SELF-MEDICATION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT IRINGA REGIONAL REFERRAL HOSPITAL.

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SELF-MEDICATION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT IRINGA REGIONAL REFERRAL HOSPITAL

By

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A Dissertation Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Medicine in Obstetrics and Gynaecology of

Muhimbili University of Health and Allied Sciences

October, 2024

CERTIFICATION

The undersigned certifies that they have read and hereby recommends for examination the dissertation entitled "***Self-medication among pregnant women attending Antenatal clinic at Iringa Regional Referral Hospital"*** in partial fulfillment of the requirements for the degree of Master of Medicine in Obstetrics and Gynecology of Muhimbili University of Health and Allied Sciences.

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DECLARATION AND COPYRIGHT

I, **Edward Mhina**, declare that this dissertation is entirely my original work, and it has neither been presented nor will be presented to any other University for a similar or any other degree award.

Signature _____ Date _____

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DEDICATION

This dissertation is dedicated to my lovely wife Dr. Irene Malumbo and our cherished son, Brayden, as a token of my deepest gratitude for your sacrifices, understanding, and unwavering support. Your love has been the cornerstone of my success, and I am extremely grateful to be on this journey with such outstanding individuals.

ABSTRACT

Background: Self-medication, as defined by the World Health Organization (WHO), refers to the independent use of medications by individuals without seeking medical guidance. In communities with limited resources, self-medication during pregnancy poses significant concerns, leading to issues such as abortion, stillbirths, low birth weight, premature birth, congenital defects, and drug resistance. Despite its prevalence, little is known about the motivation for self-medication in this population.

Objective: The study aimed at exploring reasons for self-medication among pregnant women attending ANC at Iringa Region Referral Hospital.

Methodology: The study used a phenomenological qualitative study design with a purposeful sample of pregnant women attended Antenatal care clinic (ANC) at Iringa Regional Referral Hospital from September 2023 to October 2023. Four focus group discussions were conducted. The discussions were guided using an interview guide and were audio recorded with field notes taken. The interviews were transcribed verbatim and analyzed using thematic analysis.

Results: Two main themes were developed as drivers of self-medication among women based on the data: environmental and personal factors. Environmental factors encompass community culture and family experiences, receiving guidance from a respected family member, long wait times at health facilities, living far from health facilities, and easy access to medication in the community. Personal factors include positive outcomes following self-medication, lack of time to seek care, lack of awareness of medication prescription laws, medication costs, pregnancy-related diseases and conditions, urgency, and time sensitivity.

Conclusion Easy access to prescribed medication when a pregnant woman has many responsibilities, advice from the peer group of their fellow pregnant women, and advice from respected family members or friends, played a significant role in self-medication practices.

TABLE OF CONTENT

CERTIFICATION i
DECLARATION AND COPYRIGHT ii
ACKNOWLEDGEMENT iii
DEDICATION iv
ABSTRACT v
LIST OF TABLES viii
LIST OF FIGURES viii
LIST OF ABBREVIATION ix
OPERATIONAL DEFINITION x
1.0 INTRODUCTION 1
1.1 Background 1
1.2 Problem statement 2
1.3 Theoretical Frame Work 3
1.4 Rationale of the Study 5
1.5 Research Question 5
1.6. Objectives 6
1.6.1 Broad Objective 6
1.6.2 Specific Objectives 6
2.0 LITERATURE REVIEW 7
2.1 Individual attributes influencing self-medication among pregnant women. 7
2.2 Influence of family, friends, environment and social networks on the self-medication of pregnant women. 8
3.0 METHODOLOGY 10
3.1 Study and Design 10
3.2 Study population 10
3.3 Study context 10
3.8 Inclusion and Exclusion Criteria 12
3.8.1 Inclusion criteria 12

3.8.2 Exclusion Criteria....12
3.9 Data collection tool....12
3.10 Data collection process....12
3.11 Data Analysis....14
3.12 Data Quality Control....14
3.13 Ethical Clearance and Consideration....15
4.0 RESULTS....16
5.0 DISCUSSION....27
5.1 Methodological Consideration....29
6.0 CONCLUSION AND RECOMMENDATIONS....30
6.1 Conclusion....30
6.2 Recommendation....30
REFERENCES....31
APPENDICES....36
Appendix II: Consent form – Swahili Version....39
Swahili version)....39
Appendix III: Questionnaires....41
Appendix A: A semi-structured interview guide (English version)....41
Appendix IV: Dodoso....44
Appendix B: A semi-structured interview guide (Swahili version)....44
Appendix V: Ethical Clearances....47
Appendix VI: Introduction Letter....49
Appendix VII: Permission Letter....50
Appendix VIII: Turnitin....51
Appendix IX: Plagiarism....52

LIST OF TABLES

Table 1: Characteristics of study participants 16

Table 2: Themes and subthemes from the analysis of self-medications 17

LIST OF FIGURES

Figure 1: The modified theory of planned behaviour applied to self-medication. 4

LIST OF ABBREVIATION

ANC	Antenatal Clinic
IRRH	Iringa Regional Referral Hospital
MUHAS	Muhimbili University of Health and Allied Science
RCH	Reproductive and Child Health
TMDA	Tanzania Medicines and Medical Devices Authority Home
TPB	Theory of Planned Behavior
USFDA	The United States Food and Drug Administration
WHO	World Health Organization

OPERATIONAL DEFINITION

Self-medication during pregnancy is the use of medication during pregnancy without a prescription (includes using over-the-counter medications available without a prescription, using prescription medications irregularly, using leftover medications from past prescriptions, and using herbal and conventional remedies) or medical supervision.

Subjective norms can be considered social expectations, and include both the perceived expectations of others and how much the individual values those expectations.

Perceived behavioral control is the extent to which we believe we can control our behaviour. This depends on our perception of internal factors such as our ability and determination and external factors such as the available resources and support.

1.0 INTRODUCTION

1.1 Background

Self-medication is defined by the World Health Organization (WHO) as the act of using medications by patients or persons to treat conditions or symptoms that they have independently established without seeking medical guidance(1,2). Self-medication includes using over-the-counter medications available without a prescription, using prescription medications irregularly, using leftover medications from past prescriptions, and using herbal and conventional remedies(2). Worldwide there are significant variations in the prevalence of self-medication during pregnancy (3), according to studies conducted in different parts of the world where by prevalence of 12.5% reported in the study done in the Netherlands, 63.8% and 30.6% are reported prevalence of self-medication in the study done in Nigeria and Iran respectively(4). In sub-Saharan Africa, studies have found a broad range in the usage of self-medication (herbal remedies) during pregnancy, ranging from 2.0% in the Tigray Region, Northern Ethiopia, to 100% in the Machakos District, Eastern Kenya(5). In Tanzania, the prevalence of self-medication and over-the-counter drugs among pregnant women attending antenatal clinics remains high despite the education offered during ANC(6). According to studies done in Mwanza and Dar es Salaam, the incidence of self-medication during pregnancy is 46.2% and 51.4%, respectively (6–8).

Self-medication has several potentially harmful effects on the fetus, such as prenatal toxicity, deformities, and teratogen effects(9). Additionally, it may result in low birth weight, preterm delivery, feeding difficulties, and respiratory issues in the fetus and harm the mother's health(10). It has not been proven that several regularly used medications are safe to use during pregnancy. Because pregnant women are frequently excluded from clinical trials of medicine, information on medication safety for pregnant women is limited (8).

The United States Food and Drug Administration (USFDA) categorizes medications for use during pregnancy into categories A, B, C, D, and X, with category A medications showing no risks in controlled trials and category B medications showing no evidence of human harm in controlled research, Category C medications could endanger the fetus. Although the dangers cannot be eliminated, category C drugs should only be used if the potential advantages outweigh any possible hazards to the fetus. Category X medications are completely forbidden during pregnancy due to their documented fetal dangers, while Category D medications show positive evidence of human fetal risk(11).

It has been observed that many expectant mothers often utilize medications without adequate awareness of the potential health risks to their unborn child (7). Some individuals lack awareness regarding the hazards associated with consuming medications without a prescription, while others possess limited knowledge of the adverse effects of medication use during pregnancy (3,12). Hence this study will aim to explore reasons for self-medication among pregnant women attending antenatal care at IRRH.

1.2 Problem statement

Depending on the trimester a woman is in, self-medication during pregnancy might have negative effects on both the mother and the fetus. A negative pregnancy result in the first trimester would be an abortion or congenital defect. The adverse outcomes of self-medication in the second trimester include stillbirth, premature delivery, and low birth weight(13). self-medication can also have adverse effect to the mother including Toxicity and overdose, drug interaction, allergic reactions, development of drug resistance (14). Additionally, can lead to exacerbation of preexisting conditions such hypertension, diabetes and it may cause stomach ulcers, acid reflux(15) .

Tanzania Medicines and Medical Devices Authority Home (TMDA) in the prescription handling regulations had put forward that buyers must present a legitimate prescription that was given by Regulations before a person may sell by retail or dispense prescription medicines, if one found offence shall be liable to a fine of not less than five hundred thousand shillings but not exceeding five million shillings or imprisonment for term not exceeding twelve month or both (16).

Because of this, pregnant women should not take medicine without a prescription and a doctor's approval. However, despite these facts, several studies have found that pregnant women who visit antenatal clinics have a high rate of self-medication(6–8). Little is known about how decisions to self-medicate are made.

1.3 Theoretical Frame Work

According to Ajzen and Fishbein **(17),** the theory of planned behaviour (TPB) is a development of the idea of reasoned action. The theory of planned behaviour states that behavioral intention and perceived behavioral control may both be applied to predict behavioral outcomes. According to TPB, individual attitudes, subjective norms, and perceived behaviour control impact the intents.

Personal attitudes - This is our attitude towards a particular behaviour. It is the sum of all our knowledge and prejudices positive and negative that we think of when we consider the behaviour i.e., knowledge of different medications may facilitate someone to self-medicate.

Subjective norms - This considers how we view the ideas of other people about a specific behaviour e.g., self-medication. This could be the attitude of family and friends and colleagues to self-medicate. It is not what other people think but our perception of others' attitudes.

Perceived behavioral control - This is the extent to which we believe we can control our behaviour. This depends on our perception of internal factors such as our ability and determination and external factors such as the resources and support available to us.

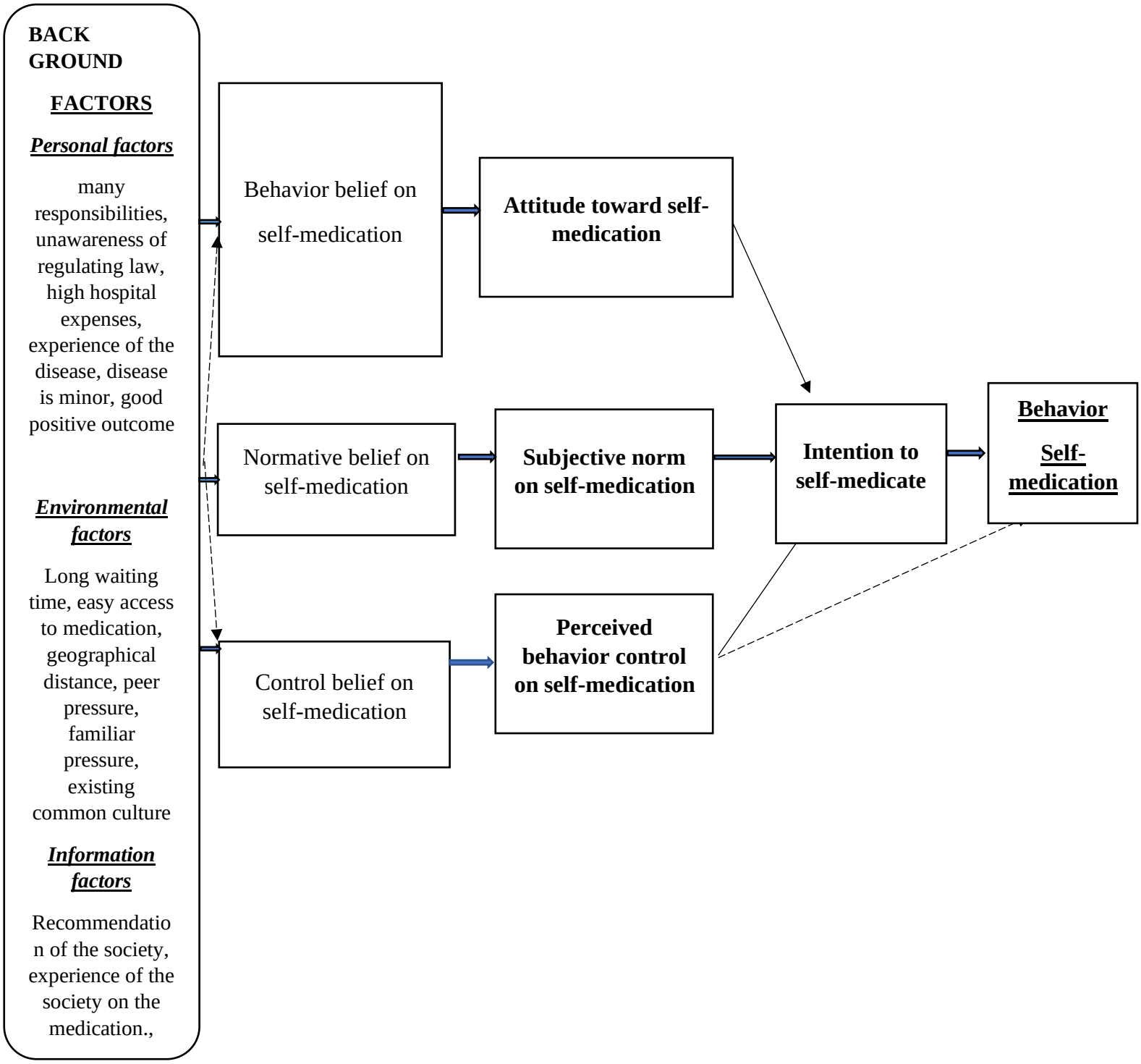


Figure 1: The modified theory of planned behaviour applied to self-medication.

This study will adopt the Theory of Planned Behavior (Ajzen, 1985, 1991) **(17)** ,since these are conceptual theories that offer understanding of human behavior in certain contexts.

According to the theory an intention to engage in a certain behavior is considered the best predictor of whether a person actually engages in that behavior. In this context self-medication is the behavior. Intentions, in turn, are predicted by attitudes, subjective norms and perceived behavioral control.

1.4 Rationale of the Study

In this study, self-medication by pregnant women attending ANC at IRRH was studied. The reasons for self-medication among these pregnant women were also explored in detail.

The results of this study will help in understanding underlying behaviour toward inappropriate medication use during pregnancy and through educational initiatives, increasing communication between healthcare providers and pregnant women, promoting accurate and accessible information about medication safety during pregnancy, and improving access to healthcare services by addressing these factors through medical campaigns. In the end, by addressing these reasons for self-medication, we can discourage pregnant women from self-medicating and encourage safer and healthier pregnancy outcomes.

1.5 Research Question

What are the reasons for self-medication among pregnant women attending antenatal clinics at Iringa Regional Referral Hospital?

1.6. Objectives

1.6.1 Broad Objective

To explore reasons for self-medication among pregnant women attending ANC at IRRH.

1.6.2 Specific Objectives

1. To explore individual attributes influencing self-medication among pregnant women.
2. To describe the influence of family, friends, environment and social networks on the self-medication of pregnant women.

2.0 LITERATURE REVIEW

2.1 Individual attributes influencing self-medication among pregnant women.

Attitude is mostly affected by the background belief. It carries weight in decision-making depending on the experience if it was a negative or positive experience **(4).** Also, it can be affected by how society looks at the matter of interest. When the health issue is perceived as minor, such as headaches, nausea, or minor pains, pregnant women often choose to self-medicate(**18,19)**. They consider these conditions too trivial to warrant a visit to the doctor, especially if it involves long waiting times and inconvenience **(20).** In a study conducted in Saudi Arabia that reveals a higher prevalence of auto medicine among pregnant women, pregnant women demonstrated favorable perspectives and attitudes toward the use of herbal, vitamin, and mineral supplements (3,21).

Pregnant women who have previously experienced certain health conditions during past pregnancies may feel confident in diagnosing and treating these ailments on their own**(4,18)** . Their familiarity with the symptoms and the effectiveness of previously used treatments encourages them to self-medicate rather than seek new medical advice. Studies have shown a correlation between self-medication practice and disease experience (19,22,23).

The hormonal changes during pregnancy are unique and can affect some women's health, especially during the first trimester **(4)**. This can cause a more frequent occurrence of symptoms and/or illnesses including nausea, vomiting, headache, and fever (morning sickness) in the first trimester than in other trimesters during pregnancy **(7).** Where this can pose some pregnant women to self-medicate. Different studies show that pregnant women in the first trimester were more likely to practice self-medication compared to those in the third trimester (4,12,18).

The benefits of the medicine used for the preceding disease have contributed to the practice of self-medication **(8)** . Self-medication behaviors are related to how past medication usage was perceived and how effective it was. Multiple studies have documented the benefits of the use of medications and self-medication (20,24).

Because of high cost of living pregnant women can't afford high hospital expenses. This deters many pregnant women from seeking professional medical help (7). The costs associated with consultations, diagnostic tests, and prescribed medications can be prohibitive, especially for those without health insurance (15). As a result, many opt for self-medication, which appears more affordable and accessible. This financial barrier drives them to seek over-the-counter medications or traditional remedies to manage their health issues (8,12).

A positive outcome from using medication previously without medical consultation reinforces the behavior of self-medication (25). If the medication effectively resolved their health issue in the past, pregnant women are likely to use the same remedy again, trusting its efficacy(26–28).

Lack of awareness about the legal requirements for prescription medications contributes to self-medication. Many pregnant women do not know that certain medications should only be taken under medical supervision, particularly in rural areas where educational levels are lower. This ignorance makes it easy for them to obtain and use medications without considering the legal implications (26,29).

2.2 Influence of family, friends, environment and social networks on the self-medication of pregnant women.

Pregnant women often turn to their friends and social networks for advice on managing common pregnancy-related ailments. Friends who have had similar experiences may recommend certain medications or remedies that worked for them, thereby fostering a sense of trust and shared knowledge, they also can get access to medication through the availability of pharmacies, and have information through advertisements on different medications in media. All this can affect the practice of self-medication. Different studies report the relationship between access to media and self-medication during pregnancy (4,28,30).

Distance has been one of the factors contributing to most complications arising from health issues related. Participants who are residing far from health facilities show to self-medicate compared to those who are residing near. Studies from Ghana and Nigeria show the same findings, where long travel distance to the health care facility was the factor for pregnant women to self-medicate (31,32).

Social behaviour has a strong impact on human life especially in developing counties like Tanzania. Traditional ways of healing different diseases differ from one culture to the other. Culture can affect the practice of self-medication in traditional ways of self-curing disease. Different studies report pregnant women feel that herbal remedies are a good sub- statute for some chemical drugs because of their low side effects (12,24).

Pregnant women's use of self-medication is significantly influenced by lengthy wait periods at medical facilities. Many women seek for quicker alternatives, such self-medicating with over-the-counter pharmaceuticals or utilizing leftover medications from past prescriptions, due to the difficulty and time-consuming nature of waiting for medical attention (6,7,12).

3.0 METHODOLOGY

3.1 Study and Design

A qualitative, phenomenological, descriptive study design was used to explore self-medication among pregnant women attending ANC at IRRH.

3.2 Study population

Pregnant women attending ANC at Iringa Regional Referral Hospital (IRRH) of any gestational age.

3.3 Study context

This research was carried out at Iringa Regional Referral Hospital, situated in the Iringa Region. As per the 2022 national census, the population of Iringa Region was 1,192,728 (27). Iringa Regional Referral Hospital is one of the 28 Regional Referral Hospitals in Tanzania. It is located in the southern highland's region, where there is limited data on the reasons for self-medication among pregnant women attending ANC compared to the northern and coastal areas.

There is one pharmacy that caters to both cash-paying and insured patients. The hospital followed standard protocols for drug dispensing. It ensures that all medications were distributed based on physicians' prescriptions and established guidelines.

Approximately 350 pregnant women visit the antenatal care clinic at IRRH every month. The ANC clinic operates every day from Monday to Friday, starting at 9:00 am and ending at 3:30 pm, catering to both high-risk and low-risk pregnant women. Pregnant women are registered and directed to specific clinics. One group of pregnant women is attended to directly by the doctors, while others are seen by the nurses on duty at RCH for initiation of the antenatal clinic card before being seen by the doctors, if it's their first contact. However, if any danger signs are observed, they are directed to the doctors' room after registration, and education is personalized. Pregnant women receive 30 minutes of group education before being attended.

3.4 Study Duration

This study was conducted from **3rd November 2022 to 28th june 2024**.

3.5 Sampling Technique

In a 30-minute health education session, the Principal Investigator allocated 10 minutes to elucidate the study's purpose on self-medication among pregnant women, underscore the significance of their involvement, and emphasize the voluntary nature of participation. The women were informed that participation was open to those who had self-medicated during pregnancy as well as those who had not, and that there would be no monetary compensation. However, their participation would contribute to the enhancement of care for pregnant women. The confidentiality of the collected information was stressed, with the assurance that it would only be shared within the research team. The study, which would last 30-60 minutes, was scheduled after their clinic activities. Demographic data, including age, parity, self-medication status, education level, marital status, and occupation, were collected using the antenatal card to ensure maximum variability among participants. This process spanned four days, with 6 self-medicating participants consenting to participate on the first day, followed by 6 non-self-medicating participants on the second day. The third and fourth days each saw 6 participants, a mix of self-medicating and non-self-medicating, consenting to join the study. After clinical activities, those who consented to participate in the study were selected from the place where the health education sessions were held in the morning and directed to a specially prepared room for focus group discussions.

3.8 Inclusion and Exclusion Criteria

3.8.1 Inclusion criteria

Pregnant women attending ANC at IRRH.

3.8.2 Exclusion Criteria

Those who did not consent to participate in the study.

Participants who were not able to communicate, those who were deaf, or sick.

3.9 Data collection tool

The discussion was skillfully moderated by the principal investigator, who adeptly utilized the Focus Group Discussion (FGD) guide to guide the conversation. At the outset, the purpose of the study was articulated, setting the stage for active participation from the involved participants. A trained research assistant captured non-verbal cues and expressions in a field notebook, complementing the audio-recorded information and adding depth to the qualitative data. The discussion, which lasted an average of 45 to 60 minutes, was a rich source of qualitative insights. Simultaneously, the team engaged in concurrent data collection and analysis where every day after data collection, debriefing meting were conducted, a methodological approach aimed at refining the interview guide for enhanced research outcomes.

3.10 Data collection process

Reported at Iringa Regional Referral Hospital (IRRH) and the introductory letter were submitted to the Registries Department. The following day, permission was granted to proceed with data collection. The Reproductive and Child Health Nurse in charge explained by the principal investigator the purpose of the study which was to explore the reasons for self-medication among pregnant women attending antenatal clinic. The need for their support in data collection was discussed where a doctor and a nurse were selected to join the team by the nurse in charge. On that day, the purpose of the study was made clear. Before data collection, formal written consent was obtained. The data collection tool was tested (pilot study) in 1FGD which was not included in the study.

The focus group guide used open-ended and non-directive questions to encourage participants to provide in-depth information, corrections were made accordingly, and this was an opportunity for the investigator to learn and observe the interview process and to refine the interview guide to suit the objective. Focus Group Discussion (FGD) took not more than 60 minutes. The principal investigator, qualitative research expert, and two trained research assistants (1 Nurse from ANC and 1 doctor) who were selected by the RCH nurse in charge conducted focus group discussions. The interview was audio-recorded with consent. Both an audio recorder for voice recording and a notebook were used to record nonverbal events during the interview, such as crying, smiling, or changes in facial cues.

On the first day, the qualitative research expert led the team along with the principal investigator who asked the probing questions, a nurse selected from the Reproductive and Child Health (RCH) department was assigned as the timekeeper. This nurse's role was strictly observational and focused on ensuring the proper timing during discussion without interfering in participants contributions, and the doctor took notes. Then in the following sessions, the PI and two research assistants proceeded with the discussion. Before discussion, the participants were briefed on the significance of the study. To maintain anonymity, each participant was assigned a number as their identity during the discussions. A scenario was presented to the participants to stimulate the discussion aiming to regulate participation and encourage equal involvement. A debriefing session was conducted at the end of the FGD to ensure the quality of the recording, consistency, and to identify new gaps and signs of data saturation through repetition of information. There was concurrent data collection and analysis to allow improvements to the discussion guide. The discussion guide was updated daily after the FGD depending on the developing themes during debriefing meetings.

3.11 Data Analysis

After conducting four focus group discussions, the principal investigator transcribed them verbatim with the help of research assistants. The data analysis was carried out in six phases, using thematic analysis as outlined by Braun and Clarke(33). First, the transcribed data was carefully read multiple times to fully grasp its meaning, incorporating field notes and non-verbal cues to enhance understanding. Next, the QDA Miner Lite software was used to generate initial codes from one transcript, which was then shared with four other researchers working on a qualitative study for independent coding. A group discussion was held to reconcile any discrepancies in the codes, with the principal investigator making final decisions as needed to align with the study objectives. The resulting abstracted codes were shared among all authors, and agreed-upon codes were finalized. Similar codes were grouped together, and sub-themes were derived through constant comparison and discussion of their similarities and differences. These sub-themes were then organized to form themes reflecting the explicit content of the discussions.

3.12 Data Quality Control

Field notes, transcripts, and digital audio recorders were kept confidential and only accessible to the investigator. All were collected and locked by the principal investigator every day after the data collection activity. There was direct involvement of the principal investigator during all periods of data collection. Also, the open group coding was done to ensure the actual data was considered and not the researcher's idea, and constant communication with supervisors during the time of data collection to ensure the validity of the collected data.

3.13 Ethical Clearance and Consideration

Ethical clearance was requested through the Muhimbili University of Health and Allied Sciences' Institutional Review Board (IRB)-**(MUHAS-REC-09-2023-1901).** The permission to conduct this study was obtained from Iringa Regional Referral Hospital. Written informed consent was sought from pregnant women after the purpose of the study and the rights to withdraw from the interview were explained. Confidentiality was maintained throughout and after the study. Participants were not coerced into the research and were free to leave at any time. No names or other personal details were used. The voices that were captured and the papers were all stored privately. The interview took place in a comfortable setting with the utmost confidentiality guaranteed.

4.0 RESULTS

Table 1: Characteristics of study participants

The demographic profile of pregnant women who attended ANC at IRRH who participated in the FGDs are presented in Table 1. It also outlines statuts of self-medications. The participants' ages ranged from 21 to 37, with varying levels of gravidity and marital statuses, with the majority being married. Self-employment is the most common occupation, followed by employment and housewife. Education levels vary from primary to higher level of education, with secondary education being the most prevalent. It is worth noting that self-medication is a prevalent practice among all demographics of pregnant women attending ANC at IRRH.

Table 1: Participants demographic characteristics and status of self-medication

	AGE	GRAVIDITY	MARITAL	OCCUPATION	EDUCATION	SELF MEDICATION
P1	28	1	Not married	Self-employed	Secondary	Self-medicate
P2	21	1	Not married	Self-employed	Secondary	Self-medicate
P3	25	3	Married	Employed	Secondary	Self-medicate
P4	30	2	Self-employed	Self-employed	Primary	Self-medicate
P5	33	2	Married	Self-employed	Primary	Self-medicate
P6	29	1	Not married	Employed	Higher level	Self-medicate
P7	28	1	Married	Self employed	Secondary	Self-medicate
P8	34	3	Married	Employed	Higher level	Not self-medicate
P9	32	1	Married	Employed	Secondary	Self-medicate
P10	37	1	Married	Employed	Higher level	Not self-medicate
P11	29	1	Married	Self-employed	Secondary	Self-medicate
P12	27	2	Not married	Self-employed	Primary	Self-medicate
P13	35	1	Married	Self-employed	Higher level	Not self-medicate
P14	25	1	Married	Self-employed	Higher level	Self-medicate
P15	35	3	Married	Employed	Higher level	Not self-medicate
P16	32	5	Married	Employed	Higher level	Self-medicate
P17	29	2	Married	Self-employed	Higher level	Self-medicate
P18	22	1	Married	Housewife	Higher level	Not self-medicate
P19	26	2	Married	Employed	Higher level	Not self-medicate
P20	28	2	Married	Self-employed	Secondary	Not self-medicate
P21	27	1	Married	Self-employed	Secondary	Not self-medicate
P22	28	3	Married	Self-employed	Secondary	Not self-medicate
P23	25	2	Married	Employed	Higher lev	Not self-medicate
P24	33	4	Married	Employed	Higher level	Not self-medicate

The study analysis identified two main themes: environmental and personal factors. Each theme has several subthemes with supportive quotes, as shown in Table 2.

Table 2: Themes and subthemes from the analysis of self-medications

S/N	THEMES	s/n	SUBTHEMES	QUOTES
1.	ENVIRONMENTAL FACTORS	I.	Community culture and family experience	..." *individuals in our society tend to self-diagnose and purchase medication without seeking medical advice, even for minor ailments (FGD2-P1)".*
		II.	Receiving directive from a respectful family member	*..." sometimes I get sick at night and I can explain it to someone who is experienced and give me the medication which I find working (FGD1-P6)".*
		III.	Long waiting time at the health facility	*... "seeking treatment at the hospital would require a three-to-four-hours commitment…. (FGD2-P2)."*
		IV.	Living far from where health facilities are located	*"...It feels lazy to go to the hospital because it depends on where you are staying…''(FGD4-P1).*
		V.	Easy access to medication in the community	*... "it would be better if I go to the pharmacy and buy the medicines myself... (FGD1-P5)"*
2.	PERSONAL FACTORS	I.	Positive outcomes after medication use.	*... "he went to his community and the people around him advised him to use some herbal medicine and he used it and it helped him, so he directly believes in the other place than the hospital (FGD2-P5)".*
		II.	Lack of time to seek care	*..." You find that I'm occupied with work and if I think of going to the hospital, it will affect my activities…" (FGD3-P5)".*
		III.	Unaware of the law for medication prescription	*..." However, these rules of using medicine before going to the hospital are not well-known Perhaps only to few, especially in the rural villages, many will tell you that our ancestors did not go to hospitals; they used these remedies instead (FGD2-P5)".*

IV.	Cost of Medications	*… "When you consider the costs you encounter, realizing that others who do not have insurance, like those living in rural areas, cannot afford it When they go to the hospital, they worry about the high expenses (FGD2-P2)".*
V.	Pregnancy related disease and conditions	… "Because *there was one year when I once got pregnant with those pains, it led me to go and buy medicine at the pharmacy (FGD2-P2)".*
VI.	urgency and time sensitiveness	*… "If you go to the hospital, you will be treated, but it will take time Why not use herbal medicine? It will be a faster service (FGD2-P2)".*

Theme one: **ENVIRONMENTAL FACTORS**

This theme explores how environmental factors contribute to pregnant women self-medicate. The environment includes the community surroundings that necessitate a pregnant woman to self-medicate. Limited access to medical care, long waiting times at health facilities, low socioeconomic status, cultural beliefs, easy availability of medication and family experience to self-medication are responsible for self-medication.

Community culture and family experience with self-medication

Imitating the community's common practice of self-medication

Participations have reported that they observe a tendency in society to resort to self-medication without seeking medical advice. It was learned from this study that pregnant women commonly resort into buying medications in the drug shops or using herbal medication. They reported that self-medication is a common practice in the community, and they assume the diseases they are suffering are minor to make them seek treatment in the health facility. It is a general attitude of the community to consider self-medication. It is perceived as a non-issue promoting many people in the community to self-medicate without consulting a doctor even during their pregnancy.

...” *individuals in our society tend to self-diagnose and purchase medication without seeking medical advice, even for minor ailments (FGD2-P1)”.*

The pregnant women also reported that most of the people in the community uses medication but they often get confused and don't know the proper rules in use of medication. Participants acknowledged that only a few who understand the rules of medication use. This is especially true if you visit local villages, where very few people have received education on medicine, but most of people in the rural community uses medication by hearing or receive advice from friends based on their prior experience that sometimes is not correct information regarding use of medication in pregnancy.

... “although the majority of the members of community deceived one another on the use of medication but the rules directing the proper use of medication are not known to a large number of people” (FGD3-P5)”.

But also the existing cultures in our society has been observed to contribute much on self-medication among pregnant women , there traditional in other tribes when a woman become pregnant there some herbs medication they have to use which they believe will help to protect the mother and fetus another respondents explained that the culture that is in the society especially those living in the villages where they have their common practice traditionally, they normally use medication without seeking advice from the doctor or going to the health facility , because this practice has been there since the time of their ancestors hence they consider it to be of a normal practice regardless of the outcome as one said

...” if you go to the local villages, there are very few who understand the hazard of self-medicating, they will tell you that we are born and we have seen our grandmothers not going to the hospital, they use these drugs, why ask in the hospital (FGD3-P5)”.

Receiving directive or advice from a respectful family member

It was also reported during discussion that sometimes pregnant women are being directed/advised by their family members to use medication and therefore it is not respectful to argue with them as they are more experienced. Sometimes these advices come from mother in-

law so according to the existing culture even if you are educated you cannot argue with the mother of your husband that will be regarded as disrespectful. Others had to self-medicate with consultation with their mothers and feel obligated to follow their mother's advice.

> *… "It's possible for one to ask their mother for advice on self-medicating, but it can be difficult to go against the advice of someone who has raised and cared for you and their siblings for so long" (FGD4-P5)".*

The pregnant women mentioned that in their community, many people have gone through various health challenges during pregnancy, so it's not something new or uncommon. They emphasized that they are not the first ones to experience health issues during pregnancy, so when pregnant women get sick people in the community who have experienced advise pregnant women to use local herbs or other drugs especially the elders who are respected and are believed to have encountered a number of challenges this has been proved when one of the respondents said

> ***…"*** *sometimes I get sick at night and I can explain it to someone who is experienced and give me the medication which I find working (FGD1-P6)".*

Also, pregnant women explained that the group of pregnant tends to advise one another to use medication without going to the hospital for advice due to the experience they have been through from past pregnancies this has led to many pregnant women to self-medicate as they see and trust that no harm has occurred to one they had advised from which they had the same presentation then they found themselves self-medicate and not seeing the health care provider for advice or prescription and this has been evidently when one said especially when they are get disturbed with common condition which are caused by physiological changes during pregnancy

> *…" a group of pregnant women can make someone self-medicate without a doctor's prescription, for example, most pregnant women use the medication by hearing advice from someone, when they are told of your disturbed by nausea and vomiting to take this drug pregnant care or by convincing the one to self-medicate (FGD2-P3)".*

Use remaining drugs.

Pregnant women also reported that sometimes when they get sick of the same disease by seen the common symptoms they use they tend to use the medication which was no completed during the last presentation because they think the disease is minor or has the same presentation with the last one, another respondent said you find you have medication which you haven't finished the dose from previously presentation and now because you have them at home when you get sick and find you have the same symptoms as previously which makes you use the medication you tend to use the remaining one or sometimes one of the family member didn't finish the dose and you have the same presentation we normally use the medication to get out that trouble for that moment as one said

> *..." "It is dependent on the situation. Sometimes, I wake up with a headache and remember that I had been given medication earlier for the same reason, which I did not finish. In such cases, I take and use that medication (FGD4-P2)."*

The experience of people in the community.

Pregnant women also reported that in the community that their living people have experienced in different conditions they have suffering and this is not a new thing to the community and their not the first to be sick while pregnant ,so when pregnant women get sick people in the community who have experienced advise pregnant women to use local herbs or other drugs especially the elders who are respected and are believed to have encountered an number of challenges this has been proved when one of the respondents said

> *..." sometimes I get sick at night and I can explain it to someone who is experienced and give me the medication which I find they working (FGD1-P6)".*

Failure to access health facility and services in time

Living far from where health facilities are located

Most of the people in the rural areas stay far from where the health facilities are located. Participants reported that sometimes people feel lazy to travel many hours to get into the health facility, especially when one fells sick during the night. Most people find normal to normal to get medication to the nearby pharmacy. Other participants explained that due to the long distance between their residence and the hospital and therefore they decided to obtain medicine wherever they can find them.

> *… "it is laziness to go to the hospital because it depends on where you are staying. Where I am staying, the hospital is far because, I stay at Kigonzile until I come here it takes hours, maybe my head hurts at night or my stomach hurts at night, I can't go from Kigonzile to the city to get treatment for my head or stomach, so those are the reasons for laziness" (FGD4-P1).*

Long waiting time at the health facility

Pregnant women have reported that they usually spend long hours waiting for healthcare services at the health facility and therefore they decide not to seek care in the health facilities instead get medicine without consulting a doctor. Participants reported that most people can't afford to spend hours waiting at the hospital. They narrated that for the person to seek care in the hospital is a burden to some pregnant women and when they think of the time will spend waiting to be served at the hospital while they just have minor symptoms, they prefer to purchase medicine from nearby pharmacy.

> *… "seeking treatment at the hospital would require a three-to-four-hours commitment. I have heard of a medication that treats nausea. Therefore, I purchased the medication and used it to alleviate my symptoms (FGD2-P2)."*

Easy access to medication in the community

Availability of medicines in drug store

Because of the availability of drug shops in the community makes access to medication to be very easy. Many pregnant women prefer to have this short cut because it is fast and doesn't require the extra charges that you may have to incur when seeking medical help in the health facility. In addition, they reported that sometimes they have to refill medication from the pharmacy when those given in the health facility finishes or when they fell sick at night.

> *… "I often prefer to purchase my own medicines (moderator-Yes). Sometimes, when I visit the hospital, I am given medications but after sometime you find all have been used. So later when I am at home and its night, I may fall sick again (leader- mmmh), therefore, it would be better if I go to the pharmacy and buy the medicines myself (FGD1-P5)"*

Theme two: **PERSONAL FACTORS.**

This theme explores how personal factors affect medication choices and health care decision among pregnant women attending ANC at IRRH. The personal factors include positive experience with medication and belief in its effectiveness can influence the choice, overwarming responsibilities many hinder seeking medical advice, lack of awareness of prescription law, financial constraints, urgent situations, and when the disease is perceived minor.

A positive outcome with the medication used

Belief in the effectiveness of medicine

Pregnant women respond because of them being cured after using medication even without consultation from the doctor , this has led to them have more belief on that medication , because there a times you go to the hospital and you give medication but they don't work an they don't cure the disease you have but when you come to the society and friend and your advice and given a local herbs and they help you so even if you get sick again you will never go to the hospital because the first time you went you didn't get cured , this has been evidently when one said

..." because someone may have gone to the hospital and got those medicines but did not help him, he went to his community and the people around him advised him to use some herbal medicine and he used it and it helped him, so he directly believes in the other place than the hospital (FGD2-P5)"

Lack of time

Lack of time to seek care

It was reported that due to the responsibilities the pregnant women had for the family and when she think that she is supposing to also prepare to care of the coming new baby , when they get sick they see that going to hospital will take process and time and that will interfere with work which she depends on her daily survival this make her choose to self-medicate also they respond because of being busy then they have to find the easy way to treat themselves and continue with their work as it has been said by one respondent that

..." You find that I'm occupied with work and if I think of going to the hospital it will affect my activities, so I find something to cool me down quickly and continue with my activities, because I have to prepare myself to care for the coming baby (FGD3-P5)".

Unaware of the law on use of prescribed medication

It has been reported that despite that there is misinformation among the society regarding the use of medication without consultation of a doctor but also pregnant women they are not familiar with the existing law which guide the process of buying and selling medications and because of the easy access of the medication to the available pharmacy hence this seem to be a normal thing to them , it also been observed it is even worse when you go to rural area where majority doesn't have formal education, this has been evidently when on said

..." However, these rules of using medicine before going to the hospital are not well-known Perhaps only to few, especially in the rural villages, many will tell you that our ancestors did not go to hospitals; they used these remedies instead (FGD2-P5)".

Cost of medication

Lack of health insurance

Pregnant women responded that it is very costly to go to the hospital because it will need one to pay for the consultation fee and do some other investigations while you find some have only money for buying medication and this makes them to opt for pharmacy because it doesn't involve all the cost also another respondent said sometimes the prescribed medication are very expensive and if you compare with local herbs you prefer to go for it because it is cheap and this is because most of the pregnant women they don't have health insurance both in rural and urban but mostly in rural areas as one said

> *…" When you consider the costs you encounter, realizing that others who do not have insurance, like those living in rural areas, cannot afford it When they go to the hospital, they worry about the high expenses (FGD2-P2)".*

Pregnancy related disease and conditions

Experience on condition had on previously pregnancy

It has been reported that pregnant women who are multigravida they assume to have experience on the condition that they had on the previous pregnancy and hence compare it with the current and think it to be the same also this make them have courage to self-medicate because they once did and nothing happened , and because everyone has different understanding because of different condition they have encountered when they were pregnant hence they take it as stand point for them to self-medicate due to that past experience and also may advice one to use the same medication because of her experience of the disease

> ..." *Therefore, one can use the situation they have experienced, perhaps facing a pregnancy challenge, and use a certain herbal remedy or a medicine purchased from a store that helped them So they might think also may help you too, because you have a similar issue or pregnancy challenge and you could benefit from the same medicine they used (FGD2-P4)".*

Pregnancy-related pain.

Pregnant women responded because of the pain they encounter while they pregnancy which is back pain, knee pain and headache and because it occurs frequently then this made them to self-medicate but also one had acute abdominal pain and it is not feasible for quickly reaching the hospital hence decide to purchase it to nearby pharmacy as it was said

...” *Because there was one year when I once got pregnant with those pains, it led me to go and buy medicine at the pharmacy (FGD2-P2)”*

problem during pregnancy to be not serious

It has been reported that despite the pregnant women being close to the hospital but because what she is suffering from is nausea and vomiting or just headache then pregnant women opt to self-medicate , but other because get sick at night and can self-explain on her challenge they opt to go to nearby pharmacy , some they feel lazy going to hospital because it is far from where they stay and they report to have only headache or abdominal pain which they consider it to be minor issues as one said

...” It depends on the problem; if you have a headache, you can even ask a motorcycle driver to go to the pharmacy and bring you Panadol or Diclofenac or any other stomach medicine without going to the hospital We often do this pregnant woman (FGD1-P1)”.

Urgency and time sensitiveness

Urgency to address the problem

Also, it has been reported pregnant women self-medicate when they are in hurry and the disease of the condition is acute and it needs immediately attention hence when one think of the hospital process decide to self-medicate, also for them to avoid delay of the treatment if they go to the hospital, they opt for local herbs which is easily available and they can access it quickly as one of the respondents said

...” *If you go to the hospital, you will be treated, but it will take time Why not use herbal medicine? It will be a faster service (FGD2-P2)”.*

5.0 DISCUSSION

Health-seeking custom is influenced by environmental and personal factors. This leads many people to choose self-medication or alternative remedies. Community norms and family guidance often encourage self-diagnosis and the use of traditional treatments, especially when facing long waiting times at hospitals or living far from healthcare facilities. Personal factors such as time constraints, the high cost of medical care, and positive experiences with herbal remedies also drive individuals to seek quicker, more affordable options. This tendency is further compounded by a lack of awareness regarding prescription laws, particularly in rural areas.

Attitude toward the self-medication

Pregnant women have reported positive outcomes from self-medication in the past, which strengthens their belief in its effectiveness. For instance, pregnant women mentioned being cured by self-prescribed herbal medicines or over-the-counter drugs when prescribed medications failed. This positive reinforcement creates a favorable attitude toward self-medication, and this predicts on the intention of self-medication in the future when they get sick again, these findings align with the existing literatures of the study done in Tanzania and Iran (6,7,30)The new reason for the current study is that many pregnant women, especially those who are self-employed or housewives, find it crucial to manage their responsibilities for the well-being of their families. Self-medication allows them to maintain their daily routines and meet their obligations without significant disruption. For example, the need to prepare for the arrival of a new baby while managing current responsibilities makes hospital visits impractical, and this encouraging attitude toward self-medication.

The perception that their ailments are minor, such as headaches or nausea, contributes to a favorable attitude toward self-medication. Many pregnant women view these conditions as not warranting a hospital visit and hence contribute to the reasons of pregnant women attending antenatal clinic at Iringa Regional Referral Hospital to self-medicate this finding are consistent with similar findings observed from the study in Ethiopia and Italy (4,18,23)

Community Culture

The community's widespread practice of self-medication significantly impacts pregnant women. The societal norm, observed through the actions of family members and peers, endorses self-medication as a common and acceptable practice as it has been reported that Individuals in the society tend to self-diagnose and purchase medication without seeking medical advice, even for minor ailments and because this has been there since the time of their ancestors, they consider it normal. These findings align with existing research highlighting the significant role of social norms and familial influence on health behaviors, the approval of this behavior to the society makes easy for a pregnant woman to self-medicate(12,24) . Additionally, the new reasoned explored by this study was that when pregnant women receive information from other pregnant women, they tend to self-medicate more quickly.

Advice from respected family members, especially elders or mothers-in-law, plays a crucial role for a pregnant woman to self-medicate, because Cultural norms dictate compliance with these directives out of respect, which reinforces the subjective norm of self-medication this is similar to the findings on the study done in Ethiopia which address the self-medication and contributing factors among pregnant women attending antenatal care at public hospital of Harar town (12)

Accessibility and Convenience

The availability of medication in the community, including pharmacies and leftover medications at home, enhances use of unprescribed medication. This easy access reduces barriers to obtaining medication without a prescription lead to potential risks to maternal and fetal health similar to how Nakhai-Pour et al - investigated the use of leftover medication among pregnant women and its association with self-medication practices, emphasizing the importance of proper medication disposal and management (7,34)

Time and Resource Constraints

Long waiting times at health facilities and the high cost of hospital visits increase the perceived difficulty of seeking professional medical advice. This leads to a higher perceived control over self-medicating as a more feasible option to pregnant women attending antenatal clinic at Iringa

Regional Referral Hospital has most of the pregnant women report not to afford spending hours waiting at the hospital and others worrying about the high expenses at Hospitals these findings are consistency with those Brazil and Ethiopia (4,26,35)

5.1 Methodological Consideration

In order for a qualitative study to be considered reliable, the results must be trustworthy(36). To assess the trustworthiness of a qualitative investigation, four factors are used: credibility, dependability, transferability, and conformability (37). The credibility of our findings was ensured through engagement and cross-checking of themes, sub-themes, and findings among research team members. During the data collection phase, we spent a considerable amount of time interacting with study participants before starting the discussion to understand the reasons for self-medication among pregnant women. We also clearly stated the research question and objective of our study. Sharing our findings within the research team and discussing to agree where there were differences of opinions also to support them with codes and quotes were done to ensure that our results are dependable. To ensure conformability of our study the transcript was coded by different individual who are qualitative expert so as to maintain participants response. Our results are transferable to other contexts since the methodological section provides descriptions of the procedures, settings, and methods, making them relevant to other similar contexts. Our study presents reasons for self-medication among pregnant women attending the antenatal clinic at Iringa Regional Referral Hospital. The study gathered valuable data provide in-depth understanding on the reason for self-medication among pregnant women. Despite this strength the study has some limitations. Having prior knowledge of the study topic can lead to bias; therefore, bracketing was applied to mitigate this, and only the participants' ideas were considered in this study. Additionally Conducting interviews with the nurse and doctor might introduce bias, as participants could over or under-report information about the self-medication practice. To mitigate this bias, the researcher employed various interviewing techniques, including probing the same questions differently and approaching the topic with naivety during the interview process.

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Conclusion Easy access to prescribed medication when a pregnant woman has many responsibilities, advice from the peer group of their fellow pregnant women, and advice from respected family members or friends, played a significant role in self-medication practices.

6.2 Recommendation

Ministry of Health should put more emphasis and education on the impact and danger of using drugs without a prescription during pregnancy through media. Healthcare providers should include information on the consequences of self-medicating during pregnancy through antenatal care health education, further, we recommend research to evaluate the impact of self-medication during pregnancy-on-pregnancy outcomes and explore why some pregnant women do not engage in self-medication.

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APPENDICES

Appendix I: Consent form – English Version an informed consent form Participants (English version)

MUHIMBILI UNIVERSITY OF HEALTH ALLIED SCIENCES

DIRECTORATE OF RESEARCH AND PUBLICATION

ID. No. _____

Introduction

I am Dr. Edward Mhina a postgraduate student from Muhimbili University of Health and Allied Sciences (MUHAS) pursuing a Master of Medicine in Obstetrics & Gynecology. I am conducting research titled: **SELF MEDICATION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT IRINGA REGIONAL REFERRAL HOSPITAL**

I am kindly inviting you to participate in this study because you can help give out the information needed for this research. Once you accept to participate in this study you will be required to sign and we shall have an interview in a quiet area with privacy. The interview will be audio-recorded because it is difficult to write everything. If you have any questions or you need more clarification, please don't hesitate to ask. I hope that you will participate and share your valuable information.

The aim of the study: This study aims to explore reason for self-medication among pregnant women attending the antenatal clinic at Iringa Regional Referral Hospital

Confidentiality: All information and matters about your participation will strictly be kept confidential, no unauthorized person will have access to them except the researcher. The audio-recorded files will be accessed through the use of a password which will be kept by the principal investigator. No, information will be linked to the research participant; therefore, numbers will be assigned instead of names.

Right to refuse or withdraw participation: The decision to participate in this study is voluntary, you are free to decide whether to participate or not. You may stop participation any time you feel so, however, your participation is highly beneficial for this study.

Benefits; The information you share will help to address challenges that are encountered by self-medication during pregnancy. Furthermore, it will augment the formulation and implementation of prevention strategies, and guidelines, improving the service in healthcare facilities as well as the formulation of policy to improve services regarding self-medication during pregnancy.

Risk: There will be no harm as a result of your participation, however, some questions may disclose your personal information and trigger your emotions and feeling. If this situation occurs during the interview, you may stop and withdraw participation.

Reimbursement: No compensation/reward will be given for participation in this study.

Whom to Contact: In case of any questions about this study, kindly contact the principal investigator Dr. Edward Mhina Muhimbili University of Health and Allied Sciences (MUHAS), P.O.BOX 65001, Dar-es-salaam. Mobile No.0652648737.The chairperson of the Research and Publication Committee Dr. Nahya Salim Masoud, MUHAS. P.O.BOX 65001, Dar-es-salaam. Supervisor of Research Dr. Lilian R Mnabwiru Mobile No.0784724903 and

Co-Supervisor Dr. Furaha August Mobile No.0754304250.

This is to inform you that I _____ have read and understood the content of this form, and I agree to participate voluntarily in this study.

Signature of participant _____

Date of signed consent _____

Appendix II: Consent form – Swahili Version

Swahili version)

Kiambatanisho D: Fomu ya ridhaa kwa Mshiriki

No. ya fomu ____

CHUO KIKUU CHA AFYA NA SAYANSI YA TIBA MUHIMBILI

KURUGENZI YA UTAFITI NA MACHAPISHO

Utangulizi

Naitwa Dkt.Edward Mhina ni mwanafunzi wa shahada ya uzamili ya sayansi katika fani ya magonjwa ya Uzazi na wanawake katika chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili (MUHAS). Nafanya utafiti **UNAOLENGA KUCHUNGUZA SABABU ZA MATUMIZI BINAFSI YA DAWA KWA WAJAWATIZO WANAO HUDHURIA KLINIKI YA WAJAWAZITO KATIKA HOSPITALI YA RUFAA YA MKOA IRINGA**. Naomba ushiriki wako katika utafiti huu kwasababu unaweza kunipa taarifa zinazohitajika kwa utafiti huu.Ukikubali utapewa kitabu cha muongozo wa mahojiano pamoja na fomu ya kukuomba idhini ya ushiriki katika utafiti huu na tutakaa sehemu yenye ukimya na usiri. Sauti yako itarekodiwa wakati wa mahojiano ili kurahisisha uhifadhi wa kumbukukumbu. Endapo una swali au unahitaji ufafanuzi kuhusu kipengele chochote kile usisite kuniuliza. Natumaini utashirikiana nami kwa kunipa taarifa kuhusu utafiti huu.

Lengo la utafiti huu ni - Kuchunguza matumizi binafsi ya dawa na kujitibu kwa wajawazito wanaohudhuria kliniki ya wajawazito katika Hospitali ya Rufaa ya Mkoa wa Iringa.

Usiri: Taarifa za ushiriki wako ni siri na hakuna mtu yeyote asiye husika atakaye ruhusiwa kuziona wala kuzifatilia isipokuwa Mtafiti peke yake. Sehemu ya mahojiano yako itakayorekodiwa itatunzwa sehemu salama na majina yako hayatatumika katika nakala yeyote ya utafiti huu, badala yake namba zitatumika.

Ushiriki wa hiari /haki ya kukataa au kujitoa: Ushiriki wako katika utafiti huu ni wa hiari, kwa hiyo uko huru kuamua kushiriki au kutoshiriki. Unaweza kujitoa kushiriki muda wowote itakapobidi, Japo ushiriki wako una manufaa na tija katika utafiti huu.

Faida: Ushiriki wako katika utafiti huu utasaidia kugundua changamoto zinazopelekea matumizi binafsi ya dawa kwa wajawazito . Sambamba na hilo, utafiti huu pia utasaidia katika utengenezaji na utekelezaji wa miongozo na sera katika ngazi mbalimbali za utoaji huduma za afya ili kuboresha huduma na kuondoa tatizo hili.

Madhara: Hatutegemei ya kwamba utapata Madhara yeyote kwa ushiriki wako katika utafiti huu, ingawa baadhi ya maswali utakayoulizwa ni ya kibinafsi na yanaweza kuibua utofauti wa kihisia na mawazo. Endapo hali hii itajitokeza wakati wa mahojiano unaruhusiwa kutokujibu swali lolote na kujiondoa katika ushiriki.

Fidia: Hutapata fidia/zawadi katika kushiriki kwako kwenye utafiti huu.

Watu wa kuwasiliana nao: Kama utakuwa na swali lolote kuhusiana na utafiti huu, tafadhari wasiliana na Mtafiti mkuu Dkt Edward Mhina, Chuo kikuu cha Afya na Sayansi ya Tiba Muhimbili, S.L.P 65001, Dar-es-salaam. Simu No.0652648737.Mwenyekiti wa kamati kuu ya chuo ya utafiti na machapisho, Dkt. Nahya Salim Masoud, MUHAS. S.L.P 65001, Dar-es-salaam. Simu No. +2556-079186. Msimamizi wa Utafiti Dkt. Lilian R Mnabwiru Simu No.0784724903 na msimamizi msaidizi Dkt. Furaha August Simu No.0754304250

Nathibitisha kwamba Mimi _____ nimesoma na kuelewa kilichoandikwa

Tarehe _____

Saini ya mtafiti_____

Appendix III: Questionnaires

Appendix A: A semi-structured interview guide (English version)

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

SCHOOL OF CLINICAL MEDICINE

Interview No. [ ]

Introduction

I am Edward Mhina a postgraduate student at Muhimbili University of Health and Allied Sciences, I would like to thank you for your approval and acceptance to be among the interviewee in this research**.** The interview will consist of four major questions with their probes which will be held for 60 minutes. The digital recorder and notebook will be used to record the information during the interview. If you are uncomfortable responding to a certain question, please feel free to do so. However, your cooperation is highly appreciated.

The purpose of the study: To explore reason for self-medication among pregnant women antenatal clinic at Iringa Regional Referral Hospital.

Is there any question or an area for clarification from what I have explained to you?

Interview Guide:

Introduction-

What is your age, parity, marital status, level of education and occupation? Ask before FGD FOR EVERY PARTICIPANT

1. INDIVIDUAL ATTRIBUTES INFLUENCING SELF-MEDICATION AMONG PREGNANT WOMEN.

. What are the disturbing symptoms during pregnancy?

- Probes-
- At what time do you experience more?
- Can it make you self-medicate? Why?
- Question: What do you think about taking medicine without a doctor's advice during pregnancy?
- Probes:
    - Can you tell me about when you decided to take medicine alone while pregnant?
    - How do you decide if it’s okay to take medicine on your own when you’re pregnant?
    - Do you worry about anything when you take medicine during pregnancy?

B. Experience and Perception of Self-Medication:

- Question: Can you share your experiences and thoughts about taking medicine without a doctor's advice while being pregnant?
- Probes:
    - Have you taken any medicine without asking a doctor during this pregnancy? Can you tell me what happened?

- How did you feel about taking the medicine? Was it a good or bad experience?
- Where do you usually find information about what medicine is safe to take during pregnancy?

3. Influence of Family, Environment, Friends, and Social Networks:

- Question: How do your family, friends, or people around you affect your decision to take medicine on your own during pregnancy?
- Probes:
    - Can you remember a time when someone you know influenced your decision to take medicine during pregnancy?
    - How do the opinions of your family and friends make you feel about taking medicine during pregnancy?
    - Are there things that people in your community believe about taking medicine during pregnancy?

Awareness of Self-Medication Practice:

- Question: How much do you know about safe ways to take medicine on your own during pregnancy?
- Probes:
    - Do you know about any rules or suggestions about taking medicine while pregnant?
    - Where do you learn about what medicine is safe during pregnancy?
    - Do you think many people in your community know about the good and bad sides of taking medicine during pregnancy?

Appendix IV: Dodoso

Appendix B: A semi-structured interview guide (Swahili version)

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

SCHOOL OF CLINICAL MEDICINE

Nambari ya mshiriki ☐

Utangulizi

Naitwa Dkt.Edward Mhina ni mwanafunzi wa shahada ya uzamili ya sayansi katika fani ya magonjwa ya Uzazi na wanawake katika chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili (MUHAS). Napenda kukushukuru kwa kujitolea kwako katika kushiriki mahojiano ya utafiti huu. Mahojiano hayo yatakuwa na maswali vipengele vinne ambayo yatafanyika kwa muda wa dakika 60. Wakati wa mahojiano Sauti yako itarekodiwa na baadhi ya maneno yatanukuliwa kwenye daftari ili kurahisisha uhifadhi wa kumbukukumbu. Uko huru kueleza kama hutajisikia kujibu swali lolote, japo tunathamini ushiriki wako.

Lengo la utafiti- Kuchunguza sababu zinazopelekea matumizi binafsi ya dawa na kujitibu kwa wajawazito wanaohudhuria kliniki ya wajawazito katika Hospitali ya Rufaa ya Mkoa wa Iringa.

Kutotakana na nilichokueleza una swali lolote au kuna sehemu unahitaji maelezo ya ziada?

MAHOJIANO MWONGOZO:

Utangulizi

Swali –**Tafadhali** Unaweza niambia umri wako, uzao wa ngapi,hali ya mahusiano,kiwango chako cha elimu na unafanya kazi gani **? ULIZA KABLA YA KUANZA MAHOJIANO.**

1. SABABU BINAFSI ZINAZOPELEKEA KUJITIBU WAKATI WA UJAUZITO. Swali-Labda ningependa kujua unapokuwa mjamzito huwa unatumia dawa unazopewa na daktari au unazo nunua mwenyewe?

Katika jamii watu wapenda kutumia dawa za hospital au za mitishamba? Je wanalichukuliaje swala hili?

Swali: Unaonaje kuhusu kutumia dawa bila ushauri wa daktari wakati wa ujauzito?

Makini:

Unaweza kuniambia wakati ambapo uliamua kutumia dawa mwenyewe ukiwa mjamzito?

Maamuzi yako ni yapi unapotmia dawa bila ushauri wa daktari?

Je, una wasiwasi kuhusu kitu chochote unapochukua dawa wakati wa ujauzito?

Je, kuna imani au desturi fulani katika jamii yako inayohusu kutumia dawa wakati wa ujauzito?

B. UZOEFU NA MTAZAMO KUHUSU KUJITIBU BILA DAKTARI:

Ni dalili zipi hukusumbua wakati wa ujauzito?

Je? Hizi zinaweza kukupelekea kutumia dawa wakati wa ujauzito ?

Swali: Tafadhali ningependa kujua uzoefu wako na mawazo yako kuhusu kutumia dawa bila ushauri wa daktari ukiwa mjamzito?

Makini:

Je, umewahi kutumia dawa bila kumuuliza daktari wakati wa ujauzito huu? Unaweza kuniambia kilichotokea?

Wapi kawaida unapata habari kuhusu ni dawa gani salama kutumia wakati wa ujauzito?

3. ATHARI ZA FAMILIA, MARAFIKI,MAZINGIRA NA MTANDAO WA KIJAMII:

Swali: tafadhali je waweza niambia ni Jinsi gani familia yako, marafiki, au watu wanaokuzunguka wanavyoathiri uamuzi wako wa kutumia dawa bila ushauri wa daktari wakati wa ujauzito?

Makini:

Unaweza kumbuka wakati ambapo mtu uliyemjua alikuathiri uamuzi wako wa kutumia dawa wakati wa ujauzito?

Maoni ya familia na marafiki yako yana athari gani kuhusu uamuzi wako wa kutumia dawa wakati wa ujauzito?

B. UFAHAMU WA MBINU SALAMA ZA KUJITIBU

Swali: Tafadhali ningependa kujua je unafahamu ni salama kiasi gani kutumia dawa bila ushauri wa daktari wakati wa ujauzito.

Makini:

Je, unajua kuhusu sheria au mapendekezo yoyote kuhusu kutumia dawa wakati wa ujauzito?

Wapi unapopata taarifa kuhusu ni dawa gani salama kutumia wakati wa ujauzito?

Je, unafikiri kuna uelewa wa kutosha katika jamii yako kuhusu faida na madhara ya kutumia dawa bila ushauri wa daktari wakati wa ujauzito?

Appendix V: Ethical Clearances

UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

OFFICE OF THE DIRECTOR – RESEARCH, PUBLICATIONS AND INNOVATION

Ref. No DA.282/298/01 C/1901

Date: 08/09/2023

MUHAS-REC-09-2023-1901
EDWARD MHINA
SCHOOL OF MEDICINE
MUHAS

RE: APPROVAL FOR ETHICAL CLEARANCE FOR A STUDY TITLED: FACTORS AFFECTING SELF-MEDICATION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT IRINGA REGIONAL REFERRAL HOSPITAL

Reference is made to the above heading.

I am pleased to inform you that the Chairman has on behalf of the University Senate, approved ethical clearance of the above-mentioned study, on recommendations of the Senate Research and Publications Committee meeting accordance with MUHAS research policy and Tanzania regulations governing human and animal subjects research.

APPROVAL DATE: 08/09/2023
EXPIRATION DATE OF APPROVAL: 08/09/2024

STUDY DESCRIPTION:

Purpose:
The purpose of this phenomenological qualitative study will be to explore the perceived factors affecting self-medication among pregnant women attending at Iringa Region Referral Hospital clinic.

The approved protocol and procedures for this study is attached and stamped with this letter, and can be found in the link provided:
https://irb.muhas.ac.tz/storage/Certificates/Certificate%20-%2014844.pdf and in the MUHAS archives.

The PI is required to:

1. Submit bi-annual progress reports and final report upon completion of the study.
2. Report to the IRB any unanticipated problem involving risks to subjects or others including adverse events where applicable.
3. Apply for renewal of approval of ethical clearance one (1) month prior its expiration if the study is not completed at the end of this ethical approval. You may not continue with any research activity beyond the expiration date without the approval of the IRB. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.
4. Obtain IRB amendment (s) approval for any changes to any aspect of this study before they can be implemented.
5. Data security is ultimately the responsibility of the investigator.
6. Apply for and obtain data transfer agreement (DTA) from NIMR if data will be transferred to a foreign country.
7. Apply for and obtain material transfer agreement (MTA) from NIMR, if research materials (samples) will be shipped to a foreign country,
8. Any researcher, who contravenes or fail to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine as per NIMR Act No. 23 of 1979, PART III section 10 (2)
9. The PI is required to ensure that the findings of the study are disseminated to relevant stake holders.
10. PI is required to be versed with necessary laws and regulatory policies that govern research in Tanzania. Some guidelines is available on our website https://drp.muhas.ac.tz/.

Dr. Nahya Salim Maseud,
Chairperson, MUHAS Research and Ethics Committee

Muhimbili University of Health and Allied Sciences
DIRECTOR
Research, Publications & Innovations
Box 65001

Appendix VI: Introduction Letter

UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR – POSTGRADUATE STUDIES

In reply quote;
Ref. No. HD/MUH/T.123/2021

24th September, 2023

The Medical Officer In-Charge,
Iringa Regional Referral Hospital,
P.O. Box 260,
IRINGA

Re: INTRODUCTION LETTER

The bearer of this letter is Edward Mhina (HD/MUH/T.123/2021), a student at Muhimbili University of Health and Allied Sciences (MUHAS) MMed. Obstetrics/Gynaecology.

As part of his studies he intends to do a study titled: **"Factors Affecting Self-Medication Among Pregnant Women Attending Antenatal Clinic at iringa Regiona Referral *Hospital.*"**

The research has been approved by the Chairman of University Senate.

Kindly provide him the necessary assistance to facilitate the conduct of his research.

We thank you for your cooperation.

Ms. Victoria Mwanilwa
For: DIRECTOR, POSTGRADUATE STUDIES

c.c Edward Mhina

Appendix VII: Permission Letter

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH

IRINGA REGION

Tel: 026 2702264
Fax No. 0262702264
In reply please quote:

Medical Officer In charge,
Kinondoni Street,
P.O.Box 260,
IRINGA.

Ref. No. IRRH/E.10/16/Vol. XXXII/101

03th September, 2023

Director Postgraduate Studies
Muhimbili University of Health and allied Science
P. O. Box 85001,
IRINGA.

REF: PERMISSION TO CONDUCT RESEARCH AT IRINGA REGIONAL REFERRAL HOSPITAL.

Refer to the heading captioned above and a letter with **Ref. No. HD/MUH/T.123/2021** dated 24rd Septemba, 2023.

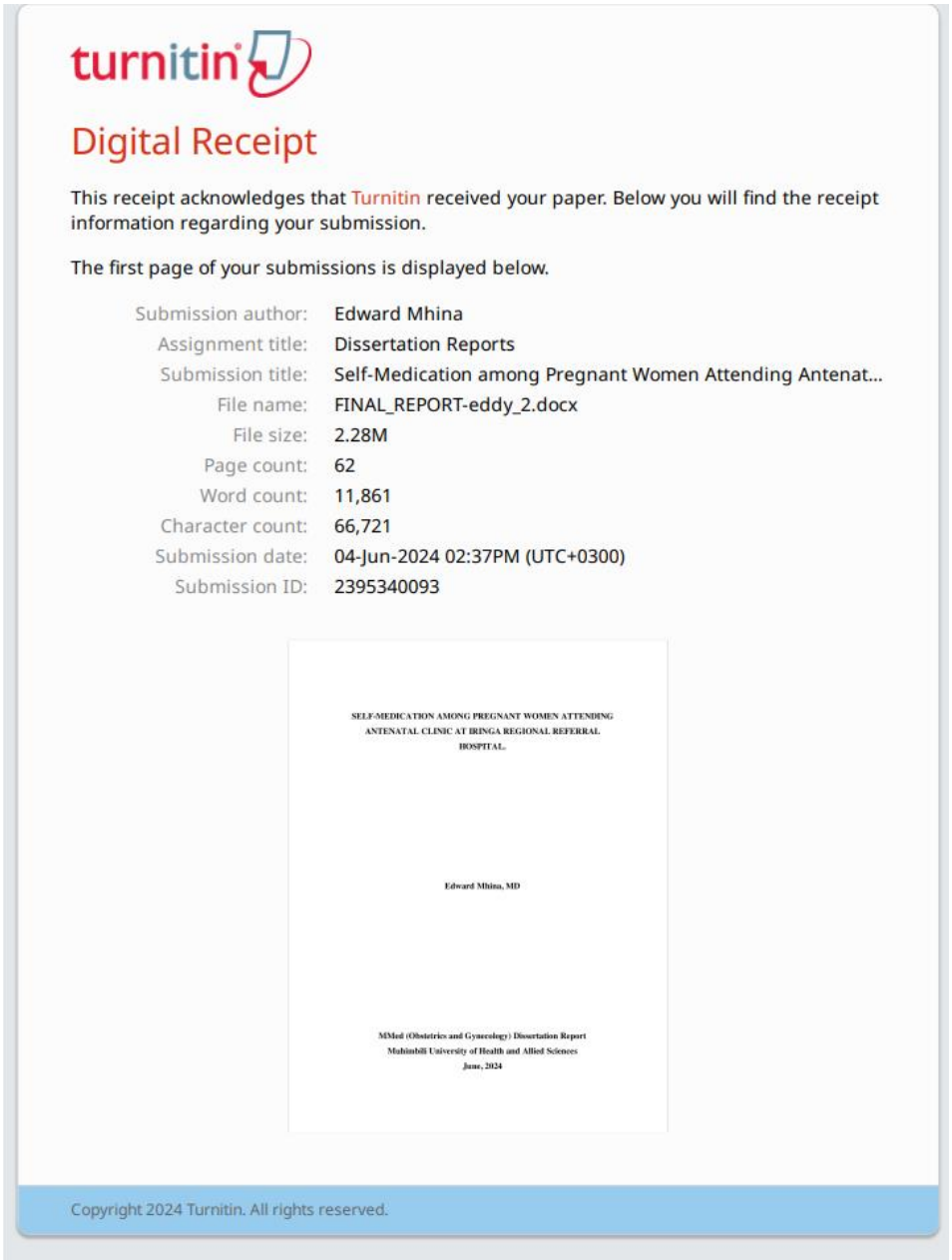
2. I am glad to inform you that permission has been granted to your student **Edward Mhina** to conduct research at Iringa Regional Referral Hospital. Research titled "**Factors Affecting Self - Medication** Among **Pregnant Women Attending Clinic at Iringa Regional Referrah Hospital**".

3. It is my sincere hope that ethical issues and hospital protocols shall be observed.

4. Thanks for your cooperation.

Hussein Said
For: Medical Officer Incharge
Iringa Regional Referral Hospital

Appendix VIII: Turnitin



turnitin

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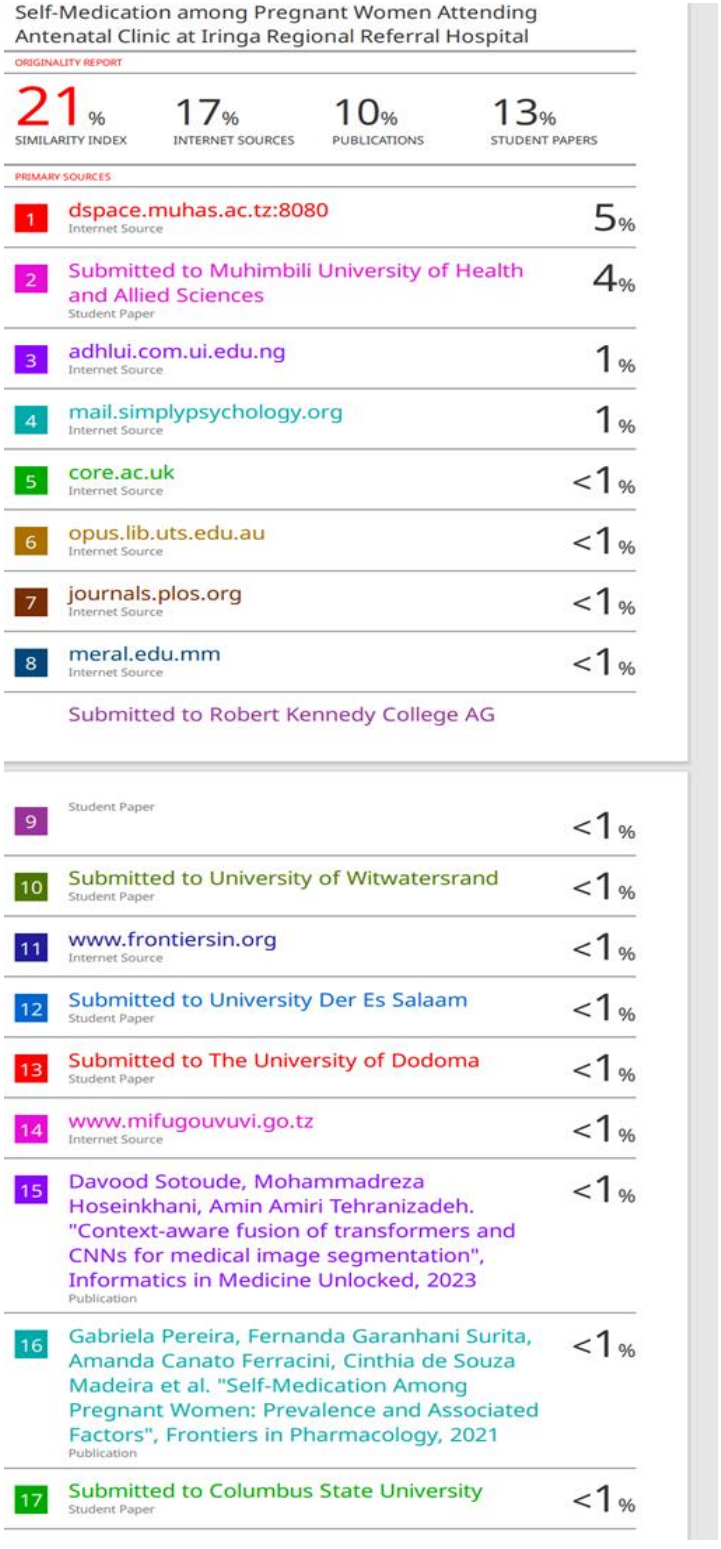
SELF-MEDICATION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT IRINGA REGIONAL REFERRAL HOSPITAL.

Edward Mhina, MD

MMed (Obstetrics and Gynecology) Dissertation Report
Muhimbili University of Health and Allied Sciences
June, 2024

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Appendix IX: Plagiarism



Self-Medication among Pregnant Women Attending Antenatal Clinic at Iringa Regional Referral Hospital

ORIGINALITY REPORT

21%	17%	10%	13%
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