ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH

SELF-MEDICATION PRACTICE AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE IN SELECTED PUBLIC HOSPITALS IN ADDIS ABABA, ETHIOPIA

BY

SOFIA FITSUMBERHANE (MPH)

A THESIS SUBMITTED TO THE GRADUATE PROGRAM OF ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCES, SCHOOL OF PUBLIC HEALTH IN PARTIAL FULFILLMENT FOR THE DEGREE OF MASTERS OF PUBLIC HEALTH WITH SPECIALTY IN PUBLIC HEALTH.

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ADDIS ABABA, ETHIOPIA.

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Abbreviations/Acronyms

Abbreviation	Full Form
AAU	Addis Ababa University
ANC	Antenatal Care
AORs	Adjusted Odds Ratio
BSc	Bachelor of Science
CIs	Confidence Intervals
CV	Curriculum Vitae
E.C.	Ethiopian Calendar
EMA	Ethiopian Midwifery Association
ENA	Ethiopian Nurse Association
EPHA	Ethiopian Public Health Association
EPHTI	Ethiopia Public Health Training Initiative
ESLCE	Ethiopian School Leaving Certificate Exam
G.C.	Gregorian Calendar
HADS	Hospital Anxiety and Depression Scale
HIV	Human Immunodeficiency Virus

JHU	Johns Hopkins University
MCH	Maternal and Child Health
MPH	Masters of Public Health
PAA	Population Association of America
SPSS	Statistical Package for Social Science
UNFPA	United Nations Population Fund
USA	United States of America
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing

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Abstract

Background: - Self medication practice among pregnant women refers to the use of traditional and over the counter medications with out guidance from health professionals. This practice poses significant health risks to both the mother and the unborn fetus.Lack of contextual studies regarding the reasons,factors and patterns of the practice is the significant gaps observed in Ethiopian studies. This study aims to bridge this knowledge gap by investigating self-medication and its associated factors among pregnant women.

Objective: -The objective of the study was to determine prevalence and contributing factors of self- medication among pregnant women attending antenatal care in public Hospitals.

Method: - Facility based cross-sectional study was conducted in six public hospitals in Addis Ababa from February 14 to April, 14,2025. A total of 545 pregnant women attending antenatal care units were included in the study. The study pariticipants wete selected using systematic random sampling. An interview administered structured questionnaire using KOBO Toolbox was used for data collection and analyzed using SPSS version 24. Descriptive (percent and frequency) and inferential data analysis (Bivariate and multivariate regression) techniques were used. The thesis of this study was submitted and presented to Addis Ababa University, College of Health Sciences School of Public Health.

Results: - The study found that, self-medication practice among pregnant women was 79.8% (CI,95 %).It also indicated that monthly income with high income (AOR = 5.32, 95% CI: 1.09–25, p = 0.03), social support with strong social support (AOR = 1.95, 95% CI: 1.1–3.5, p = 0.02),educational attainment with secondary education (AOR = 0.35, 95% CI: 0.18–0.66, p = 0.001), past medication use(AOR = 2.24, 95% CI: 1.27–3.97, p = 0.006) and the health care access (AOR = 0.43, 95% CI: 0.22–0.84, p = 0.01) are important predictors.

Conclusions The study found high prevalence of self medication practice.Pregnant women with Higher Monthly income,strong social support,higher educational level and previous medication use were found to be likely engaged in self medication practices while those with better access to health care providers less likely engage in self medication practices.

Strengthening antenatal counseling ,Cretion of awareness,Promoting access to health care facility were recommended.

Key words: Antenatal care, Self-medication, Pregnant women

1. Introduction

1.1. Background of the study

Self-medication practice refers to the use of medication without health care professional guidance to address self-diagnosed concern. Pregnant women may turn to self-medication for various reasons seeking immediate relief, encountering limited healthcare access, and depending on over-the-counter drugs being the major reasons[1],self-medication among pregnant women may result in complications like low birth weight, premature birth, feeding and breathing challenges, birth defects, and developmental harm to the fetus [2,3,4,5]. Furthermore, self-medication may raise drug interactions and negative outcomes, while also promoting inappropriate drug usage [6] .

Self-medication among pregnant women is a significant public health issue in Ethiopia, with the prevalence rates ranging from 19.8% to 44.6% across different regions in Ethiopia using both conventional and herbal remedies. Factors such as limited access to healthcare, perceived minor illnesses, and prior experience with medications are found to be the factors contributing to the practice [7]. Self-medication poses fatal health risks like, teratogenic effects, fetal toxicity, premature birth,low birth weight[8] .

Globally, the World Health Organization (WHO) promotes rational drug use and emphasizes the importance of professional consultation during pregnancy. In Ethiopia, national strategies have begun to address this issue through maternal health programs and community-based education. The National Health Equity Strategy, introduced in 2022, aims to ensure equitable access to high quality healthcare for all pregnant individuals, promoting appropriate medical care and guidance [9]. Public health initiatives and community outreach programs emphasize the importance of consulting healthcare professionals before taking any medication during pregnancy, aiming to reduce healthcare disparities, encourage regular prenatal check-ups, educate pregnant individuals about self-medication risks, and improve maternal health outcomes in Ethiopia

Although existing studies have provided valuable insights into self-medication practices among pregnant individuals in urban areas of Ethiopia, the prevalence rates and contributing factors require further investigation. For instance, the prevalence of self-medication ranges from 21.5% in Nekemte to as high as 44% in Gondar, with significant variations across different urban center[10]. Conducting the study in urban areas is essential because these regions present diverse socio-economic, educational, and healthcare access factors that can significantly impact self-medication practices. Urban settings may also have higher accessibility to pharmacies and over-the-counter medications, contributing to higher self-medication rates [11] [12].

The purpose of this study was to identify the socio-economic, cultural, and healthcare-related factors driving self-medication among pregnant women in Adiss Ababa and provide evidence-based recommendations to healthcare providers and policymakers, and update data to reflect recent trends and factors influencing self-medication.

1.2. Statement of the problem

Self-medication practice,which refers to the use of drugs or remedies without professional guidance.It is a growing global health challenge, with the prevalence rate ranging from 12.8 % to 77.1 % with high prevalence rates foun in developing countries.[13]In Ethiopia, self-medication during pregnancy is a critical public health concern.Recent studies indicate that 20.5% of expectant mothers' practice self-medication in Ethiopia, often using over-the-counter drugs or traditional remedies[14] .

Self-medication during pregnancy can bring sever health risks leading to adverse drug reactions, birth defects, fetal toxicity, premature labor and miscarriage. In Ethiopia,it is estimated that self medication with out professional guidance contributes to 8–12% of maternal deaths and about 10% of under-five mortality which is estimated at 673 deaths per 100,000 live births.[15]

Self medication among pregnant women is often tiggeed by symptoms like headaches, flu and gastrointestinal discomfort and is practiced by the pregnant women with the perception that these ailments are minor health poblems. Prior experience of self medications,

affordability and ease of access to over the counter drugs, Limited health care access, lack of awareness, cultural beliefs and recommendations from friends and family are found to be factors contributing to self-medication practice among pregnant women [16]. Barriers such as lack of health insurance, long wait times at healthcare facilities, and limited health literacy are the challenges that make health care professional guidance challenging there by contributing to self-medication practices among pregnant women [17].

Eventhough studies were conducted and risks and prevalence rates are documented in Ethiopia, there is a significant evidence gap regarding the underlying drivers and patterns of self-medication among pregnant women. Existing studies are too broad, lacking depth in socio-demographic and cultural contexts [18].In addition to that, there remains a significant gap in Ethiopia regarding in depth localized studies that explore the socio-cultural and systemic factors that drive this practice as the determinants vary widely by region and access to care [19]. This indicates the importance of context-sensitive researches in regional contexts.[20]

This study focused on sel medication among pregnant women in six public hospitals in Addis Ababa and aimed to undestand factors influencing their self-medication pactices. By identifying the specific factors influencing the self medication practices,the study is tried to address the gaps and provide context specific insights into the study problem.

1.3. Rationale and Significance of the Study

This study is aimed to contribute to the existing body of knowledge by investigating the context-specific factors that influence self-medication practices among pregnant women in Ethiopia,specially in Adiss Ababa. While the prevalence and risks of self-medication during pregnancy are globally known health related problems, limited studies are found regarding evidences that reflect the influence of socio-demographic conditions, cultural norms, and healthcare barriers in the Ethiopian context. By examining these dimensions within public hospitals in Addis Ababa, the study aimed to provide actionable insights that can guide efforts aimed at curbing self medication pactices during pregnancy.

The findings can also support the development of contextually responsive, data-based interventions, that improve maternal health outcomes in Ethiopia.The study can also contribute to the development of actionable insights that can inform local health care

proffesionals and shape maternal health education programs;In adition to guiding national policies aimed at curbing unsafe medication use during pregnancy.

2. Literature review

2.1 Practice of self-medication among pregnant women

Self-medication practice which refers to the use of non-prescription medications with out the guidance of healthcare professionals is a harmfull practice which poses risks like incorrect dosages, drug interactions, and the chance of overlooking serious health issues[21].The global prevalence rate of self mediation among pregnant women is 44.5 % with the prevalence rates ranging from 12.8% to 77.1% in different regions.[22] .

The occurrence of self-medication among pregnant women is reported to be significant in both developed and developing nations. Research conducted in developed countries revealed that up to two-thirds of pregnant women engaged in self-medication during their most recent pregnancy. In Italy, the prevalence of self-medication among pregnant women was 64.7 % [23].

In developing nations, self-medication practice is prevalent due to inadequate medical services and limited professional oversight of pharmaceuticals. in Iran, 33 % pregnant women self-medicated during their latest pregnancy, indicating a lower occurrence[24]. In Africa, the combined prevalence of self-medication practices stands at 55%. When focusing on specific countries on the continent, the rates are notably high, reaching 88% in Ghana and 72.4% in Nigeria[25].

Data on self-medication among pregnant women in Ethiopia primarily come from urban-based studies. Research in cities such as Addis Ababa, Jimma, Nekemte, Gondar, Mekelle, and Bahir Dar highlights significant self-medication rates, with some as high as 44%. In Addis Ababa, the prevalence rate is 26.6% [26]. In a tertiary hospital in Jimma, nearly one-third of women reported self-medicating [27]. Conversely, Nekemte hospital showed a relatively lower prevalence at 21.5% [28] . In Bahir Dar, 25.1% of pregnant women admitted to self-medicating during their recent pregnancy [29].

Studies indicate that Limited healthcare access, Cultural traditions, Perceived safety, Minor health issues, Lack of health insurance and limited access to professional guidance are the key factors that contribute to the self medication practice among pregnant women[30]. Studies also suggest that the self medication practice is highly prevalent in women who are in their first trimester and among pregnant Women with multiple pregnancies.Increased symptom

burden and a sense of familiarity with pregnancy-related discomforts are the reasons behind the practice during these pregnancy periods. [31].

Analgesics like acetaminophen, herbal supplements, and vitamins are some of the medications used during pregnancy with out the consult of healthcare proffesionals[32],[33].Illnesses like Headaches, nausea, and common colds are the most prevalent symptoms that trigger self medication among pregnant women. The FDA's drug classification system indicates that many of the OTC drugs taken during self medication among pregnant women fall into categories C, D, or X.[34],[35].

2.2.Associated factors of Self-medication among pregnant women

2.2.1. Socio demographic and economic factors

Self-medication practice among pregnant women is influenced by various socio-economic factors, including age, education level, marital status, employment status, and residence[36].Studies indicate that younger women, those with lower education levels, and those residing in rural areas are more likely to engage in self-medication[37],[38]. In Ethiopia, similar trends were observed, where younger women, those with lower education, and those living in rural areas were more prone to self-medication[39]. Additionally, previous self-medication practices and health problems during pregnancy were positively associated with self-medication. These findings underscore the need for targeted interventions to reduce self-medication practices among pregnant women, particularly in low-resource settings [40].

2.2.2. Health-Related Factors toward self-medications

Self-medication practice among pregnant women is influenced by various health-related factors, including the types and stages of pregnancy, previous use of medication, knowledge about self-medication, access to healthcare services, availability of healthcare providers, quality of antenatal care, availability of over-the-counter medications, and regulatory enforcement[41]. Studies have shown that younger women, those with lower education levels, and those residing in rural areas are more likely to engage in self-medication [42]. In Ethiopia,

factors such as previous medication use and rural residence have been significantly associated with self-medication practices[43].

2.2.3. Self-Medication Practices and Cultural Beliefs

Self-medication practices among pregnant women are influenced by various factors, including socio-demographic characteristics, cultural beliefs, and health-related aspects. Globally, younger women, those with lower education levels, and those residing in rural areas are more likely to engage in self-medication due to minor health issues such as headaches, colds, and digestive problems. These practices can lead to adverse drug reactions, complications during pregnancy, and potential harm to fetal health[44]. In Ethiopia, studies in urban areas like Addis Ababa, Jimma, Nekemte, Gondar, Mekelle, and Bahir Dar reveal significant self-medication practice rates, influenced by socio-economic factors such as age, education level, marital status, employment status, and residence, with figures ranging from 21.5% to 44% depending on the region [45].

Health-related factors also play a crucial role in self-medication practices. The types and stages of pregnancy, previous use of medication, knowledge about self-medication, access to healthcare services, availability of healthcare providers, quality of antenatal care, and availability of over-the-counter medications are significant determinants[46]. Cultural beliefs further contribute to self-medication behaviors, with traditional remedies and herbal medicines being widely accepted and used. In Ethiopia, the reliance on traditional medicine and the availability of over-the-counter drugs without prescriptions exacerbate the issue[47]. The impact of self-medication on fetal health is a significant concern, as adverse drug reactions and complications during pregnancy can lead to severe outcomes. The frequency of antenatal visits and the use of emergency healthcare services are also associated with self-medication practices[48]. Pregnant women who do not regularly attend antenatal care or rely on emergency healthcare services are more likely to self-medicate due to the lack of continuous medical guidance.

2.2.4. Psychosocial Factors toward self-medication

Psychosocial factors such as stress, anxiety, depression, and social support significantly influence self-medication practices among pregnant women[49] High levels of stress and anxiety can drive pregnant women to self-medicate as a coping mechanism, often without professional guidance, which can lead to inappropriate use of medications and potential harm to both the mother and fetus [50]. Depression can also contribute to self-medication, as women may use medications to manage their mood and emotional well-being [51]. Conversely, strong social support networks can reduce the likelihood of self-medication, as women have access to advice and assistance from family and friends. These factors highlight the importance of addressing psychosocial health in prenatal care to prevent self-medication practice and ensure the safety of both mother and child [52]

Studies indicate that self-medication practice during pregnancy is prevalent in Ethiopia, with many women using various medications without professional prescriptions. This behavior is largely due to a lack of awareness, with only 24.55% of women understanding the potential harm of self-medication [53]. This research aims to explore the socio-demographic, healthcare access, and cultural factors that drive this practice among pregnant women at Public Hospitals in Addis Ababa. Key socio-demographic factors include age, income, education level, and lack of awareness. Cultural beliefs, such as trust in traditional remedies and family customs, also contribute to self-medication. Support from relatives and a reliance on over-the-counter medications further perpetuate this behavior. Additionally, factors related to healthcare accessibility, including the ease of access, service availability, quality of care, and satisfaction with maternal care services, play a significant role in influencing self-medication practices. This study will provide valuable insights into these factors, helping to inform targeted interventions to improve maternal health outcomes[54],[55],[56].

2.3 Conceptual framework

The framework for this was developed based on prior research focuses on self-medication frequency, convenience, and use of leftover prescription medications as dependent variables. Independent variables include socio-demographic factors (age, income, education, awareness), cultural beliefs (traditional remedies, family influence, trust in over-the-counter medications), and healthcare accessibility (service availability and quality).

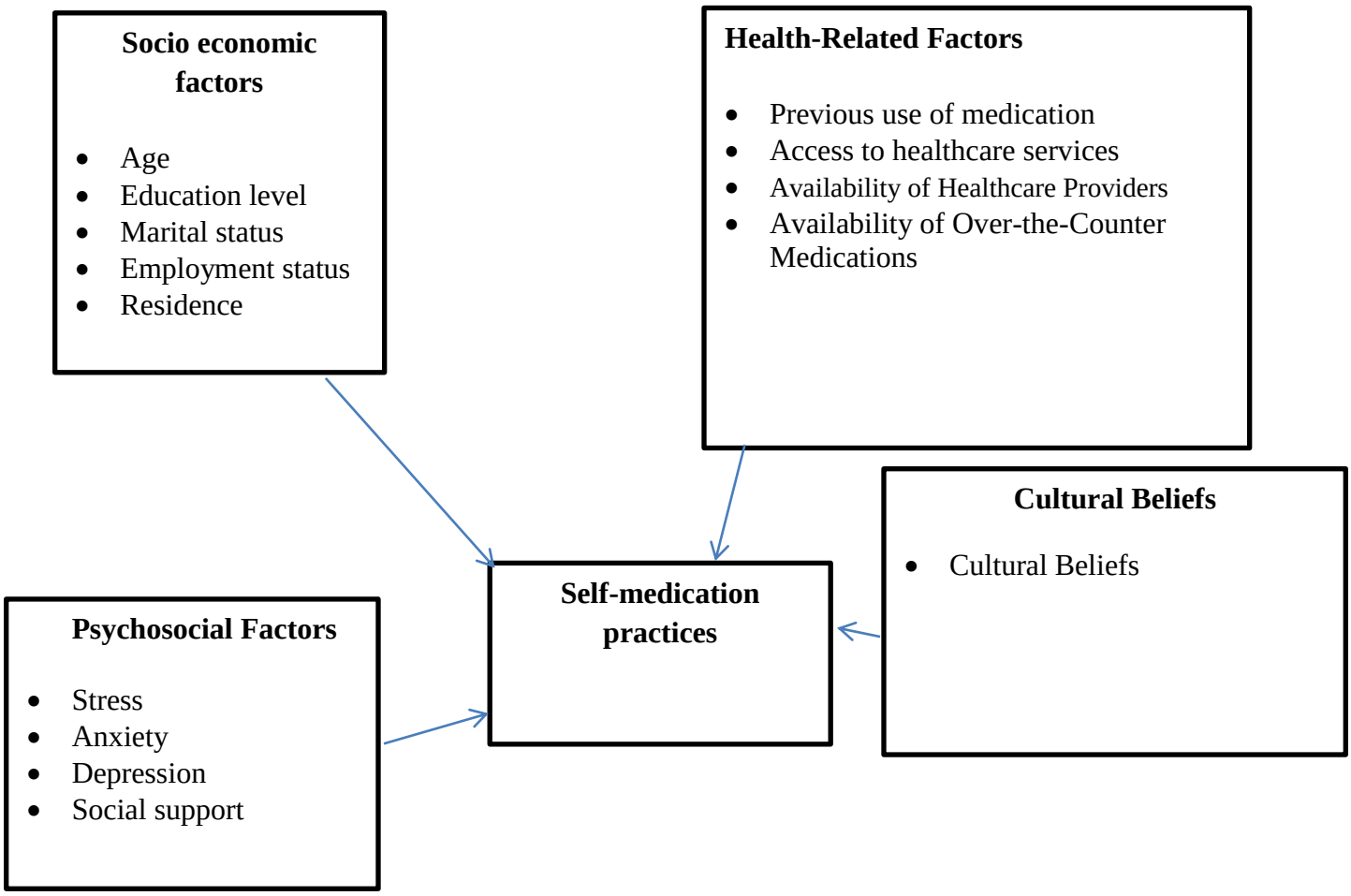


Figure 1: Conceptual framework for assessment of self-medication among pregnant women attending antenatal care at public Hospitals in Addis Ababa.

3. Study objectives

3.1. General Objective

The general objective of the study was to assess self-medication and associated factors among pregnant women attending antenatal care in Public Hospitals in Addis Ababa, 2025.

3.2. Specific Objectives

1. To determine the prevalence of self-medication among pregnant women attending antenatal care in Public Hospitals, in Addis Ababa, 2025.

2. To identify factors associated with self-medication among pregnant women attending antenatal care in Public Hospitals, in Addis Ababa, 2025

4. Research Methodology

4.1 Study Setting

In Addis Ababa,there are more than 90 hospitals.Among these,12 are public hospitals and 40 hospitals are privately owned.The remainning are held by other organizations like NGO's ,Religious Missionary organizations and University and learning institutions.[57] This study was conducted in six public hospitals named: Zewditu M. Hospital, M. Ghandi M. Hospital, Tirunesh B. Hospital, Ras Desta Hospital , Yekatit 12 (Abebech Gobena) , and Menelik II Hospitals.The public hospitals were selected over private hospitals due to the reasons that they have a more socioeconomically varied population, that included un educated and low-income pregnant women who are prone to self-medication practices.More over,the public hospitals were selected with the hope that they keep the standard antenatal care protocols and owned de-centralized data management systems, which can facilitate the data collection and analysis.Among the 12 public hospitals,the 6 were selected due to due to their High patient volume and antenatal care services[58].

4.2 Study design and study period

A facility based cross-sectional study design was used in six public hospitals in Addis Ababa. The data was collected from February 14 to April, 14,2025.

4.3 Study population

Source Population: The source population of the study was all pregnant women who attended antenatal care in Public Hospitals in Addis Ababa from February 14 to April, 14,2025 G.C.

Study Population: - The study participants were pregnant women attending ANC in selected government Hospitals in Addis Ababa during the study period.

Inclusion Criteria: The study included pregnant women:

- Who attended ANC follow up at the selected public hospitals .
- Pregnant women who were available during the study period.

Exclusion Criteria: The study did not include pregnant women who:

- Pregnant women with known severe medical conditions or complications.

- Participants who have been diagnosed with severe psychological conditions that significantly impaire theire cognitive ability and perception as their responses may not be reliable.

4.4 Sample size determination

The sample size of the study was determined using the single proportion formula. Based on a previous study, prevalence of self-medication among pregnant women (35%)[59]. The margin of error was set to 4 % (0.04) as the p value for all the variables is below 50 % (0.5). The final sample size was calculated including non-response rate. The sample size of the study was calculated as follows: -

$$n=\frac{Z\,\alpha/2^2\cdot p\cdot(1-p)}{d^2}$$

Where:

- n = sample size
- Z = Z-value (standard normal deviate) corresponding to the desired confidence level, 1.96 for 95% confidence
- p= Prevalence of the variables; 35 % (0.35) for access to healthcare services
- d = margin of error, set at 4% (0.04)

$$n=\frac{(1.96)^2 * 0.35*(1-0.35)}{(0.04)^2} = 545$$

Non-response rate: 545 * 10/100 = 55

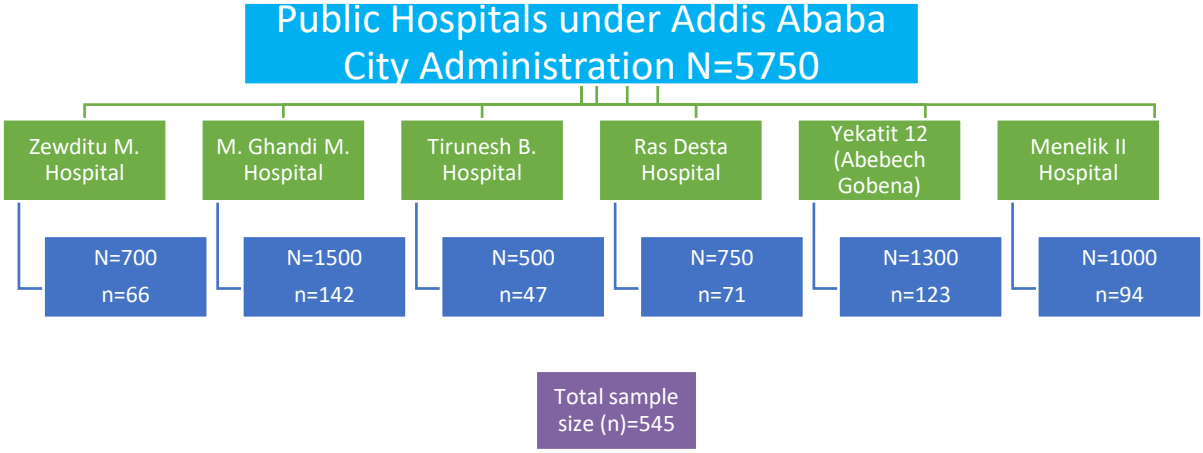
Total sample size= 600

4.5 Sampling procedures

The study employed a systematic random sampling method to ensure that every pregnant woman receiving antenatal care in selected public hospitals in Addis Ababa, has an equal chance of being included in the research. A daily ANC registration list was obtained from each hospital's ANC department. The list included newly registered clients, follow-up visits, and transferred cases from other health facilities. Each woman was identified using her registration number to maintain confidentiality.

The calculated sample size was allocated proportionally to size for each hospital based on the number of pregnant women attending antenatal care at each hospital. A random number generator was used to select the necessary sample size from each hospital and ensure equal chance of being selected with out bias.

In this study, the sampling procedure involved proportional allocation using the formula $\mathbf{ni} = \frac{\mathbf{n}}{\mathbf{N}} \times \mathbf{Ni}$. The total sample size n is 600, distributed among the six selected hospitals in Addis Ababa based on their respective populations. The total population NN across these hospitals is 5750. By applying the formula, the sample sizes allocated to each hospital are as follows: Zewditu M. Hospital (66), M. Ghandi M. Hospital (142), Tirunesh B. Hospital (47), Ras Desta Hospital (71), Yekatit 12 (Abebech Gobena) (123), and Menelik II Hospital (94).These hospitals were selected or the fact that,they have standard data management systems and contain socio demographically diverse population which makes This proportional allocation ensures that the sample size from each hospital reflects its contribution to the total population, thereby enhancing the representativeness and accuracy of the study's findings



4.6. Data collection Procedures

The data collection process utilized structured questionnaires, administered via face-to-face interviews. These questionnaires were crafted in both English and Amharic to evaluate socio-demographic variables, healthcare accessibility, cultural attitudes, and self-medication behaviors. They were consisted of standardized inquiries customized to align with the study's objectives. The items were adapted from validated instruments and tailored to meet the specific objectives of the study.

The Data collection was carried out by 6 trained healthcare professionals specializing in Medicine, nursing and public health in Public Hospitals in Addis Ababa. The data collectors were trained for two days on how to ask consent from the respondents,the operational definition of variables and how use Kobo toolbox by the researcher and the practical skills of the data collectors was pre-tasted on the second day of the training session befor the actual data collection was conducted.The questionnaire was pre-tested in Dil Fre health center and under the supervision of the investigator with the sample size of 27 pregnant women(5%). Minor adjustments were made on the questionnaire after the pretest. Kobo Toolbox was used for electronic data collection to enhance accuracy and efficiency.

4.7.Description of Variables

Dependent Variable

Self-medication practices :-This was assessed through structured questions that examined the types and frequency of self medications, reasons for self-medication, adverse drug reactions, perceived impact on maternal and neonatal health, and sources of information about medications.Besides, the Self-Medication Assessment Tool (SMAT) was used to measure the individual's capacity to manage medications with the result of four or more "Yes" responses out of six key categories indicated capability for self-medication.

Independent Variables

Socio-Demographic Factors:-It was assessed by a standard demographic items covering;Age, Sex, Marital status,Educational level,Employment status,Monthly income and Place of residence**.**These items were standard demographic indicators used to describe the study population.

Healthcare Access:-It was assessed by standard items questioning the availability and accessibility of healthcare services, these items were;Experience with pregnancy-related illnesses,Use of medications during pregnancy,Perceived risks of self-medication,Distance to health facilities,Availability of essential medications, Quality of care received,Regulatory enforcement on medication use,Availability of healthcare providers and Utilization of antenatal and emergency services.Some of the items used Likert scales to measure perceptions of service quality and medication availability.

Cultural Beliefs:-It was assessed by questions exploring traditional beliefs and practices related to health and medication use. The items used were;Reliance on traditional remedies,Perceived safety of herbal medicines,Family influence on traditional medicine use,Trust in traditional healers and Preference for generational remedies over modern medicine.The Responses were recorded using a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Psychological and Emotional Factors:-Two standardized tools were used to measure this variable.These were the Hospital Anxiety and Depression Scale (HADS) and Stressful Life Events Questionnaires. Hospital Anxiety and Depression Scale (HADS) was A 14-item validated instrument assessing anxiety and depression symptoms. Seven items measured anxiety and seven measured depression, with responses scored from 0 to 3. Higher scores indicated greater emotional distress.The stressful life events questionnaires assessed exposure to 17 categories of traumatic or distressing experiences (natural disasters, physical assault, sudden death).

Social Support Factors:-hese items evaluated the level of social support available to the respondent, including;number of close individuals available for personal support,perceived interest and concern from others and ease of obtaining practical help from neighbors.Responses were recorded using ordinal scales reflecting levels of support and accessibility.

4.6 Operational definitions

Self-Medication: The Self-Medication Assessment Tool (SMAT) measured participants' ability to safely and independently manage medications. In this study it was used to assess general medication management capacity. It included items related to knowledge of dosages, identifying medications, and adherence behavior of prescribed dosages.Based on these Individuals who responded "Yes" to 4 or more out of the first 6 core SMAT items were considered capable of self medication and Individuals who responded "Yes" to fewer than 4 of the first 6 SMAT items were considered in need of assistance.

Cultural Beliefs: Cultural beliefs were measured using 6 items with a 5-point Likert scale that assess preferences between traditional and modern medicine. Participants who selected "Agree" or "Strongly Agree" for statements regarding traditional remedies were considered to have a cultural tendency toward traditional medication and Those who selected "Neutral," "Disagree," or "Strongly Disagree" were classified as having tendency modern medications. These beliefs were evaluated based on participants' practices within the last three years.

Stressful events: Stressful event exposure was assessed by multiple trauma-related items in which Participants were able to respond that the event had “Happened to me”, “Witnessed”, or otherwise reflecting experiences occurring within the past three years.High exposure was identified by the resppondents that answered “Happened to me” or “Witnessed” for ≥ 9 items.Moderate exposure was selected for 5–8 items and Low exposure: selected for < 5 items. The responses

Health related factors:-These variables were assessed through questions on pregnancy-related illnesses, medication use, access to healthcare services, quality of care, regulatory enforcement, and availability of over-the-counter drugs. These responses reflected maternal health status and service utilization in previous or current pregnancy.

Anxiety/depression:. This variable was assessed using the Hospital Anxiety and Depression Scale (HADS). Participants answered 14 items (7 anxiety, 7 depression).It measured the emotional state of the respondents over the past three years,.Those respondents with total score 0–7 were considered normal, and respondents with Total score 8–10 were assigned borderline abnormal.Those with Total score 11–21 were called abnormal.

Social support: Social support was evaluated by using 3 items from Part 8 of the questionnaire, that measures closeness and social assistance based on participants’ experiences and perceptions over the past three years.Good social support was considered for respondents with 3–5 or 5+ close people,Some or a lot of interest and concern from others and Easy or very easy access to help from neighbors.All other responses were considered as poor social support.

4.7. Data Analysis

The data was analyzed using SPSS version 24. Descriptive statistics was employed to summarize the participants' sociodemographic characteristics and the prevalence of self-medication practices among pregnant women. Descrptive findings were presented by frequencies, percentages, means, and standard deviations. Binary and multivariable logistic regression was used to identify potential associated variables with self-medication. Assumptions of the model, such as the Hosmer-Lemeshow goodness of fit test, chi-square test, and multicollinearity, was checked. Statistical significance was determined based on

adjusted odds ratios (AoRs), and 95% confidence intervals. Associations with a p-value of 0.05 or less was considered statistically significant.

4.8. Data quality assurance

All the necessary steps were taken during the study process to ensure data quality.Data collectors were selected base on the qualifications,experiances and local language proficiency they have.After selection,the data collectors were trained.and well prepared for te dat gathering process.

The data collection instrument was checked by Pre-testing on a small group of participants to refine the tool for effective data collection. To avoid sampling bias,As large sample size was taken and systematic random sampling technique was used. After the data was collected, the data was cleansed. Clear operational definitions for key were implemented among all data collectors and analysts.

Data was analysed by using SPSS version 24 for both descriptive and inferential statistics.The data from the structured questionnaire was directly inputted into Kobo toolbox to reduce errors. Prior to data collection, server access for Kobo toolbox was verified to ensure seamless data transfer. After data collection, it was securely transferred to a central database at the office. The collected data was then exported to SPSS version 24 for further analysis. Data cleaning procedures was involved identifying missing values, outliers, and discrepancies to ensure the dataset's completeness and accuracy. Regular monitoring and validation was implemented to uphold data integrity throughout the process. This methodological approach safeguards the reliability and validity of the study's results.

The thesis of this study is submitted and presented to Addis Ababa University, College of Health Sciences School of Public Health, Addis Ababa Health Bureau as well as to the selected Public Hospitals in Addis Ababa.In addition to that,the thesis will be presented for the university and will also be published.

4.9. Ethical Consideration

Ethical approval was obtained from the Ethical Review Committee of School of Public Health Addis Ababa University. A letter of support was written to Addis Ababa health Bureau from AAU's School of Public Health. The selected hospitals and Addis Ababa Health Bureau wrote a support letter to the selected hospitals to inform them about the study.

Participants were informed that the information they provided was only accessed by the principal investigator, and verbal informed consent was obtained from them. Data was kept confidential and used solely for research purpose. In respecting their rights, participants were entitled to ask questions, were not pressured to participate, had the option to withdraw at any point during the interview.

5. Results

5.1. Socio demographic characteristics of the participants

The study included 545 pregnant women attending antenatal care at Addis Ababa selected public hospitals with 100% response rate. The majority of the study participants were married (94.8%) and residing in urban areas (97.6%). Most respondents fall within the 26-34 years age range (Early Middle Adulthood), making up 62.8 % of the group. Those aged 18-25 years (Young Adulthood) account for 19.1 %, while 35-45 years (Late Middle Adulthood) represent 18.1 %. In terms of monthly income, the majority (73.0 %) earn between 4,001 and 15,000, placing them in the Middle-Income category. Meanwhile, Low Income earners (0-4,000) make up 19.1 % of the group, while High Income individuals (15,001-50,000) account for a smaller portion at 7.9%. Regarding educational status, 39.8% had higher education, and 31.6% completed secondary education. Employment status showed 38% were employed and 33.9 % self-employed (Table 1).

Table 1: Sociodemographic characteristics of Participants: Among Pregnant Women, Addis Ababa Ethiopia, 2025

Variable	Category	Frequency (n)	Percentage (%)
Marital Status	Married	517	94.8
	Divorced	9	1.7
	Single	10	1.8
	Separated	9	1.7
	Total	545	100
Educational Status	Higher	217	39.8
	No Education	30	5.5
	Primary	126	23.1
	Secondary	172	31.6
	Total	545	100
Occupation	Employed	207	38.0
	Unemployed	143	26.2
	Self-Employed	185	33.9
	Student	10	1.8
	Total	545	100
Age (in years)	18-25	104	19.1
	26-34	342	62.8
	35-45	99	18.1
	Total	545	100
Monthly Income	Low	104	19.1
	Middle	398	73.0
	High	43	7.9
	Total	545	100
Place of Residence	Urban	532	97.6
	Rural	13	2.4
	Total	545	100

5.9. Health-Related Factors toward Self Medication practices

Among the participants, 57.4% (313) reported experiencing pregnancy-related illnesses, while 42.6% (232) did not. Regarding medication history, 71.0% (387) had previously used medication, whereas 29.0% (158) reported no prior use. Additionally, 75.2% (410) had knowledge about self-medication, while 24.8% (135) lacked such knowledge. In terms of healthcare access, 76.1% (415) of respondents reported having access to healthcare services, while 23.5% (128) did not. The distance to the nearest health facility varied, with 21.1% (115) living within 1km, 59.6% (325) residing between 1-5km, and 19.3% (105) living more than 5km away.

Regarding healthcare system characteristics, antenatal care quality was rated as Good 54.1% (295), Fair 31.7% (173), Excellent 11.7% (64), and Poor 2.2% (12). Availability of healthcare providers was confirmed by 59.4% (324) of respondents, while 40.6% (221) indicated a lack of availability. Over-the-counter medications were reported as accessible by 54.9% (299), whereas 44.8% (244) stated they were unavailable. Lastly, 71.4% (389) affirmed regulatory enforcement of medication, while 28.4% (155) responded negatively (Table 2).

Table 2: Health-Related Factors toward self-Medication Among Pregnant Women, Addis Ababa, Ethiopia, 2025

Characteristics	Category	Frequency (n)	Percentage (%)
Experienced pregnancy-related illnesses	No	232	42.6
	Yes	313	57.4
Previous use of medication	No	158	29.0
	Yes	387	71.0
Access to healthcare services	No	128	23.5
	Yes	415	76.1
Distance of nearest HF	<=1km	115	21.1
	1-5km	325	59.6
	=>5km	105	19.3
Quality of Antenatal Care	Poor	12	2.2
	Fair	173	31.7
	Good	295	54.1
	Excellent	64	11.7
Availability of Healthcare Providers	No	221	40.6
	Yes	324	59.4
Availability of Over-the-Counter Medications	No	244	44.8
	Yes	299	54.9
Regulatory Enforcement	No	155	28.4
	Yes	389	71.4

5.3.Psychosocial factors of pregnant women

The result on the anxiety levels of the pregnant women studied showed that , 49.7% (271) of women experienced no anxiety, whereas 37.1% (202) had mild anxiety, and 13.2% (72) reported moderate anxiety. Depressive symptoms were observed among 61.5% of participants, with 46.4% (253) classified as mild, 13.4% (73) as moderate, and 1.7% (9) as severe.

In terms of social support, 30.3% (165) of respondents reported poor social support, while 17.1% (93) had moderate support, and 25.7% (287) had strong support. Stress levels varied, with 58.0% (316) experiencing low stress, 37.8% (206) reporting moderate stress, and 4.2% (23) facing high stress. Cultural beliefs were categorized as low for 56.0% (305) and high for 44.0% (240) of participants (Table 3).

Table 3: Psychological Conditions Among Pregnant Women Attending Antenatal Care in Addis Ababa Ethiopia, 2025

Anxiety	Normal	271	49.7
	Mild	202	37.1
	Moderate	72	13.2
Depression	Normal	210	38.5
	Mild	253	46.4
	Moderate	73	13.4
	Severe	9	1.7
Social Support	Poor	165	30.3

	Moderate	93	17.1
	Strong	287	25.7
Stress Full life event	Low	316	58
	Moderate	206	37.8
	High	23	4.2
Cultural Belief	Low	305	56
	High	240	44

5.4.Factors Associated with Self-Medication practice among pregnant women attending antenatal care

The Hosmer-Lemeshow goodness-of-fit test (p = 0.58) confirmed that the logistic regression model provided a reliable fit for the data. This indicates the factors indicated in the study Monthly income, education, social support, healthcare availability, and prior medication use have ststistically reliable association with self medication among pregnant women.

The multivariable logistic regression analysis result showed that there is strong association between the dependent variable (Self Medication among pregnant women) and the three predictors (Monthly income, social support and previous use of self medication). The most pronounced association was observed with monthly income, where individuals in the high-income bracket (adjusted odds ratio [AOR] = 5.32, 95% confidence interval [CI]: 1.09–25, p = 0.03) and middle-income bracket (AOR = 2.07, 95% CI: 1.07–3.98, p = 0.02) demonstrated significantly higher odds of engaging in self-medication practices compared to those with low incomes. The association between high income and self-medication may arise from the fact that Higher income increase the access to non-prescribed drugs. Furthermore, the study

revealed that social support had a strong association with self medication practices, where pregnant women reporting moderate (AOR = 3.04, 95% CI: 1.24–7.51, p = 0.01) and strong (AOR = 1.95, 95% CI: 1.1–3.5, p = 0.02) levels of social support had higher odds of self-medicating compared to those with poor social support. This finding discloses that advice from social circles like family and friends increase the use of self-medication among Pregnant women.

Prior medication use during pregnancy was also found to be strong predictor which significantly increase the likelihood of self-medication (AOR = 2.24, 95% CI: 1.27–3.97, p = 0.006). This suggests that previous experience with medication use is a key determinant of self-medication behaviors due to the fact that past self-medication history may develop a habit of self-medication without consulting health care professionals.

Moderate association was observed between the dependent variable and two independent variables (Availability of health care providers and Educational status).The availability of healthcare providers was moderately associated with lower rates of self-medication (AOR = 0.43, 95% CI: 0.22–0.84, p = 0.01).This confirms that access to health care providers is indeed determinant in reducing self-medication among pregnant women. Educational status also emerged as a moderately determinant factor, with findings indicating that participants with higher levels of education were considerably more likely to self-medicate relative to those with primary education (AOR = 0.09, 95% CI: 0.032–0.28, p = 0.0001) and secondary education (AOR = 0.35, 95% CI: 0.18–0.66, p = 0.001).This result is in contrary to the common concept that educated women are less likely to self-medicate.

Table 4: Factors Associated with Self-Medication During Pregnancy: Bivariable and Multivariable Logistic Regression Analysis, Addis Ababa Ethiopia, 2025

Variable	Self-medication		COR (95% CI)	AOR (95%CI)
	Yes	No		
Educational status				
No education	8	22	**1.45(0.76-2.74)**	**1.32(0.65,2.65)**
Primary	80	46	**0.053(0.021-0.13)**	**0.09(0.032,0.28)**
Secondary	150	22	**0.26(0.143-0.45)**	**0.35(0.18,0.66)**
Higher	197	20	**1**	**1**
Residence				
Urban	428	103	**4.85(1.59 - 14.73)**	**3.21(0.8,12.9)**
Rural	6	7	**1**	
Experienced pregnancy-related illnesses				
No	168	64	**1**	**1**
Yes	267	46	**2.21(1.45 - 3.38)**	**1.16(0.66,2.04)**
Previous use of medication				
No	104	54	**1**	**1**
Yes	331	56	**3.07(1.98 - 4.74)**	**2.24(1.27,3.97)**
Believe risk of SM				
No	102	33		**1**
Yes	333	77	**1.399(0.88,2.22)**	**-**
Distance of HF				
Less than 1 km	88	27	**1**	**1**
1-5 km	281	44	**1.96(1.15 - 3.35)**	**1.55(0.79,3.04)**
More than 5 km	66	39	0.52(0.28 - 0.93)	0.71(0.33,1.5)
Availability of Healthcare				
No	202	19	**1**	**1**
Yes	233	91	**0.24(0.14,0.41)**	**0.43(0.22,0.84)**
Regulatory Enforcement				
No	138	17	**1**	**1**
Yes	296	93	0.39(0.225,0.683)	0.8(0.4,1.64)
Cultural belief				
Low	237	68	**1.35(0.88,2.07)**	**0.7(0.39,1.29)**
High	198	42	**1**	**1**
Social Support				
Poor	109	56	1	**1**
Moderate	84	9	**4.79(2.24 - 10.25)**	**3.04(1.24,7.51)**
Strong	242	45	**2.76(1.76 - 4.35)**	**1.95(1.1,3.5)**

Age				
18-25	89	13	**2.58(1.25 - 5.31)**	**1.92(0.77,4.76)**
26-34	269	68	**1.49(0.901 - 2.46)**	**1.26(0.67,2.38)**
35-45	77	29	1	1
Monthly Income				
Low	62	44	1	1
Middle	335	64	**3.72(2.32 - 5.94)**	**2.07(1.07,3.98)**
High	38	2	**3.48(3.09 - 58.85)**	**1.12(1.09,25)**

6. Discussion

This study was conducted with the objective of assessing the prevalence and associeated factors of self medication among pregnant women attending antenatal care in Public Hospitals in Addis Ababa., This study revealed that self-medication among pregnant women receiving prenatal care was 79.8% .This prevalence rate is much higher than those reported in uganda (49.7 %),[60],Nigeria (31.0 %)[61] and the African average prevalence rate of 44.5 %[62]

High income levels,social support and Prevous use of self medication were found to be strongly associated with self medication among pregnant women where as availability of health care providers and Educational status were found to have moderate association with self medication practices among pregnant women.The high prevalence in Ethiopia may be caused by systemic barriers such as inadequate prenatal counseling services, a lack of essential medications in public hospitals, and limited access to affordable, timely healthcare. The current number is concerningly high and could indicate worsening trends or regional disparities. Although most estimates varied between 40% and 60%[63].

This finding is of critical public health importance because self-medication during pregnancy can lead to serious risks to the health of the mother and the fetus, including drug interactions, teratogenic effects, and the concealment of serious underlying conditions. Furthermore, it might be a sign of more general problems like low coverage of prenatal care, a lack of health education, and cultural customs that value conventional or peer-recommended treatments over expert medical advice. An urgent need for focused interventions, such as enhanced antenatal counseling, better drug regulation, and community outreach initiatives to increase awareness of the dangers of unsupervised drug use during pregnancy, is highlighted by the fact that almost four out of five pregnant women are self-medicating. In addition to being important for the health of mothers and children, addressing this issue is also essential for safer pregnancies and fewer avoidable complications for both mothers and babies[64]. These results show that among pregnant women, psychological distress and self-medication occur significantly together. The high rate of self-medication may be an attempt to cope with emotional or physical discomforts on one's own, which emphasizes how important it is for

prenatal care services to include mental health screening, counseling, and safe medication guidance.

Educational status emerged as a significant factor influencing self-medication. Women with primary education and secondary education were less likely to self-medicate compared to those with higher education. This finding contrasts with studies conducted in Goba town, Southeast Ethiopia, which reported higher self-medication rates among individuals with lower education levels. Due to limited access to healthcare, rural women with lower levels of education might turn to self-medication, whereas urban women with higher levels of education might feel more comfortable taking care of their own health[65]. Evidence from around the world shows that health literacy is influenced by education and, depending on the situation, can either increase or decrease self-medication. Higher education is frequently linked to lower levels of self-medication in high-income environments because it increases knowledge of health risks and encourages the use of professional healthcare. Higher levels of education, however, might lead to more self-medication in Ethiopian cities because of easier access to drugs and increased self-assurance when choosing a course of treatment. It is essential to address misunderstandings regarding self-medication through focused health education initiatives.[66]

Women who had previously used medications were more likely to self-medicate This pattern is consistent with research conducted locally and internationally, which indicates that previous exposure to drugs promotes comfort and a sense of security when self-medicating. For example, a study carried out in Addis Ababa found a strong association between previous medication use and self-medication similar findings from Brazil[67], where past medication use led to higher self-medication rates. This behavior might be the result of women not receiving enough prenatal counseling, which could have prevented them from being aware of possible risks. This pattern's consistency across several studies indicates that previous exposure to drugs fosters a delusion of security that leads to self-medication. Addressing this issue requires enhancing patient education on safe drug use during pregnancy and bolstering prenatal counseling on medication risks.

Remarkably, self-medication rates were higher among those with strong (and moderate social support than among those with poor social support. This runs counter to international research, which generally associates high levels of social support with increased health-seeking behaviors and decreased self-medication. People who are part of supportive networks are more likely to seek professional healthcare rather than self-medicating, according to studies from South Korea and Spain[68]. But in Ethiopia, professional consultation is frequently replaced by community-based advice, which encourages self-medication among those with strong social support. Particularly in environments with limited resources, friends and family may suggest drugs based more on personal experience than on medical advice[69]. Furthermore, it is impossible to rule out reverse causality because people who self-medicate frequently might do so in an attempt to gain approval from their social networks, which would strengthen their perceptions of social support. This emphasizes the necessity of public health initiatives to guarantee that social networks support safe and scientifically supported medical procedures.

Income level showed a strong positive association with self-medication. Individuals with middle income and high income had significantly higher odds of self-medicating compared to low-income individuals. This finding aligns with systematic reviews and studies showing that financial capability enhances medication access and promotes autonomous health decisions. [70]While higher income enables easier drug procurement, it may also lead to inappropriate self-treatment due to overconfidence in personal judgment. Wealthy people may choose not to see a doctor because they believe they can self-diagnose and treat minor illnesses. On the other hand, financial limitations and problems with access to healthcare are frequently the driving forces behind self-medication among lower-income groups. The need for educational campaigns encouraging appropriate healthcare-seeking behaviors among all income groups is highlighted by the strong correlation found between income and self-medication[71].

7. Strength and Limitations of the study

7.1.Strength of the study

- The study was conducted with High participation rate which was important for the reliability of the responses.
- The study was conducted in an urban setting where there is high access to over the counter drugs.
- The study assessed key socio-demographic,economic,behal,social and health care access related variables.

7.2.Limitations of the study

- The study used cross sectional study design which makes the results to reflect the self medication practice at the study period unlike longitudinal studies which could have studied self medication practices in a prolonged period of time.
- Due to the study's dependence on self reported responses may make the results susceptible to social desirability bias.
- The study did not assess the access to health care access,eventhough it is one of the associated factors of self medications and did not analyse the policy and regulatory aspects which were important to understand system

8. Conclusion

The results of the study reveald a high prevalence (79.8%) of self-medication among pregnant women in Addis Ababa.. The study identifies a number of important factors that predict pregnant women's self-medication, such as monthly income, social support, educational attainment, past medication use, and the accessibility of healthcare providers. Prior self-medication experiences, high income, and strong social support, found to have stong associations with self medication indicating that many women rely on social support rather than professional care. The study also found that respondents with prior self medication history are strongly associated with self medication.

The results showed that high education is strongly associated with self medication in contrary to the common perception that,higher education reduces self medication practice. The disparity between the study result and other study results could stem from unique contextual factors Unlike global trends where higher education typically reduces self-medication.In this study,the results indicated that higher education facilitated self medication due to greater drug access and confidence in personal judgment. Similarly, strong social support he was observed to often substitute professional advice with peer recommendations. These disparities highlight the importance of culturally sensitive public health strategies that address contextual beliefs and barriers to care.

The study's results indicated that availability of health care professionals is associated with reduced self medication.The high rate of self-medication presents a major public health concern due to the potential risks for both mothers and their unborn children.It indicated the urgent need for targeted interventions such as better antenatal education, mental health integration in prenatal care, and stronger pharmaceutical regulations to curb self medication during pregnancy..The results on associated factors also indicate the need for addressing the social and economic factors that trigger self medication among pregnant women.

9. Recommendations

Based on the findings of the study,It is recommended that:-

1. For Healthcare Providers- Strengthen antenatal counseling on the risks of self-medication, especially for women with a history of prior medication use.Integrate mental health screening during ANC visits, addressing anxiety, stress, and depression that may drive self-medication.Provide individualized counseling for high-income and highly educated women who are more prone to self-medicating due to greater access to medicines and confidence in self-care.

2. For Public Health Authorities- Launch awareness campaigns through community health workers, social media, and local platforms to educate pregnant women and families on the dangers of self-medication.Develop urban-focused strategies targeting middle- and high-income groups where self-medication is highly prevalent.Promote professional medical consultation and encourage pregnant women to seek healthcare services rather than relying on peer or family advice.

3. For Policy Makers and Regulatory Bodies -Enforce strict drug regulation to limit the sale of prescription medications without a doctor's approval.Improve access to quality healthcare by ensuring the availability of essential medicines, trained healthcare providers, and well-equipped ANC units.Involve community and religious leaders in promoting safe practices and discouraging reliance on harmful traditional remedies.

4. For Communities and Social Networks - Utilize peer influence positively by training community health ambassadors to encourage safe and evidence-based care.Educate families and social groups to avoid recommending over-the-counter or traditional remedies without professional advice.

5. For Future Research - Conduct longitudinal studies to assess long-term maternal and neonatal outcomes related to self-medication.Evaluate the effectiveness of awareness campaigns and regulatory policies in reducing unsafe practices.

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Annexes

Annex-I. English language Questionnaire and Consent form

You are invited to participate in a research study aimed at understanding self-medication practices and associated factors among pregnant women attending antenatal care at public Hospitals. You have had the opportunity to ask questions and receive clear answers. Should you have any further questions, you are encouraged to contact the study representatives using the provided contact information. Your participation in this study is entirely voluntary. Your data will be kept confidential, and no personal identifiers will be used. You have the right to withdraw your consent at any time without any conditions. By signing below, you agree to participate in this study.

Signature: _____ Date: _____

Consent Form

I have been asked to participate in the research study. The study has been explained well to me. I understand what the study means to me including what I (the participant) have to go through while in the study. I have had an opportunity to ask questions about the study and have been answered in the best way for me to understand. If there are any other questions that I have to ask later, I will freely approach the study representatives whose contact I have been provided with. I also understand that my participation is voluntary, my data will be confidential with no use of any personal identifies. I have told as my consent can be withdrawn any time in the meantime without any precondition. Thus, I have accepted the offer to be part of this study using my signature.

Signature_____ date_____

Questions

Participants code; _____

Interview date; _____

Part 1: Socio-demographic factors

No	Questions?	Code	Comments
1	What is your age in year?	……	
2	Sex	1. Female 2. Male	
3	Marital status	1. Married 2. Divorced 3. Single 4. Separated 5. Widowed	
4	Educational status	1. No education 2. Primary education 3. Secondary education 4. Higher education	
5	Employment Status	1. Employed 2. Unemployed 3. Self-employed 4. Retired 5. Student 6. Other	
6	What is your monthly income level?	----------Number	
7	What is your place of residence?	1. Urban 2. Rural	

SN	Part 2: Health-Related Factors		
1	Have you experienced any pregnancy-related illnessesin the past or current pregnancies?	1. Yes 2. No	
2	If yes, please specify:	1. Morning sickness 2. Hypertension 3. Diabetes	

		4. Other (please specify)	
3	Have you used any medications during your pregnancy?	1. Yes 2. no	
4	Do you believe self-medication can pose risks during pregnancy?	1. Yes 2. No	
5	Do you have easy access to healthcare services?	1. Yes 2. No	
6	How far is the nearest health facility from your home?	1. Less than 1 km 2. 1-5 km 3. More than 5 km	
7	To what extent do you agree with the following statement: "Essential medications are readily available at my local healthcare facility."	1. (Strongly Disagree) 2. (Disagree) 3. (Neutral) 4. (Agree) 5. (Strongly Agree)	
8	To what extent do you agree with the following statement: "The quality of care provided at my local healthcare facility is satisfactory."	1. (Very Poor) 2. (Poor) 3. (Neutral) 4. (Good) 5. (Very Good)	
9	Are there enough healthcare providers in your area?	1. Yes 2. No	
10	How would you rate the quality of antenatal care you receive?	1. Excellent 2. Good 3. Fair 4. Poor	
11	Are over-the-counter medications easily available in your area?	1. Yes 2. No	

12	Do you believe there is strict regulatory enforcement on medication use during pregnancy?	1. Yes 2. No	

Part 3: Self-Medication Practices in the past and current pregnancies			
Sn	**Characteristics**	**code**	
1	**How often do you self-medicate during your pregnancy?**	**1. Never** **2. Rarely** **3. Sometimes** **4. Often** **5. Always**	
2	**What types of medications do you use for self-medication?**	**1. Over-the-counter drugs** **2. Prescribed medications** **3. Herbal products** **4. Other (please specify)**	
3	**What are your reasons for self-medicating?**	**1. Quick relief** **2. Prior experience** **3. Cost** **4. Other (please specify)**	
	Maternal Health Outcomes and Healthcare Utilization		
4	**Have you experienced any adverse drug reactions from self-medication?**	**1. Yes** **2. No**	
5	**Have you had any complications during pregnancy?**	**1. Yes** **2. No**	
6	**Do you believe self-medication has impacted your baby's health?**	**1. Yes** **2. No**	

7	**How often do you visit a healthcare facility for antenatal care?**	**1. Never** **2. Rarely** **3. Sometimes** **4. Often** **5. Always**	
8	**Have you used emergency healthcare services during your pregnancy?**	**1. Yes** **2. No**	

Part 4: Self-Medication Assessment Tool (SMAT**): If the majority of categories (4 or more out of 6) are "Yes," the individual is considered capable of self-medication. If less than 4 categories are "Yes," the individual is considered in need of assistance with self-medication.**			
SN	**Characteristics**	**Code**	
1	**Can you open medication bottles easily?**	**0. No** **1. Yes**	
2	**Can you read medication labels without difficulty?**	**0. No** **1. Yes**	
3	**Can you organize your medications correctly?**	**0. No** **1. Yes**	
4	**Can you recall the names of your medications?**	**0. No** **1. Yes**	
5	**Can you remember the dosage instructions for your medications?**	**0. No** **1. Yes**	
6	**Do you take your medications as prescribed?**	**0. No** **1. Yes**	

7	**Do you ever skip doses of your medications?**	**0. No** **1. Yes**	
8	**Do you intentionally avoid taking certain medications?**	**0. No** **1. Yes**	
9	**Can you recall the purpose of each medication you take?**	**0. No** **1. Yes**	
10	**Do you feel confident in managing your medications on your own?**	**0. No** **1. Yes**	

Part 5: Cultural Beliefs on self medication in the past and present pregnancies:

To what extent do you agree with the following statements. 1 (Strongly Disagree) - 2 (Disagree) - 3 (Neutral) - 4 (Agree) - 5 (Strongly Agree)

	Characteristics	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	**I rely on traditional remedies during pregnancy**					
2	**Herbal medicines are safer than prescription medications**					
3	**My family encourages the use of traditional medicine during pregnancy**					
4	**Over-the-counter drugs are generally safe to use during pregnancy**					

5	**I prefer using remedies passed down through generations over modern medicine.**					
6	**Traditional healers provide effective treatment for pregnancy-related issues**					

Part 6: lists of Stressful life event questionnaires (have you ever experienced any of the following stressful life event in the past three years?)

s. no	Characteristics	Code	
1	**Natural Disasters (e.g., Drought, Flood,)**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
2	**Fire or Explosion**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
3	**Transportation Accident (Car Accident, Train, Plane Crush)**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job,	

		5. Not Sure, 6. Doesn't Apply	
4	**Serious Accident at work, home, or during recreational activity**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
5	**Exposure to toxic substances (Dangerous chemicals)**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
6	**Physical Assault (Being Attacked, Hit, Slapped, Kicked, Beaten up)**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
7	**Assault with weapon (Being Shot, Stabbed,**	1. Happen to me,	

	Threatened with knife, Gun, Bomb)	2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
8	**Sexual Assault (Rape, Attempted rape, made to perform any type of sexual act through force or threat of harm)**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
9	**Other Unwanted or Uncomfortable Sexual Experience**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
10	**Combats or Exposure to a war zone (in the military or as a civilian)**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job,	

		5. Not Sure, 6. Doesn't Apply	
11	**Captivity (Being Kidnapped, Abducted, Held hostage, Prisoner of war)**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
12	**Life threatening Illness or Injury**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
13	**Severe Human Suffering**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
14	**Sudden Violent Death in close person or**	1. Happen to me,	

	relative (e.g. Homicide, Suicide)	2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
15	**Sudden Accidental Death close person or relative**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
16	**Series Injury, Harm or Death you caused to someone else**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job, 5. Not Sure, 6. Doesn't Apply	
17	**Any other Very Stressful Event or Experience**	1. Happen to me, 2. Witnessed, 3. Learned about, 4. Part of my job,	

		5. Not Sure, 6. Doesn't Apply	

Section.7. English version of Hospital Anxiety and Depression Scale (HADS)

Instruction: Read each item and place a firm tick in the box opposite the reply which comes closest to how you have been feeling in the past week. Don't take too long over your replies: your immediate reaction to each item will probably be more accurate than a long thought out response. The questionnaire asks about feeling in the last one week.

HADSQ.1	**A**	**I feel tense or 'wound up':**	**Most of the time**	**3**
			A lot of the time	**2**
			Time to time, occasionally	**1**
			Not at all	**0**
HADSQ.2	**D**	**I still enjoy the things I used to enjoy:**	**Definitely as much**	**0**
			Not quite so much	**1**
			Only a little	**2**
			Not at all	**3**
HADSQ.3	**A**	**I get a sort of frightened feeling like something awful is about to happen:**	**Very definitely and quite badly**	**3**
			Yes, but not too badly	**2**
			A little, but it doesn't worry me	**1**
			Not at all	**0**

HADSQ.4	**D**	**I can laugh and see the funny side of things:**	**As much as I always could**	**0**
			Not quite so much now	**1**
			Definitely not so much now	**2**
			Not at all	**3**
HADSQ.5	**A**	**Worrying thoughts go through my mind:**	**A great deal of the time**	**3**
			A lot of the time	**2**
			From time to time but not too often	**1**
			Only occasionally	**0**
HADSQ.6	**D**	**I feel cheerful:**	**Not at all**	**3**
			Not often	**2**
			Sometimes	**1**
			Most of the time	**0**
HADSQ.7	**A**	**I can sit at ease and feel relaxed:**	**Definitely**	**0**
			Usually	**1**
			Not often	**2**
			Not at all	**3**
HADSQ.8	**D**	**I feel as if I am slowed down:**	**Nearly all of the time**	**3**
			Very often	**2**
			Sometimes	**1**
			Not at all	**0**

HADSQ.9	**A**	**I get a sort of frightened feeling like 'butterflies in the stomach':**	**Not at all**	**0**
			Occasionally	**1**
			Quite often	**2**
			Very often	**3**
HADSQ.10	**D**	**I have lost interest in my appearance**	**Definitely**	**3**
			I don't take as much care as I should	**2**
			I may not take quite as much care	**1**
			I take just as much care as ever	**0**
HADSQ.11	**A**	**I feel restless as if I have to be on the move:**	**Very much indeed**	**3**
			Quite a lot	**2**
			Not very much	**1**
			Not at all	**0**
HADSQ.12	**D**	**I look forward with enjoyment to things:**	**As much as I ever did**	**0**
			Rather less than I used to	**1**
			Definitely less than I used to	**2**
			Hardly at all	**3**
HADSQ.13	**A**	**I get sudden feelings of panic:**	**Very often indeed**	**3**
			Quite often	**2**

			Not very often	**1**
			Not at all	**0**
HADSQ.14	**D**	**I can enjoy a good book or radio or TV program:**	**Often**	**0**
			Sometimes	**1**
			Not often	**2**
			Very seldom	**3**

Part 8:- Social support factors

No.	*Questionnaire*	*Code*	
1	**How many people are you so close to that you can count on them if you have great personal problems?**	**1. None** **2. 1 to 2 people** **3. 3 to 5 people** **4. 5 and above people**	
2	**How much interest and concern do people show in what you do?**	**1. Very little** **2. Little** **3. Uncertain** **4. Some** ***5.*** **A lot**	
3	**How easy is it to get practical help from neighbors if you should need it?**	***1.Very difficult*** ***2.Difficult*** ***3. Possible*** ***4.Easy*** ***5. Very easy***	

Table 3: Structured questionna

Annex-2.Amharic questionnaire and Consent form

የመረጃ ወረቀት-

በሕዝብ ሆስፒታሎች የቅድመ ወሊድ እንክብካቤን በሚከታተሉ ነፍሰ ጡር እናቶች መካከል ራስን የመድሃኒት ልምዶችን እና ተያያዥ ምክንያቶችን ለመረዳት ያለመ የምርምር ጥናት ላይ እንድትሳተፉ ተጋብዘዋል። ጥያቄዎችን ለመጠየቅ እና ግልጽ መልሶችን ለመቀበል እድሉን አግኝተዋል። ተጨማሪ ጥያቄዎች ካሉዎት የቀረበውን የመገናኛ መረጃ በመጠቀም የጥናት ተወካዮችን እንዲያነጋግሩ ይበረታታሉ። በዚህ ጥናት ውስጥ ያለዎት ተሳትፎ ሙሉ በሙሉ በፈቃደኝነት ነው። የእርስዎ ውሂብ በሚስጥር ይጠበቃል፣ እና ምንም የግል መለያዎች ጥቅም ላይ አይውሉም። ፈቃድዎን በማንኛውም ጊዜ ያለምንም ቅድመ ሁኔታ የመሰረዝ መብት አለዎት። ከታች በመፈረም በዚህ ጥናት ለመሳተፍ ተስማምተሃል።

ፊርማ፡ _____ ቀን፡ _____

የስምምነት ቅጽ

በምርምር ጥናቱ እንድሳተፍ ተጠየቅኩ። ጥናቱ በደንብ ተብራርቶልኛል። በጥናቱ ውስጥ እኔ (ተሳታፊው) ማለፍ ያለብኝን ጨምሮ ጥናቱ ለእኔ ምን ማለት እንደሆነ ተረድቻለሁ። ስለ ጥናቱ ጥያቄዎችን ለመጠየቅ እድል አግኝቻለሁ እናም ለመረዳት በሚያስችል መንገድ መልስ አግኝቻለሁ። በኋላ መጠየቅ ያለብኝ ሌሎች ጥያቄዎች ካሉ፣ ግንኙነታቸውን ወደ መጡልኝ የጥናት ተወካዮች በነፃነት አነጋግሬያለሁ። እንዲሁም የእኔ ተሳትፎ በፈቃደኝነት እንደሆነ ተረድቻለሁ፣ የእኔ መረጃ ምንም አይነት የግል መለያ ሳይጠቀም ሚስጥራዊ ይሆናል። እስከዚያው ድረስ ያለ ምንም ቅድመ ሁኔታ ፈቃዴ በማንኛውም ጊዜ ሊሰረዝ እንደሚችል ተናግሬያለሁ። ስለዚህ፣ ፊርማዬን ተጠቅሜ የዚህ ጥናት አካል ለመሆን የቀረበውን ሀሳብ ተቀብያለሁ።

ፊርማ _____ ቀን _____

ክፍል 1፡ ሶሺዮ-ስነ-ሕዝብ ጥያቄዎች

ጥያቄዎች	ምርጫዎች
አመት	¬¬¬¬¬¬……
ጾታ	1. ሴት, 2. ወንድ
የጋብቻ ሁኔታ	1. ያገባ, 2. የተፋታ, 3. ነጠላ, 4. ተለያይቷል, 5. መበለት
የትምህርት ደረጃ	1. ትምህርት የለም, 2. የመጀመሪያ ደረጃ, 3. የሁለተኛ ደረጃ, 4. ከፍተኛ ትምህርት
የቅጥር ሁኔታ	1. የተቀጠረ, 2. ሥራ አጥ, 3. በራስ ተቀጣሪ, 4. ጡረታ ወጥቷል, 5. ተማሪ, 6. ሌላ
ወርሃዊ የገቢ ደረጃ	-------ቁጥር

ክፍል 2: ከጤና ጋር የተገናኙ ጥያቄዎች

ጥያቄዎች	**ምርጫዎች**
1. ከእርግዝና ጋር የተያያዙ በሽታዎች አጋጥመውዎታል?	1. አዎ, 2. አይ
2. አዎ ከሆነ፣ እባክዎን ይግለጹ፡	1. የጠዋት ህመም, 2. የደም ግፊት, 3. የስኪር በሽታ, 4. ሌላ (እባክዎ ይግለጹ)
3. በእርግዝናዎ ወቅት ማንኛውንም መድሃኒት ተጠቅመዋል?	1. አዎ, 2. አይ
4. እራስን ማከም በእርግዝና ወቅት አደጋዎችን ሊያስከትል ይችላል ብለው ያምናሉ?	1. አዎ, 2. አይ
5. ቀላል የጤና እንክብካቤ አገልግሎት አሎት?	1. አዎ, 2. አይ
6. በጣም ቅርብ የሆነው የጤና ተቋም ከቤትዎ ምን	1. ከ 1 ኪ.ሜ ያነሰ, 2. 1-5 ኪ.ሜ, 3. ከ 5

ያህል ይርቃል?	ኪ.ሜ በላይ
7. "በአካባቢዬ የጤና እንክብካቤ መስጫ ተቋማት ውስጥ አስፈላጊ መድሃኒቶች በቀላሉ ይገኛሉ።" ምን ያህል ይስማማሉ?	1. በጣም አልስማማም, 2. አልስማማም, 3. ገለልተኛ, 4. እስማማለሁ, 5. በጣም እስማማለሁ
8. "በአካባቢዬ የጤና እንክብካቤ መስጫ ተቋማት የሚሰጠው የሕክምና ጥራት አጥጋቢ ነው።" ምን ያህል ይስማማሉ?	1. በጣም ድሃ, 2. ድሃ, 3. ገለልተኛ, 4. ጥሩ, 5. በጣም ጥሩ
9. በአካባቢዎ በቂ የጤና እንክብካቤ አቅራቢዎች አሉ?	1. አዎ, 2. አይ
10. የሚያገኙትን የቅድመ ወሊድ እንክብካቤ ጥራት እንዴት ይገመግማሉ?	1. በጣም ጥሩ, 2. ጥሩ, 3. ፍትሃዊ, 4. ጥሩ አይደለም
11. ያለሀኪም የሚገዙ መድሃኒቶች በአካባቢዎ በቀላሉ ይገኛሉ?	1. አዎ, 2. አይ
12. በእርግዝና ወቅት የመድሃኒት አጠቃቀም ላይ ጥብቅ የቁጥጥር አፈፃፀም እንዳለ ያምናሉ?	1. አዎ, 2. አይ

ክፍል 3: ራስን የመድሃኒት ልምዶች

1

ጥያቄዎች	ምርጫዎች
1. በእርግዝና ወቅት ምን ያህል ጊዜ እራስዎ መድሃኒት ይሰጣሉ?	1. በጭራሽ, 2. አልፎ አልፎ, 3. አንዳንድ ጊዜ, 4. ብዙ ጊዜ, 5. ሁልጊዜ
2. ለራስ-መድሃኒት ምን አይነት መድሃኒቶችን ይጠቀማሉ?	1. ያለማዘዣ የሚሸጡ መድሃኒቶች, 2. የታዘዙ መድሃኒቶች, 3. ከዕፅዋት የተቀመሙ ምርቶች, 4. ሌላ (እባክዎ ይግለጹ)

3. እራስን ለማከም ምክንያቶችዎ ምንድን ናቸው?	1. ፈጣን እፎይታ, 2. የቀድሞ ልምድ, 3. ወጪ, 4. ሌላ (እባክዎ ይግለጹ)
4. ከራስ-መድሃኒት ምንም አሉታዊ ምላሽ አጋጥሞዎታል?	1. አዎ, 2. አይ
5. በእርግዝና ወቅት ምንም አይነት ችግር አጋጥሞዎታል?	1. አዎ, 2. አይ
6. የራስ-መድሃኒት በልጅዎ ጤና ላይ ተጽዕኖ አሳድሯል ብለው ያምናሉ?	1. አዎ, 2. አይ
7. ለቅድመ ወሊድ እንክብካቤ የጤና እንክብካቤ ተቋምን ምን ያህል ጊዜ ይጎበኛሉ?	1. በጭራሽ, 2. አልፎ አልፎ, 3. አንዳንድ ጊዜ, 4. ብዙ ጊዜ, 5. ሁልጊዜ
8. በእርግዝናዎ ወቅት የድንገተኛ የጤና እንክብካቤ አገልግሎቶችን ተጠቅመዋል?	1. አዎ, 2. አይ

ክፍል 4፡ ራስን የመድሃኒት መገምገሚያ መሳሪያ (SMAT)፡ አብዛኛው ምድቦች (ከ6ቱ 4 ወይም ከዚያ በላይ) "አዎ" ከሆኑ ግለሰቡ ራስን ማከም እንደሚችል ይቆጠራል። ከ 4 ያነሱ ምድቦች "አዎ" ከሆኑ ግለሰቡ ለራስ-መድሃኒት እርዳታ እንደሚያስፈልገው ይቆጠራል.

ጥያቄዎች	**ምርጫዎች**
1. የመድሃኒት ጠርሙሶችን በቀላሉ መክፈት ይችላሉ?	0. አይ, 1. አዎ
2. የመድሃኒት መለያዎችን ያለምንም ችግር ማንበብ ይችላሉ?	0. አይ, 1. አዎ
3. መድሃኒቶችዎን በትክክል ማደራጀት ይችላሉ?	0. አይ, 1. አዎ
4. የመድሃኒትዎን ስም ማስታወስ ይችላሉ?	0. አይ, 1. አዎ
5. ለመድሃኒቶችዎ የመጠን መመሪያዎችን ማስታወስ ይችላሉ?	0. አይ, 1. አዎ

6. መድሃኒትዎን በታዘዘው መሰረት ይወስዳሉ?	0. አይ, 1. አዎ
7. የመድሃኒቶቻችሁን መጠን ዘለው ታውቃላችሁ?	0. አይ, 1. አዎ
8. ሆን ብለው አንዳንድ መድሃኒቶችን ከመውሰድ ይቆጠባሉ?	0. አይ, 1. አዎ
9. እያንዳንዱን መድሃኒት የሚወስዱትን ዓላማ ማስታወስ ይችላሉ?	0. አይ, 1. አዎ
10. መድሃኒቶችዎን በራስዎ ለማስተዳደር በራስ መተማመን ይሰማዎታል?	0. አይ, 1. አዎ

ክፍል 5፡ የባህል እምነቶች፡ በሚከተሉት መግለጫዎች ምን ያህል ይስማማሉ። 1 (በጣም አልስማማም) - 2 (አልስማማም) - 3 (ገለልተኛ) - 4 (እስማማለሁ) - 5 (በጣም እስማማለሁ)

	ባህሪያት	በጣም አልስማማም	አልስማማም	ገለልተኛ	እስማማለሁ	በጣም እስማማለሁ
1	በእርግዝና ወቅት በባህላዊ መድሃኒቶች እተማመናለሁ					
2	ከዕፅዋት የተቀመሙ መድኃኒቶች ከሐኪም መድሃኒቶች የበለጠ ደህና ናቸው					
3	ቤተሰቦቼ በእርግዝና ወቅት ባህላዊ መድሃኒቶችን እንዲጠቀሙ ያበረታታሉ					
4	ያለሀኪም የሚገዙ መድሃኒቶች በአጠቃላይ በእርግዝና ወቅት ለመጠቀም ደህና ናቸው።					
5	ከዘመናዊ ሕክምና ይልቅ በትውልዶች የሚተላለፉ					

	መድኃኒቶችን መጠቀም እመርጣለሁ።					
6	ባህላዊ ፈዋሾች ከእርግዝና ጋር ለተያያዙ ጉዳዮች ውጤታማ ህክምና ይሰጣሉ					

ክፍል 6፡ የጭንቀት ህይወት ክስተት መጠይቆች ዝርዝሮች (ከሚከተሉት አስጨናቂ የህይወት ክስተቶች አጋጥሞህ ያውቃል?)

1

ጥያቄዎች	**ምርጫዎች**
1. የተፈጥሮ አደጋዎች (ለምሳሌ፣ ድርቅ፣ ጎርፍ፣)	1. በእኔ ላይ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
2. እሳት ወይም ፍንዳታ	1. በእኔ ላይ ሆነ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
3. የመጓጓዣ አደጋ (የመኪና አደጋ፣ ባቡር፣ የአውሮፕላን መፍጨት)	1. በእኔ ላይ ሆነ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
4. በሥራ፣ በቤት ወይም በመዝናኛ እንቅስቃሴ ወቅት ከባድ አደጋ	1. በእኔ ላይ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
5. ለአደገኛ ንጥረ ነገሮች መጋለጥ (አደገኛ ኬሚካሎች)	1. በእኔ ላይ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
6. አካላዊ ጥቃት (መጠቃት፣ መምታት፣ መምታታት፣ መምታት፣ መመታታት)	1. በእኔ ላይ ደረሰ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም

7. በመሳሪያ ጥቃት (ተተኮሰ፣ ተወግቶ፣ በቢላ ማስፈራራት፣ ሽጉጥ፣ ቦንብ)	1. በእኔ ላይ ደረሰ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
8. ወሲባዊ ጥቃት (መደፈር፣ የአስገድዶ መድፈር ሙከራ፣ ማንኛውንም አይነት ወሲባዊ ድርጊት)	1. በእኔ ላይ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
9. ሌላ ያልተፈለገ ወይም የማይመች የግብረ ሥጋ ልምድ	1. በእኔ ላይ ሆነ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
10. ውጊያዎች ወይም ለጦርነት ቀጠና መጋለጥ (በወታደራዊ ወይም እንደ ሲቪል)	1. በእኔ ላይ ሆነ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
11. ምርኮኛ (መታፈን፣ ታፍኖ፣ ታግቶ፣ የጦርነት እስረኛ)	1. በእኔ ላይ ሆነ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
12. ለሕይወት አስጊ የሆነ ሕመም ወይም ጉዳት	1. በእኔ ላይ ሆነ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም
13. ከባድ የሰው ስቃይ	1. በእኔ ላይ ደረሰ፣ 2. ማየት፣ 3. መስማት፣ 4. የሥራዬ አካል፣ 5. እርግጠኛ አይደለም, 6. አይተገበርም

ክፍል.7. የሆስፒታል ጭንቀት እና የመንፈስ ጭንቀት (HADS) የእንግሊዝኛ ቅጂ

መመሪያ፡ እያንዳንዱን ንጥል አንብብ እና ከመልሱ በተቃራኒው ባለው ሳጥን ውስጥ ጠንከር ያለ ምልክት አድርግ ይህም ባለፈው ሳምንት ውስጥ ምን እንደተሰማህ ቅርብ ነው። በምላሾችዎ ላይ ብዙ ጊዜ

አይውሰዱ፡- ለእያንዳንዱ ንጥል የእርስዎ ፈጣን ምላሽ ምናልባት ለረጅም ጊዜ ከታሰበው ምላሽ የበለጠ ትክክል ይሆናል። መጠይቁ ባለፈው አንድ ሳምንት ውስጥ ስለ ስሜት ይጠይቃል።

ጥያቄዎች	ምርጫዎች
HADSQ.1 U ውጥረት ወይም ‘ቁስለኛ’ ይሰማኛል፡	ብዙ ጊዜ 3, ብዙ ጊዜ 2, ከጊዜ ወደ ጊዜ፣ አልፎ አልፎ 1, በፍፁም 0
HADSQ.2 D የምደሰትባቸው ነገሮች አሁንም እደሰታለሁ፡	በእርግጠኝነት 0, በጣም ብዙ አይደለም 1, ትንሽ ብቻ 2, በፍፁም 3
HADSQ.3 U አንድ አስከፊ ነገር ሊፈጠር እንደሆነ አይነት ፍርሃት ይሰማኛል፡	በጣም በእርግጠኝነት እና በጣም መጥፎ 3, አዎ፣ ግን በጣም መጥፎ አይደለም 2, ትንሽ፣ ግን አያስጨንቀኝም 1, በፍፁም 0
HADSQ.4 D መሳቅ እና የነገሮችን አስቂኝ ገጽታ ማየት እችላለሁ፡	ሁልጊዜም የምችለውን ያህል 0, አሁን በጣም ብዙ አይደለም 1, በእርግጠኝነት አሁን ብዙም አይደለም 2, በፍፁም 3
HADSQ.5 የሚያስጨንቁ ሀሳቦች በአእምሮዬ ውስጥ ይሄዳሉ፡	ብዙ ጊዜ 3, ብዙ ጊዜ 2, ከጊዜ ወደ ጊዜ ግን ብዙ ጊዜ አይደለም 1, አልፎ አልፎ 0
HADSQ.6 D የደስታ ስሜት ይሰማኛል፡	በጭራሽ 3, ብዙ ጊዜ አይደለም 2, አንዳንዴ 1, ብዙ ጊዜ 0
HADSQ.7 A በተረጋጋ ሁኔታ ተቀምጬ መዝናናት እችላለሁ፡	በእርግጠኝነት 0, አብዛኛውን ጊዜ 1, ብዙ ጊዜ አይደለም 2, በፍፁም 3
HADSQ.8 D እንደዘገየሁ ይሰማኛል፡	ሁሌ ማለት ይቻላል 3, በጣም ብዙ ጊዜ 2, አንዳንዴ 1, በፍፁም 0
HADSQ.9 A እንደ 'በሆድ ውስጥ ያሉ ቢራቢሮዎች' አይነት የፍርሃት ስሜት ይሰማኛል፡	በጭራሽ 0, አልፎ አልፎ 1, ብዙ ጊዜ 2, በጣም ብዙ ጊዜ 3
HADSQ.10 D የመልክዬ ፍላጎት አጥቻለሁ፡	በእርግጠኝነት 3, የሚገባኝን ያህል ጥንቃቄ አላደርግም 2, ያን ያህል ጥንቃቄ ላደርግ እችላለሁ 1, ልክ እንደበፊቱ ጥንቃቄ አደርጋለሁ 0
HADSQ.11 U በመንቀሳቀስ ላይ መሆን	በጣም በእርግጥ 3, በጣም ብዙ 2, በጣም ብዙ አይደለም

እንዳለብኝ ያህል እረፍት ማጣት ይሰማኛል፡	1, በፍፁም 0
HADSQ.12 D በነገሮች በመደሰት በጉጉት እጠባበቃለሁ፡	እስከ አሁን አድርጌያለሁ 0, ከቀድሞው ያነሰ 1, በእርግጠኝነት ከነበረኝ ያነሰ 2, በጭንቅ 3
HADSQ.13 A ድንገተኛ የድንጋጤ ስሜት ይሰማኛል፡	ብዙ ጊዜ በእርግጥ 3, ብዙ ጊዜ 2, ብዙ ጊዜ አይደለም 1, በፍፁም 0
HADSQ.14 D በጥሩ መጽሐፍ ወይም የሬዲዮ ወይም የቲቪ ፕሮግራም መደሰት እችላለሁ፡	ብዙ ጊዜ 0, አንዳንዴ 1, ብዙ ጊዜ አይደለም 2, በጣም አልፎ አልፎ 3

ክፍል 8: - ማህበራዊ ድጋፍ ምክንያቶች

ጥያቄዎች	**ምርጫዎች**
1. ትልቅ የግል ችግሮች ካጋጠሙህ በእነሱ ላይ እምነት መጣል የምትችል ስንት ሰዎች ነህ?	1. የለም, 2. 1 ለ 2 ሰዎች, 3. ከ 3 እስከ 5 ሰዎች, 4. 5 እና ከዚያ በላይ ሰዎች
2. ሰዎች በምታደርገው ነገር ምን ያህል ፍላጎት እና አሳቢነት ያሳያሉ?	1. በጣም ትንሽ, 2. ትንሽ, 3. እርግጠኛ ያልሆነ, 4. አንዳንዶቹ, 5. ብዙ
3. ከፈለጉ ከጎረቤቶች ተግባራዊ እርዳታ ማግኘት ምን ያህል ቀላል ነው?	1. በጣም አስቸጋሪ, 2. አስቸጋሪ, 3. ይቻላል, 4. ቀላል, 5. በጣም ቀላል

CURRICULUM VITEA

Sofia Fitsumberhane

+251-947002736/0946700409 sfitsumberhane@gmail.com

Addis Ababa, Ethiopia

Professional Summary

public health professional with a BSc in Public Health (CGPA 3.66, Great Distinction) and current MPH candidate at Addis Ababa University (2nd Year, 2nd Semester). A dedicated and enthusiastic public health professional with about 1 year experience of clinical experience as a Physician Assistant and with expertise in health education, training, and stakeholder presentations. Committed to collaborative teamwork, continuous learning, and community service. Proficient in Amharic and English, with strong interpersonal and problem-solving skills.

Key Skills & Qualifications

- Clinical & Public Health Expertise: 7+ months as a Physician Assistant at Silk Road General Hospital, skilled in-patient care, public health planning, and preventive strategies.
- Leadership & Collaboration: Class Representative at Addis Ababa University's MPH program
- Communication & Teaching: Fluent in Amharic and English; strong presentation skills and experience in health education and peer mentoring.
- Academic Excellence: BSc in Public Health (CGPA: 3.66, Great Distinction); current MPH candidate at Addis Ababa University (2nd Year, 2nd Semester).

Education

Addis Ababa University | Addis Ababa, Ethiopia

- Master of Public Health (MPH) | *2023–Present (2nd Year, 2nd Semester; Expected 2025)*

Unity University | Addis Ababa, Ethiopia

- Bachelor of Science in Public Health (CGPA: 3.66) | *2019–2022*

Professional Experience

Public Health Intern | *Marnat Foundation, Addis Ababa 2023 (2 months)*

- Collaborated on community health outreach programs targeting maternal and child health.
- Assisted in data collection and analysis for public health impact assessments.

Physician Assistant | *Silk Road General Hospital, Addis Ababa 2022–2023 (7 months)*

- Assisted in patient consultations, diagnostics, and treatment under supervision.
- Supported healthcare teams in maintaining patient records and ensuring quality care.
- Educated patients on preventive health measures and post-treatment care.Volunteer Coordinator | Various Community Projects, Addis Ababa

.

Leadership and Acadamic roles

Class Representative | *Addis Ababa University, MPH Program 2024/5–Present*

- Liaised between students and faculty to address academic and administrative concerns.

Skills

- Languages: Amharic (Fluent), English (Fluent)
- Technical: Public health planning, patient care coordination.
- Soft Skills: Team collaboration, adaptability, leadership, volunteer coordination.

Volunteer Engagement

- Active participant in community health outreach and education programs and fubdrasing for non governmental organizations

Behavior

- Maintain a professional character with no history of substance abuse, misconduct, or disciplinary issues.
- Strong interpersonal skills, fostering respectful and collaborative relationships with colleagues and stakeholders.
- Diligent, proactive, and committed to ethical standards in all professional interactions.

Interests

- Public health advocacy, continuous professional development, and community service.

Social Skills & Competencies

- Interpersonal Skills: Highly enthusiastic, approachable, and collaborative team player with a positive attitude.
- Collaboration: Proven ability to work effectively in diverse teams and independently, fostering a supportive environment.
- Knowledge Sharing: Skilled in mentoring, training, and exchanging expertise to drive collective success.
- Adaptability: Thrives in dynamic settings with a solutions-oriented mindset.

Training

- Basics of Clinical Trial Management Digital Course

ANNEX-3.DECLARATION

I, the undersigned, declare that this thesis is my original work in partial fulfillment of the requirement for Degree of Public Health and has not been presented for a degree in this or any other university. All source of materials used for this thesis have been duly acknowledged.

Name of Student: Sofia Fitsumbirhan (MPH)

Place: School of Public Health, Addis Ababa University

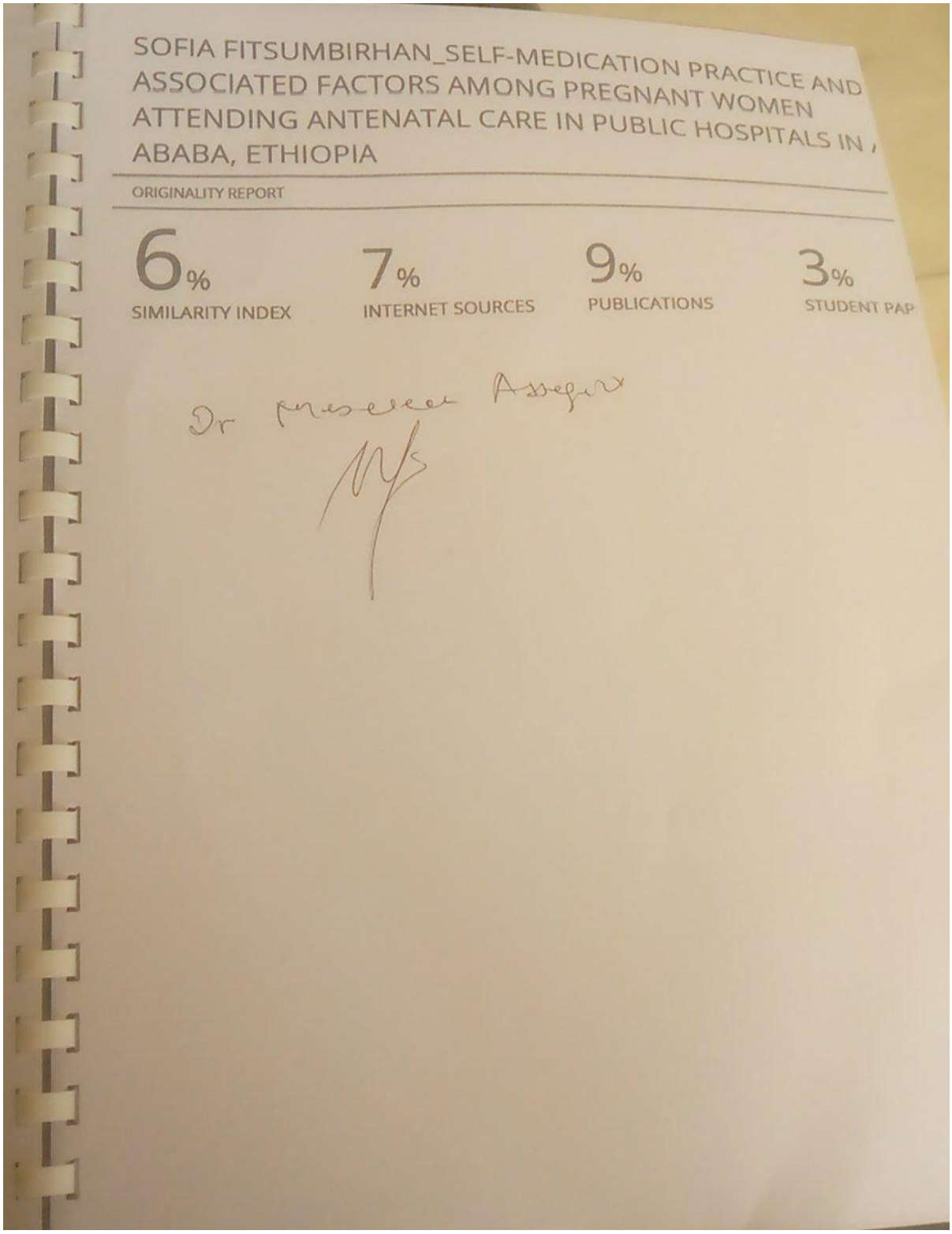
Date: 5/6/2025 Signiture 

Approval of the Primary advisor

The thesis has been submitted for School of Public Health/AAU with my approval as the university advisor.

Name of the primary advisor:- Name:Dr Meselech Assegid (PhD)

Date:5/6/2025 Signiture 



SOFIA FITSUMBIRHAN_SELF-MEDICATION PRACTICE AND ASSOCIATED FACTORS AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE IN PUBLIC HOSPITALS IN A ABABA, ETHIOPIA

ORIGINALITY REPORT

6%	7%	9%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAP

Dr Meseret Assefa