care utilizations during their routine work in an antenatal care setting and other MCH unit

To Jimma Zone Health Office, Other non-governmental organizations interested in increasing antenatal care utilizations, to enhance the women empowerment by preparing community outreach and raising awareness, about recommended antenatal care utilization and facilitating funding for women to participate in labor force, giving training about self-efficacy, self-esteem, and locus of control.

To offices of women and children's affairs: Consider raising awareness in the community and supporting women in ways that improve their age at first childbirth and their freedom of movement in a community to increase antenatal care utilization.

For researchers; Nationally representative survey is recommended to assess the relationship of this dimensions with other maternal health care utilizations. Finally, studies using both qualitative and quantitative studies should be conducted to address factors affecting women's empowerment dimensions and their impact on ANC utilization.

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ANNEXES

Tools and Participant information

English

Annex 1: Participant information sheet

Title of the Study: Women empowerment dimensions and its association with antenatal care utilizations among women who give child birth and postpartum at Jimma Town Public Hospitals, Oromia region, South West Ethiopia 2022.

Name of investigator and institution: Mr. Yonas Abebe (From Jimma University)

Name of Sponsor: Ministry of Education

Approval: The Study was requested for approval from JU-IRB

Introduction

You are invited to participate research study to be conducted by Yonas Abebe student of Jimma University. Please be patient while the interviewer read the following statements to you and ask any unclear questions before you agree to participate.

Participation procedures and Guidelines

1. The information you provide was keep completely anonymous, that is, your name will not be on any of the form.
2. Your information was kept confidentially.
3. The interview will take about 20 minutes to complete; however, if you don't want to participate in the study you have full right.

- **Participation benefit and Risks**
  - Your participation in this study does not involve any risks.
  - You also might experience some benefit from participating in this study. These benefits might be positive feeling from helping with an important research study.
  - No incentive was given for participants in the study.
- **Rights to refuse or with draw or with draw**
  - Your participation is voluntary and there is no penalty for you not wanting to participate.
  - This means you are free to stop at any point or chose not to answer any particular question or all the questions.

Person: If you have any question regarding this study or if you would like to be informed of the results after its completion, you can use this s: Yonas Abebe; Email: yonigrace2020@gmail.com ; Phone +251934292659

Annex 2: Consent Form

I freely, voluntarily, and without the elements of force or coercion consent to be a participant in the research study entitled "Women empowerment dimensions and its association with antenatal care utilization among postpartum women of Jimma town Public Hospitals ,Oromia Region,South West Ethiopia.

By signing this form, I confirm that:

- I have been given oral and written information for the above study and have read and understood the information given
- I have sufficient time to consider participation in the study and have had opportunity to ask questions and all my questions have been answered satisfactorily.
- I understand that my participation is voluntary and I can freely withdraw from the study at any time without giving a reason and this will no way affect me.
- I understand risk and benefits, and I freely give my informed consent to participate in the conditions stated.
- I understand that my answers to the questions will not be given to anyone else and no reports of the study ever identify me in any way. I understand that all personal details was treated as strictly confidential.
- I understand that participation in the study does not involve risks
- I understand that I may Yonas Abebe at +251934292659 or yonigrace2020@gmail.com for answers to any questions that may rise about this research study or my rights. Furthermore, I am aware that I can request and receive a copy of the study results.

ENGLISH VERSION

001	Age in full year_____			
002	Marital status	1 Married 2 Single		
003	Age at first marriage_____			
004	Age at first childbirth_____			
005	What is your educational status	1. No formal education 2. Primary 3. Secondary 4. Preparatory 5. Diploma 6. Degree 7. Masters and above		
006	What is your residence place	1. Urban 2. Rural		
007	Do you use any source information like TV, radio, internet, newspaper etc	1. Yes 2. No		
008	If say Yes to 007 how many times do you use?	1. More than once a week 2. less than once a week		
009	If you say yes to 007 what type of media you used?	1. Radio 2. Television 3. Internet 4. Newspaper		
010	What religion do you follow	1. Muslim 2. Ethiopian Orthodox 3. Protestant 4. Others		
1.Mobility These questions are about your freedom of movement for daily life .I would ask you to answer the questions as it is really most of the time.				
101	Visiting a health care for her self	0. no at all	1. Jointly	2. alone
102	Visiting health care for child	0. no at all	1. Jointly	2. alone
103	Visiting outside the village	0. no at all	1. Jointly	2. alone

104	Moving within the village independently	0. no at all	1. Jointly	2. alone		
105	Visiting friends and relatives'	0. no at all	1. Jointly	2. alone		
106	Visiting the bank	0. no at all	1. Jointly	2. alone		
2.Locus of control These questions are about your locus of control in life .I would ask you to answer the questions as it is really most of the time.						
201	I have little control over the things that happen to me;	1.Strongly disagree	2.Disagree	3. Neither agree nor disagree	4. Agree	5.strongl agree
202	There is really no way I can solve some of the problems I have	1.Strongly disagree	2.Disagree	3. Neither agree nor disagree	4. Agree	5.strongl agree
203	There is little I can do to change many of the important things in my life;	1.Strongly disagree	2.Disagree	3. Neither agree nor disagree	4. Agree	5.strongl agree
204	I often feel helpless in dealing with the problems of life	1.Strongly disagree	2.Disagree	3. Neither agree nor disagree	4. Agree	5.strongl agree
205	Sometimes, I feel that I am being pushed around in life	1.Strongly disagree	2.Disagree	3. Neither agree nor disagree	4. Agree	5.strongl agree
206	What happens to me in the future mostly depends on me;	1.Strongly disagree	2.Disagree	3. Neither agree nor disagree	4. Agree	5.strongl agree
207	I can do just about anything I really set my mind to do;	1.Strongly disagree	2.Disagree	3. Neither agree nor disagree	4. Agree	5.strongl agree
3.Self-esteem These questions are about your self-esteem .I would ask you to answer the questions as it is really most of the time.						
301	I feel that I am a person of worth	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree	
302	I feel that I have a number of good qualities	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree	
303	I am inclined to feel that I am a failure	1.strongly disagree	3.agree	3.agree	4.Strongly disagree	
304	I am able to do things as well as most people	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree	
305	I feel that I do not have much to be proud of	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree	

306	On the whole, I am satisfied with myself;	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree
307	I take a positive attitude toward myself	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree
308	I certainly feel useless at times	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree
309	I wish I could have more respect for myself	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree
310	At times, I think that I am no good at all."	1.strongly disagree	2.disagree	3.agree	4.Strongly disagree
1. General Self efficacy scale These questions are about your self-efficacy .I would ask you to answer the questions as it is really most of the time.					
401	I can always manage to solve difficult problems if I try hard enough	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
402	If someone opposes me, I can find the means and ways to get what I want.	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
403	t is easy for me to stick to my aims and accomplish my goals.	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
404	I am confident that I could deal efficiently with unexpected events	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
405	hanks to my resourcefulness, I know how to handle unforeseen situations	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
406	I can solve most problems if I invest the necessary effort	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
407	I can remain calm when facing difficulties because I can rely on my coping abilities.	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true

408	When I am confronted with a problem, I can usually find several solutions.	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
409	f I am in trouble, I can usually think of a solution	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true
410	I can usually handle whatever comes my way.	1 Not at all true	2 Hardly true	3 Moderately true	4 Exactly true

5.Decision Making Power These questions are about your participation in major household decision making .I would ask you to answer the questions as it is really most of the time				
501	Majorly who will decide on health care of your self	0. no at all	1. Jointly	2. alone
502	Majorly who decide on health care of children	0. no at all	1. Jointly	2. alone
503	Who decide on number of children you have?	0. no at all	1. Jointly	2. alone
504	Large household purchase	0. no at all	1. Jointly	2. alone
505	How decide on children's education	0.no at all	1.Jointly	2.alone
7. Justification of wife-beating				
601	If you go out without telling him?	1.Yes		2.No
602	If you neglect the children?	1.Yes		2.No
603	If you argue with him?	1.Yes		2.No
604	If you refuse to have sex with him?	1.Yes		2.No
605	If you burn the food?	1.Yes		2.No
7. Labor force participation				
701	Have you worked in the last 12 month	0. Not working		
		1. working		
		1. Working for someone		
		2. Working for Gov		
		3. self-employed		
703	What is the type of your occupation mainly	0. not working and		
		1. unskilled labor enterprise		
		2.skilled labor		
		3.professional		
		4. self-employed as a microenterprise		

704	What are the major types of your payment	0.not working in cash only
		1. not paid
		2.kind. paid in cash and in
		3.Paid in cash only
705	Do you work all months in a year	0. not working
		1. .work occasionally
		3 work seasonally
		4 worlk all year
706	Do you think you earn more than husband?	0.not pain in cash
		1.earn less than housband
		2.Earn equal
		3.Earn more than housband

Antenatal care utilization					
801	Do you know that regular follow-up is important for pregnant women	1. Yes 2. No			
802	If you say yes to 811 have you did regular follow up for this recent pregnancy	1. Yes 2 . No			
803	If you have said yes to 812 at what week of your pregnancy you have started?	_____			
804	Starting from the first visit how many times you have attended ANC regularly?	_____			
805	Where you attended your ANC	1 Health. Post	2. Health Center	3. Primary hospital	4. Tertiary hospital

AFAAN OROMOO

Annex 1: Waraqaa Odeeffannoo hirmaattotaa

Mata duree Qorannoo:Hariiroo dubartoota aangessuun fi hordoffii ulfaa ga'aa gochuun waliin qaban,dubartoota da'anii, yeroo da'umsaan boodaa irra jiran kanneen Giddu Gala Meedikaalaa Jimmaa fi Hospitaala Shanan Gibeetti argaman,Naannoo Oromiyaatti,Kibba Lixa Itoophiyaa.

Maqaa Qorataa Olaanaa fi Dhaabbataa:Yoonaas Abbabee(Yuunivarsitii Jimmaa irraa)

Maqaa Spoonseraa:Yunivarsiitii Diillaa

Kan mirkaneessu: Qorannoon kun akka hojjetamu kan mirkaneessuuf kan gaafatamu JU-IRB dha

Seensa

Isin qoranno barataa Yunivarsitii Jimmaa kan ta'e **Yoonaas Abbabeen** geggeefamu kana irratti hirmaachuuf hafeeramtaniittu,Yeroo namni yaada keessan isin irraa fuudhu gaaffiiiwwan qorannoo kana isin gaafachuuf dhufu waan isiniif hin galle erga gaafattanii booda qorannoo kanaaf fedhii qabaachuu keessan mirkaneessitu.

Qajeelfama akkataa hirmaannaan itti godhamuu

1. Odeeffannoon isin kennitan guutummaatti iccitiidhaan ni qabama.Maqaan fi wanti addatti eenyummaa keessan ibsu tasa iyyuu isin hin gaafatamu
2. Odeeffannoon isin laattan iccitiidhaan qabamaadha.
3. Gaaffiif deebiin nuun isin faana goonu daqiiqaa 30 kan hin caalle yeroo keesssan fudhata.Yeroo barbaaddanitti addaan kutuudhaafis mirga guutuu qabdu

- **Bu'aa fi miidhaa inni hirmaattota irratti qabu**
  - Qorannoo kana irratti hirmaachuun rakkoo si saaxiluuf tokko iyyuu hin qabu.
  - Bu'aawwan muraasa qorannoo kana irratti hirmaachuu keetiin aragchuu dandeessa,innis sababa qorannoo baayyee barbaachisaa kana irratti hirmaatteef miirri gaariin sitti dhaga'amuu mala
  - .Sababa qorannoo kana irratti hirmaatteef onnachiistuun homtuu siif hin kennamu
- **Mirga hirmachuu diduu fi addaan kutuu**
  - Qorannoo kana irratti hirmachuun fedhii kee qofaadhaani.Yoo heyyamamoo ta'uu baattan adabbiin isin irra ga'u tasa iyyuu hin jiru
  - Kana jechuun yeroo kamittuu yookiin gaaffii barbaaddan kam irratti iyyuu addaan kutuu dandeessu.

Qorataa Qunnamamu: Waa'ee qorannoo kanaa gaaffii kamiin iyyuu yoo qabaattan yookiin dhuma qorannoo kanaa irratti bu'aa qorannoo baruu yoo feetan teessoo kana fayyadamaa. Yoonaas Abbabee; Email: yonigrace2020@gmail.com ; Phone +251934292659

Annex 2: Unka Waliigaltee

An fedhii koo guutuudhaan,wantoota akka humnaan dirqisiisuu yookiin dhiibuu malee hirmaattuu qorannoo"Hariiroo dubartoota aangomsuu fi hordofii yeroo ulfaa ga'aa gochuun waliin qabu,kan dubartoota da'anii ka'an hosipitaala giddu gala meedikaalaa Jimmaa fi Shanan gibe,Naannoo Oromiyaa,Kibba Lixa Itoophiyaatti"jedhuu ta'uu koof itti walii nan gala.

Unka kana mallateessuukootiin wantoota armaan gadii kana nan mirkaneessa.

- An walii galtee afaanii yookiin barreeffamaa qorannoo olitti heerame irratti hirmaachuudhaaf kanan kennu guutummaatti ergan hubadheeti.
- An qorannoo kana irratti hirmaachuudhaaf yeroo ga'aa fi carraa gaaffiin fedhe gaafachuu akkasumas gaaffiiwan koo akka ta'utti akka naaf deebi'an beekeera
- .Hirmaannaan koo fedhiikoo qofaan ta'ee,yeroon barbaadutti sabab tokko malee qorannoo kana yoon addaan kute kara kamiinuu miidhaan narra ga'u akka hin jirre hubadheera
- An bu'aa fi miidhaa isaa ergan baree booda,fedhii koo guutuudhaan unka walii galtee hubannaan ta'uu mallatteessera
- .An debiin gaaffiiwanan gaafatameef kennu,nama kan biro kamittuu akkan kennamne fi bu'aan qorannoo bifa ittiin adda baasee na saaxilu tokkollee akkan qabne fi guutummaatti iccitiidhaan kan qabamu ta'uu hubadheera.
- An qorannoo kana irratti hirmaachuun miidhaa tokkoof akka nan saaxille hubadheera.
- Waa'ee mirga koo yookiin waa'ee qorannoo kanaa gaaffii kam iyyuu yoon qabaadhe, teessoo qoratichaa **Yoonas Abbabee** Mob +251934292659 yookiin I-maayilii yonigrace2020@gmail.com fayyadamuudhaan gaafachuu akkan danda'u hubadheera.

Gaaffiiwan Qorannoo :*"Hariiroo dubartoota aangessuu fi hordoffii ulfaa ga'aa gochuun waliin qabu dubartoota da'anii yeroo da'umsaan booda jiran kan JMC fi Shanan Gibee jiran*" jedhu irratti fedha keen hirmaachuun gaaffiiwwan muraasa gaafatamtuuf akkataa deebifamuu qabaniti nuuf deebisuun nu gargaaraa!

Seensa: Gaaffiiwwan haala hawwasummaa waliigalaa

001	Umuriin kee meeqa_____Waggaa guutuudhaan	
002	Heerumtee	*1. Heerumeera* *2. Hin heerumne*
003	Yeroo jalqaba heerumte umuriin kee meeqa?_____	
004	Yeroo jalqaba deesse Waggaan kee meeqa?_____	
005	Sadarkaa barnootaa kee hammami?	1. Hin baranne 2. Sadarkaa 1ffaa 3 Sadarkaa 2ffaa 4 Sadarkaa 3 5. Diploma 6. degree 7. MA/MSc &+
006	Bakki jireenyaa keessan essadha?	1 Baadiyyaa 2. Magaalaa
007	*Maddeen odeeffannoo kan akka TV,radio,internet kkf ni fayyadamtaa?*	0.lakkii 1.Eyyee
008	*Gaafii 007 yoo eyyee jette ta'e ta'e kamiin fayyadamta?*	1.Raadiyo 2.TV 3.Gazexaa/barruule 4. Interneeta
009	*Gaaffii 007 yoo eyyee jette ta'e torbanitti Hammam fayyadamta?*	1.Torbaniti si'a1 oli 2.Torbanitti 1 gadi
010	Amantaan kamiin hordoftuu?	1.Musliim 2.Orthodoksii 3.Pirootestaatii 4.Kaatoolikii 5.Kan biro

1. Birmaddummaan socho'uu:Bakkawwan armaan gadii deemuuf birmaddummaa qophaa yookiin abbaa warraa waliin deemuuf qabdu irratti deebii naaf kenni.

101	Gara mana yaalaa deemuu yeroo feetu enyu waliin deemta?	0. Hin deemu	1. Abbaa warraa waliin	2. Qophaa
102	Mucaa kee mana yaalaa yeroo geessitu eenyu waliin deemta?	0. Hin deemu	1. Abbaa warraa waliin	2. Qophaa
103	Ganda biraa/magaalaa biraa deemtee deebi'uu yoo feete	0. Hin deemu	1. Abbaa warraa waliin	2. Qophaa
104	Ganda keessan keessa gaaffii malee baatee galuu yoo yaadde	0. Hin deemu	1. Abbaa warraa waliin	2. Qophaa
105	Maatii/fira fi hirooya kee dubbisuuf yoo deemtu	0. Hin deemu	1. Abbaa warraa waliin	2. Qophaa
106	Gara mana baankii yoo	0. Hin	1. Abbaa warraa waliin	2. Qophaa

	deemuu barbaaddu	deemu				
2.Kallattii jireeyaa to'achuu: Yaadota armaan gadi irratti hammam akka walii galuu dandeessu filadhu.(Locus of control)						
201	Yoo wanin hin eegin narra ga'e hammi ani to'achuu danda'u bicuudha.	*1.Matuma a akkas miti*	*2.Akkas miti*	*3.Murteessuuf na dhiba*	*4.Akkas uma*	*5.Guutummaatti akkasuma*
202	Rakkoolee koo tokko tokko furuu hin danda'u	1	2	3	4	5
203	Wantoota jireenya koof murteessoo ta'an gochuuf dandeettiin koo qabu bicuudha	1	2	3	4	5
204	Rakkina tokko furuuf yaadee nama na gargaaru dhabuutu natti dhaga'ame	1	2	3	4	5
205	Si'a tokko tokko haalli jireenya waan kallattiin karoorsu irra hin jirre natti fakkaata	1	2	3	4	5
206	Gara fuulduratti wanti anatti dhufu,gochakoo har'aa irratti hunda'a	1	2	3	4	5
207	Waan yaadni koo akkan hojjedhuuf akeeke hojjechuu inuman danda'a	1	2	3	4	5
3.Ofitti amanuu: Amma ofitti amanamummaa wantoota gochuuf qabduu ilaalchisee gaaffiiwan kana akka itti yaaddutti deebisi(self –esteem)						
301	An nama gatii qabuudha	1.Baayye sirrii miti	2. Sirrii miti	3. Sirriidha	4.Baayyee sirriidha	
302	Akkan eenyummaa gaggaarii baayyee qabu natti dhaga'ama	1.Baayyee sirrii miti	2.Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
303	Gara akka waanan kufe natti dhaga'amuutti olka'eera.	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
304	Waan namoonni baayyeen hojjetan anis hojjechuu nan danda'a	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
305	Ani wantan ittiin ofiikoo jaju baayyee hin qabu jedheen yaada	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
306	Guutummaatti,an ofiikootti quufeen jiraadha.	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
307	An ofii koof ilaalcha gaariin qaba	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
308	Altokko tokko ofan tuffadha.	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
309	Osoon kana caalaa ofii koo kabajee natti tola	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	
310	An waanan ittiin ofii koo ceepha'u(gaarii miti ofiin jedhu) qaba.	1. Baayyee sirrii miti	2. Sirrii miti	3.Sirriidha	4.Baayyeen sirriidha	

4.Gaaffiiwan miira ofitti amanuun wantoota raawwachuu:Gaaffiiwan kun waa'ee oftti amanuun wantoota raawwachuu danda'uu ilaallatu.(G/Self efficacy)					
401	Osoon cimsee akka ta'utti yaalee rakkoowwan cimoo furuuf nan danda'a	1.*Guutummaatti soba*	2.*Dhugaa ta'uunsaa rakkisaadha*	*3 Dhugaa ta'uu mala*	*4. Guutummaatti dhugaadha*
402	Yoo namni naan morme iyyuu tooftaa fi karaan ittiin waanan yaade raawwadhu hin dhabu	1	2	3	4
403	Anaaf kaayyoo kootti cichuu fi galma koo ga'uun salphaadha	1	2	3	4
404	Taatee tasa ta'u akka ta'utti irratti hojjechuu nan danda'a.	1	2	3	4
405	Waanan qabuuf baayyen gammada, haalota amma hin argamne akkamitti akka qaban beeka	1	2	3	4
406	Haarsaa barbaachisu yoon baase rakkoowwan hedduu hedduu furuu nan danda'a.	1	2	3	4
407	Yeroo haalli cimaan na mudatu callisuu nan danda'a,sababni isaa dandeettii waantota obsuu kootti nan amana	1	2	3	4
408	Yeroo rakkoon na mudatu,kara baayyee furmaata itti barbaaduu nan danda'a.	1	2	3	4
409	Yeroon jeeqamu ,waa'ee waanta furmaata ta'uu danda'uu qofan yaada.	1	2	3	4
410	Yeroo hedduu waan natti dhufu hunda to'achuu nan danda'a jedheen yaada	1	2	3	4

5. Murtiiwwan mana keessaa irratti murteesuu.(Household Decision making).				
501	Waa'ee yaala fayyaa keetii irratti kan mureessu eenyu	0. Lakki hin hirmadhu	1. Waliin	2. An qofti nan murteessa
502	Irra jireessa waa'ee yaala fayyaa daa'imaa eenyutu murteessa	0. Lakki hin hirmadhu	1. Waliin	2. An qofti nan murteessa
503	Waa'ee baayyina ijoollee godhattanii eenyutu murteeessa	0. Lakki hin hirmaadhu	1. Waliin	2. An qofti nan murteessa
504	Waa'ee bittawwan gurguddaa mana keessaa eenyutu murteessa(soofaa,loon kkf)	0. Lakki hin hirmaadhu	1. Waliin	2. An qofti nan murteessa
505	Waa'ee barnoota ijoollee eenyutu murteessa	0. Lakki hin hirmaadhu	1. Waliin	2. An qofti nan murteessa

6.Ilaalcha Fudhannaa Haati Warraa Reebicha abbaa warraaf qabdu(Justification to wife beating)			
601	Osoo itti hin himin yoo manaa baate?	1. Eyyee	2. Lakkii
602	Yoo ijoollee dagatte?	1. Eyyee	2. Lakkii
603	Yoo abbaa warraan falmite?	1. Eyyee	2. Lakkii
604	Yoo walquunnamtii saalaaf fedha dhabde	1. Eeyyee	2. Lakkii
605	Yoo nyaata gubde	1. Eyyee	2. Lakkii

7.Hojii humnaatti hirmaachuu(Labor force participation)

701	Ji'oota 12 darban keessa hojjetaa turtee?	0.hin hojjenne				
		1.hojjedheera				
702	Eenyuuf hojjette	0. Hin hojjenne				
		1. Nama biraadhaaf				
		2. Mootummaadhaaf				
		3. Hojii mataakoo uummadhee				
703	Hojiin ati hojjettu kan akkamiiti?	0. Hin hojjenne	1.Hojii oogumma harkaa hin taane(daldala,qonna…)	2.hojii oogummaa harkaa(skills)	3.hojii oogumma a (professio nal)	4.Dhaabbata ofiikootii(Micro enetrprise)
704	Gosti kaffaltii siif kennamuu irra jireessi akkamiini?	0. Hin hojjenne	1. Naafin kaffalamne		2. maallaqaa fi gosaan	3. maallaqaan
705	Waggaa keessaa ji'oota hunda hojjettaa?	0. Hin hojjenne	1.Yeroo tokko tokko	2.Waktii tokko tokko	4.Waggaa guutuu	
706	Abbaa warraa kee caalaa waan argattu sitti fakkaataa?	0.Maallaqaan naafin kaffalamu	1.Abbaa warraakoo gadi	2.Walqixa	3.Irra caalaan argadha	
Waa'ee deddebiin hordoffii ulfaa gochuu						
801	Dubartii ulfaaf hordoffii fayyaa walitti fufaan akka barbaachisu beektaa?	1 Eyyee	2 Lakkii			
802	Yoo gaaffii 801 eyyee jette ta'e hordoffii ulfaa kee dhiyeenyaaf hordoffii taasistee?	1.Eyyee	2.Lakkii			
803	Yoo gaaffii 801 eyyee jette ta'e torbee meeqaffaa ulfakeetti eegalte?	_____				
804	Erga eegaltee booda beellamaan yeroo meeqa deddeebitee ilaalamte?	_____(baayyina yeroo deddeebitee)				
805	Essatti hordofaa turtee?	0. Kellaa fayyaa 1. Buufata fayyaa 2. Hospitaala Jalqabaa 3. Hospitala referalaa 4. Dhuunfaa				

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

Name of investigator: **Yonas Abebe** Signature _____

Name of the institution._____

Date of submission._____

This thesis has been submitted for examination with my approval as University advisor

Name of the first advisor: **Dr. Asresash Damissie** (Bsc, MSc, Assistant professor, PhD)

Date._____ Signature _____

Name of the second advisor: **Mr. Kebebe Adugna** (Bsc, MSc)

Date._____ Signature _____

APPROVAL OF EXAMINERS

Name of internal examiner: _____

Date: _____ Signature _____

Name of external examiner: _____

Date: _____ Signature _____