PREVALENCE OF ABNORMAL UTERINE BLEEDING AND ASSOCIATED FACTORS AMONG REPRODUCTIVE AGE WOMEN VISITING GYNECOLOGIC OUTPATIENT DEPARTMENT OF PUBLIC HOSPITALS IN HARAR, EASTERN ETHIOPIA

RESEARCH THESIS

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Prevalence of Abnormal Uterine Bleeding and Associated Factors among Reproductive Age Women Visiting Gynecologic Outpatient Department of Public Hospitals in Harar, Eastern Ethiopia

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ABBREVIATIONS AND ACRONYMS

AUB	Abnormal Uterine Bleeding
BMI	Body Mass Index
CI	Confidence Interval
FIGO	International Federation of Gynecology and Obstetrics
HFCSH	Hiwot-Fana Comprehensive Specialized Hospital
HMB	Heavy Menstrual Bleeding
JGH	Jugol General Hospital
LMICs	Low- and Middle-Income Countries
NSAIDs	Non-Steroidal Anti-Inflammatory Drugs
OPD	Outpatient Department
PI	Principal Investigator
PSS-10	Perceived Stress Scale
STD	Sexually Transmitted Disease

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ABSTRACT

Background: Abnormal uterine bleeding encompasses a spectrum of menstrual irregularities, including variations in frequency, duration, and volume of menstrual flow, and is classified into structural and non-structural etiologies. It is a common problem effecting up to a third of women in their reproductive years. There is a limited study conducted pertaining to abnormal uterine bleeding in low-resource centers including the current study setting.

Objective: To assess the prevalence of abnormal uterine bleeding and associated factors among reproductive age women visiting gynecologic outpatient department of public hospitals in Harar, Eastern Ethiopia, from November 1, 2024 to December 30, 2024.

Method: Facility based cross-sectional study design was conducted at the gynecologic outpatient department of Hiwot-Fana Comprehensive Specialized Hospital and Jugol General Hospital, Harar, Eastern Ethiopia. 385 patients were included by systematic random sampling technique. Data were collected by face-to-face interview from the patients and from the patient's medical record by a structured data abstraction tool. Data were coded and interred to Epi-Info^{TM} version 7.2.5.0 and analysed using STATA version 17. Descriptive data were summarized using tables, charts, and graphs. Bivariable and multivariable logistic regression analyses were done to identify factors associated with abnormal uterine bleeding. Statistical significance was declared at a 95% confidence interval with a P-value less than 0.05. Goodness of model fitness was checked by using Hosmer-Lemshow test.

Results: A total of 385 reproductive age women was included with the mean age of 29.23±7.63 years. The prevalence of abnormal uterine bleeding was 27.01% (95% CI: 22.56%–31.47%). Use of IUCD (AOR=3.43, 95% CI: 1.31-8.98), use of hormonal contraceptives (AOR=2.14, 95% CI: 1.19-3.85), a history of uterine fibroids (AOR=5.07, 95% CI: 2.55-10.07), being obese (AOR = 2.80, 95% CI: 1.22 - 6.41), and a high perceived stress level (AOR=1.94, 95% CI: 1.05-3.59) were all statistically significant with abnormal uterine bleeding.

Conclusion: More than a quarter of reproductive-age women experienced abnormal uterine bleeding. Contraceptive use such as IUCD and hormonal contraceptives, uterine fibroids, obesity, and high stress level were strongly associated with abnormal uterine bleeding. Highlighting the need for comprehensive care approaches to address these determinants.

Keywords: Abnormal uterine bleeding, Reproductive age women, Prevalence, Gynecology outpatient department.

1. INTRODUCTION

1.1. Background

Abnormal uterine bleeding (AUB) encompasses a spectrum of menstrual irregularities, including variations in frequency, duration, and volume of menstrual flow, and is classified into structural and non-structural etiologies according to the International Federation of Gynecology and Obstetrics (FIGO) PALM-COEIN classification system. Structural causes include polyps, adenomyosis, leiomyoma, and malignancy, while non-structural factors involve coagulopathies, ovulatory dysfunction, endometrial causes, iatrogenic factors, and conditions not yet classified [Munro et al., 2018; Jain et al., 2022].

The prevalence of AUB varies widely across different populations and is influenced by multiple demographics, socio-economic, and cultural factors. Epidemiological studies indicate that AUB affects approximately 10-30% of women in the reproductive age group, with significant variations based on age, parity, and underlying health conditions. This condition profoundly impacts women's quality of life, contributing to physical discomfort, psychological distress, and socio-economic burdens due to its chronic nature and the potential for significant blood loss leading to anemia [Kai et al., 2023; Whitaker and Critchley, 2016].

Understanding the prevalence and trends of AUB is essential for crafting effective management strategies and healthcare policies. Despite its widespread occurrence and significant impact, AUB is often under-researched, especially in low- and middle-income countries (LMICs) where healthcare access and diagnostic tools are frequently limited. This knowledge gap highlights the necessity for comprehensive epidemiological studies to determine the extent of AUB and its associated risk factors across various populations [Henry et al., 2020; Chodankar et al., 2022; Sinharoy et al., 2023].

The clinical management of AUB is complex, requiring a multidisciplinary approach involving gynecologists, primary care physicians, and often hematologists. Treatment options range from pharmacological interventions, such as hormonal therapies and non-steroidal anti-inflammatory drugs (NSAIDs), to surgical procedures like endometrial ablation and hysterectomy in severe cases. Factors such as cultural stigmas, lack of awareness, and inadequate healthcare infrastructure further exacerbate the challenges faced by women experiencing AUB [Bofill Rodriguez et al., 2019; Lethaby et al., 2019; Marjoribanks et al., 2016].

1.2. Statement of the problem

AUB represents a prevalent and debilitating gynecological condition among women of reproductive age, manifesting as irregularities in menstrual cycle frequency, duration, and volume. It is a common problem effecting up to a third of women in their reproductive years. This lack of data impedes the development of effective clinical management strategies and healthcare policies tailored to address the specific needs of affected populations [Leal et al., 2024; Lebduska et al., 2023].

The complexity of AUB stems from its varied etiologies, categorized under the FIGO PALM-COEIN classification into structural causes (polyps, adenomyosis, leiomyomas, malignancies) and non-structural causes (coagulopathies, ovulatory dysfunction, endometrial factors, and iatrogenic factors). This diversity in causes necessitates a detailed understanding to develop effective diagnostic and therapeutic approaches [Munro et al., 2018; Munro et al., 2017].

Understanding the prevalence and associated factors of AUB is crucial for developing targeted interventions and improving clinical outcomes. Socio-demographic factors, including age, parity, socio-economic status, and access to healthcare, play pivotal roles in shaping the incidence and severity of AUB. Cultural perceptions, stigma surrounding menstruation, and disparities in health education further contribute to under-reporting and inadequate management of AUB in diverse populations [Tan et al., 2017; Kaphle et al., 2023].

Furthermore, the impact of AUB extends beyond physical health, affecting mental well-being and productivity. Women experiencing AUB often face challenges in daily activities, employment, and social interactions due to unpredictable bleeding patterns and associated symptoms. This societal burden emphasizes the urgent need for evidence-based research to inform healthcare policies and promote equitable access to comprehensive reproductive health services [Middelkoop et al., 2023; Davis E and Sparzak PB, 2023].

The lack of standardized screening and diagnostic protocols further complicates the management of AUB, leading to variability in clinical practices and outcomes [Hill and Shetty, 2023; Brun et al., 2023]. By focusing on these unmet needs, this thesis aims to provide actionable insights that can drive improvements in clinical practice and policy-making. Ultimately, addressing the epidemiological gap will facilitate better healthcare delivery, ensuring timely and effective interventions for women suffering from AUB.

1.3. Significance of the study

By focusing on this specific population within a hospital setting, the study aims to provide essential data on the local epidemiology of AUB, thereby contributing to a deeper understanding of its prevalence, underlying causes, and clinical manifestations in this particular demographic.

Furthermore, the study's focus on a LMIC setting like HFCSH and JGH is particularly significant due to the unique challenges faced in these regions, including limited healthcare resources, cultural beliefs, and socio-economic disparities. By generating local data on AUB prevalence and its determinants, the study aims to advocate for targeted interventions and healthcare policies that address these specific challenges. This includes advocating for improved diagnostic capabilities, increased access to affordable treatment options, and enhanced health education programs aimed at raising awareness about AUB and promoting early intervention among women in the community. This study will provide valuable insight on specific and recent magnitude of abnormal uterine bleeding and contributing factors for HFCSH and furthermore, it will generate a new knowledge regarding AUB for health care workers in order to integrate with existing clinical practicum.

In addition to the aforementioned benefits, this study could serve as a model for future research endeavors in Ethiopia and globally, providing a valuable resource to the scientific community

1.4. Objectives

1.4.1. General objective

- To assess the prevalence of abnormal uterine bleeding and associated factors among reproductive age women visiting gynecologic outpatient department of public hospitals in Harar, Eastern Ethiopia, from December 1, 2024 to January 30, 2025 E.C.

1.4.2. Specific objectives

- To determine the prevalence of abnormal uterine bleeding among reproductive age women.
- To identify factors associated with abnormal uterine bleeding among reproductive age women.

2. LITERATURE REVIEW

AUB is a common gynecological condition that significantly affects women of reproductive age worldwide. AUB can lead to various health complications and adversely impact women's quality of life. This literature review aims to provide an overview of the prevalence, etiologies, and associated factors of AUB, with a particular focus on studies conducted in LMICs and Ethiopia.

2.1. Prevalence of AUB among reproductive age women

Numerous studies have documented the prevalence of AUB among women of reproductive age, revealing considerable variation across different regions and populations. Globally, it is estimated that approximately 10-30% of women experience AUB at some point in their lives [Davis E and Sparzak PB, 2023; Dreisler et al., 2024].

In accordance with a nationwide report in USA, 12.7% of adolescents (10-19 years) were diagnosed with AUB [Rosen et al., 2020]. A finding from Japan revealed that, out of 61,740 patients, which 8081 (13.1%) were diagnosed with AUB [Kitahara et al., 2023]. While, in China, 18.2% of women had heavy menstrual bleeding (HMB) [Ding et al., 2019]. In Israel, a study conducted among COVID-19 vaccinated and recovered women, 49.3% and 47.2% of the women had experienced AUB either after being vaccinated or after being infected with the virus, respectively [Issakov et al., 2023].

As a per a population-based cross-sectional study done in five Brazilian geographic regions, the total prevalence of AUB was found to be 31.40%, within the range of 21.54% to 39.46% between regions [Rezende et al., 2023]. A population-based cross-sectional study from Iran showed that, a total of 35.8% of the participants suffered from one or more types of AUB [Kazemijaliseh et al., 2017].

A cross-sectional study in Nepal depicted that, Of the total 2680 patients attending the gynecology OPD, the prevalence of AUB was 8.9% [Shrestha et al., 2022]. In India studies found that, the prevalence of AUB was found to be 20.48% [Choudhury and Nath, 2020], 32.72% [Faruqui, 2019] among reproductive age group women, and 18.3% among perimenopausal age group patients [Vaidya et al., 2022].

A multinational cross-sectional study done across ten cities of LMICs, the prevalence of heavy menstrual bleeding across the study populations ranged from 38·3% to 77·6%, with a pooled average of 48·6%, and the prevalence was lowest in Dakar (38·3%) and Kampala (38·4%) and

highest in Kathmandu (77·6%) [Sinharoy et al., 2023]. A single center study in Tanzania reported that, the prevalence of HMB was 24.1% [Ibrahim and Samwel, 2023].

In Ethiopia, the magnitude of abnormal uterine bleeding among study participants was 24.21% in Dilla University General Hospital [Abebe et al., 2024], and 34.1% in Jimma town [Gerema et al., 2022].

2.2. Factors associated with AUB among reproductive age women

AUB is influenced by a variety of socio-demographic, clinical, and lifestyle factors. Understanding these factors is crucial for identifying women at higher risk and developing tailored interventions.

2.2.1 Socio-Demographic Factors

Several studies identified that socio-demographic factors can significantly influence AUB. Women aged 40-45 years had experienced higher AUB rates due to hormonal changes during perimenopause. Higher parity, or multiple pregnancies, increases the risk of AUB, possibly due to the effects of childbirth on the uterus. Lower socio-economic status exacerbates the issue, and cultural stigmas surrounding menstruation often aggravate AUB severity [Ivanović et al., 2024; Choudhury and Nath, 2020; Henry et al., 2020; Kanagasabai et al., 2023].

2.2.2 Clinical Factors

Medical conditions like polycystic ovary syndrome, thyroid disorders, sexually transmitted disease (STD), anemia, and coagulopathies are closely linked to AUB [Maslyanskaya et al., 2017; Jaiswal et al., 2022; Abebe et al., 2024]. Gynecological conditions such as endometriosis, adenomyosis, and uterine fibroids also increase AUB risk by altering the uterine structure [Habiba et al., 2024; Gerema et al., 2022; Zhang et al., 2023]. Medications such as anticoagulants and hormonal contraceptives can influence menstrual patterns, contributing to AUB [Polis et al., 2018; Patel et al., 2023; de Jong et al., 2022].

2.2.3 Lifestyle Factors

Obesity, stress, poor diet, alcohol intake, and cigarette smoking significantly impact AUB. Obesity leads to increased estrogen production, causing heavier menstrual bleeding. Stress affects the hypothalamic-pituitary-ovarian axis, disrupting menstrual regularity [Reavey et al., 2021; Preethi et al., 2022; Zheng et al., 2020; Ciebiera et al., 2021; Ivanović et al., 2024].

2.3. Conceptual framework

This conceptual frame work is constructed by investigator based on the objectives of the study and taking earlier investigation from my literature review as a foundation.

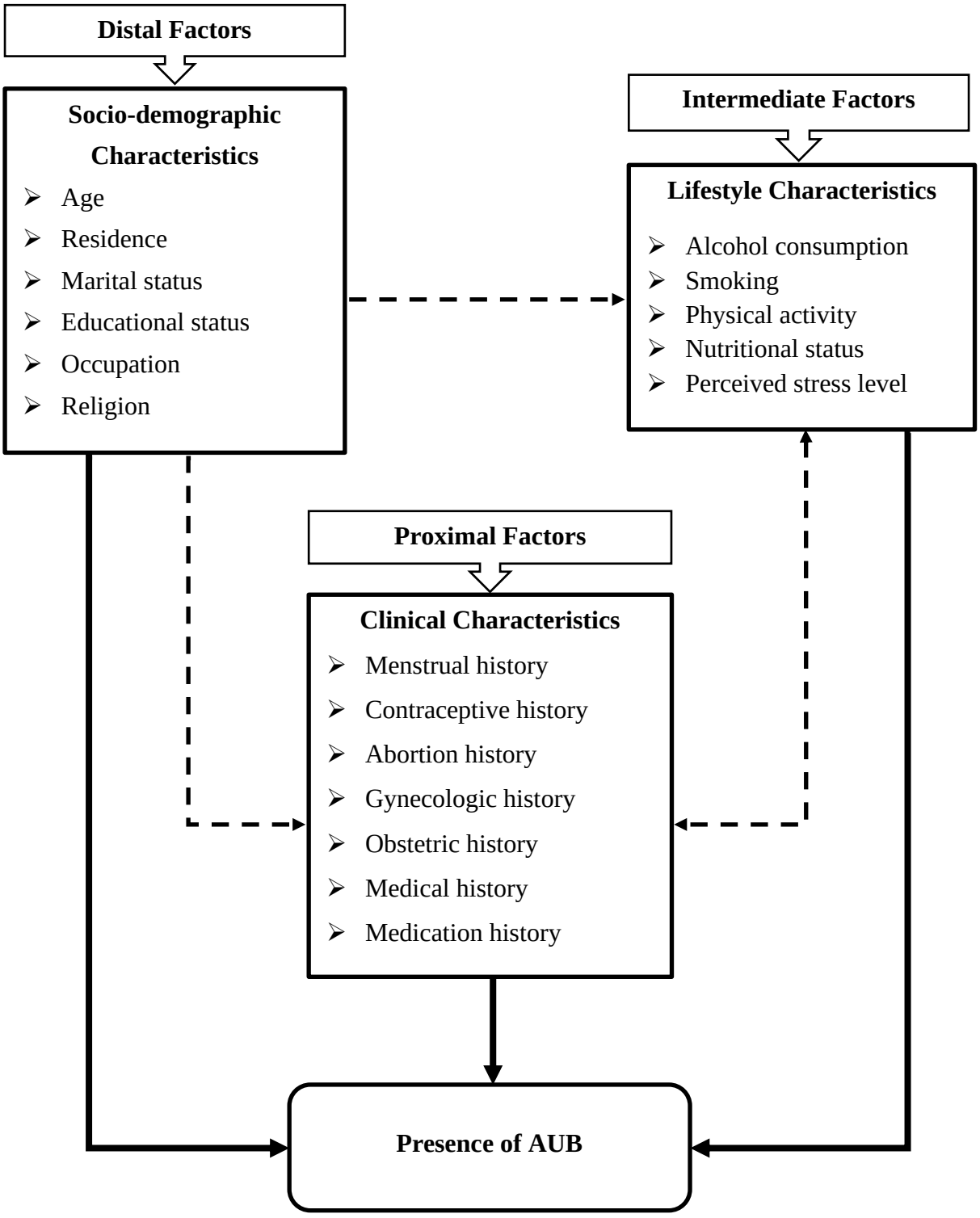

Figure 1: Conceptual framework for prevalence of AUB among reproductive age women visiting gynaecologic OPD of Public Hospitals in Harar, Eastern Ethiopia

3. METHODOLOGY

3.1. Study area and period

This study was carried out in the gynecologic OPD of HFCSH and JGH in Harar, Eastern Ethiopia. HFCSH was established in 1941 and became a university specialized hospital in 2010. HFCSH is the only comprehensive, speciality hospital there. Currently it contains medical, surgical, central ICU, adult emergency or emergence and critical care center (HARME), pediatrics, neonatal, psychiatry, gynecological, obstetrics, oncology, orthopedics, ophthalmology units and has 22 outpatient department. JGH is a regional hospital which was established in 1902 E.C and currently gives health services in six departments' obstetrics and gynecology, pediatrics and child health, internal medicine, surgery and ophthalmology.

The study was conducted from November 1, 2024, to December 30, 2024.

3.2. Study design

Facility based cross-sectional study was conducted at gynaecologic OPD of HFCSH and JGH.

3.3. Population

3.3.1. Source population

All reproductive age women (15-49 years) visiting gynecologic OPD at HFCSH and JGH.

3.3.2. Study population

Selected reproductive age women (15-49 years) visiting gynecologic OPD of HFCSH and JGH, from November 1, 2024 to December 30, 2024.

3.4. Inclusion and exclusion criteria

3.4.1. Inclusion criteria

Women aged 15-49 years who consented to participate and have accessible, sufficiently detailed medical records were included in the study.

3.4.2. Exclusion criteria

Women who are seriously ill, pregnant during the study, have had a hysterectomy or other surgeries affecting menstrual bleeding patterns, or are unable to communicate during data collection were excluded.

3.5. Sample size determination.

A single population proportion formula was used to calculate the required sample size for the first objective by considering the assumptions:

$Z_{\alpha/2}$= 1.96, the standard normal deviation at 95% confidence interval (CI)

P= 24.21%, prevalence of AUB in Dilla University General Hospital [Abebe et al., 2024]

d= 5%, margin of error that can be tolerated

n= minimum sample size for the study

$$n= \frac{(Z_{\frac{\alpha}{2}})^2 P(1-P)}{d^2} = \frac{(1.96)^2(0.242)(0.758)}{(0.05)^2} = 281.88 \approx 282$$

Including 10% for contingency (28), the final calculated sample size was 310.

For associated factors, the study was used the double population formula in Epi-Info™7.2.5.0 software, considering variables such as history of STD, history of anemia, alcohol consumption, and perceived stress level, which were associated with AUB in the study conducted at Dilla University General Hospital [Abebe et al., 2024].

Table 1: Sample size calculation for factors associated with AUB taken from previously done study in Dilla University General Hospital

Predictors	% Outcome in unexposed group	Assumption	OR	Sample size	Sample size (with 10% contingency)
History of STD	23.14%	CI= 95% Power= 80%	2.00	344	378
Alcohol consumption	22.29%		2.00	350	385
Perceived stress level	24.18%		2.00	336	367
History of anemia	22.59%		2.00	348	383

Therefore, this study utilized the double population formula to determine the sample size, based on alcohol consumption data, since the calculated sample size of 385 is larger.

3.6. Sampling technique and procedure

A systematic random sampling technique was employed to select the 385 study participants. The total number of reproductive-age women visiting the Gynecology outpatient departments during a similar two-month period in the previous year was obtained from the hospitals' registration logbooks. Proportional allocation was applied for each hospital based on their reports: for HFCSH, which had 430 patients during the two-month period, the proportional allocation was 57.3% * 385 = 221, resulting in a K^{th} value of 2 (430/221 ≈ 2); for JGH, which had 320 patients, the proportional allocation was 42.7% * 385 = 164, also resulting in a K^{th} value of 2 (320/164 ≈ 2). The first participant for each hospital was selected randomly through a lottery method, and subsequent participants were chosen systematically at every K^{th} interval.

3.7. Data collection Method

3.7.1. Data collection Instruments

A structured data collection tool was developed in English language after review of literature, then it was translated back to local languages (Amharic and Afaan-Oromo). The data abstraction format was designed to obtain information on the main variables' demographic, clinical and lifestyle factors as well as the presence of AUB was included.

3.7.2. Data collectors and supervisors

Data were collected by two midwiferies and supervised by one midwife and the principal investigator. Data collectors and the supervisor were trained on the consent process, ensuring confidentiality, handling ethical issues, the study's purpose, managing participants, controlling missing data, and the overall procedures for data collection.

3.7.3. Data collection procedure

Data were gathered through face-to-face interviews with the patients and by extracting information from their medical records into a structured questionnaire. Each completed questionnaire was checked for completeness after each data collection session.

3.8. Variables

3.8.1. Dependent Variable

The dependent variable is the presence of AUB (Yes or No)

3.8.2. Independent Variables

- Socio-demographic characteristics (Age, Residence, Marital status, Educational status, Occupation, Religion, Monthly income)
- Clinical data (Menstrual history, Contraceptive history, Abortion history, Gynecologic history, Obstetric history, Medical history, Medication history)
- Life-style characteristics (Alcohol consumption, Smoking, Physical activity, Nutritional status, Perceived stress level)

3.9. Operational Definitions

Abnormal uterine bleeding (AUB): Refers to any deviation from normal menstrual cycle patterns, including changes in frequency, duration, and volume of menstrual flow, as defined by the FIGO 2018 criteria [Munro et al., 2018]. For the purposes of this study, AUB was defined as any deviation from the normal menstrual cycle, characterized by changes in frequency (cycle length >38 days), duration (>8 days), regularity (variation of 8–10 days), volume (heavy menstrual bleeding), and intermenstrual bleeding (random or cyclic), as confirmed verbally by the participant.

Reproductive Age Women: Defined as females between the ages of 15 and 49 years who have not reached menopause.

Gynecologic Outpatient Department: The hospital unit where women receive consultations and treatments for gynecological issues, including menstrual disorders.

Current Alcohol Consumption: Refers to any alcohol intake reported within the last three months.

Current Smoking Status: Refers to any self-reported cigarette, cigar, or other tobacco product use within the past three months.

Physical Activity: refers to any bodily movement that results in energy expenditure, including walking, running, sports, and daily chores. It was assessed based on frequency, intensity, and duration over the past week. Scoring was as follows: Frequency (1 point for 0-1 times, 2 points for 2-3 times, 3 points for 4+ times), Intensity (1 point for light, 2 points for moderate, 3 points for vigorous), and Duration (1 point for <10 minutes, 2 points for 10-30 minutes, 3 points for >30 minutes). The total score was calculated by adding the points from each category, with the following categorization: Score of 3–4 points: Sedentary, Score of 5–6 points: Moderate, and Score of 7–9 points: Active [Westerterp, 2013].

Nutritional Status: was assessed using Body Mass Index (BMI). Participants were classified into categories based on their BMI: underweight (BMI < 18.5 kg/m^2), normal weight (18.5-24.9 kg/m^2), overweight (25.0-29.9 kg/m^2), and obesity (BMI ≥ 30 kg/m^2) [Weir and Jan, 2019].

Perceived Stress Level: was measured using the Perceived Stress Scale (PSS-10), which consists of 10 questions assessing participants' thoughts and feelings about stress over the past month, with each question rated on a 5-point Likert scale (0 = Never, 1 = Almost Never, 2 = Sometimes, 3 = Fairly Often, 4 = Very Often). The total score can range from 0 to 40, with higher scores indicating greater perceived stress, categorized as follows: Low Stress (0-13), Moderate Stress (14-26), and High Stress (27-40) [Harris et al., 2023].

3.10. Data quality control

The format was pre-tested on 5% of randomly selected patients at Dilchora Referral Hospital, Dire Dawa, Ethiopia. Then the contents of the data collection tool were evaluated, and as per the results, necessary reshufflings with regard to ambiguous and unclear information were made prior to the commencement of the actual data collection. The data collectors were supervised daily, and each filled-out data abstraction format was rigorously appraised daily by the supervisor and principal investigator to ensure it is comprehensive.

3.11. Data processing and analysis

The data were entered and cleaned into Epi-Info™ Version 7.2.5.0 once the collection process and the checking for completeness and consistency were accomplished. Then it was imported to Stata Version-17 for data processing and analysis. Descriptive statistics were used to analyze the frequency and percentage of AUB among different variables. A bi-variable logistic regression analysis was performed to identify the association of each independent variable with the outcome variable, AUB presence.

All variables with a p-value of less than 0.2 at bi-variable logistic regression analysis was entered into the multi-variable logistic regression model. A p-value of < 0.05 was considered statistically significant, and the adjusted odds ratio (AOR) with a 95% CI was calculated. The goodness of model fitness was checked using the Hosmer-Lemshow test. Then the results were presented in the form of tables, figures, and charts using frequency and summary statistics such as mean and percentage to describe the study population in relation to relative variables and discussed with previous results.

3.12. Ethical consideration

This study was conducted after ethical clearance was obtained from the Institutional Health Research Ethics Review Committee (IHRERC) of the College of Health and Medical Science, Haramaya University. Then informed, voluntary, written, and signed consent was obtained from the study participants and the HFCSH clinical director. Data were collected while keeping the identities of the study participants anonymous, i.e., without mentioning their names, addresses, or any unique identifier.

3.13. Dissemination of the results

Once the writing of the final report was done and approved by the advisors, both hard and soft copies will be submitted to the Department of Gynecology and Obstetrics, School of Medicine, College of Health and Medical Sciences, Haramaya University. The report will also be disseminated to the different concerned bodies and stakeholders, including HFCSH and the regional health bureau. Furthermore, the findings from this study will also be presented at conferences. It will also be sent for publication in a reputed and peer-reviewed journal and will be available to the rest of the world.

4. RESULTS

A total of 385 reproductive age women were interviewed in this study, achieving a 100% response rate.

Socio-demographic characteristics

The participants had a mean (±SD) age of 29.23±7.63 years, with the majority (57.92%) falling in the 25-34 age group and most residing in rural areas (56.88%). A majority are married (66.75%) and have attained secondary education (33.25%) or higher (35.58%). Regarding occupation, 41.56% are housewives, followed by merchants (16.88%) and farmers (12.81%). In terms of religion, most participants are Muslim (50.39%), with others identifying as Orthodox (29.87%), Protestant (17.92%) (**Table *2***).

Table 2: Socio-demographic characteristics of reproductive age women visiting gynecologic outpatient department of Hiwot Fana Comprehensive Specialized Hospital and Jugol General Hospital, 2024

Variables	Frequency	Percentage (%)
Age		
15-24 years	91	23.64
25-34 years	223	57.92
35-44 years	55	14.29
45-49 years	16	4.16
Residence		
Urban	166	43.12
Rural	219	56.88
Marital Status		
Single	78	20.26
Married	257	66.75
Divorced	35	9.09
Widowed	15	3.90
Educational Status		
No formal education	61	15.84
Primary education	81	21.04
Secondary education	146	37.92
College and above	97	25.19
Occupational Status		
House wife	160	41.56
Farmer	57	12.81
Merchant	65	16.88
Gov't employee	48	12.47
Private employee	45	11.69
Other	10	2.60
Religion		
Muslim	194	50.39
Orthodox	115	29.87
Protestant	69	17.92
Others	7	1.82

Reproductive health and clinical diagnosis-related characteristics

As shown below in **Table *3***, around three-quarters of the participants are multiparous (71.69%), and 57 (14.81%) of them have experienced an abortion. Only 27 (7.01%) use an intra-uterine contraceptive device (IUCD), while the majority use hormonal contraceptives (59.74%). A history of sexually transmitted infections and a diagnosis of uterine fibroids were found in 12.73% and 11.95% of the participants, respectively. Very few participants report having uterine cancer (1.56%), anemia (10.91%), bleeding disorders (2.08%), or thyroid disorders (1.04%). Additionally, most participants do not use medication (90.39%).

Table 3: Reproductive health and clinical diagnosis-related characteristics of reproductive age women visiting gynecologic outpatient department of Hiwot Fana Comprehensive Specialized Hospital and Jugol General Hospital, 2024

Variables	Frequency	Percentage (%)
Parity		
Nulliparous	109	28.31
Multiparous	276	71.69
History of Abortion		
No	332	85.19
Yes	57	14.81
IUCD Use		
No	358	92.99
Yes	27	7.01
Hormonal Contraceptive Use		
No	155	40.26
Yes	230	59.74
STI History		
No	336	87.27
Yes	49	12.73
Uterine Fibroids		
No	339	88.05
Yes	46	11.95
Uterine Cancer		
No	379	98.44
Yes	6	1.56
Anemia History		
No	343	89.09
Yes	42	10.91
Bleeding Disorder History		
No	377	97.92
Yes	8	2.08
Thyroid Disorder History		
No	381	98.96
Yes	4	1.04
Medication Use		
No	348	90.39
Yes	37	9.61

Lifestyle characteristics and Stress level of the respondents'

The study population predominantly avoids alcohol (96.88%) and smoking (94.29%), with the majority having a BMI in the normal range (60.78%), while smaller proportions are underweight (11.69%), overweight (19.22%), or obese (8.31%) (**Table *4***).

Perceived stress levels indicate that around two-third experience low stress (251; 65.19%), while 59 (15.32%) report moderate stress and 75 (19.48%) report high stress (**Figure *2***).

Table 4: Lifestyle characteristics of reproductive age women visiting gynecologic outpatient department of Hiwot Fana Comprehensive Specialized Hospital and Jugol General Hospital, 2024

Variables	Frequency	Percentage (%)
Alcohol Consumption (Current)		
No	373	96.88
Yes	12	3.12
Smoking Status (Current)		
No	363	94.29
Yes	22	5.71
Physical Activity		
Sedentary	17	4.42
moderate	176	45.71
Active	192	49.87
BMI (Kg/m^2)		
< 18.5	45	11.69
18.5-24.9	234	60.78
25-29.9	74	19.22
≥30	32	8.31

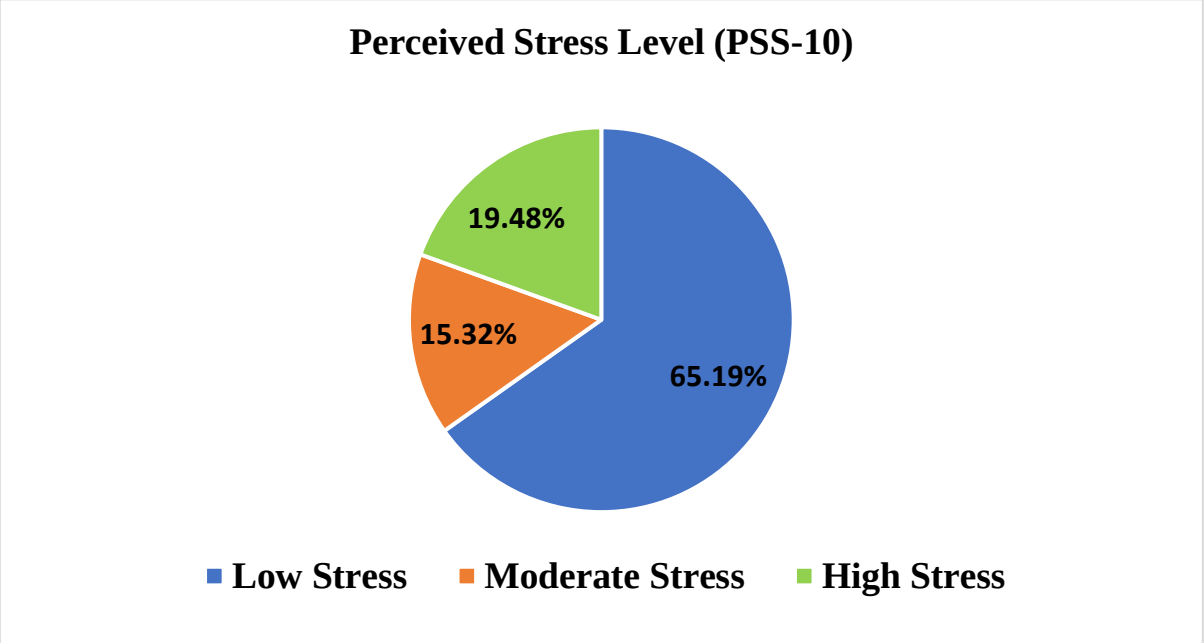

Figure 2: Perceived Stress Level of the respondents' visiting gynecologic outpatient department of Hiwot Fana Comprehensive Specialized Hospital and Jugol General Hospital, 2024

Prevalence of Abnormal Uterine Bleeding

The prevalence of abnormal uterine bleeding in this study was 27.01%, with a 95% CI (22.56%–31.47%).

As depicted in **Figure *3*** below, among participants with AUB, heavy menstrual bleeding accounted for the majority of cases (31.73%), followed by prolonged bleeding (24.04%), oligomenorrhea (22.12%), frequent bleeding (10.58%), intermenstrual bleeding (4.81%), amenorrhea (3.85%), and irregular bleeding (2.88%).

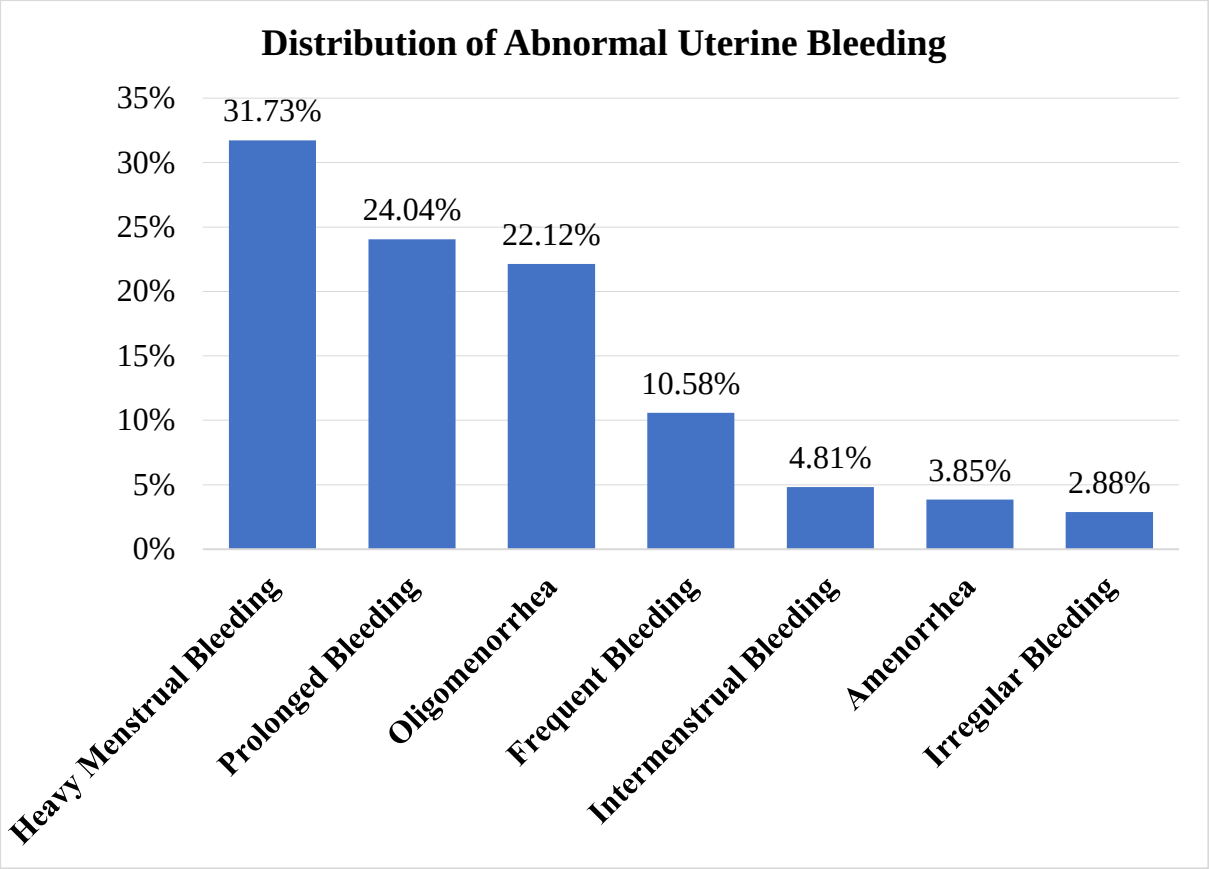

Figure 3: Pattern of AUB among reproductive age women visiting gynecologic outpatient department of Hiwot Fana Comprehensive Specialized Hospital and Jugol General Hospital, 2024

Factors Associated with Abnormal Uterine Bleeding

In the bivariate logistic regression analysis, variables such as age, parity, history of abortion, use of IUCD, use of hormonal contraceptives, history of STI, history of uterine fibroids, BMI, and perceived stress level were associated with abnormal uterine bleeding, with a P-value of less than 0.25. A P-value of <0.25 was used to select variables with potential associations for further analysis, ensuring the inclusion of meaningful predictors while minimizing the risk of

excluding relevant factors. These variables met the minimum criteria for further multivariate logistic analysis.

Among these, use of IUCD, use of hormonal contraceptives, history of uterine fibroids, BMI, and perceived stress level were statistically significant for abnormal uterine bleeding in the multivariable analysis, with a P-value of less than 0.05. The model's fitness was assessed using the Hosmer-Lemeshow test, which yielded a significance value of 0.78. Multicollinearity was checked using the Variance Inflation Factor (VIF), with a mean VIF of 1.08, indicating no significant multicollinearity among the variables (**Table *5***).

Table 5: Bivariate and multivariate logistic regression analysis of factors associated with abnormal uterine bleeding among reproductive age women visiting gynecologic outpatient department of Hiwot Fana Comprehensive Specialized Hospital and Jugol General Hospital, 2024

Variables	Category	AUB		COR (95% CI)	AOR (95% CI)
		No	Yes		
Age	15-24 years	60	31	1.79 (1.05, 3.05)	1.72 (0.95, 3.12)
	25-34 years	173	50	1	1
	35-44 years	39	16	1.42 (0.73, 2.75)	1.51 (0.73, 3.12)
	45-49 years	9	7	2.69 (0.95, 7.59)	2.76 (0.88, 8.61)
Parity	Nulliparous	85	24	1	1
	Multiparous	196	80	1.45 (0.86, 2.44)	1.39 (0.77, 2.48)
History of Abortion	No	246	82	1	1
	Yes	35	22	1.89 (1.05, 3.40)	1.77 (0.92, 3.41)
IUCD Use	No	266	92	1	1
	Yes	15	12	2.31 (1.04, 5.12)	**3.43 (1.31, 8.98) ***
Hormonal Contraceptive Use	No	119	36	1	1
	Yes	162	68	1.39 (0.87, 2.22)	**2.14 (1.19, 3.85) ***
STI History	No	251	85	1	1
	Yes	30	19	1.87 (1.00, 3.49)	1.79 (0.87, 3.65)
Uterine Fibroids	No	263	76	1	1
	Yes	18	28	5.38 (2.82, 10.26)	**5.07 (2.55, 10.07) ****
BMI (Kg/m^2)	< 18.5	30	15	1.71 (0.86, 3.41)	1.72 (0.80, 3.70)
	18.5-24.9	181	53	1	1
	25-29.9	53	21	1.35 (0.75, 2.44)	1.30 (0.68, 2.50)
	≥ 30	17	15	3.01 (1.41, 6.44)	**2.80 (1.22, 6.41) ***
Perceived Stress Level	Low	192	59	1	1
	Moderate	42	17	1.32 (0.70, 2.48)	1.20 (0.59, 2.44)
	High	47	28	1.94 (1.12, 3.36)	**1.94 (1.05, 3.59) ***

*= P < 0.05; **= P <0.001; Hosmer-lemshow test= 0.78

5. DISCUSSION

Abnormal uterine bleeding is a common and impactful health issue among reproductive-age women, with significant implications for their quality of life and overall health. This study identified the prevalence of abnormal uterine bleeding to be 27.01%, along with several key factors associated with its occurrence. These findings offer critical insights into the burden of this condition and its predictors, providing a basis for comparison with prior studies and for guiding future interventions.

According to our study, the prevalence of abnormal uterine bleeding was 27.01% (95% CI: 22.56% - 31.47%), which is in line with studies conducted in Brazil (31.4%) [Rezende et al., 2023], Tanzania (24.1%) [Ibrahim and Samwel, 2023], and Ethiopia, including Dilla (24.2%) [Abebe et al., 2024] and Jimma (34.1%) [Gerema et al., 2022].

Our study showed a higher prevalence of AUB compared to studies done in Japan (13.1%) [Kitahara et al., 2023], in Nepal (8.9%) [Shrestha et al., 2022], in India (20.48%) [Choudhury and Nath, 2020] and 18.3% in Malabar Medical College, India [Vaidya et al., 2022]. The gap between the findings could be attributed to several factors. Firstly, the Japanese study, which surveyed 61,740 participants across 1,060 health facilities nationwide, provides a comprehensive and diverse representation of the population. Its large-scale, standardized design reduces bias and ensures consistent data collection and diagnosis, leading to a more uniform and potentially lower prevalence rate. Additionally, the disparity from the study done in Nepal could be explained by inclusion of postmenopausal women in the Nepal study. Postmenopausal women typically experience a lower prevalence of AUB, as they have passed the period of menstruation and are less likely to encounter menstrual-related bleeding [Carugno, 2020; Sung et al., 2023]. Furthermore, the Indian study included 13,626 patients attending gynecology OPD, representing a broader population that might dilute the prevalence rate. Lastly, the Malabar Medical College study focused on the perimenopausal age group and was retrospective in design, which could have influenced data collection and reporting, potentially underestimating the prevalence of AUB.

Conversely, the current finding revealed a lower AUB prevalence than a multinational study done in LMICs (48.6%) [Sinharoy et al., 2023], a study in Israel (47.2%) [Issakov et al., 2023], and Iran (35.8%) [Kazemijaliseh et al., 2017]. The higher prevalence in the LMIC study may be due to its large-scale, multi-country design, involving diverse populations with higher risks of menstrual abnormalities. It utilized the SAMANTA scale, a sensitive tool for detecting

heavy menstrual bleeding, along with questions on fatigue and anemia, likely capturing more cases, whereas our study relied on FIGO 2018 criteria, which may be less sensitive to subjective symptoms. Additionally, the LMIC study incorporated broader contextual factors like water, sanitation, and hygiene (WaSH) access, which were not assessed in our study. The Israeli study focused on women who were vaccinated against or recovered from COVID-19, conditions associated with hormonal and immune changes that can increase AUB risk. In contrast, the Iranian study, being population-based, likely included women from a broader demographic, including those with undiagnosed or untreated AUB, while our facility-based study was limited to women actively seeking gynecologic care, potentially excluding milder cases.

This finding revealed that the use of IUCD, hormonal contraceptives, a history of uterine fibroids, BMI, and perceived stress level were statistically significant factors for abnormal uterine bleeding in the multivariable analysis ($P < 0.05$).

In this study, women that use IUCD (AOR=3.43, 95% CI: 1.31-8.98) and hormonal contraceptives (AOR=2.14, 95% CI: 1.19-3.85) were significantly associated with AUB risk. This discovery was backed by other studies carried out in Israel [Issakov et al., 2023], China [Tian et al., 2024], Tanzania [Ibrahim and Samwel, 2023], and Jimma [Gerema et al., 2022]. The association between IUCD and hormonal contraceptive use with increased AUB risk is likely due to their effects on the endometrium and hormonal regulation. IUCDs, especially non-hormonal ones, cause local inflammation, disrupt endometrial repair, and increase vascular fragility, leading to irregular or heavy bleeding [Xu et al., 2021; Castillo et al., 2022; Watad et al., 2024]. Hormonal contraceptives alter the hypothalamic-pituitary-ovarian (HPO) axis and modify the endometrial lining, resulting in breakthrough bleeding or irregular cycles, particularly during early use [Davis and Hackney, 2017; Schrager et al., 2024; Jain et al., 2016].

Additionally, five-fold risk of AUB (AOR=5.07, 95% CI: 2.55-10.07) were found among women with diagnosed with uterine fibroid compared to their counterparts, which similar to the studies done in India [Chennuru and Potnuru, 2019] and Tanzania [Ibrahim and Samwel, 2023]. This correlation could be explained by the impact of uterine fibroids on the structural and functional integrity of the uterus. Fibroids, particularly submucosal types, disrupt normal endometrial blood flow, enlarge the uterine cavity, and impair proper uterine contractions, leading to abnormal bleeding. Their interference with vascular integrity and hemostasis further contributes to heavy or irregular menstrual bleeding [Mension et al., 2024; Uimari et al., 2022; Navarro et al., 2021; Ciarmela et al., 2022].

Our findings showed that obese women (≥ 30 mg/kg^2) were 2.80 times (AOR = 2.80, 95% CI: 1.22 - 6.41) more likely to have AUB than those with a normal BMI, this aligns with findings from Iran [Kazemijaliseh et al., 2017], Kunming [Tian et al., 2024], Beijing China [Shang and Zhang, 2023], Bosnia and Herzegovina [Ivanović et al., 2024], and Sudan [Salih et al., 2025]. Several evidence supports this association, as obesity leads to excess estrogen production from adipose tissue, causing hormonal imbalances and endometrial hyperplasia, which contribute to irregular bleeding. Additionally, obesity-induced inflammation and insulin resistance can impair ovarian function, further increasing the risk of AUB [Šišljagić et al., 2024; Reavey et al., 2021; Fielder et al., 2023].

Finally, women experiencing high perceived stress levels had nearly double the risk of developing AUB compared to those with low stress levels (AOR=1.94, 95% CI: 1.05-3.59), which is consistent with studies done in China [Ansong et al., 2019], India [Jha et al., 2020], Dilla [Abebe et al., 2024], Debre Berhan [Zeru et al., 2021], and a systematic review of 41 studies [Poitras et al., 2024]. Several mechanisms could describe the observed association between high stress levels and an increased risk of AUB. Stress disrupts the HPO axis by elevating cortisol, which interferes with hormonal balance and menstrual regulation. It also increases pro-inflammatory cytokines, impairing endometrial stability and vascular function, contributing to abnormal bleeding. Stress-related behaviors, such as inadequate sleep and poor lifestyle habits, may further amplify these effects, heightening AUB risk [Vigil et al., 2022; Podfigurna and Meczekalski, 2021; Poitras et al., 2024].

6. CONCLUSION AND RECOMMENDATION

6.1. Conclusion

More than a quarter of the participants experienced abnormal uterine bleeding. Key factors associated with an increased risk included the use of IUCDs, hormonal contraceptives, a history of uterine fibroid, elevated BMI, and high levels of perceived stress. These findings emphasize the complex interplay of medical, physiological, and psychological factors contributing to abnormal uterine bleeding and highlight the importance of comprehensive care approaches to address these determinants.

6.2. Recommendations

Based on the findings of this study, which highlight the prevalence of AUB and its association with various medical, physiological, and psychological factors, the following recommendations are proposed to improve prevention, early detection, and management of AUB among reproductive-age women.

- Clinical Management: Public hospitals in Harar should enhance screening and management of AUB, particularly among women with identified risk factors such as the use of IUCDs, hormonal contraceptives, and a history of uterine fibroid. This can include routine gynecological check-ups and improved counseling on contraceptive methods.
- Lifestyle Interventions: Implement hospital-based BMI management programs to address elevated BMI as a modifiable risk factor. Promote education about healthy lifestyle practices, including balanced nutrition and physical activity, to mitigate the risk of AUB.
- Stress Reduction Programs: Introduce stress management programs such as mental health counseling, mindfulness workshops, and relaxation techniques targeting reproductive-age women, particularly those at higher risk of AUB.
- Awareness and Education: Develop community health education campaigns to increase awareness about AUB, its symptoms, risk factors, and the importance of seeking timely medical care.
- Policy and Research Support: Advocate for policy-level support to allocate resources for women's reproductive health services, ensuring accessibility and affordability. Encourage further research to explore the interplay of medical, physiological, and psychological factors in diverse settings.

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8. ANNEXES

8.1. Information Sheet and Informed Voluntary Consent Form for the Hospital Head

My name is Dr. Bekalu yirga. I am studying for my partial fulfilment of Specialty Certificate of obstetrics and Gynecology program at Haramaya University, College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and your institution being selected as the study setting.

1. The study/project title: To assess the Prevalence of Abnormal Uterine Bleeding and Its Associative Factor Amongst Reproductive Age Women Who Present to Hiwot Fana Comprehensive Specialized University Hospital, Harar, Ethiopia, 2024.

2. Purpose/aim of the study: The purpose of this study is to conduct research as a partial requirement for the partial fulfilment of specialty in gynecology and obstetrics for the principal investigator. It will also give information for the institution in order to determine the Prevalence of Abnormal Uterine Bleeding and Its Associative Factor Amongst Reproductive Age Women Who Present to Hiwot Fana Comprehensive Specialized University Hospital, Harar, Ethiopia.

3. Procedure and duration: Data collectors will be interviewing participants using a questionnaire to provide me with pertinent data that is helpful for the study. There are 5 section containing around 42 questions to answer where data collectors will fill the questionnaire by interviewing the women. The interview on each woman will take about 15 minutes.

4. Risks and benefits: The risk of participating in this study is very minimal, but only taking few minutes from women's time. There would not be any direct payment for participating in this study. But, the findings from this research may reveal important information for local health planners.

5. Confidentiality: The information that we will be provided will be kept confidential. There will be no information that will identify the participants in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

6. Rights: You have the right to declare to allow me or not to allow me to do the study. Participation for this study is fully voluntary. If you allow me to conduct this study, you have

the right to stop me from the study at any time if there is any misconduct. Participants do not have to answer any question that they do not want to answer.

7. Contact address: If there are any questions or enquires any time about the study or the procedures, please contact:

Principal investigator: Dr. Bekalu Yirga E-mail: bekaluyirga1986@gmail.com

Mobile phone: +251-922715316

Haramaya University College of Health and Medical Sciences Institutional Research Ethical

Review Committee (IHRERC) at Office phone: 0254662011, P.O.Box: 235, Harar, Ethiopia.

8. Declaration of Informed Voluntary Consent: I have read the information sheet. I have clearly understood the purpose of the research, the procedure, risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that participants have the right to withdraw from the study at any time or not to answer any question that they do not want. I am also informed that the Hospital has the right to stop this study from being conducted if any misdeeds and unethical procedures are observed during the data collection process in the hospital's premises. Therefore, I declare my voluntary consent on behalf of ……management to allow to this study to be conducted in the hospital with my initials (Signature) as indicated below.

Name and Signature of head of the Hospital: _____Date _____

Name and Signature of principal investigator: _____Date _____

8.2. Participant Information Sheet and Informed Voluntary Consent Form for Women 18 and above Years old

My name is _____. I am working as a data collector for the study being conducted in this hospital by Dr. Bekalu Yirga who is studying for his Gynecology and obstetrics Specialty Certificate program at Haramaya University, College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and being selected as the study participant.

1. The study/project title: To assess the Prevalence of Abnormal Uterine Bleeding and Its Associative Factor Amongst Reproductive Age Women Who Present to Hiwot Fana Comprehensive Specialized University Hospital, Harar, Ethiopia, 2024.

2. Purpose/aim of the study: The purpose of this study is to conduct research as a partial requirement for the partial fulfilment of specialty in gynecology and obstetrics for the principal investigator. It will also give information for the institution in order to determine the Prevalence of Abnormal Uterine Bleeding and Its Associative Factor Amongst Reproductive Age Women Who Present to Hiwot Fana Comprehensive Specialized University Hospital, Harar, Ethiopia.

3. Procedure and duration: I will be interviewing you using a questionnaire to provide me with pertinent data that is helpful for the study. There are 7 questions to answer where I will fill the questionnaire by interviewing you. The interview will take about 15 minutes. So I kindly request you to spare me this time for the interview.

4. Risks and benefits: The risk of being participating in this is very minimal, but only taking few minutes from your time. There would not be any direct payment for participating in the study. But, the findings from this research will reveal important information for local health planners.

5. Confidentiality: The information you will provide us will be confidential. There will be no information that will identify you in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

6. Rights: Participation for this study is fully voluntary. You have the right to declare to participate or not in this study. If you decide to participate, you have the right to withdraw from

the study at any time and this will not label you for any loss of benefits which you otherwise are entitled. You do not have to answer any question that you do not want to answer.

7. Contact address: If there are any questions or enquires any time about the study or the procedures please contact:

Principal investigator: Dr. Bekalu Yirga E-mail: bekaluyirga1986@gmail.com

Mobile phone: +251-922715316

Haramaya University College of Health and Medical Sciences Institutional Health Research Ethical Review Committee (IHRERC) at Office phone: 0254662011, P.O.Box: 235, Harar, Ethiopia.

8. Declaration of informed voluntary consent: I have read/was read to me the participant information sheet. I have clearly understood the purpose of the research, the procedure, risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw from the study at any time or not to answer any question that I do not want. Therefore, I declare my voluntary consent to participate in this study with my initials (Signature).

Name and Signature of the participant: _____ Date _____

Name and Signature of the data collector: _____ Date _____

8.3. Participant Information Sheet and Informed Voluntary Consent Form for Parents/ Guardians/Husbands of Women < 18 years

My name is _____. I am working as a data collector for the study being conducted in this hospital by Dr. Bekalu Yirga who is studying for his Gynecology and obstetrics Specialty Certificate program at Haramaya University, College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and your wife/daughter participation

1. The study/project title: To assess the Prevalence of Abnormal Uterine Bleeding and Its Associative Factor Amongst Reproductive Age Women Who Present to Hiwot Fana Comprehensive Specialized University Hospital, Harar, Ethiopia, 2024.

2. Purpose/aim of the study: The purpose of this study is to conduct research as a partial requirement for the partial fulfilment of specialty in gynecology and obstetrics for the principal investigator. It will also give information for the institution in order to determine the Prevalence of Abnormal Uterine Bleeding and Its Associative Factor Amongst Reproductive Age Women Who Present to Hiwot Fana Comprehensive Specialized University, Harar, Ethiopia 2024.

3. Procedure and duration: I will be interviewing your daughter/wife using a questionnaire to provide me with pertinent data that is helpful for the study. There are 7 questions to be answered where I will fill the questionnaire by interviewing her. The interview will take about 15 minutes. So, I kindly request your daughter/wife to spare me this time for the interview.

4. Risks and benefits: The risk of being participating for your daughter/wife in this study is very minimal, but only taking few minutes from her time. There would not be any direct payment for participating in the study. But, the findings from this research may reveal important information for local health planners

5. Confidentiality: The information that we will collect from this study will be confidential. There will be no information that will identify your daughter/wife in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons. The data that we gather from the measurements will exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

6. Rights: Participation for this study is fully voluntary. You have the right to declare to allow your daughter/wife to be involved in this study or not. If you would allow your daughter/wife

for this study, you have the right to withdraw her from the study at any time and this will not label you/ your daughter/wife for any loss of benefits which you/ your daughter/wife otherwise are entitled. She doesn't have to answer any question that she doesn't as well.

7. Contact address: If there are any questions or enquires any time about the study or the procedures, please contact:

Principal investigator: Dr. BekaluYirga E-mail: bekaluyirga1986@gmail.com

Mobile phone: +251-922715316

Haramaya University College of Health and Medical Sciences Institutional Health Research Ethical Review Committee (IHRERC) at Office phone: 0254662011, P.O.Box: 235, Harar, Ethiopia.

8. Declaration of informed voluntary consent: I have read/was read to me the participant information sheet. I have clearly understood the purpose of the research, the procedure, risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw my daughter/wife from the study at any time or not to answer any question that she doesn't want. Therefore, I declare my voluntary consent to allow my daughter/wife to participate in this study with my initials (Signature).

Name & Signature of the parent/guardian/husband: _____ Date _____

Name and Signature of the data collector: _____ Date _____

8.4. Data abstraction tool

Code number: _____ Date: _____

Section I: Socio-demographic Characteristics

SN	Item	Response
101	Age (in years)	_____
102	Residence	A. Urban B. Rural
103	Marital status	A. Single B. Married C. Divorced D. Widowed
104	Educational level	A. No formal education B. Primary school C. Secondary school D. Higher education
105	Occupation	_____
106	Religion	A. Muslim B. Orthodox C. Protestant D. Other/specify
107	Monthly income in ETB	_____

Section II: Clinical Information (From Face-to-Face Interview)

SN	Item		Response
201	Parity		_____
202	Menstrual History	Age at menarche	_____ (in years)
		Frequency of Menstrual Cycle	A. Amenorrhea (for 90 days) B. Infrequent (> 38 days) C. Normal D. Frequent (< 24 days)
		Duration of Menstrual Bleeding	A. Normal (≤ 8 days) B. Prolonged (> 8 days)
		Regularity of Menstrual Cycle	A. Regular (≤ 7-9 days) B. Irregular (≥ 8-10 days)
		Volume of Menstrual Bleeding	A. Light B. Normal C. Heavy
		Intermenstrual Bleeding	A. Yes (random or cyclic bleeding b/n regular cycles) B. No
203	Contraceptive use		A. Yes B. No
204	History of abortion		A. Yes B. No
205	History of gynecologic conditions		_____ _____ _____
206	Any history of medical illness		A. Yes B. No If "Yes", specify _____ _____ _____

Section III: Clinical Information (From Medical Records)

SN	Item	Response
301	History of abortion?	A. Yes B. No
302	History of IUCD use	A. Yes B. No
303	History of hormonal contraceptives use	A. Yes B. No
304	History of STI	A. Yes B. No
305	History of Uterine fibroids	A. Yes B. No
306	History of Uterine cancer	A. Yes B. No
307	History of Bleeding disorder	A. Yes B. No
308	History of Thyroid disorder	A. Yes B. No
309	History of Anemia	A. Yes B. No
310	Any history of medical illness	A. Yes B. No
311	If "Yes" for Q. 309, specify	_____ _____ _____
312	Medication use, currently	A. Yes B. No
313	If "Yes" for Q. 311, specify	1. Anticoagulants (Warfarin, heparin) 2. Antipsychotic 3. Corticosteroids 4. Herbal remedies 5. Other (specify) _____ _____ _____ _____ _____

Section IV: Lifestyle factors

SN	Item	Response
401	Current alcohol consumption	A. Yes B. No
402	Current smoking status	A. Yes B. No
404	Nutritional Status (BMI)	_____ kg/m^2
	Physical Activity Assessment Tool	
405	How often did you engage in any form of physical activity (walking, running, sports, or household chores) during the past week?	A. 0–1 time B. 2–3 times C. ≥ 4 times
406	How intense were the activities you engaged in?	A. Light intensity (walking slowly, light household chores) B. Moderate intensity (brisk walking, cycling, moderate sports) C. Vigorous intensity (running, intense sports)
407	On average, how long did you engage in physical activity each time?	A. Less than 10 minutes B. 10–30 minutes C. More than 30 minutes

Section V: Perceived Stress Level (PSS-10)

These questions concern how you have been feeling over the past 30 days

Perceived Stress Level (PSS-10)	Response				
	Never (0)	**Almost never (1)**	**Sometimes (2)**	**Fairly often (3)**	**Very often (4)**
1. How often have you been upset because of something that happened unexpectedly?					
2. How often have you felt that you were unable to control the important things in your life?					
3. How often have you felt nervous and "stressed"?					
4. How often have you felt confident about your ability to handle your personal problems? (Reverse scored)					
5. How often have you felt that things were going your way? (Reverse scored)					
6. How often have you found that you could not cope with all the things that you had to do?					
7. How often have you been able to control irritations in your life? (Reverse scored)					
8. How often have you felt that you were on top of things? (Reverse scored)					
9. How often have you been angered because of things that happened that were outside of your control?					
10. How often have you felt difficulties were piling up so high that you could not overcome them?					

8.5. Participant information sheet and informed voluntary consent form for aged ≥18 years (Amharic version)

የኔ ስም ----------. በሀረማያ ዩኒቨርሲቲ ጤና እና ህክምና ሳይንስ ኮሌጅ ሁለተኛ ዲግሪ እየተማረች በHFSUH በዶክተር በቃሉ ይርጋ እየተካሄደ ላለው ጥናት መረጃ ሰብሳቢ ሆኜ እየሰራሁ ነው። ስለ ጥናቱ ግንዛቤ እንዲኖርዎት ትኩረት እንድትሰጡኝ በአክብሮት እጠይቃለሁ።

የጥናቱ ርዕስ፡- በህይወት ፋና ሁሉን አቀፍ ስፔሻላይዝድ ሆስፒታል በመውለጃ የዕድሜ ክልል ውስጥ የሚገኙ ሴቶች ላይ ያለውን ጤናማ ያልሆነ የማህፀን ደም መፍሰስ ስርጭት እና ተያያዥ ምክያንቶችን መገምገም።

የጥናቱ አላማ፡ ለዋና የጥናቱ ተመራማሪ የማህፀን እና ፅንስ ህክምና ት/ት ስፔሻሊቲ ዲግሪ ለማግኘት እንደ ከፊል መስፈርት ሆኖ ያገለግላል። እንዲሁም በመውለጃ የዕድሜ ክልል ውስጥ የሚገኙ ሴቶች ላይ ያለውን ጤናማ ያልሆነ የማህፀን ደም መፍሰስ ስርጭት እና ተያያዥ ምክያንቶችን በመገምገም መረጃ ይሰጣል።

አሰራር፡ ቃለ መጠይቅ አደርጋለሁ እና በመመዝገቢያ ደብተር የተመዘገቡ ደንበኞችን በኔ የማካተት መስፈርት ላይ በመመስረት እና ያለውን መረጃ ከመዝገቦች እና ደንበኞች እሰበስባለሁ።

ስጋት እና/ወይም አለመመቸት፡ በዚህ ጥናት ውስጥ በመሳተፍ አንዳንድ ምቾት እንዳለዎት ሊሰማዎት ይችላል ነገርግን ይህ ተገቢ ዘዴዎችን በመተግበር ለጠቅላላው የጤና ካንሰር ደንበኞች የሚያበረክተውን ጥቅም በማወዳደር ብዙ ላይሆን ይችላል። በዚህ ጥናት ውስጥ ለመሳተፍ ምንም አይነት አደጋ የለም.

ስጋቶች እና ጥቅማ ጥቅሞች፡- በዚህ ጥናት ውስጥ የመሳተፍ ስጋቶች በጣም አናሳ ነው፣ ነገር ግን ጊዜያችሁ ጥቂት ደቂቃዎችን ብቻ ነው የሚወስደው። በጥናቱ ላይ ለመሳተፍ ምንም አይነት ቀጥተኛ ክፍያ አይኖርም። ነገር ግን የዚህ ጥናት ግኝቶች ለአካባቢው የጤና እቅድ አውጪዎች ጠቃሚ መረጃን ሊያሳዩ ይችላሉ።

ምስጢራዊነት እና ማንነትን መደበቅ፡- ጥናቱ የሚካሄደው ተገቢውን መረጃ ከደንበኞች እና ከህክምና ሠንጠረዥ በመውሰድ ስለሆነ በበሽተኞች ላይ ምንም አይነት ጉዳት አያስከትልም። ስም ወይም ሌላ መለያ መረጃ በመጠይቁ ላይ አይመዘገብም እና ሁሉም መረጃዎች ከገበታው ላይ የተወሰደው በጥብቅ ሚስጥራዊ እና በአስተማማኝ ቦታ ነው የሚቀመጠው። የተገኘው መረጃ ለጥናት ዓላማ ብቻ ጥቅም ላይ ይውላል። በጥናቱ ወቅት የተሰበሰበው መረጃ በፋይል ውስጥ ይከማቻል, በእሱ ላይ የግለሰብ ስም አይኖረውም, ግን ኮድ ቁጥር የተመደበለት. የትኛው ቁጥር የትኛው ስም ነው በመቆለፊያ እና ቁልፍ ውስጥ ይቀመጣል እና ከዋናው መርማሪ በስተቀር ለማንም አይገለጽም።

መብቶች፡ የዚህ ጥናት ተሳትፎ በፈቃደኝነት ላይ የተመሰረተ ነው። ለጥናቱ ፍቃድ የመስጠት ሙሉ መብት አለህ። በጥናቱ ላይ የሆነ ችግር ካጋጠመህ በማንኛውም ጊዜ የማቋረጥ ሙሉ መብት አለህ።

የሚያገኟቸው ሰዎች፡- ስለ ጥናቱ ማንኛውም ጥያቄ ካለ ከሚከተሉት አድራሻዎች አንዱን ማግኘት ይችላሉ።

የዋና ተመራማሪው ስም፡ ዶ/ር በቃሉ ይርጋ

ስልክ ቁጥር፡ 0922715316 ኢሜል፡ bekaluyirga1986@gmail.com

የሀረማያ ዩኒቨርሲቲ የጤና እና ህክምና ሳይንስ ኮሌጅ፤ ተቋማዊ የጤና ምርምር ስነ-ምግባር ግምገማ ኮሚቴ

ስልክ ቁጥር፡ 0254662011 ፖስታ ሳጥን ቁጥር፡ 235፤ ሃረር ኢትዮጵያ

በመረጃ ላይ የተመሰረተ የበጎ ፍቃድ መግለጫ፡ የምመራውን ጤና ጣቢያ/ ሆስፒታል በመወከል የተሳታፊዎችን መረጃ ሰምቻለሁ/አነበብኩ። የጥናቱ አላማ፣ አካሄዶች፣ ስጋቶች እና ጥቅማ ጥቅሞች፣ የምስጢርነት ጉዳይ፣ ለማንኛውም ጥያቄ የመሳተፍ እና የመገኛ አድራሻ ሙበት በግልፅ ተረድቻለሁ። ግልጽ ባልሆኑ ነገሮች ላይ ጥያቄ እንድጠይቅ እድል ተሰጥቶኛል. ጥናቱን በማንኛውም ጊዜ ለመቀጠል ወይም ለማቋረጥ ሙብቴን አሳውቄያለሁ። ስለዚህ፣ ከዚህ በታች በተገለፀው መሰረት ይህ ጥናት ላይ ለመሳተፍ በፍቃዴ መስማማቴን አውጀለሁ።

የተሳታፊዎች ስም እና ፊርማ_____: ቀን_____

የመረጃ ሰብሳቢው ስም እና ፊርማ ---------- ቀን---------- ----

ለትብብርዎ እናመሰግናለን!

8.6. Participant information sheet and informed voluntary consent form for parents/guardians for age < 18 years. (Amharic Version)

የኔ ስም ----------. በሀረማያ ዩኒቨርሲቲ ጤና እና ህክምና ሳይንስ ኮሌጅ ሁለተኛ ዲግሪ እየተማረ በHFSUH በዶክተር በቃሉ ይርጋ እየተካሄደ ላለው ጥናት መረጃ ሰብሳቢ ሆኜ እየሰራሁ ነው። ስለ ጥናቱ ግንዛቤ እንዲኖርዎት ትኩረት እንድትሰጡኝ በአክብሮት እጠይቃለሁ።

የጥናቱ ርዕስ፡- በህይወት ፋና ሁሉን አቀፍ ስፔሻላይዝድ ሆስፒታል በመውለጃ የዕድሜ ክልል ውስጥ የሚገኙ ሴቶች ላይ ያለውን ጤናማ ያልሆነ የማህፀን ደም መፍሰስ ስርጭት እና ተያያዥ ምክያንቶችን መገምገም።

የጥናቱ አላማ፡ ለዋና የጥናቱ ተመራማሪ የማህፀን እና ፅንስ ህክምና ት/ት ስፔሻሊቲ ዲግሪ ለማግኘት እንደ ከፊል መስፈርት ሆኖ ያገለግላል። እንዲሁም በመውለጃ የዕድሜ ክልል ውስጥ የሚገኙ ሴቶች ላይ ያለውን ጤናማ ያልሆነ የማህፀን ደም መፍሰስ ስርጭት እና ተያያዥ ምክያንቶችን በመገምገም መረጃ ይሰጣል።

አሰራር፡ ቃለ መጠይቅ አደርጋለሁ እና በመመዝገቢያ ደብተር የተመዘገቡ ደንበኞችን በኔ የማካተት መስፈርት ላይ በመመስረት እና ያለውን መረጃ ከመዝገቦች እና ደንበኞች እሰበስባለሁ።

ስጋት እና/ወይም አለመመቸት፡ በዚህ ጥናት ውስጥ በመሳተፍ አንዳንድ ምቾት እንዳለዎት ሊሰማዎት ይችላል ነገርግን ይህ ተገቢ ዘዴዎችን በመተግበር ለጠቅላላው የጤና ካንሰር ደንበኞች የሚያበረክተውን ጥቅም በማወዳደር ብዙ ላይሆን ይችላል። በዚህ ጥናት ውስጥ ለመሳተፍ ምንም አይነት አደጋ የለም.

ስጋቶች እና ጥቅማ ጥቅሞች፡- በዚህ ጥናት ውስጥ የመሳተፍ ስጋቶች በጣም አናሳ ነው፣ ነገር ግን ጊዜያችሁ ጥቂት ደቂቃዎችን ብቻ ነው የሚወስደው። በጥናቱ ላይ ለመሳተፍ ምንም አይነት ቀጥተኛ ክፍያ አይኖርም። ነገር ግን የዚህ ጥናት ግኝቶች ለአካባቢው የጤና እቅድ አውጪዎች ጠቃሚ መረጃን ሊያሳዩ ይችላሉ።

ምስጢራዊነት እና ማንነትን መደበቅ፡- ጥናቱ የሚካሄደው ተገቢውን መረጃ ከደንበኞች እና ከህክምና ሠንጠረዥ በመውሰድ ስለሆነ በበሽተኞች ላይ ምንም አይነት ጉዳት አያስከትልም። ስም ወይም ሌላ መለያ መረጃ በመጠይቁ ላይ አይመዘገብም እና ሁሉም መረጃዎች ከገበታው ላይ የተወሰደው በጥብቅ ሚስጥራዊ እና በአስተማማኝ ቦታ ነው የሚቀመጠው። የተገኘው መረጃ ለጥናት ዓላማ ብቻ ጥቅም ላይ ይውላል። በጥናቱ ወቅት የተሰበሰበው መረጃ በፋይል ውስጥ ይከማቻል, በእሱ ላይ የግለሰብ ስም አይኖረውም, ግን ኮድ ቁጥር የተመደበለት. የትኛው ቁጥር የትኛው ስም ነው በመቆለፊያ እና ቁልፍ ውስጥ ይቀመጣል እና ከዋናው መርማሪ በስተቀር ለማንም አይገለጽም።

መብቶች፡ የዚህ ጥናት ተሳትፎ በፈቃደኝነት ላይ የተመሰረተ ነው። ለጥናቱ ፍቃድ የመስጠት ሙሉ መብት አለህ። በጥናቱ ላይ የሆነ ችግር ካጋጠመህ በማንኛውም ጊዜ የማቋረጥ ሙሉ መብት አለህ።

የሚያገኟቸው ሰዎች፡- ስለ ጥናቱ ማንኛውም ጥያቄ ካለ ከሚከተሉት አድራሻዎች አንዱን ማግኘት ይችላሉ።

የዋና ተመራማሪው ስም፡ ዶ/ር በቃሉ ይርጋ

ስልክ ቁጥር፡ 0922715316 ኢሜል፡ bekaluyirga1986@gmail.com

የሀረማያ ዩኒቨርሲቲ የጤና እና ህክምና ሳይንስ ኮሌጅ፤ ተቋማዊ የጤና ምርምር ስነ-ምግባር ግምገማ ኮሚቴ

ስልክ ቁጥር፡ 0254662011 ፖስታ ሳጥን ቁጥር፡ 235፤ ሃረር ኢትዮጵያ

በመረጃ ላይ የተመሰረተ የበጎ ፍቃድ መግለጫ፡ የምመራውን ጤና ጣቢያ/ ሆስፒታል በመወከል የተሳታፊዎችን መረጃ ሰምቻለሁ/አነበብኩ። የጥናቱ አላማ፣ አካሄዶች፣ ስጋቶች እና ጥቅማ ጥቅሞች፣ የምስጢርነት ጉዳይ፣ ለማንኛውም ጥያቄ የመሳተፍ እና የመገኛ አድራሻ ሙበት በግልፅ ተረድቻለሁ። ግልጽ ባልሆኑ ነገሮች ላይ ጥያቄ እንድጠይቅ እድል ተሰጥቶኛል. ጥናቱን በማንኛውም ጊዜ ለመቀጠል ወይም ለማቋረጥ ሙብቴን አሳውቄያለሁ። ስለዚህ፣ ከዚህ በታች በተገለፀው መሰረት ይህ ጥናት ላይ ለመሳተፍ በፍቃዴ መስማማቴን አውጃለሁ።

የተሳታፊዎች ስም እና ፊርማ_____: ቀን_____

የመረጃ ሰብሳቢው ስም እና ፊርማ ---------- ቀን---------- ----

ለትብብርዎ እናመሰግናለን!

ክፍል I፡- ስነ ሕዝብ እና ማህበራዊ ባህሪዎ

ተ/ቁጥር	ዝርዝሮች	ምላሽ
101	ዕድሜ (በአመታት)	_____
102	የመኖሪያ አድራሻ	ነ.ከተማ 2. ገጠር
103	የጋብቻ ሁኔታ	ነ. ያላገባ 2. ያገባ 3. የተፋታ 4. የትዳር አጋሩ የሞተበት
104	የትምህርት ደረጃ	ነ. መደበኛ ትምህርት የላትም 2. የመጀመሪያ ደረጃ ትምህርት ያጠናቀቀች 3. ሁለተኛ ደረጃ ትምህርት ያጠናቀቀች 4. ከፍተኛ ትምህርት ያጠናቀቀች
105	ሥራ	_____
106	ሃይማኖት	ነ. ሙስሊም 2. ኦርቶዶክስ 3. ፕሮቴስታንት 4. ሌላ/ ይግለጹ
107	ወርሃዊ ገቢ በኢ.ት.ብር	_____

ክፍል II፡ የቀደመ የጤና መረጃ (ከፊት-ለፊት ቃለ መጠይቅ)

ተ/ቁጥር	ዝርዝሮች		ምላሽ
201	የልጆች ቁጥር		_____
202	የወር አበባ ታሪክ	የወር አበባ የታየበት እድሜ	_____ (በዓመት ይገለፅ)
		የወር አበባ ዑደት ሁናቴ	ነ የወር አበባ አለመኖር (ለ90 ቀናት) 2. አልፎ አልፎ (> 38 ቀናት) 3.መደበኛ 4. ተደጋጋሚ (< 24 ቀናት)
		የወር አበባ በመፍሰስ የሚቆይበት ጊዜ	ነ. መደበኛ (≤ 8 ቀናት) 2. የተራዘመ (> 8 ቀናት)
		የወር አበባ ዑደት መደበኛነት	ነ. መደበኛ (≤ 7-9 ቀናት) 2. መደበኛ ያልሆነ (≥ 8-10 ቀናት)
		የወር አበባ ደም መፍሰስ መጠን	ነ.መጠነኛ(ትንሽ) 2.መደበኛ 3.ከባድ
		የወር አበባ ደም መፍሰስ ያለግዜው መፍሰስ አለ?	ነ. አዎ (በዘፈቀደ ወይም መደበኛ የሆነ የደም መፍሰስ መኖር በመደበኛ ዑደቶች መካከል) ነ.አይ
203	የወሊድ መከላከያ ትጠቀሚያለሽ?		ነ. አዎ 2.አይ
204	የፅንስ መጨንገፍ ታሪክ አለሽ?		ነ. አዎ 2.አይ
205	የማህፀን ህክምና ሁኔታዎች ታሪክ አለሽ?		_____ _____ _____
206	የእርግዝና ብዛት		_____
207	በሕይወት ያሉ ሕፃናት ብዛት		_____
208	ማንኛውም የእርግዝና ችግሮች ካሉ		_____ _____ _____
209	ማንኛውም የውስጥ ደዌ ሕክምና ሕመም ታሪክ አለሽ?		ነ. አዎ 2.አይ "አዎ" ከሆነ ይግለጹ _____ _____ _____

ክፍል III፡ ክሊኒካዊ መረጃ (ከህክምና መዛግብት)

ተ/ቁጥር	ዝርዝሮች	ምላሽ
301	የፅንስ መጨንገፍ ታሪክ አለሽ?	1. አዎ 2.አይ
302	በማህፀን የሚቀበር የወሊድ መከላከያ ተጠቅመሽ ታውቂያለሽ?	1. አዎ 2.አይ
303	የሆርሞን የወሊድ መከላከያ አጠቃቀም ታሪክ አለሽ?	1. አዎ 2.አይ
304	በግብረ ሥጋ ግንኙነት የሚተላለፉ በሽታዎች ኢጋጥመውሽ ያውቃል?	1. አዎ 2.አይ
305	የማህፀን ቅድመ ካንሰር እብጠት ታሪክ አለሽ?	1. አዎ 2.አይ
306	የማህፀን ካንሰር ታሪክ አለሽ?	1. አዎ 2.አይ
307	የደም መፍሰስ ችግር ታሪክ አለሽ?	1. አዎ 2.አይ
308	የታይሮይድ እክል ታሪክ አለሽ?	1. አዎ 2.አይ
309	ማንኛውም የውስጥ ደዌ ሕክምና እና ሕመም ታሪክ አለሽ?	1. አዎ 2.አይ
310	ለ ጥ. 309 "አዎ" ከሆነ ይግለጹ	_____ _____ _____ _____ _____ _____
311	በአሁኑ ጊዜ የመድኃኒት ተጠቃሚ ነሽ?	1. አዎ 2.አይ
312	ለ ጥ. 311 "አዎ" ከሆነ ይግለጹ	1. የደም መርጋት መድኃኒቶች (ዋርፋሪን፣ ሄፓሪን) 2. የፀረ-አእምሮ ህመም መድኃኒቶች 3. የፀረ እብጠት መድኃኒቶች (Corticosteroids) 4. ከዕፅዋት የተቀመሙ መድኃኒቶች 5. ሌላ (ይግለጹ)_____ _____ _____ _____ _____

ክፍል IV: የአኗኗር ሁኔታዎች

ተ/ቁጥር	ዝርዝሮች	ምላሽ
401	የአልኮል መጠጥ ጠጥተሽ ታውቂአለሽ?	1. አዎ 2. አይ
402	ሲጋራ የማጨስ ታሪክ አለሽ	1. አዎ 2. አይ
403	የአካል ብቃት እንቅስቃሴ ደረጃ	1. በብዛት እረፍት የበዛበት 2. መጠነኛ እንቅስቃሴ የማድረግ ልምድ 3. ንቁ እና መደበኛ እንቅስቃሴ የማድረግ ልምድ
404	የአመጋገብ ልምዶች	1. ደካማ 2. መካከለኛ 3. ጥሩ

ክፍል V፡ የተገነዘበ የጭንቀት ደረጃ (PSS-10)

እነዚህ ጥያቄዎች ባለፉት 30 ቀናት ውስጥ ምን እንደተሰማዎት ያሳስባሉ

የተገነዘበ የጭንቀት ደረጃ (PSS-10)	**ምላሽ**				
	በፍፁም (0)	በጭራሽ ማለት ይቻላል (1)	አንዳንድ ጊዜ (2)	ብዙ ጊዜ (3)	በተደጋጋሚ (4)
1. ባልተጠበቀ ሁኔታ በተፈጠረ ነገር ምን ያህል ግዜ ተበሳጭተሽ ታውቂያለሽ?					
2. በሕይወትሽ ውስጥ አስፈላጊ የሆኑትን ነገሮች መቆጣጠር እንዳልቻልሽ ሆኖ ምን ያህል ጊዜ ተሰምቶሽ ያውቃል?					
3. ምን ያህል ጊዜ ፍርሃት እና "ጭንቀት" ተሰምቶሽ ያውቃል?					
4. የግል ችግሮችዎን ለመቋቋም ምን ያህል ጊዜ በራስ መተማመን ይሰማዎታል? (የተገለበጠ ውጤት)					
5. ነገሮች በእርስዎ መንገድ እየሄዱ እንደሆነ ምን ያህል ጊዜ ይሰማዎታል? (የተገለበጠ ውጤት)					
6. ማድረግ ያለብሽን ነገሮች ሁሉ መቋቋም እንደማትችዪ ምን ያህል ጊዜ ተሰምቶሽ ያውቃል?					
7. በህይወቶ ውስጥ ብስጭት ምን ያህል ጊዜ መቆጣጠር ችለዋል? (የተገለበጠ ውጤት)					
8. በነገሮች ሁሉ ስኬታማ እና ውጤት ላይ እንደሆንሽ ምን ያህል ጊዜ ተሰምቶሽ ያውቃል? (የተገለበጠ ውጤት)					
9. ከራስሽ ቁጥጥር ውጭ በሆኑ ጉዳዮች ምንያህል ግዜ ተበሳጭተሽ ታውቂያለሽ?					
10.ምን ያህል ጊዜ ልታሸንፊያቸው የማትችይው ችግሮች እየተከመሩ እንደሆነ ተሰምቶሽ ያውቃል?					

8.7. Information and voluntary consent for age ≥ 18 years (Afaan-Oromo version)

Maqaan koo _____ ‘n jedhama. Ani qorannoo ganda/araddaa kana keessatti addemsifamu irratto odeeffannoo funannuuf asitti argame. Qorannoo kana namoonni geggeessan Dr. Bekalu Yirga yommuu ta’u isaan sadanuu Hojjettoota Yuunivarsiitii Haramayaati. Waa’ee qorannoo kanaa fi hirtmaattota qorannichaa ilalachisee ibsa gabaabaa akkan siif godhu xiyyeeffannoo laaf laachuun akk obsa na dhaggeeffattun si gaafadha.

Mata duree Qorannoo: “Mijaa’ina naannawa mana barumsaa koorniyaa/saala giddu-gala godhate: Tajaajila qulqullina dhuunfaa fi bishaan qulqulluu, marsaa laguu fi qindoomina qulqullina dhuunfaa shamarranii fi hirmaannaa isaan mana barumsaa irratti qaban, Naannoo Oromiyaa, Aanaa Gursum, Itiyoophiyaa.

Kaayyoo Qorannoo kanaa: Prevalence of abnormal uterine bleeding among reproductive age women visiting gynecologic OPD of Public Hospitals in Harar, Eastern Ethiopia.

Adeemsa fi turtii yeroo qoranoo: Malli qorannoon kun itti adeemsifamu cross-sectional kan jedhamu yoo ta’u, adeemsi kun odeeffannoo qorannoo kanaaf fayyadan altokkotti fenaanuu ta’a. Hirmaattota qorannoo kanaa waliin si’a tokko qofa kan qalgeenyu yoo ta’u, af-gaaffii adeemsisuuf naannoo daqiiqaa 45 caalaa kan hin fudhanne ta’a, gaaffileen jiran 45 hin caalu. Gaafilee kan guutaman mala-afgaaffitiini. Isin qorannoo kana irratti kna hirmaattan odeeffannoon isin kennitan kan haqa irratti hundaa’ee fi qorannoo kanaaf gumaacha kan qabu waan ta’eefi. Haa ta’u malee hirmaannaan kessan carraa wal-qixa ta’eem mirkanaa’a. Af-gaaffiin kun yeroo adeemsifamu idoon addaa addaa kan akk madda bishaanii, boo’iin bihsan xuraawaa, qulqullina mana fincaanii, manni fincaanii fi wantoonni biroo mana barumsaa keessa addaa qabamuu isaanii ijaan ni ilaalla.

Faayidaa fi Miidhaa: Qorannoon adeemsifamuuf qophaa’e kun miidhaa nama irraan gahu, kan akka miidhaa qaamaa, hawaasa irraa addatti ilalamuu, xiinsammuu fi qabeenya iraatti gonkumaa hin qabne ta’uu isiif mirkaneessaa. Gareedhaanis ta’ee dhuunfdaadhan hirmaattonni qorrannoo kanaa faayidaan kan akka maallaqaa, tajaalila fayyaa fi ijaarsa human adda addaa kallattiin kan hin qabaannee ta’uu isin hubachiisaa. Addemra yeroo dheeraa booda bu’aan qorannoo kanaa qaama dhimmi ilaallatu, dhaabbata addaa addaa fi qaama poolisii baasan biratti kallattii itti rakkoo adda bahe furuu danada’an kan agarsiisuu dnada’u ta’a.

Odeeffaannoo/Icciitii eeguu: Odeeffannoo namoota dhuunfaa akka iccitiitti qabuuf, namoonni odeeffannno kana funaanan maqaa namoota odeeffannoo kennanii otuu hin taane koodii ykn

lakkoofsa addaa addaa kennuun fayyadamu. Hanga ragaaleen xiinxaalamanii xumuura irra gahamutti, odeeffannoo ykn ragaaleen funananaman minjaala cufaa fi futruu qabu kessatti kan eegamu yommuu ta'u, namoota qorannoo kana adeemsisan, kan funaananii fi too'attootaan ala namni ragaalee kana argachuu danda'e kan hin jirre ta'uu isin hubachiisa. Odeeffaanoon isin kennitan amaloota addaa addaa namoota dhuunfaa haala mul'isuu danda'uun hin ibsaman.

Mirga: Hirmaannaa qorannoo kana irratti godhamu guutumaa guututti kan fedjii irrattu hundaa'e. Irratti hirmaachuuf fkn hirmaachuu dhiisuu migra guutuu qabdu. Hirmaachuudhaaf erga murteessitanii boda, hirmaachuu dhiisuun sa'aa barbaaddanitti addan kutuu mirga qabdi, kana irraa kan ka'e faayidaan isin silla rgachuudhaa maltan kan hin hafne ta'uu isinif mirkaneessaa. Akkasumas waan addaan kuttaniif miidhaan isin irra gahu tokko hin jiru. Sababii ittii addan kutuuf murteessitan akka ibsitaniif namni isin dirqisiisu hin jiru. Gaaffii deebisuu hin barbaanne hunda dhiisuu mirga qabdu.

Namoota Quunnamuu ykn argachuu qabdan

Qorannoo kana ilaalchisee gaaffii yoo qabaattan, dhuunfatti namoota armaan gadii dubbisuu dandeessu ykn dhaabbata teessoon armaan gaditti caqafame dubbisuu ni dandeessu.

Maqaa Namoota Qorannoo geggeessanii: Dr. Bekalu Yirga Lakka Bilbilaa: +251922715316

Waliigaltee hirmaannaa qorannoo irratti gadhu.

Qorannoon kun ragaalee waa'ee marsaa laguu, qulqullina dhuunfaa fi jiraachuu tajaajila qulqullinaaf oolan ijoollee shamarranii irrati kan funaanamu ta'uu hubadheen jiraa. Odeeffannoo armaan olii dubbiseen jira ykn naaf dubbifamee jira. Waa'ee odeeffannoo kanaa carraan gaaffii gaafachuu kan naaaf kenname ta'uu fi deebii gahaa ta'e argadheen jiraa. Yeroo fedhettii addaan kutuu kanin danda'u ta'uu natty himamae jira. Isa kana mara hubadhee fedhii kootiin kanan hirmaadhu ta'uu fi ergan jalqabee booda yoo fedhe kanin addan kutu ta'uu hubadheen jira.

1. Maqaa fi mallattoo nama hirmaatuu _____ Guyyaa _____

2. Maqaa fi mallattoo nama odeeffannoo nunaanuu_____ Guyyaa _____

8.8. Information sheet and voluntary consent for parents/Guardians of participants <18 years of age. (Afan oromo version)

Maqaan koo ----------. Yunivarsiitii Haramayaa Kolleejjii Fayyaa fi Saayinsii Fayyaa keessatti digrii ispecializeshini barachaa kan jirtu Dr. Bekalu Yirga qo'annoo HFSUH keessatti gaggeeffamaa jiruuf ragaa walitti qabaa ta'ee hojjechaa jira. Akka hogganaa buufata fayyaa/hogganaa Hospitaala tokkootti waa'ee qorannichaa fi adeemsa isaa akkan isiniif ibsuuf xiyyeeffannoo akka naaf kennitan kabajaan isin gaafadha.

Mata duree qorannichaa: Prevalence of abnormal uterine bleeding among reproductive age women visiting gynecologic OPD of Public Hospitals in Harar, Eastern Ethiopia.

Kaayyoo: Kaayyoon qorannichaa dursaa qorannaa kanaaf ulaaga digrii lammaffaa fayyaa hawaasaatiin fudhachuuf barbaachisu gutachuu dha.

Adeemsa Qoranichaa: Maamiltoota kitaaba galmee irratti galmaa'anii beekan ulaagaa hirmaannaa qorannoo koo irratti hundaa'uungalmeessuun odeeffannoo jiru galmee fi maamiltoota irraa walittan qaba.

Miidhaa/mijaa'ina: Qorannoon kun hirmaachuudhaan miira gaarii dhabuun tokko tokko sitti dhaga'amuu danda'a garuu kun faayidaa inni dhukkubsattoota kaansariif yaalamaa jiraniif fi waliigala fayyaaf qabu baay'ee dha. Adeemsi sitti qoranoo kanaa illalchisee midhaa tokkollee hin qabu.

Faayidaa: -Hospitaalli keessan qorannoo kana irratti yoo hirmaate, bu'aan qorannoo kanarraa argamu karoora fayyaa naannoo akkasumas biyyaalessaatiif odeeffannoo barbaachisaa ta'e mul'isuu danda'a.

Confidentiality and Anonymity: Since the study will be conducted by taking appropriate

Iccitii eeguu if maqaa ibsuu dhiisuu: Qorannoon kun maamiltoota irraa odeeffannoo barbaachisaa ta'ee fi chaartii yaalaa fudhachuun waan gaggeeffamuuf dhukkubsattoota irratti miidhaa tokkollee hin geessisu. Maqaan ykn odeeffannoon nama tokko dhuunfatti adda baasu kan biraa kamiyyuu gaaffilee irratti kan hin galmoofne yoo ta'u odeeffannoon chaartii irraa fudhatame hundi iccitii cimaa fi bakka nageenya qabutti kan eegamu ta'a. Odeeffannoon argame kaayyoo qo'annichaa qofaaf kan oolu ta'a. Odeeffannoon yeroo qorannichaa walitti qabame faayila keessatti kan kuufamu yoo ta'u, kunis maqaa dhuunfaa irratti osoo hin taane,

lakkoofsa koodii itti ramadame qabaata. Lakkoofsi kam maqaa kam akka ta’e qulfii fi furtuu jalatti kan kaa’amu yoo ta’u, qorataa ijoo malee eenyuufuu hin ibsamu.

Mirga: qorannoo kanaaf hirmaannaan fedhii ofiitiin ta’a. Qo’annoodhaaf hayyamuu fi dhiisuu mirga guutuu qabda. Akkasumas qo’annicha irratti waan dogoggoraa yoo argatte yeroo barbaaddetti hojii dhaabuuf mirga guutuu qabda.

Namoota qunnamuu qabdan: Waa’ee qorannichaa gaaffiin yoo jiraate, teessoo armaan gadii keessaa kamiyyuu qunnamuu dandeessu.

Dr. Bekalu Yirga Phone number: +251-922715316

Email: bekaluyirga1986@gmail.com

Haramaya University College of Health and Medical Sciences Institutional Research Ethical Review Committee (IHRERC) at Office phone: 0254662011, P.O. Box: 235, Harar, Ethiopia.

Labsii hayyama tola ooltummaa beekumsa qabu: Giddugala Fayyaa/ hospitaala ani hoogganaa jiru bakka bu’uun waraqaa odeeffannoo hirmaattotaa dhaga’eera /dubbiseera. Kaayyoo qorannichaa, hojimaata, balaa, fi faayidaa, dhimma iccitii, mirga hirmaataa fi teessoo quunnamtii gaaffii kamiifuu sirriitti hubadheera. Wantoota ifa hin taaneef gaaffii akkan gaafadhu carraan naaf kennameera. Yeroo kamiyyuu qo’annicha itti fufuus ta’e addaan kutuun mirga koo beeksiseera. Kanaafuu, qorannoon kun akka armaan gadiitti mallattoo kootiin wiirtuu HFSUH keessatti akka gaggeeffamu hayyamuuf fedhii kootiin hayyama koo nan ibsa.

Maqaa fi mallattoo hogganaa hospitaala _____ Guyyaa: _____

Maqaa fi mallattoo daataa walitti qabaa_____ Guyyaa: _____

Tumsa keessaniif galatoomaa!

Kutaa I: Amaloota hawaas-dimoogiraafii

lakkoofsaa	tarree haalawwanii	Deebii
101	Umurii (waggaadhaan)	_____
102	Mana jireenyaa	A. Magaalaa B. Baadiyyaa
103	haala gaa'elaa	A. Qophaa'e B. Heerumte C. Kan wal hiikan D. Dubartii abbaan manaa irraa du'e
104	Sadarkaa barnootaa	A. Barnoota idilee hin qabu B. Mana barumsaa sadarkaa tokkoffaa C. Mana barumsaa sadarkaa lammaffaa D. Barnoota olaanoo
105	Hojii	_____
106	Amantaa	A. Muslima B. Ortodoksii C. Pirootestaantii D. Kan biraa/ibsi
107	Galiin ji'aa E.T.Br	_____

Kutaa II: Odeeffannoo Kilinikaalaa (Af-gaaffii Fuulaa Fuulaa Irraa) .

lakkoofsaa	tarree haalawwanii		Deebii
201	Baay'ina ijoollee		_____
202	Seenaa Laguu	Umurii laguu	_____ (waggoota keessatti) .
		Irra deddeebiin Marsaa Laguu	1 Laguu dhabuu (guyyoota 90) . 2. Yeroo baayyee (> guyyaa 38) . 3. Idilee 4. Irra deddeebi'ee kan dhufu (< guyyaa 24) .
		Yeroo Dhiigni Laguu	A. Idilee (≤ guyyaa 8) . B. Yeroo dheeraa (> guyyaa 8) .
		Sirna Marsaa Laguu	A. Yeroo hunda (≤ guyyaa 7-9) . B. Sirna hin qabne (≥ guyyaa 8-10) .
		Jildii Dhiiga Laguu	1. giddu galeessa 2. Idilee 3. Ulfaataa
		Dhiigni laguu sirnaan hin baane jiraa?	A. Eeyyee (dhiiguu tasaa ykn marsaa b/n marsaa idilee) . B.Lakk
203	Fayyadama qoricha ulfa ittisuu		A. Eeyyee B. Lakki
204	Seenaa ulfi irraa bahuu qabdaa?		A. Eeyyee B. Lakki
205	Seenaa haala dubartootaa qabdaa?		_____ _____ _____
206	Baay'ina ulfaa		_____
207	Baay'ina ijoollee lubbuun jiranii		_____
208	Rakkoo ulfaa kamiyyuu		_____ _____ _____
209	Seenaa dhukkuba fayyaa kamiyyuu		A. Eeyyee B. Lakki Yoo "Eeyyee" ta'e, _____ _____ _____ ibsi.

Kutaa III: Odeeffannoo Kilinikaalaa (Galmee Yaalaa Irraa) .

lakkoofsaa	tarree haalawwanii	Deebii
301	Seenaa ulfa baasuu?	A. Eeyyee B. Lakki
302	Seenaa itti fayyadama IUCD	A. Eeyyee B. Lakki
303	Seenaa itti fayyadama qoricha ulfa ittisuu hormoonii	A. Eeyyee B. Lakki
304	Seenaa dhukkuba STI	A. Eeyyee B. Lakki
305	Seenaa fibroids gadameessaa	A. Eeyyee B. Lakki
306	Seenaa kaansarii gadameessaa	A. Eeyyee B. Lakki
307	Seenaa Dhiigaa Dhiigaa	A. Eeyyee B. Lakki
308	Seenaa dhibee taayirooyidii	A. Eeyyee B. Lakki
309	Seenaa dhukkuba fayyaa kamiyyuu	A. Eeyyee B. Lakki
310	Yoo "Eeyyee" ta'e G. 309f, ifteessi	_____ _____ _____ _____ _____ _____
311	Fayyadama qoricha, yeroo ammaa	A. Eeyyee B. Lakki
312	Yoo "Eeyyee" ta'e G. 311f, ifteessi	1. Qorichoota farra dhiigaa (warfarin, heparin) . 2. Qorichoota farra sammuu 3. Qorichoota farra inflammatory (Corticosteroids) 4. Qoricha baala mukaa 5. Kan biroo (ibsi) _____ _____ . _____ _____ _____ .

Kutaa IV: Qabxiilee akkaataa jireenyaa

lakkoofsaa	tarree haalawwanii	Deebii
401	Alkoolii dhuguu	A. Eeyyee B. Lakki
402	Tamboo xuuxuu	A. Eeyyee B. Lakki
403	Sadarkaa sochii qaamaa	A. Irra caalaa boqonnaa kan kennu B. Muuxannoo sochii qaamaa giddu galeessa qabaachuu C. Muuxannoo sochii qaamaa sochii fi idilee
404	Amala Nyaataa	A. Hiyyeessa B. Giddu galeessa C. Gaarii

Kutaa V: Sadarkaa Dhiphina Hubame (PSS-10)

Sadarkaa Dhiphina Hubatame (PSS-10)	Deebii				
	Gonkumaa (0)	Gonkumaa jechuun ni danda'ama (1)	Yeroo tokko tokko (2)	Yeroo baayyee (3)	yeroo hunda jechuun ni danda'ama (4)
1. Yeroo meeqa sababa waan hin eegamneen si mufatte?					
2. Jireenya kee keessatti wantoota barbaachisoo ta'an to'achuu akka hin dandeenye yeroo meeqa sitti dhaga'ameera?					
3. Yeroo meeqa rifachuu fi "dhiphina" sitti dhaga'ameera?					
4. Yeroo meeqa dandeettii rakkoo dhuunfaa kee dandamachuuf qabdu irratti ofitti amanamummaa sitti dhaga'ameera? (Qabxii duubatti deebi'ee galche)					
5. Yeroo meeqa wanti akka keetti akka deemaa jiru sitti dhaga'ameera? (Qabxii duubatti deebi'ee galche)					
6. Wantoota gochuu qabdu hunda dandamachuu akka hin dandeenye yeroo meeqa hubatteetta?					
7. Jireenya kee keessatti yeroo meeqa aarii to'achuu dandeesse? (Qabxii duubatti deebi'ee galche)					
8. Yeroo meeqa waan hundumaa irratti milkaa'aa fi milkaa'aa akka taate sitti dhaga'ameera? (bu'aan duubatti deebi'e) .					
9. Wantoota to'annaa keetiin ala ta'aniin yeroo meeqa aarteetta?					
10. Yeroo meeqa rakkoon baay'ee akka sitti tuulamee fi mo'uu akka hin dandeenye sitti dhaga'ameera?					