INFLUENCE OF MASS MEDIA MESSAGES IN PROMOTING EARLY ATTENDANCE TO ANTENATAL CLINICS AMONG PREGNANT WOMEN IN MUFINDI DISTRICT COUNCIL

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By

REHEMA MUGETA

A Dissertation Submitted in (Partial) Fulfillment of the Requirements for the Degree of Master of Science in Behaviour Change Communication for Health of Muhimbili University of Health and Allied Sciences

October, 2024

CERTIFICATION

The undersigned certifies that they have read and hereby recommends for acceptance by the University of Muhimbili Health and Allied Sciences a dissertation entitled "**Influence of mass media messages in promoting early attendance to antenatal clinics among pregnant women in Mufindi district council"** and recommend its approval by Muhimbili University of Health and Allied Sciences in (partial) fulfillment of the requirements for the degree of master of Science in Behaviour Change Communication for Health of the Muhimbili University of Health and Allied Sciences.

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Date

DECLARATION AND COPYRIGHT

I, **REHEMA MUGETA**, hereby certify that this dissertation is my original creation and that it has not been submitted to any other university for a degree award, similar or otherwise.

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DEDICATION

I dedicate this dissertation to my beloved husband, **Venance Albert**, and my cherished children, **Vania and Vladimir**. Your consistent love, backing, and motivation have formed the bedrock of my academic journey. Throughout the extensive hours of research and writing, your unwavering support has been my source of strength, and your continual presence has infused joy into my life. I acknowledge that this achievement is not solely mine; it reflects our shared dedication, perseverance, and love. I am profoundly grateful for your enduring encouragement and guidance, and I could not have reached this milestone without you. My love for each of you surpasses what words can convey.

TABLE OF CONTENTS

CERTIFICATION i
DECLARATION AND COPYRIGHT ii
ACKNOWLEGMENT iii
DEDICATION iv
LIST OF TABLES viii
LIST OF FIGURES ix
LIST OF ABBREVIATONS x
DEFINITIONS OF TERMS xi
ABSTRACT xii
CHAPTER ONE 1
1.0 INTRODUCTION 1
1.1 Background 1
1.2 Problem statement 2
1.3 Conceptual framework 4
1.4 Rationale 6
1.5 Research question 6
1.5.1 Broad research question 6
1.5.2 Specific Questions 6
1.6 Research objective 7
1.6.1 Broad research objective 7
1.6.2 Specific objectives 7
CHAPTER TWO 8
2.0 LITERATURE REVIEW 8
2.1 Demographic characteristics affecting early ANC attendance 8
2.2 Types of mass media are associated with antenatal clinic attendance among pregnant women. 9
2.3 Perceived benefits of using mass media to promote antenatal clinic attendance among pregnant. 11
2.4 Perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women. 11
CHAPTER THREE 13
3.0 METHODOLOGY 13

3.1 Study design 13
3.2 Study area 13
3.3 Study population 13
3.4 Sample size 13
3.4.1 Sampling technique 14
3.4.2 Sampling procedures 15
3.5 Inclusion and exclusion criteria 16
3.5.1 Inclusion criteria 16
3.5.2 Exclusion criteria 16
3.6 Data collection 16
3.6.1 Data collection tools, validity and reliability issues 16
3.6.2 Training of data collection team 17
3.6.3 Pre- test of data collection instruments 17
3.7 Study variables 18
3.7.1 Dependent variables 18
3.7.2 Independent variable 18
3.8 Data management and analysis 18
3.9 Ethical consideration 19
CHAPTER FOUR 20
4.0 RESULTS 20
4.1 Socio demographic characteristics of the study respondents. 20
4.2 Time of first ANC among pregnant women in Mufindi District Council 21
4.3 ANC Clinic visits 21
4.4 Type of mass media exposed to pregnant women attending ANC clinics in Mufindi District Council 23
4.5 Perceived benefits of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi District Council. 24
4.6 Perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi district Council 25
4.7 Bivariate and multivariate analysis for factors associated with ANC attendance among pregnant women 26
CHAPTER FIVE 29
5.0 DISCUSSION 29

5.1 Antenatal clinic attendance 29
5.1.1 Time of first ANC among pregnant women 29
5.1.2 Number of antenatal clinic visits among pregnant women 29
5.1.3 Type of mass media associated with antenatal clinic attendance among pregnant women 30
5.1.4 Perceived benefits of using mass media to promote antenatal clinic attendance among pregnant women 30
5.1.5 Perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women 31
5.2 Study Limitation. 31
CHAPTER SIX 33
6.0 CONCLUSIONS AND RECOMMENDATIONS 33
6.1 Conclusion 33
6.2 Recommendations 33
7.0 REFERENCES 35
8.0 APPENDEX 41
8.1 ANNEX 1: CONSENT FORMS 41
8.2 APPENDIX 2: CONSENT FORM – SWAHILI VERSION 44
8.3 ANNEX 3: DATA COLLECTION TOOLS 47
8.4 ANNEX 4: QUESTIONNAIRE KISWAHILI VERSION 55
8.5 ANNEX 5; ETHICAL CLEARANCE (1/2) 62
8.6 ANNEX 6: INTRODUCTION LETTER 64
8.7 ANNEX 7: ACCEPTANCE LETTER 65

LIST OF TABLES

Table 1: Distribution of study participants from three health centers 14
Table 2: Socio-demographic Characteristics of Study respondents 20
Table 3: Socio-demographic variation in relation to ANC attendance among pregnant women 22
Table 4: Mass media associated with ANC attendance among pregnant women. 24
Table 5: Factor associated with ANC attendance in bivariate and multivariate analysis 28

LIST OF FIGURES

Figure 1: Conceptual Framework adapted from Health Belief Model showing factors that influence early ANC attendance among pregnant women 5
Figure 2: ANC Clinic visits among pregnant women 21
Figure 3: Distribution of the types of mass media to which pregnant women were exposed. 23
Figure 4: Mean score for each perceived benefits of mass media in promoting antenatal clinic attendance among pregnant women in Mufindi District Council 25
Figure 5: Mean score for each perceived barriers of using mass media in promoting antenatal clinic attendance among pregnant women in Mufindi District Council. 26

LIST OF ABBREVIATONS

ANC	Antenatal care
CSOs	Civil Society Organizations
NGOs	Non-Governmental Organizations
ODK	Open Data Kit
TDHS	Tanzania Demographic and Health Survey
UNICEF	United Nations Children's Fund
WHO	World Health Organization

DEFINITIONS OF TERMS

Antenatal Care means the care given to pregnant women by skilled healthcare professionals throughout their pregnancy (1). It includes risk identification and screening, disease prevention and management during pregnancy, and health education and promotion.

Early ANC attendance: refers to pregnant women attending their first antenatal care visit within the first trimester of their pregnancy, typically before the 12th week of gestation. Early ANC attendance is important for the early detection and management of pregnancy-related complications and the promotion of positive pregnancy outcomes.

Late ANC attendance: refers to pregnant women attending their first antenatal care visit within the first trimester of their pregnancy, typically after the 12th week of gestation.

Mass media message: means the information, advertisements, or public health messages that are delivered through mass media sources to the target audience. In the context of the study, mass media messages may include information on the importance of early antenatal clinic attendance, the risks of not attending ANC early, and the benefits of attending ANC early.

Mass media sources mean the different channels or platforms through which mass media messages are delivered to the target audience. Examples of mass media sources include radio stations, television stations, social media platforms, and newspapers.

Mass media means various channels of communication that are used to disseminate information to a large audience, including radio, television, newspapers, magazines, social media, and other forms of digital media**.**

ABSTRACT

Background: Antenatal care (ANC) plays a critical role in promoting positive health outcomes for women and their unborn children. However, early attendance for ANC remains low among pregnant women in Tanzania. Social behavior change communication utilizing well-designed mass media messages has proven effective in transforming unhealthy behaviors into healthy ones. Mass media message through platforms such as radio, television, and newspapers, have the potential to influence women's behavior and encourage timely ANC engagement.

Objective: This study aimed to determine the influence of mass media messages on early ANC attendance among pregnant women in Mufindi District Council.

Methodology: This was analytical cross-sectional study design using a quantitative approach involved a total of 231 pregnant women who are attended ANC clinics at three health centers in Mufindi District Council were involved in this study. ANC attendance was measured using a structured validated questionnaire. Then data were cleaned and analysed using Stata version 15. The study utilized descriptive analysis to calculate the proportions of ANC attendance, perceived benefits, and barriers. Furthermore, bivariate and multiple logistic regression analyses were conducted to assess the associations between ANC attendance and exposure to mass media. Additionally, the Chi-squared test was employed to compare proportions across different groups. A p-value of <0.05 and a 95% confidence interval was used to assess the statistical test's significance.

Results: Of the 231 participants, 36.8% had attend the ANC clinic early and 69% had four or more ANC visits during their pregnancy. In addition, the study found that participants who were exposed to more than one mass media had high likelihood of attending ANC clinic early (aOR 1.29, 95%CI (0.13-0.63) compared to those participants who were exposed to single mass media**.** The prominent benefit of mass media in ANC was that it provided useful information, increased awareness, and community support and acceptance, while the prominent barriers were the costs

associated with the use of mass media and the lack of access to the necessary mass media channels.

Conclusion and recommendations: The study found that only 36.8% of pregnant women attended ANC clinics within the first 12 weeks, as recommended by WHO. Factors linked to early attendance included exposure to multiple media channels, higher education, previous pregnancies, and employment. While participants noted the benefits of media in increasing ANC awareness, they faced barriers like cost and language issues. The findings highlight the importance of diverse media channels and addressing financial and linguistic barriers to improve ANC uptake for better maternal and child health outcomes.

The study recommends using various media channels like TV, radio, print, and social media to promote early ANC clinic attendance. To address cost and language barriers, it suggests reducing financial constraints and providing culturally relevant messages. This approach aims to improve information accessibility and encourage pregnant women to seek ANC services early.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

According to the United Nations Children's Fund (UNICEF), antenatal care (ANC) plays a vital role in promoting the well-being of women and their unborn children. It is crucial for women of reproductive age to seek early and regular attendance at antenatal clinics as it allows for timely identification and management of potential health risks associated with pregnancy. By attending antenatal care, women can receive guidance from skilled health professionals, gain knowledge about maintaining a healthy status during pregnancy, understand warning signs to watch out for during pregnancy and childbirth, and receive essential social, emotional, and psychological support during this critical period of their lives (2).

In 2015, an estimated 303,000 women and adolescent girls lost their lives due to complications related to pregnancy and childbirth (3). Furthermore, in the same year, approximately 2.6 million children were stillborn. It is noteworthy that nearly all maternal deaths (99%) and child deaths (98%) occurred in low- and middle-income countries. These tragic maternal deaths could have been prevented if pregnant women and adolescent girls had access to quality antenatal care (ANC) services (4).

Attendance at ANC services among pregnant women is influenced by several factors. Studies have indicated that the education status of spouses, the availability, affordability, and accessibility of ANC services, socio-economic status, cultural beliefs, age, and knowledge of the importance of early initiation significantly impact individuals' decisions on whether to attend ANC early or late (5,6).

Mass media messages play a significant role in influencing women's behavior towards early antenatal care (ANC) attendance. Platforms such as television, radio, and print media are effective channels for disseminating health information, shaping social norms, and influencing individual behaviors. The wide reach of mass media allows for the broad dissemination of messages that can raise awareness, educate, and motivate individuals to adopt healthy behaviors, including timely ANC attendance.

These messages have the potential to reach a large number of people and can serve as a catalyst for promoting early ANC engagement among women.

In Mufindi district, various communication channels including radio, television, and social media have been utilized to disseminate health messages targeting women of reproductive age, encouraging early attendance at ANC during pregnancy. Examples of messages such as "jiongeze tuwavushe salama" and "anza kliniki mara unapoishi ujauzito na endelea kuhudhuria kulingana na ushauri wa wataalam" are transparently provided by public health communicators. These messages emphasize the benefits of early ANC visits for pregnant women and the risks associated with not attending ANC, both for the mother and the unborn child.

The World Health Organization (WHO) Guideline on reproductive health strongly advocates for early attendance to ANC among pregnant mothers. These early visits expose pregnant mothers to vital health services essential for the well-being of both the mother and the expected newborn (7,8). In most of sub-Saharan African (SSA) countries various types of mass media together with other factors like knowledge of risk indications, timing and a suitable number of prenatal appointments, and a positive attitude toward ANC use are more likely to promote attendance and beginning of ANC in the first trimester (8).

Through mass media channels, we can effectively disseminate health messages and influence behavior, thus encouraging timely ANC engagement among pregnant women. By investigating variables related to perceived benefits, susceptibility, and severity of pregnancy-related risks, this study aimed at determining insights for developing targeted interventions and policies to enhance maternal and child health outcomes.

1.2 Problem statement

Despite a number of mass media messages advocating importance of early antenatal attendance, still there is low early attendance among pregnant women especially in the first trimester of their pregnancy. Late ANC attendance may result into increased number of both maternal and neonatal mortality rate in the community. In Tanzania, only 24% of the pregnant women make the first ANC visit before the fourth month of

the pregnancy (9). And 27% of the pregnant women attend ANC within the first trimester (10).

With late ANC attendance, pregnant women miss the opportunity to get tangible knowledge on different ANC critical issues including family planning advice, appropriate breast-feeding practices, birth preparedness, better child health as well as nutrition and diet practices. Moreover, late ANC visit among pregnant mothers discourages efforts aimed at reducing both maternal and perinatal mortality (11,12).

The Government, Non-Governmental Organizations (NGOs) and Civil Society Organizations (CSOs) have instituted a number of programs focusing on raising awareness of early ANC attendance. Efforts initiated include designing and disseminating messages to sensitize community members through mass media in order to realize maximum positive gains for women and child health. Others programs have applied various culturally appropriate and cost-effective strategies aiming at rising awareness on the health benefits of early ANC attendance among pregnant women in the country.

Previous studies have focused on timing for ANC attendance among adolescent and adult pregnant women (13); the quality of ANC services provided in rural areas (14); factors affecting ANC attendance among pregnancy women; the role of male involvement increasing the uptake of ANC services among women (15); and role of community health care worker in improving ANC among pregnant women (16).

However, there is scanty information available on the specific influence of mass media on improving early antenatal care (ANC) attendance among pregnant women. Therefore, conducting a study in this area was valuable in gaining a comprehensive understanding of the role of mass media messages in promoting ANC attendance. By focusing on early attendance among pregnant women, significant improvements in health outcomes could be achieved. This study contributed to bridging the existing knowledge gap and provided insights into the effectiveness of mass media interventions in encouraging timely ANC utilization, ultimately leading to better health outcomes for both women and their unborn children.

1.3 Conceptual framework

A conceptual framework has been adopted from the Health Belief Model (HBM) to guide this study. The HBM suggested that individuals' perceptions of a particular exposure can predict their behavior. According to the model, people are more likely to engage in healthy behaviors if they perceive benefits in doing so or if they believe they are susceptible to negative health outcomes by not taking action.

In this study, the dependent variable was the prevalence of early antenatal care (ANC) attendance, which refers to the timing of the first ANC visit during pregnancy, recommended to occur within the first trimester.

The independent variables encompass socio-demographic characteristics, such as age, education level, income, and marital status, which are indicators of social and economic status. Previous research has shown that socio-demographic factors can influence health-seeking behavior, including early ANC attendance. For instance, women with higher levels of education and income tend to attend ANC early compared to those with lower levels.

Other independent variables include the perceived benefits of ANC messages on early ANC attendance, perceived susceptibility to pregnancy-related risks and complications, and perceived severity of ANC. Previous studies have indicated that these variables influence early ANC attendance and other health service-seeking behaviors.

By investigating these variables, the study aims to identify factors that influence early ANC attendance among pregnant women in Mufindi District Council. This understanding will contribute to the development of targeted interventions and strategies to promote timely ANC engagement and improve maternal and child health outcomes.

ONCEPTUAL FRAMEWORK

Independent **Variables**

Dependent Variable

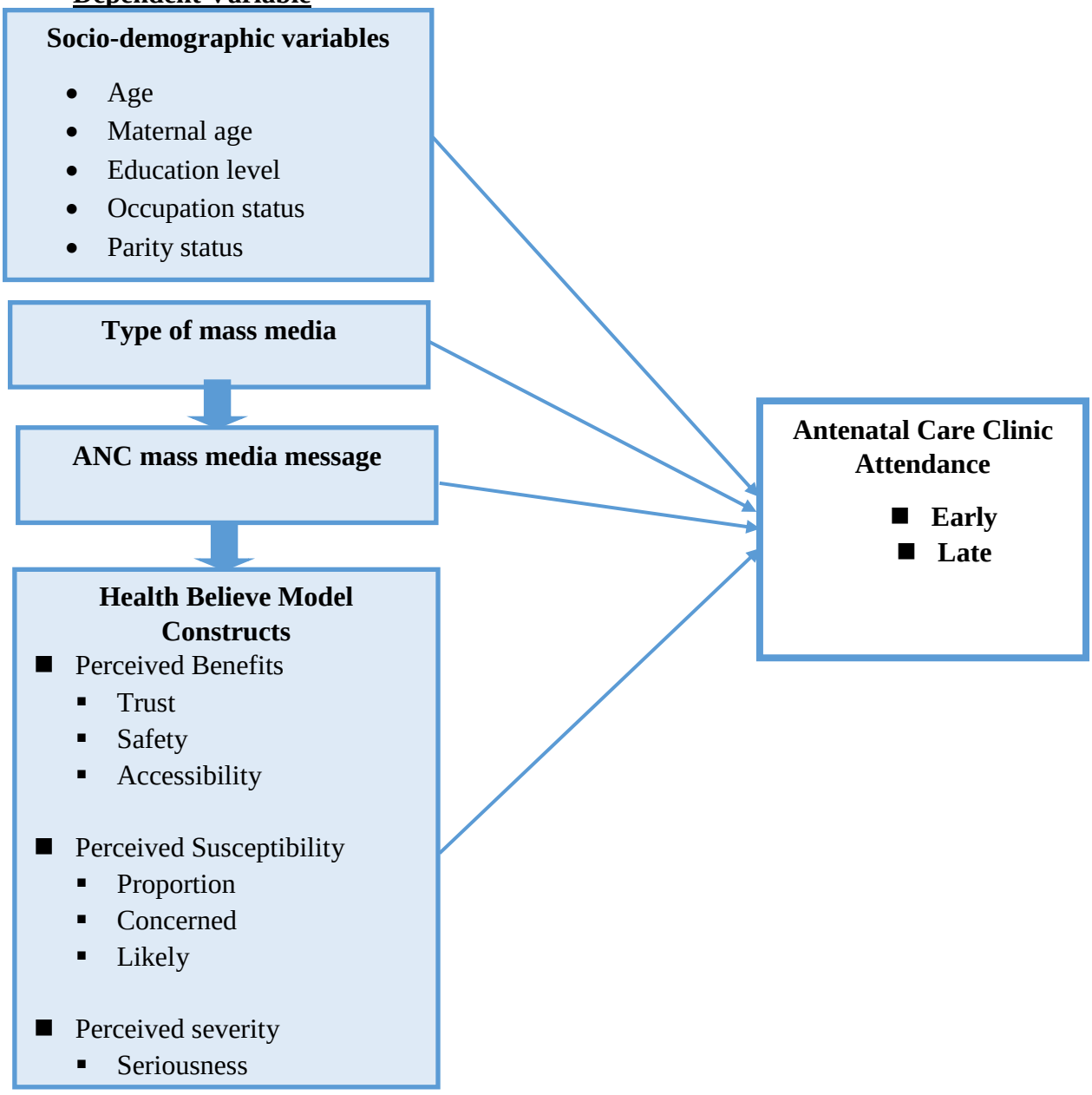


Figure 1: Conceptual Framework adapted from Health Belief Model showing factors that influence early ANC attendance among pregnant women .

Source: Health Belief Model

1.4 Rationale

This research study aimed to assess the impact of mass media messages on promoting early antenatal care (ANC) attendance among pregnant women. The results of this study contributed to the existing knowledge regarding the role and effectiveness of mass media messaging in encouraging timely ANC engagement, addressing the increased risk of negative maternal outcomes.

The findings of this study provided insights into the perceptions of women towards ANC messages. Understanding these perceptions was instrumental in developing culturally appropriate and audience-friendly message contents. By tailoring the messaging to align with cultural norms and preferences, it was anticipated that sustainable behavior change among the targeted population could be achieved.

Overall, this research study sought to shed light on the influence of mass media messages in promoting early ANC attendance and contribute to the development of effective communication strategies that can positively influence maternal health outcomes. Furthermore, it seeks to pave the way for future research endeavors aimed at positively influencing maternal health outcomes.

1.5 Research question

1.5.1 Broad research question

What is the influence of mass media messages on early ANC attendance among pregnant women in Mufindi District Council?

1.5.2 Specific Questions

1. What is the proportion of antenatal clinic attendance among pregnant women in Mufindi District Council?
2. What type of mass media are associated with antenatal clinic attendance among pregnant women in Mufindi District Council?
3. What are the perceived benefits of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi District Council?
4. What are the perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi District Council?

1.6 Research objective

1.6.1 Broad research objective

To determine the influence of mass media messages on early ANC attendance among pregnant women in Mufindi District Council.

1.6.2 Specific objectives

1. To determine the proportion of antenatal clinic attendance among pregnant women in Mufindi District Council
2. To determine the association between the type of mass media used and antenatal clinic attendance among pregnant women in Mufindi District Council
3. To determine the perceived benefits of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi District Council
4. To determine the perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi district Council

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Demographic characteristics affecting early ANC attendance

Age has been identified as a predictor for pregnant women to initiate Early ANC. In a study conducted in Uganda, findings indicate that teenage pregnant women are less likely to be married compared to their adult counterparts, as revealed by an exploratory analysis examining social and financial support during pregnancy (13). This observation is further corroborated by research in Uganda, which found that adolescent first-time mothers were more prone to experiencing relationship rejection (17). In contrast, teenagers in the present study were more receptive to receiving recommendations to attend ANC, consistent with research from Kenya (18). These findings underscore the significant role of close family members in supporting young pregnant women, overshadowing the involvement of husbands, boyfriends, or child fathers.

Additionally, a sensitivity analysis encompassing young women who were first-time attendees at the ANC clinic revealed that the absence of support from the husband or partner had negligible impact (13). However, research from the US suggests that teens undergoing subsequent pregnancies exhibit reduced utilization of prenatal care (19).

Studies indicate that adolescent pregnant women are less likely to be married or live with their partners compared to adult pregnant women. Additionally, they are more inclined to receive advice about ANC attendance from their mother or another close maternal figure than from their spouse (13). Interestingly, the majority of pregnant women in the study who were living with their parents at the time of their first unplanned pregnancy before marriage still managed to attend their ANC appointments on time, despite lacking financial or social support from their partner or the child's father (13). Family support is a key factor in facilitating ANC attendance among adolescent pregnant women, particularly in circumstances where they may not have the support of their partners. It also highlights the resilience and determination of these young mothers to prioritize their own and their baby's health, despite facing challenging circumstances.

Education is among the key factors influencing the initiation of early ANC attendance. According to several studies, maternal secondary education and the timing of ANC initiation are correlated (20,21). Furthermore, health professionals reported that women, particularly those from the Sukuma ethnic group—semi-nomadic pastoralists who began migrating into the region—initiated ANC attendance late and underutilized ANC due to educational deficiencies and residing in remote settlements, as revealed in semi-structured interviews (22). However, contrary to earlier findings, the study's initial discovery unveiled that only 22% of women could name more than four ANC services. Additionally, in contrast to predictions, neither knowledge of the proper scheduling for ANC nor proficiency with ANC services was associated with early ANC attendance (13).

Religious beliefs play a significant role in influencing attendance and utilization of reproductive health services, including ANC. Strong religious convictions are also associated with healthcare-seeking behavior; mothers reported that some women refused to go to the hospital because they believed that when they were ill, they should pray or seek treatment from religious authorities (23,24). Religious authorities and local representatives in southern Tanzania have been shown to be beneficial in promoting obstetric care as well as the early and frequent use of ANC (25).

2.2 Types of mass media are associated with antenatal clinic attendance among pregnant women.

Studies shows that Exposure to mass media was substantially correlated with a number of antenatal care factors, including frequency of prenatal visits, dietary supplementation, physical examination, TT vaccination, rest, and sleep (26). Below are various forms of mass media which has been explored in relation to its impact in promoting ANC attendance among pregnant women.

Print media is one of the earliest and most fundamental kinds of mass communication is print media. It comprises periodicals like newspapers, magazines, and weeklies as well as other printed publications (27). This result is comparable to a study from Nigeria that found mothers were more likely to use delivery services at a health facility if they lived in communities with higher exposure to electronic and print media (28). Moreover, print media like periodicals and newspapers as well as outdoor

media like billboards and posters have also shown to be successful. In India, 8.1% of homes have a radio, and 65.2% of households have a television. Additionally, 92% of women in urban India and 66% of women in rural India regularly consume mass media (29,30)

Broadcast media is a type of media primarily used for broadcasting, transmitting, and connecting with the general audience. It disseminates news, information, entertainment, and advertisements to the target audience or general public using a variety of audio-visual materials and electronic or electromagnetic methods (31).. According to research, radio was the most popular one, with 18.4% of women reporting using it at least once per week. TV came in second place (16.3%), followed by newspapers (2.7%) and TV (at least once per week) (32). Results show that the usage of radio as the primary source of information on ANC services, as well as information from other sources including health professionals and social gatherings, among others, was the prevalent theme (33).

Digital media is a type of mass media used to disseminate health-related information to pregnant women. Studies indicate that women utilize digital media more frequently than traditional media, and socially disadvantaged women also frequently use digital media (34). . When mobile technology was introduced, the frequency of ANC visits rose, according to a qualitative formative study in Ghana that examined the influence of mobile technology in the lives of expectant mothers (35). A randomized controlled experiment in Njoro Division, Tanzania, assessed the effect of cell phone support on prenatal attendance. While the other groups of 206 pregnant women received standard care to continue antenatal appointments, a group of 191 pregnant women received regular advice and prompts regarding pregnancy care and booked antenatal visits through mobile phone. Women in the intervention group and the frequency of ANC visits were found to be positively correlated (36).

Short Message Services (SMS) and other digital health applications are increasingly gaining popularity, even in resource-constrained settings (38–40). Research has delved into the effectiveness of utilizing text messages to motivate expectant mothers to deliver in medical facilities and to remind them of their facility-based ANC appointments. This cost-effective approach has the potential to reach vast populations, including those residing in remote or hard-to-reach areas, thus serving as a promising

strategy to mitigate maternal mortality rates (41). These technologies offer convenient and accessible platforms for delivering health messages, providing reminders for ANC appointments, and offering support and guidance throughout pregnancy.

Data from the 2011 National Demographic Health Survey indicate that women with weekly exposure to both radio and television are more likely to adhere to health information they receive. According to the survey, 44% of women nationwide listen to the radio, and 47% watch television at least once a week, boosting the utilization of health services (26). A Ugandan study also found that women with media access were more likely to use prenatal care than those without such access (37).

2.3 Perceived benefits of using mass media to promote antenatal clinic attendance among pregnant.

The perceived benefits of using mass media to promote antenatal clinic attendance among pregnant women can be understood through the lens of the health belief model. Perceived benefits refer to an individual's perception of the effectiveness of certain actions in reducing the risk of illness or disease. In the context of antenatal care, pregnant women's decision to attend ANC is influenced by their assessment of both their susceptibility to health risks and the potential benefits of ANC services. Research suggests that pregnant mothers recognize the advantages of attending ANC for their own health and that of their baby (42). However, their understanding of the importance of timely ANC attendance for effective care and screening may be limited (43). Therefore, leveraging mass media to educate pregnant women about the benefits of timely ANC attendance can be crucial in promoting their engagement with antenatal care services.

2.4 Perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women.

Perceived barriers, defined as a person's perceptions of the challenges involved in carrying out a prescribed health action, can significantly impact pregnant women's ability to attain early ANC visits. A cost/benefit analysis, prompted by a person's perception of hurdles or obstructions, may vary greatly among individuals. This analysis involves balancing the perceived costs, risks, unpleasantness (such as pain),

time commitment, and inconvenience of the actions against their perceived efficacy (42).

According to a survey conducted in Uganda, three main types of perceived hurdles to using ANC services were identified: subpar care, a misalignment between ANC practices and sociocultural norms, and restrictive structures and practices at health centers (44). These perceived barriers underscore the importance of addressing systemic and sociocultural factors to improve access to and utilization of antenatal care services among pregnant women.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study design

In this analytical cross-sectional study, a quantitative approach was employed to collect information about the influence of mass media messages in promoting early ANC attendance among pregnant women in Mufindi District Council.

3.2 Study area

The focus of this study was Mufindi District Council in the Iringa Region, chosen specifically to assess the impact of mass media on promoting early ANC attendance among pregnant women. This selection was based on the district's distinctive characteristic of having one of the lowest ANC attendance rates in Tanzania, with only 27% of pregnant women accessing ANC services during the first trimester (10). Furthermore, three health centers were chosen as the study sites: Nyololo Health Center, Kasanga Health Center, and Mbalamaziwa Health Center. The selection was based on the fact that these three centers provide ANC services to a significant population of women of reproductive age in Mufindi District Council (54).

3.3 Study population

The study focused on women of reproductive age who attended ANC services in Mufindi District Council. This population was of interest because they were at a higher risk of poor maternal and child health outcomes, and early ANC attendance was considered an important factor in improving these outcomes.

3.4 Sample size

Formula:

$$n = \frac{Z^2 \times P \times (100-P)}{e^2}$$

Where by
Z= Confidence coefficient

P= Proportional

e= Margin of error

n= Number of participants

Z= 1.96
P=27% (Obtained from previous study (10))
e= 6
n=?

$n = \frac{1.96^2 \times 27 \times (100-27)}{6^2}$ = 210 participants

Therefore, the total projected sample size was 210 participants.

* Response rate was involved in calculations so as the sample size not to be affected.

Assumption non-response rate of 10%

Sample size after adjusting for non-response of 10% = 1/R

R = 0.9 (90%)

Then 1/0.9 = 1.11

Number of participants (n) = 210 × 1.11 =231

Therefore, the total projected sample size, considering the response rate, was 231 participants.

Participants were selected from each of the three densely populated health centers in Mufindi District Council based on the monthly average attendance at ANC clinics (54).

Table 1: Distribution of study participants from three health centers

Name of health Center	Monthly ANC attendance	Calculation	Sample size taken in each site
Nyololo Health Center	319	319/665×231	111
Kasanga health Center	206	206/665×231	71
Mbalamaziwa health Center	140	140/665×231	49
Total	665		231

3.4.1 Sampling technique

This study employed a systematic sampling technique to recruit women of reproductive age at ANC at the health facility. The systematic sampling technique involved selecting every 3rd individual from the population after determining the

appropriate interval based on the N/n formula. This technique ensured a representative sample from the population attending ANC across the selected health facilities.

3.4.2 Sampling procedures

The sampling procedure for this study was as follows:

i. Determined the Total Population:
   - The total population size (N) of women of reproductive age attending ANC services was obtained from the District Health Information System 2 (DHIS-2) data for the first quarter of 2023. The data revealed that the estimated number of women of reproductive age attending ANC clinics at three densely populated health centers (Nyololo, Kasanga, and Mbalamaziwa) in Mufindi district council was 665 per month across these three health centers (54).

ii. Calculated the Required Sample Size:
   - Based on the study objectives and available resources, a sample size (n) of 231 participants was determined.

iii. Calculated the Interval Selection:
   - To obtain the interval selection (kth), the N/n formula was applied (665/231), resulting in a value of 3.

iv. Random Selection of the First Participant:
   - The first participant was selected using simple random sampling to ensure an unbiased starting point.

v. Recruitment of Subsequent Participants:
   - Following the selection of the first participant, each subsequent 3rd woman of reproductive age attending ANC was recruited as a study participant. This systematic sampling approach guaranteed representation from the target population in a systematic and unbiased manner.

vi. Consistent Implementation Across Health Facilities:
   - The systematic sampling process was implemented consistently across the three selected health centers. This ensured the representation of participants from different healthcare settings within the study.

All participants convened in a private space with an interviewer who sought consent before administering the questionnaire orally in Kiswahili. A tablet with ODK software was used as a means of data collection.

3.5 Inclusion and exclusion criteria

3.5.1 Inclusion criteria

This study included women of reproductive age who had experienced one or more pregnancies attending ANC or in the community in Mufindi District Council within the past 24 months. This timeframe was chosen to ensure that participants could recall information accurately and vividly regarding the subject matter being investigated.

3.5.2 Exclusion criteria

This study excluded women of reproductive age who did not speak Kiswahili. This decision was made due to the potential difficulty the research team would encounter in communicating with women who only spoke tribal languages (vernacular languages).

3.6 Data collection

3.6.1 Data collection tools, validity and reliability issues

The data collection process for this research was meticulously structured to ensure precision, comprehension, and confidentiality. A comprehensive questionnaire was meticulously developed to address each specific research objective, guaranteeing clarity and depth of understanding among participants.

To facilitate participant engagement and comprehension, the questionnaire was translated into Kiswahili before administration, thereby promoting familiarity with the subject matter and minimizing language barriers. Subsequently, the questionnaire was digitized and integrated into a Google Form, providing a user-friendly platform for data collection.

During data collection sessions, the principal investigator (PI) and research assistants utilized tablets to administer the questionnaire to participants. This digital approach streamlined the data entry process and minimized errors associated with manual recording.

Following each interview, the PI and research assistants conducted a thorough review of the collected forms to ensure data accuracy and completeness. This rigorous quality control process maintained the integrity and reliability of the dataset.

To safeguard the confidentiality and security of the collected data, stringent measures were implemented. The PI's Google account served as a secure server, accessible exclusively to the PI, to prevent unauthorized access and data breaches. By restricting access to authorized personnel only, the research team ensured the privacy and confidentiality of participants' information.

This study tool exhibited a Cronbach's alpha coefficient of 0.7252, an average interitem correlation of 0.2088, and item-rest correlations ranging from 0.1975 to 0.7076. These findings confirmed strong internal consistency and reliability, indicating that the tool accurately measured ANC and associated factors among pregnant women attending ANC clinics.

3.6.2 Training of data collection team

Two research assistants with nursing backgrounds were selected and trained to assist the principal investigator in data collection. They underwent thorough training on research principles, including the importance of confidentiality and administering questionnaires. Their training ensured proficiency in understanding and interacting with respondents while upholding ethical standards. This prepared them to contribute effectively to the research process while maintaining professionalism and integrity.

3.6.3 Pre- test of data collection instruments

The questionnaire was pre-testing to assess its effectiveness and reliability before the use in the main study. This process helped identify and address concerns regarding clarity, relevance, length, language, sequence, response options, and format, ensuring that the questionnaire was optimized for collecting accurate and meaningful data. Only Swahili version of the questionnaire was tested among ten pregnant women at two ANC clinics in Mafinga Town Council and these ten individuals were not involved in the actual study.

The choice of ANC clinics in Mafinga Town Council was deliberate because the people in the two Councils shared a common culture and, in most cases, had similar

socio-economic attributes, making it easier to obtain relevant information for testing the appropriateness of the questions in the questionnaires. Additionally, the two Councils shared the same geographical climate, helping the research assistants to familiarize with the cold climate before visiting the actual research field.

3.7 Study variables

3.7.1 Dependent variables

The dependent variable in this study was early attendance to ANC clinics among pregnant women. For the purposes of this research study, early attendance was defined as pregnant women visiting the ANC for comprehensive health services within the period of less than 12 weeks. Late attendance was defined as ANC attendance occurring after the 12-week mark.

3.7.2 Independent variable

The independent variables included socio-demographic characteristics (age, sex, occupation, marital status, education level and parity status), the type of mass media exposure, frequency of exposure, perceived benefits of using mass media to deliver ANC messages (awareness, misconception, accessibility, and community support), and perceived barriers to using mass media in promoting early ANC attendance. These barriers included costs associated with mass media use, accessibility challenges, as well as cultural and language barriers.

3.8 Data management and analysis

The data was collected using the ODK tool on tablets, and the fully filled forms were submitted and saved to a server hosted locally on the Google Cloud Platform under the principal investigator's Google account. Access to the data was restricted solely to the principal investigator to ensure the security of information regarding the study respondents.

The data from ODK was imported into STATA version 15 for data cleaning. In this process, I checked for missing items and duplicates, and also examined the normal distribution of variables before proceeding with the analysis.

During the analysis, the first objective involved conducting univariate analysis to determine the proportion of attendance to antenatal clinics, which was divided into early and late ANC attendance.

For the third and fourth objectives, univariate analysis was conducted to determine the distribution of each perceived benefit and perceived barrier faced by participants while using mass media to receive messages for ANC attendance. The results were presented in a mean horizontal bar to show the contribution of each perceived benefit and perceived barrier.

In the second objective, bivariate analysis was conducted to determine the association between the type of mass media (independent variables) and ANC attendance among pregnant women in Mufindi District Council. Additionally, all variables with a p-value less than 0.2 were selected for multivariate analysis. A forward approach was used to obtain the final fitted model.

3.9 Ethical consideration

The ethical approval for this study was obtained from the Muhimbili University of Health and Allied Sciences (MUHAS) Institutional Review Board (IRB) with reference number DA.282/298/01.C/. The signed approval was submitted to the office of the Regional Administrative Secretary (RAS) in Iringa. After approval, it was then submitted to the office of the District Executive Director and subsequently to the District Medical Officer (DMO) in Mufindi District Council for further approval.

A unique code number was employed to conceal participants' identities and maintain anonymity. Only the principal investigator (PI) and the research assistants (RAs) had access to the collected data. All participants were asked for oral consent in Swahili language before engaging them in data collection, and the information provided by participants was kept strictly confidential. For all participants aged less than 18 years, ethical considerations are paramount to ensuring the protection of their rights and well-being. The study obtained informed consent in Swahili language from either parents or legal guardians to ensure they understood their participation and could express their willingness to take part.

CHAPTER FOUR

4.0 RESULTS

4.1 Socio demographic characteristics of the study respondents.

This chapter provides an overview of the findings of a research study that was aimed at determining the association between mass media and antenatal care attendance among pregnant women in Mufindi District Council. A total of 231 participants were interviewed during their attendance at the ANC clinic.

The study respondents had a mean age of 29 years (SD±5.10), ranging from a minimum age of 19 years to a maximum age of 41 years. Among the 231 participants, 62% were married, 58% attended secondary school, 40% were unemployed and 35% were multipara. Table 1 summarizes the overall demographic characteristics of the study respondents.

Table 2: Socio-demographic Characteristics of Study respondents

Variables	Categories	Overall n (%)
Age categories	15-24 Years	47 (20)
	25-34 Years	145 (63)
	35-44 Years	39 (17)
Education level	No formal education	27 (12)
	Primary school	40 (17)
	Secondary school	133 (58)
	University/ college	31 (13)
Marital status	Single	6 (3)
	Married	142 (62)
	Co-habit	71 (31)
	Divorced	8 (3)
	Widow	4 (2)
Parity status	Nullipara	75 (33)
	Primipara	74 (32)
	Multipara	82 (35)
Occupation	Self-employed	61 (26)
	Employed	78 (34)
	Unemployed	92 (40)
Monthly Income	<200,000 Tsh	152 (66)
	200,000 – 500,000 Tsh	65 (28)
	> 500,000 Tsh	14 (6)

4.2 Time of first ANC among pregnant women in Mufindi District Council

ANC attendance among pregnant women was assessed through a precisely designed structured questionnaire. Participants were queried about the specific timeframe, measured in weeks, at which they initiated attendance at ANC clinics, with a predetermined cutoff point set at 12 weeks. This pivotal cutoff facilitated the classification of attendance into two categories: early and late. Early ANC clinic attendance pertained to pregnant women who initiated visits within the initial 12 weeks of pregnancy, seeking comprehensive health services. On the other hand, late attendance denoted ANC clinic visits that occurred after the 12-week milestone. The results revealed that only 36.8% of pregnant women engaged in early ANC clinic attendance.

4.3 ANC Clinic visits

The study further revealed that a significant majority of pregnant women in Mufindi District had completed more than four ANC clinic visits (69%).

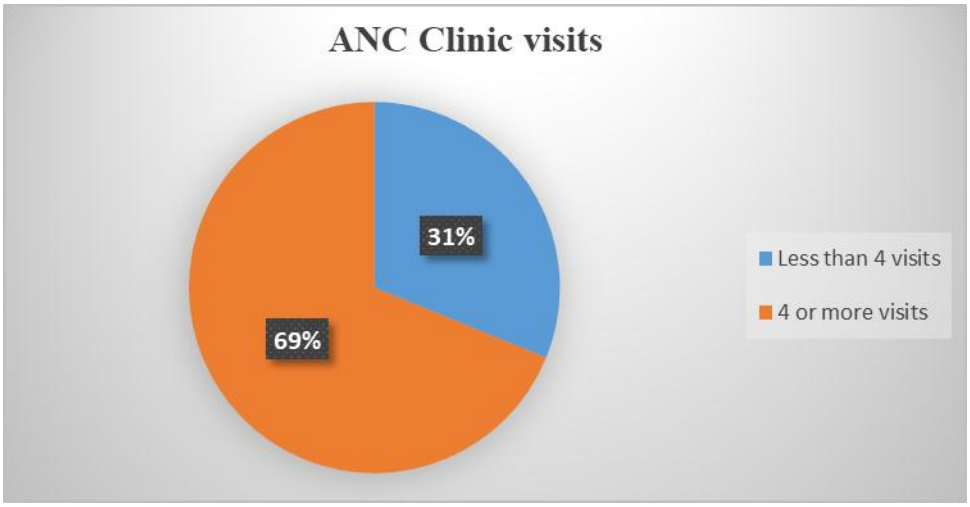


Figure 2: ANC Clinic visits among pregnant women

Socio-demographic variation in relation to ANC attendance among pregnant women.

ANC attendance varied across various variables. The age of pregnant women showed an association with early ANC attendance (p-value 0.01), with early ANC attendance being high among pregnant women aged above 35 years (56%). Education level also showed an association with early ANC attendance (p-value 0.013), with early ANC attendance being high among pregnant women who predominantly attended university or college (48%). Parity status demonstrated an association with early ANC

attendance (p-value 0.009), with early ANC attendance being high among pregnant women who experienced more than two pregnancies (48%). Marital status among pregnant women showed an association with early ANC attendance (p-value 0.018), with early ANC attendance being high among pregnant women who were widows (100%). Employment also showed an association with early ANC attendance (p-value 0.002), with early ANC attendance being high among employed pregnant women (51%). Monthly income did not show an association with early ANC attendance (p-value 0.817), with early ANC attendance being high among pregnant women who had a monthly income above 500,000 Tsh. Table 2 describes the variation in socio-demographic characteristics in relation to ANC attendance among pregnant women.

Table 3: Socio-demographic variation in relation to ANC attendance among pregnant women

Variables	**Categories**	**Early ANC attendance n (%)**	**Late ANC attendance n (%)**	**P-value**
Age categories	15-24 Years	12 (26)	35 (74)	
	25-34 Years	51 (35)	94 (65)	
	35-44 Years	22 (56)	17 (44)	0.010*
Education level	No formal education	6 (22)	21 (78)	
	Primary school	8 (20)	32 (80)	
	Secondary school	56 (42)	77 (58)	0.013*
	University/ college	15 (48)	16 (52)	
Marital status	Single	3 (50)	3 (50)	
	Married	55 (39)	87 (61)	
	Co-habit	19 (27)	52 (73)	0.018**
	Divorced	4 (50)	4 (50)	
	Widow	4 (100)	0 (0)	
Parity status	Nullipara	18 (24)	57 (76)	
	Primipara	28 (38)	46 (62)	
	Multipara	39 (48)	43 (52)	0.009*
Occupation	Self-employed	18 (24)	56 (76)	
	Employed	40 (51)	38 (49)	
	Unemployed	27 (34)	52 (66)	0.002*
Monthly Income	<200,000 Tsh	54 (36)	98 (64)	
	200,000 – 500,000 Tsh	25 (38)	40 (62)	0.817*
	> 500,000 Tsh	6 (43)	8 (57)	

Key: ANC=Antenatal Care, * chi-square test, ** fisher exact test

4.4 Type of mass media exposed to pregnant women attending ANC clinics in Mufindi District Council

The distribution of mass media exposure among pregnant women attending ANC clinics exhibited considerable variability. The predominant mode of exposure was through TV and Radio, accounting for 32.47% of participants. Following closely were those exposed to all four types of mass media—TV, Radio, Print materials, and social media at 27.71%. A minority, comprising 0.43%, reported exposure to TV and social media. Figure 3 presents the distribution of the types of mass media to which pregnant women were exposed.

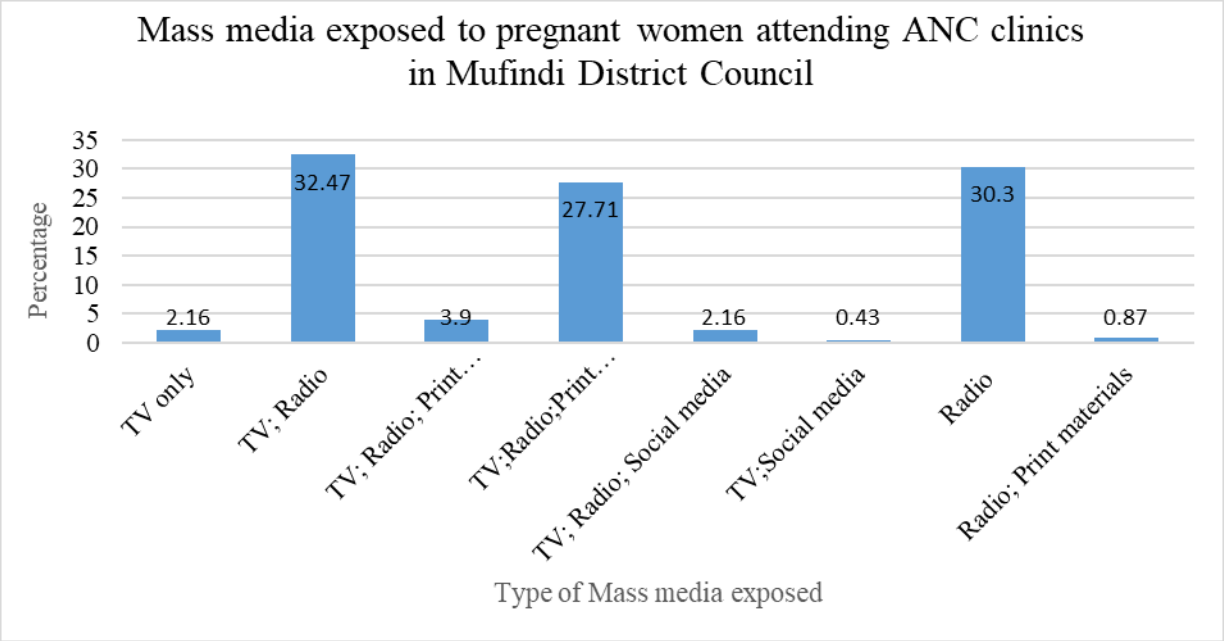


Figure 3: Distribution of the types of mass media to which pregnant women were exposed.

Pregnant women exposed to multiple forms of mass media (two or more of TV, Radio, print materials and social media) were more likely to attend ANC clinics early, whereas those with exposure to a single form of mass media (either of TV or Radio) were more inclined to attend late. The association between mass media exposure and early attendance at ANC clinics was statistically significant (p-value: 0.000), underscoring the influential role of mass media in promoting timely ANC attendance among participants. Table 3 summarizes the mass media associated with ANC attendance among pregnant women.

Table 4: Mass media associated with ANC attendance among pregnant women.

Variable	Category	Overall n (%)	Early ANC attendance n (%)	Late ANC attendance n (%)	P-value
Type of mass media	Single mass media	75	13 (17)	62 (83)	<0.001*
	Multiple mass media	156	72 (46)	84 (54)	

Key; * significant

4.5 Perceived benefits of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi District Council.

The overall, the mean perceived benefits score for all participants was 28 (SD=2.66; range 20 to 35). For the various queries about perceived benefits of mass media in promoting ANC clinic attendance, the most prominent benefit was mass media increase awareness about the importance of early ANC attendance (mean=4.3, S.D= 0.52), other prominent benefits were mass media provide useful information about the benefits of ANC (mean=4.2, S.D= 0.51), increase community support and acceptance of ANC attendance (mean=4.2, S.D= 0.53), encourages pregnant women to seek ANC services early in their pregnancy (mean=4.1, S.D= 0.53), improve the overall health outcomes for pregnant women and their babies (mean=4.1, S.D= 0.54). In addition the less scored perceived benefit was that mass media helped to dispel myths and misconceptions about ANC attendance (mean=3.3, S.D= 0.94). Figure 3 display the relationship between the various queries about perceived benefits of mass media in promoting ANC clinic attendance.

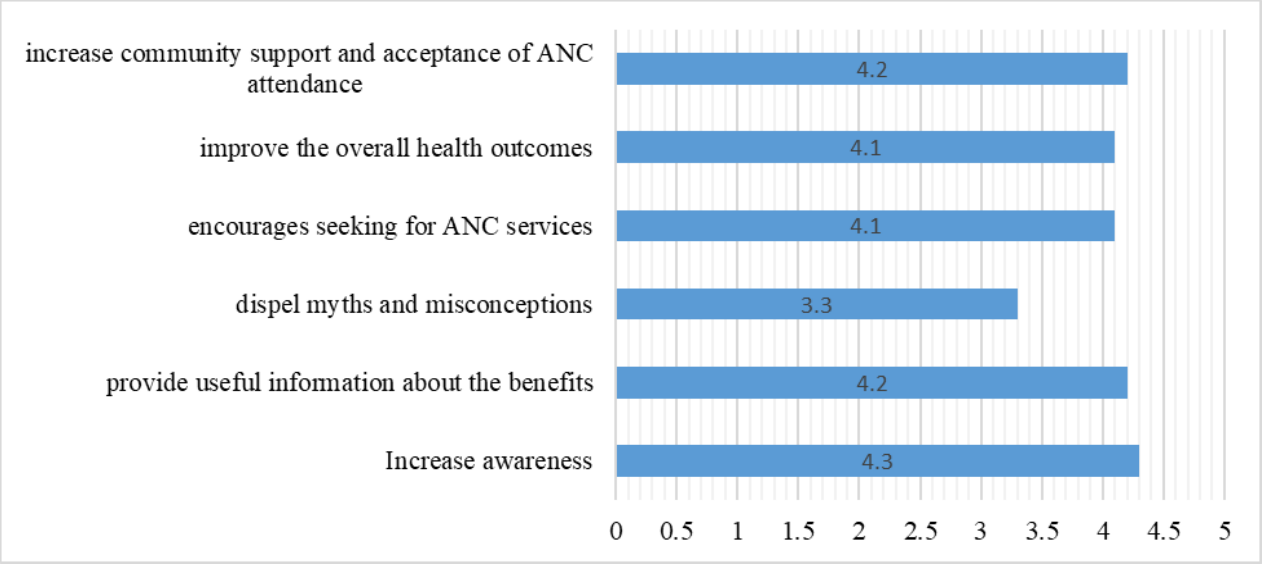


Figure 4: Mean score for each perceived benefits of mass media in promoting antenatal clinic attendance among pregnant women in Mufindi District Council.

4.6 Perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women in Mufindi district Council

The overall, the mean perceived barrier score for all participants was 13 (SD=2.51; range 7 to 20). For the various queries about perceived barrier of using mass media in promoting ANC clinic attendance, the most prominent barrier was Cost (mean=4.4, S.D= 0.92), other prominent barriers were lack of access to the necessary mass media channels (mean=3.54, S.D= 1.04), Language barrier (mean=2.88, S.D= 1.03), and the less scored perceived barrier was lack of cultural sensitivity and relevance in mass media messages (mean=2.52, S.D= 0.89). Figure 5 display the relationship between the various queries about perceived barrier of using mass media in promoting ANC clinic attendance.

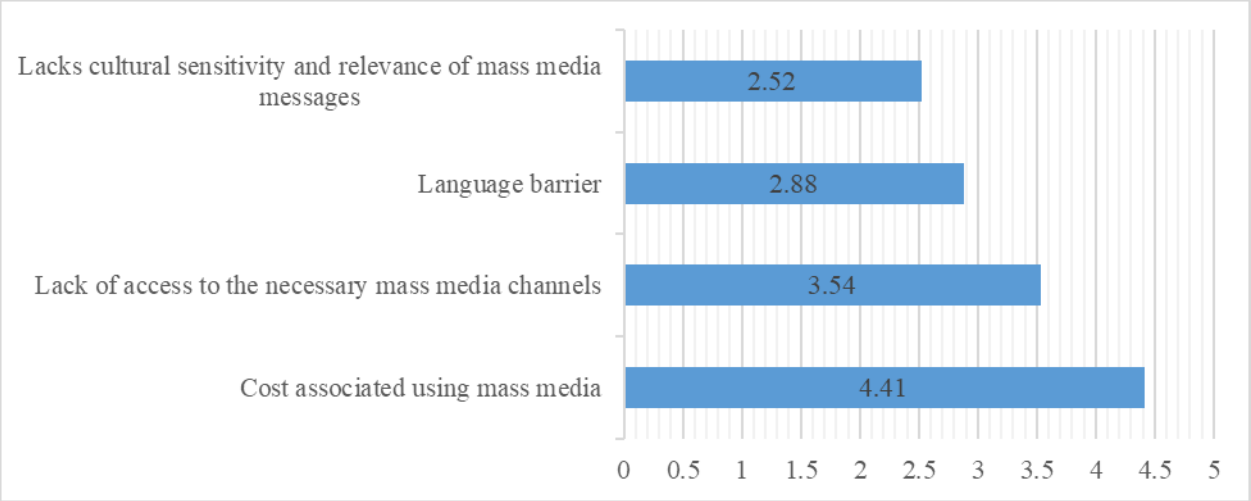


Figure 5: Mean score for each perceived barriers of using mass media in promoting antenatal clinic attendance among pregnant women in Mufindi District Council.

4.7 Bivariate and multivariate analysis for factors associated with ANC attendance among pregnant women

The results of bivariate and multivariate analyses regarding factors associated with ANC attendance among pregnant women are presented in Table 4.

Bivariate analysis revealed the odds of attending ANC clinic early increased down the age group. As compared to those participants aged between 15-24 years, participants aged 25-34 years had 1.26 times higher odds of attending ANC clinic early but it was not statistically significant, while participants aged between 35-44 years had 1.63 times higher odds of attending ANC clinic early and it was statistical significant with p-value of 0.004.

Multivariate analysis revealed the odds of attending ANC clinic early increased down the age group. As compared to those participants aged between 15-24 years, participants aged 25-34 years had 0.62 times lower odds of attending ANC clinic early but it was not statistically significant, while participants aged between 35-44 years had 1.38 times higher odds of attending ANC clinic early and it was statistical significant with p-value of 0.04.

Bivariate analysis revealed the odds of attending ANC clinic early increased down the education level group. As compared to those participants with no formal education

level, participants with primary school level had 0.30 times lower odds of attending ANC clinic early, participants with secondary school level had 0.39 times lower odds of attending ANC clinic early and participants with university/ college level had 1.14 times higher odds of attending ANC clinic early and it was statistically significant with p-value 0.033.

Marital status in bivariate analysis as compared to participants who were single, those married and co habit were 2.74 and 1.59 times higher odds of attending ANC clinic early respective and it was not statistical significant. Similarly, results were observed with multivariate analysis as compared to participants who were single, those married, co habit and divorced were 2.13, 1.89 and 1.71 times higher odds of attending ANC clinic early respective and it was not statistical significant.

In parity status among pregnant women in bivariate analysis revealed that as compared to those with multipara, those participants who were primipara were 1.35 times higher odds of attending ANC clinic early but it was not statistical significant and those who were multipara were 1.52 times higher odds of attending ANC clinic early and it was statistical significant with p-value of 0.003. Multivariate analysis revealed that as compared to those with nulliparous, those participants who were primipara were 1.53 times higher odds of attending ANC clinic early but it was not statistical significant and those who were multipara were 1.62 times higher odds of attending ANC clinic early and it was statistical significant with p-value of 0.02.

In the bivariate analysis, the occupation status demonstrated that participants who were unemployed had 0.62 times lower odds of attending ANC clinic early compared to those who were self-employed, although this association was not statistically significant. Conversely, participants who were employed showed 1.30 times higher odds of attending ANC clinic early, and this association was highly statistically significant, with a p-value of 0.001. In multivariate analysis, as compared to those participants who were self-employed, those participants who were unemployed were 0.40 times lower odds of attending ANC clinic early and it was statistically significant (p-value0.03) and those who were employed were 1.31 times higher odds of attending ANC clinic early and it was strong statistically significant (p-value of 0.006).

On the type of mass media exposed in bivariate analysis as compared to those participants who were exposed to single mass media. Those participants who were exposed to more than one mass media were 1.24 times higher odds of attending ANC clinic early and it was strong statistically significant (p-value 0.000). In multivariate analysis as compared to those participants who were exposed to single mass media, those participants who were exposed to more than one mass media were 1.29 times higher odds of attending ANC clinic early and it was strong statistically significant (p-value 0.002).

Table 5: Factor associated with ANC attendance in bivariate and multivariate analysis

Variable	Category	Bivariate analysis			Multivariate analysis		
		cOR	95% CI	P-Value	aOR	95% CI	P-Value
Age group	15-24 Years	Ref			Ref		
	25-34 Years	1.26	0.30-1.32	0.22	0.62	0.17-2.25	0.54
	35-44 Years	1.63	0.11-0.66	0.004	1.38	0.48-0.89	**0.04**
Education Level	Not attended school	Ref			Ref		
	Primary school	0.30	0.35-3.77	0.83	0.57	0.42-6.15	0.494
	Secondary school	0.39	0.15-1.04	0.06	0.59	0.19-2.27	0.444
	University/ college	1.14	0.09-0.96	0.04	1.60	0.15-0.75	**0.033***
Marital status	Single	Ref			Ref		
	Married	2.74	0.51-14.75	0.24	2.13	0.25-18.48	0.49
	Co-habit	1.59	0.31-8.12	0.58	1.89	0.24-14.91	0.54
	Divorced	1	0.12-8.31	1	1.71	0.13-23.39	0.69
	Widow	1			1		
Parity status	Nullipara	Ref			Ref		
	Primipara	1.35	0.25-1.05	0.07	1.53	0.23-1.66	0.34
	Multipara	1.52	0.18-0.69	0.003	1.62	0.19-0.46	**0.02***
Occupation	Self-employed	Ref			Ref		
	Employed	1.30	0.15-0.61	0.001	1.31	0.14-0.72	**0.006***
	Unemployed	0.62	0.31-1.25	0.18	0.40	0.17-0.94	**0.03***
Type of mass media	Single mass media	Ref			Ref		
	Multiple mass media	1.24	0.12-0.48	0.000	1.29	0.13-0.63	**0.002***

Key: cOR: crude Odds ratio, aOR: Adjusted odds ratio, CI: Confidence interval, Ref: Reference, *: significant

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CHAPTER FIVE

5.0 DISCUSSION

5.1 Antenatal clinic attendance

5.1.1 Time of first ANC among pregnant women

The findings of this study unveiled that 36.8% of pregnant women attended the ANC clinic early, defined as within the first 12 weeks of pregnancy. Despite this, the proportion of early attendance remains below the recommended threshold established by the World Health Organization (WHO) for antenatal care, which serves as a crucial component for the early identification and mitigation of pregnancy-related complications among women worldwide.

Comparing our results to prior studies conducted in Tanzania, variations emerge. Studies in Lushoto, and Kilolo, reported lower rates of early ANC attendance at 29.6% and 35% respectively (45,46). The disparity between our findings and those of previous studies could be attributed to the temporal context of our research. Our study took place in late 2023, during a period marked by ongoing reproductive and maternal projects implemented across various regions in Tanzania. It is plausible that these projects positively influenced and contributed to the observed increase in early ANC attendance among pregnant women nationwide. The concerted efforts of these initiatives may have fostered awareness, improved accessibility to healthcare services, and ultimately played a role in elevating the proportion of pregnant women seeking early antenatal care. This finding underscores the crucial necessity for reproductive and maternal healthcare interventions, for essential improvement in initiation of early antenatal care among pregnant women.

5.1.2 Number of antenatal clinic visits among pregnant women

This study unveiled that 69% of pregnant women attended four or more ANC visits during their pregnancy period. While this signifies that the majority are meeting the minimum recommended ANC visit number, there remains a crucial need for continued motivation of pregnant women to attend, given the significant importance for both maternal and child health.

These findings align with the Tanzania Demographic and Health Survey and malaria indicator survey conducted in 2022, which reported that 65% of women received four or more ANC visits during the pregnancy that resulted in their last live birth (47). The increase in these percentages underscores the persistent importance of mass media use in promoting and emphasizing the significance of adequate ANC attendance for the well-being of both mothers and children.

5.1.3 Type of mass media associated with antenatal clinic attendance among pregnant women

This study further unveiled a significant correlation between exposure to mass media messages promoting early ANC clinic attendance through multiple channels (such as TV, Radio, Printed materials, or Social media) and a higher likelihood of pregnant women attending ANC clinics within the initial 12 weeks of pregnancy.

This finding aligns with studies conducted in Africa, exemplified by a Malawian study, which similarly identified that exposure to multiple mass media channels significantly influenced the decision-making process of pregnant women, leading to their early attendance at nearby ANC clinics (48). Furthermore a systematic review conducted in sub-saharan Africa countries also revealed that the use of more than on mass media highly motivated pregnant women to attend ANC clinic early (49).

This finding underscores the potential effectiveness of utilizing multiple mass media channels to disseminate mass media since it creates an opportunity to enhance outreach and positively influence the timely utilization of antenatal care services among pregnant women.

5.1.4 Perceived benefits of using mass media to promote antenatal clinic attendance among pregnant women

The study revealed that the perceived benefits among pregnant women regarding the use of mass media in relation to ANC attendance. Notably, participants identified several advantages, including increased ANC awareness, the provision of valuable information about the benefits of early attendance within the first three months, encouragement to seek ANC services, potential improvement in overall health

outcomes, and the capacity of mass media to enhance community support and acceptance of ANC attendance.

These findings align consistently with studies conducted in developing countries. For example, research in Malawi and Nigeria similarly highlighted the positive impacts of employing mass media in maternal health (48,50,51). This finding highlights the effectiveness of mass media in influencing maternal healthcare perceptions and behaviors across diverse cultural and geographical contexts. It underscores the potential for tailored mass media interventions to be employed in enhancing maternal health education and fostering positive practices related to ANC attendance**.**

5.1.5 Perceived barriers of using mass media to promote antenatal clinic attendance among pregnant women

The study unveiled perceived barriers among pregnant women in utilizing mass media, including the associated costs, limited access to necessary channels, language barriers, and a lack of cultural sensitivity and relevance in mass media messages mirroring their community.

These perceived barriers are in consistent to the findings from other studies conducted in sub–Saharan Africa. For example, a study in sub Saharan Africa countries similarly reported that pregnant women with access to media were more likely to utilize antenatal care compared to those without access (48,50–53). This alignment in barriers underscores the importance of addressing issues such as affordability, accessibility, linguistic considerations, and cultural relevance in designing effective mass media interventions aimed at improving antenatal care utilization among pregnant women in diverse settings.

5.2 Study Limitation.

A limitation of this study was the reliance on self-reported measures, introducing the possibility of recall bias due to the retrospective recall of information. Despite this concern, it is noteworthy that the structured questionnaire employed in data collection demonstrated high clarity and underwent testing, likely aiding participants in accurate information recall.

Furthermore, the study's scope was confined to a one district (Mufindi), thereby restricting the generalizability of findings to the entire country. However, it is important to highlight that the current findings offer valuable insights into the positive impact of mass media on health service utilization, particularly in regions characterized by low ANC attendance in Tanzania

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

The study findings underscore a concerning trend, with only 36.8% of pregnant women adhering to the WHO's recommendation of attending ANC clinics early, within the first 12 weeks of pregnancy. Moreover, the study identified several factors associated with early ANC attendance, notably exposure to multiple mass media channels, higher education, previous pregnancy experiences, and employment status. While the utilization of mass media exhibited perceived benefits such as heightened ANC awareness, provision of valuable information, and encouragement to seek services, it also brought to light significant barriers, including cost and language-related challenges. These findings highlight the importance of addressing these barriers and leveraging the benefits of mass media to enhance early ANC attendance, ultimately contributing to improved maternal and child health outcomes.

6.2 Recommendations

The study suggests the following activities be implemented.

i. Diversify Media Channels: While implementing project that improving maternal and child health outcome, the Regional and District health teams and partners need to utilize a mix of TV, radio, printed materials, and social media in health campaigns to effectively reach pregnant women, taking into account the positive association between exposure to multiple media channels and early ANC attendance.

ii. Mitigate Cost and Language Barriers: The government and development partners should develop and implement initiatives aimed at reducing the financial burden of media use and ensuring culturally sensitive, linguistically relevant messages. These initiatives will help overcome perceived barriers such as cost and language, thereby enhancing accessibility to information and promoting early attendance at ANC clinics.

iii. Targeted Education Initiatives: It is imperative for the government and development partners to devise and execute focused educational programs tailored for women of reproductive age with limited education, especially in rural settings. These initiatives should emphasize the significance of early attendance at ANC clinics and elucidate the advantages it offers for maternal and child health.

iv. Entrepreneurship Development Programs: It is imperative for the government and development partners to develop and implement entrepreneurship development programs specifically catered to women of reproductive age, especially in rural settings. These programs should offer comprehensive training, mentorship, and access to resources essential for establishing their own businesses. Emphasizing sectors with substantial employment potential, such as agriculture, small-scale manufacturing, or service industries, can maximize the impact of these initiatives.

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8.0 APPENDEX

8.1 ANNEX 1: CONSENT FORMS

CONSENT FORM –ENGLISH VERSION

MUHIMBILI UNIVERSITY COLLEGE OF HEALTH SCIENCES

DIRECTORATE OF RESEARCH AND PUBLICATIONS, MUHAS

CONSENT FORM.

ID NO…….

Consent to participate in study.

Greetings! My name is REHEMA MUGETA. I am a university student pursuing Master's degree in Behaviour Change Communication for health at Muhimbili University of Health and Allied Sciences. On behalf of Muhimbili University of Health and Allied Sciences (MUHAS), I am conducting research on the influence of mass media messages in promoting early attendance to antenatal clinics among pregnant women in mufindi district council

Purpose of the study

This study has the purpose of collecting information on the influence of mass media messages in promoting early attendance to antenatal clinics among pregnant women in mufindi district council. You are requested to participate in this study because I believe you have a vital information which will meet the prime objective of conducting this study.

Confidentiality

I assure you any information you will prove shall be kept highly confidential and will not be shared to anyone except for those directly engaging in this study and for

fulfilment of this research purpose. Only people who are involved in this study will have access to the information of this study. Also, your names and other forms of identification will not be disclosed to anyone.

Requirement for the participation

If you consent to participate in this study, you will be required to answer a series of questions that have been prepared for the study through interviewing and allow me to observe it in order to obtain the intended information regarding the influence of mass media messages in promoting early attendance to antenatal clinics among pregnant women in Mufindi district council.

Benefits

The information provided will help to understand the influence of mass media messages in promoting early attendance to antenatal clinics among pregnant women in Mufindi district council: being a Case of Mufindi district Council will help to disseminate the findings to relevant authority that will help to the improve in designing of messages that aim at communicating the importance of early ANC attendance among pregnant women.

Right to withdraw and alternatives

Your participation in this study is entirely your choice. If you choose not to participate in the study or if you decide to stop participating in the study you will not get any harm or punished. You can stop participating in this study at any time, even if you have already signed the consent form. If you refuse to participate or withdrawal from the study will not involve penalty or loss of any benefits to which you are entitled.

Risks

We do not anticipate any harm to occur to you because of your participation to this study.

In case of injury

We do not expect any harm to occur to you or your family as a result of your participation to this study.

Whom to Contact: In case of any question or query concerning this study, please contact the principal investigator, Rehema Mugeta (MSc BCC) from MUHAS, P. O. BOX 65001, Dar es Salaam, mobile number 0762861623. If you have any question about your rights as a participant you may contact Dr Bruno Sunguya, Chairperson of the research and Publications Committee, MUHAS. P.O. Box 65001, Dar es Salaam-Tanzania, Tel +2552150302-6).

Signature

Do you agree?

Participant agree_____, not agree _____

I _____ have read the content in this form, my questions have been answered, I agree to participate in this study

Signature of Participant_____

Signature of Research assistant_____

Date of signed consent_____

8.2 APPENDIX 2: CONSENT FORM – SWAHILI VERSION

CHUO KIKUU CHA AFYA NA SAYANSI SHIRIKISHI MUHIMBILI.

KAMATI YA UTAFITI NA MACHAPISHO, MUHAS

FOMU YA RIDHAA

Namba ya utambulisho……

Ridhaa kushiriki kwenye utafiti

Utambulisho Habari, naitwa **REHEMA MUGETA**, ni mwanafunzi wa shahada ya uzamili ya sayansi ya mawasiliano ya mabadiliko ya tabia katika afya, katika chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili. Kwa niaba ya Chuo kikuu cha Afya na Sayansi shirikishi Muhimbili naomba ridhaa yako ili kufanya utafiti kuhusu ushawishi wa ujumbe unaotolewa na vyombo vya habari katika kuhamasisha mahudhurio ya mapema katika kliniki za wajawazito miongoni mwa wanawake walio katika umri wa uzazi katika halmashauri ya wilaya ya Mufindi.

Madhumuni ya utafiti

Lengo la utafiti huu ni kufanya utafiti kuhusu ushawishi wa ujumbe unaotolewa na vyombo vya habari katika kuhamasisha mahudhurio ya mapema katika kliniki za wajawazito miongoni mwa wanawake walio katika umri wa uzazi katika halmashauri ya wilaya ya Mufindi.

Matokeo ya utafiti huu yatasaidia kuongeza uelewa katika ujumbe unaotolewa, Pia uelewa huo utawasaidia wahusika kutengeneza na kuja na mkakati kwa ajili ya kuboresha utolewaji wa ujumbe ili kuwafikia wanawake, na kuhamasisha mahundurio ya mapema ya kliniki kwa wajawazito miongoni mwa wanawake walio katika umri wa uzazi.

Usiri

Taarifa zote utakazozitoa, kwa ajili ya utafiti huu kupitia mahojiano, zitakua ni siri na hakuna mtu mwingine ambaye hahusiki kwenye utafiti huu atakaziona.

Baada ya ukusanyaji wa taarifa zote, itaandaliwa ripoti ya utafiti huu, katika ripoti hiyo, jina la mtu aliyeshiriki kutoa taarifa halitatajwa wala utambulisho wowote mwingine hautaoneshwa kwenye ripoti hiyo. Namba iliyowekwa kwenye fomu ya dodoso ndio itatumika kama utambulisho wa taarifa utakayotoa.

Mahitaji katika ushiriki

Ukiridhia kushiriki katika utafiti huu, utatakiwa kujibu maswahi kadhaa na. yaliyoandaliwa katika dodoso maalum lililoandaliwa.

Faida

Taarifa za utafiti huu zitasaidia sana katika kuwajulisha wahusika juu ya umuhimu wa ushawishi wa ujumbe unaotolewa na vyombo vya habari katika kuhamasisha mahudhurio ya mapema katika kliniki za wajawazito miongoni mwa wanawake walio katika umri wa uzazi, ili kuweza kuhakikisha ujumbe unaotolewa unaboreshwa hivyo kusaidia uhudhuriaji wa mapema wa kliniki na hivyo kuboresha afya ya wanawake walio katika umri wa uzazi.

Haki ya kujitoa au vinginevyo

Kushiriki katika utafiti huu ni hiyari na sio lazima. Hivyo unaweza kuamua kutoendelea kwenye utafiti huu wakati wowote na hakutakua na adhabu wala hutapoteza haki yako yoyote.

Madhara

Utaulizwa maswali kuhusiana na umuhimu wa ushawishi wa ujumbe unaotolewa na vyombo vya habari katika kuhamasisha mahudhurio ya mapema katika kliniki za wajawazito miongoni mwa wanawake walio katika umri wa uzazi. Hakuna madhara yeyote yatakayojitokeza kwako kutokana na ushiriki katika utafiti huu.

Wajibu wa mtafiti mwanajamii aliyeridhia kushiriki katika utafiti huu

Mtafiti atawajibika kumuelekeza au kumpatia maelezo yakinifu mtu yeyote atakayehutaji kujua kuhusu dhumuni la utafiti huu.

Mawasiliano

Kama utahitaji ufafanuzi zaidi juu ya utafiti huu, usisite kuwasiliana na Mtafiti Mkuu Rehema Mugeta, mwanafunzi wa shahada ya uzamili ya sayansi ya mawasiliano ya

mabadiliko ya tabia katika chuo kikuu cha Afya na Sayansi Shirkishi, Muhimbili S. L. P 65001, Dar es Salaam au namba ya kiganjani 0762861623. Kama una swali juu ya stahili zako unaweza kuwasiliana na Dr Bruno Sunguya, mwenyekiti wa kamati ya utafiti na Machapisho, S. L. P 65001, chuo kikuu cha Afya na Sayansi Shirkishi, Muhimbili S. L. P 65001, Dar es Salaam au namba +2552150302-6.

Je, Umekubali?

Mshiriki amekubali ( ), Mshiriki hajakubali ( )

Mimi_____nimesoma/nimeelezewa na kuridhia maelezo yote yaliyotolewa katika fomu hii, hivyo kwa ridhaa yangu mwenyewe nakubali kushiriki katika utafiti huu.

Saini ya Mshiriki_____

Sahihi ya mtafiti msaidizi_____

Tarehe _____

8.3 ANNEX 3: DATA COLLECTION TOOLS

ANNEX 1.1 QUESTIONNAIRES: ENLGISH VERISON

SECTION 1: SOCIO-DEMOGRAPHIC INFORMATION

1. Patient information (Initials) [……]
2. How old are you? [……]
3. What is your marital status?

A. Single
B. Married
C. Co-Habit,
D. Divorced

4. What is your educational level?

A. Primary
B. Secondary
C. College/University
D. Did not attend.

5. What is your occupation?

A. Self-employed
B. Employed
C. Not employed

6. What is your monthly income?

A. Less 200,000 Tsh
B. 200-500,000 Tsh
C. More 500,000 Tsh

7. Parity 

(Number of previous pregnancies carried to viability or live births)

SECTION 2: ANC ATTENDANCE.

1. Did you attend antenatal care during your last pregnancy?

A. Yes
B. No

2. If **YES** at what gestational age did you attend your first antenatal visit during your last pregnancy?

A. Less than 12 weeks/first trimester
B. 12-24 weeks/second trimester
C. 24 weeks or more/third trimester
D. Did not attend antenatal care

3. How many antenatal visits did you attend during your last pregnancy?

A. Less than 4 visits
B. 4-6 visits
C. 7 or more visits
D. Did not attend antenatal care

SECTION 3: TYPE OF MASS MEDIA EXPOSURED.

1. Have you heard or seen any mass media messages about the importance of early ANC attendance?

A. YES

B. NO

2. If **YES**, what types of mass media have you encountered the messages on? (Tick all that apply)

A. TV
B. Radio
C. Newspapers or magazines
D. Social media platforms
E. Other (please specify) _____

3. Did the mass media messages influence your decision to attend ANC early during your last pregnancy?

1. YES

2. NO

4. If **NO**, what other factors influenced your decision to attend ANC early during your last pregnancy?

Mention [……..….]

SECTION 4: MEDIA EXPOSURE FREQUENCY.

1. How often do you watch TV in a typical week?

1. Never
2. Rarely (once a week or less)
3. Occasionally (2-4 times a week)
4. Regularly (5-7 times a week)
5. Often (more than 7 times a week)
6. I don't know/unsure

2. How often do you listen to the radio in a typical week?

1. Never
2. Rarely (once a week or less)
3. Occasionally (2-4 times a week)
4. Regularly (5-7 times a week)
5. Often (more than 7 times a week)
6. I don't know/unsure

3. How often do you read newspapers or magazines in a typical week?

1. Never
2. Rarely (once a week or less)
3. Occasionally (2-4 times a week)
4. Regularly (5-7 times a week)
5. Often (more than 7 times a week)
6. I don't know/unsure

4. How often do you use social media platforms in a typical week?

1. Never
2. Rarely (once a week or less)
3. Occasionally (2-4 times a week)

4. Regularly (5-7 times a week)
5. Often (more than 7 times a week)
6. I don't know/unsure

SECTION 5: ANC ATTENDANCE

1. Have you ever been pregnant?

A. Yes
B. No

2. If yes, how many times have you been pregnant?

A. 1 pregnancy
B. 2 pregnancy
C. 3 pregnancy
D. 4 or more pregnancy

3. During your last pregnancy, how early did you attend your first ANC visit?

A. Less than 12 weeks/first trimester
B. 12-24 weeks/second trimester
C. 24 weeks or more/third trimester
D. Did not attend ANC

SECTION 6

PERCIVED BENEFITS QUESTIONS

1. Mass media campaigns increase awareness about the importance of ANC attendance.

1 - Strongly Disagree

2 - Disagree

3 - Neutral

4 - Agree

5 - Strongly Agree

2. Mass media messages provide useful information about the benefits of ANC for pregnant women.

1 - Strongly Disagree

2 - Disagree

3 - Neutral

4 - Agree

5 - Strongly Agree

3. Mass media campaigns help to dispel myths and misconceptions about ANC attendance

1 - Strongly Disagree

2 - Disagree

3 - Neutral

4 - Agree

5 - Strongly Agree

4. Mass media promotion encourages pregnant women to seek ANC services early in their pregnancy.

1 - Strongly Disagree

2 - Disagree

3 - Neutral

4 - Agree
5 - Strongly Agree

5. Mass media campaigns improve the overall health outcomes for pregnant women and their babies.
1 - Strongly Disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly Agree

6. Mass media campaigns increase community support and acceptance of ANC attendance among pregnant women.
1 - Strongly Disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly Agree

7. Mass media campaigns increase community support and acceptance of ANC attendance among pregnant women.
1 - Strongly Disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly Agree

8. Mass media messages make pregnant women feel more confident and motivated to attend ANC appointments.
1 - Strongly Disagree
2 - Disagree
3 - Neutral

4 - Agree

5 - Strongly Agree

PART 6: PERCEIVED BARRIERS QUESTIONS

1. The cost of accessing ANC services after seeing mass media advertisements is a barrier for me.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

2. The ANC services promoted through mass media are not easily accessible in my area.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

3. Do you think language barriers might prevent some pregnant women from fully understanding the information provided during antenatal clinic visits?

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

4. The messages delivered through mass media are not clear and easy to understand.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

5. Do you think that the content of mass media messages lacks cultural sensitivity and relevance to the local population in Mufindi District Council?

6. Strongly Disagree
7. Disagree
8. Neutral
9. Agree
10. Strongly Agree

8.4 ANNEX 4: QUESTIONNAIRE KISWAHILI VERSION

MAHOJIANO

SEHEMU YA 1: TAARIFA ZA KIJAMII-DEMOGRAFIA

1. Taarifa za mshiriki (herufi za kwanza za majina yake) [……]

2. Una umri gani?

3. Hali yako ya ndoa ikoje?

A. Hajaolewa
B. Ameolewa
C. Anaishi na mwenza,
D. Ameachika
E. Mjane

4. Kiwango chako cha elimu ni kipi?

A. Msingi
B. Sekondari
C. Chuo/Chuo Kikuu
D. Hakuhudhuria.

5. Kazi yako ni nini?

A. Kujiajiri
B. Kuajiriwa
C. Hajaajiriwa

6. Mapato yako ya kila mwezi ni yapi?

A. Chini ya 200,000 Tsh
B. 200-500,000 Tsh
C. Zaidi 500,000 Tsh

7. Huu kwako ni ujauzito wa ngap?

SEHEMU YA 3: MAHUDHURIO YA KLINIKI.

1. Je, ulihudhuria utunzaji wa ujauzito wakati wa ujauzito wako wa mwisho?

Ndiyo

Hapana

2. Ikiwa NDIYO katika umri gani wa ujauzito ulihudhuria ziara yako ya kwanza ya ujauzito wakati wa ujauzito wako wa mwisho?

A. Chini ya wiki 12
B. Wiki 12-24
C. Wiki 24 au zaidi
D. Hakuhudhuria kliniki ya wajawazito

3. Je, ulihudhuria mara ngapi katika ujauzito wako wa mwisho?

A. Chini ya ziara 4
B. Ziara 4-6
C. Ziara 7 au zaidi
D. Hakuhudhuria utunzaji wa ujauzito

SEHEMU YA 3: AINA YA VYOMBO VYA HABARI VILIVYOTUMIKA.

1. Je, umesikia au kuona ujumbe wowote wa vyombo vya habari kuhusu umuhimu wa kuhudhuria mapema kwa kliniki?

A. NDIYO
B. HAPANA

2. Kama NDIYO, ni aina gani za vyombo vya habari umekumbana na jumbe hizo? (Weka yote yanayotumika)

1. TV
2. Redio
3. Magazeti au majarida
4. Mitandao ya kijamii
5. Nyingine (tafadhali taja) _____

3. Je, jumbe za vyombo vya habari ziliathiri uamuzi wako wa kuhudhuria kliniki mapema wakati wa ujauzito wako wa mwisho?

A. NDIYO
B. HAPANA

4. Ikiwa HAPANA, ni mambo gani mengine yaliathiri uamuzi wako wa kuhudhuria kliniki mapema wakati wa ujauzito wako wa mwisho?

Taja […]…….]

SEHEMU YA 4: UPATIKANAJI WA TAARIFA KUPITIA VYOMBO VYA HABARI.

1. Je, ni mara ngapi unatazama TV katika wiki ya kawaida?

1. Kamwe
2. Mara chache (mara moja kwa wiki au chini ya hapo)
3. Mara kwa mara (mara 2-4 kwa wiki)
4. Mara kwa mara (mara 5-7 kwa wiki)
5. Mara nyingi (zaidi ya mara 7 kwa wiki)
6. Sijui/sina uhakika

2. Je, ni mara ngapi unasikiliza redio katika wiki ya kawaida?

A. Kamwe
B. Mara chache (mara moja kwa wiki au chini ya hapo)
C. Mara kwa mara (mara 2-4 kwa wiki)
D. Mara kwa mara (mara 5-7 kwa wiki)
E. Mara nyingi (zaidi ya mara 7 kwa wiki)
F. Sijui/sina uhakika

3. Je, ni mara ngapi unasoma magazeti au majarida katika wiki ya kawaida?

1. Kamwe
2. Mara chache (mara moja kwa wiki au chini ya hapo)
3. Mara kwa mara (mara 2-4 kwa wiki)
4. Mara kwa mara (mara 5-7 kwa wiki)
5. Mara nyingi (zaidi ya mara 7 kwa wiki)
6. Sijui/sina uhakika

4. Je, wewe hutumia mitandao ya kijamii mara ngapi kwa wiki ya kawaida?

1. Kamwe
2. Mara chache (mara moja kwa wiki au chini ya hapo)

3. Mara kwa mara (mara 2-4 kwa wiki)
4. Mara kwa mara (mara 5-7 kwa wiki)
5. Mara nyingi (zaidi ya mara 7 kwa wiki)
6. Sijui/sina uhakika

SEHEMU YA 5: MAHUDHURIO YA KLINIKI

1. Je, umewahi kuwa mjamzito?

1. Ndiyo
2. Hapana

2. Ikiwa ndio, umekuwa mjamzito mara ngapi?

1. Mara moja
2. Mara mbili
3. Mara tatu
4. Mara nne au zaidi

3. Wakati wa ujauzito wako wa mwisho, ulihudhuria ziara yako ya kwanza ya kliniki mapema kiasi gani?

1. Chini ya wiki 12
2. Wiki 12-24
3. Wiki 24 au zaidi
4. Hakuhudhuria kliniki

SEHEMU YA 3: MTAZAMO NA MUELEKEO

9. Kampeni za vyombo vya habari huongeza ufahamu kuhusu umuhimu wa mahudhurio ya klinic ya ujauzito

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

10. Ujumbe wa vyombo vya habari hutoa taarifa muhimu kuhusu manufaa ya klinic ya ujauzito kwa wanawake wajawazito.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana

4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

11. Kampeni za vyombo vya habari husaidia kuondoa dhana potofu na imani potofu kuhusu mahudhurio ya klinic ya ujauzito

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

12. Ukuzaji wa vyombo vya habari huhimiza wanawake wajawazito kutafuta huduma za klinic ya ujauzito mapema katika ujauzito wao.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

13. Kampeni za vyombo vya habari huboresha matokeo ya jumla ya afya kwa wanawake wajawazito na watoto wao.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

14. Kampeni za vyombo vya habari huongeza usaidizi wa jamii na kukubalika kwa mahudhurio ya klinic ya ujauzito miongoni mwa wanawake wajawazito.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

15. Kampeni za vyombo vya habari huongeza usaidizi wa jamii na kukubalika kwa mahudhurio ya klinic ya ujauzito miongoni mwa wanawake wajawazito.

1. Muhimu sana

2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

16. Ujumbe wa vyombo vya habari huwafanya wanawake wajawazito kujiamini zaidi na kuhamasishwa kuhudhuria miadi ya klinic ya ujauzito.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

SEHEMU YA 6: MASWALI YA VIZUIZI WANAVYOVIONA.

1. Gharama ya kupata/kuona/kusikiliza matangazo ya vyombo vya habari kuusu klinic ya ujauzito ni kikwazo kwangu.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

6. Huduma za kliniki za wajawazito zinazotangazwa kupitia vyombo vya habari hazipatikani kwa urahisi katika eneo langu

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

7. Je, unafikiri vizuizi vya lugha vinaweza kuwazuia baadhi ya wajawazito kuelewa kikamilifu taarifa zinazotolewa wakati wa kutangaza/kuandika habari za kliniki za wajawazito?

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana

4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

8. Ujumbe unaotolewa kupitia vyombo vya habari si wazi/si rahisi kueleweka.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

9. Je, unadhani maudhui ya jumbe za vyombo vya habari hayana uelewa wa kitamaduni na umuhimu kwa wakazi wa Halmashauri ya Wilaya ya Mufindi?

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

10. Sina motisha ya kutafuta ANC kulingana na matangazo au ujumbe kwenye vyombo vya habari.

1. Muhimu sana
2. Muhimu kwa kiasi Fulani
3. Sio muhimu sana
4. Sio muhimu hata kidogo
5. Sina uhakika/Sijui

8.5 ANNEX 5; ETHICAL CLEARANCE (1/2)

UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR – RESEARCH, PUBLICATIONS AND INNOVATIONS

Ref. No.DA.282/298/01.C/ Date: 03/10/2023

MUHAS-REC-10-2023-1928
Rehema Mugeta
Shool of Public Health and Social Sciences
MUHAS

RE: APPROVAL FOR ETHICAL CLEARANCE FOR A STUDY TITLED: Mass Media Use and Antenatal Clinic Attendance Among Pregnant Women in Mufindi District Council

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: 03/10/2023
EXPIRATION DATE OF APPROVAL: 03/10/2024

STUDY DESCRIPTION:
Purpose:
The purpose of this observational cross sectional study is to understand what mass media is associated with antenatal care attendance among pregnant women in Mufindi District Council.

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-%2014973.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. Apply for and obtain permission to publish the results from National Institute for Medical Research. The application should be before submitting to a publisher and not concurrently through the email publications@nimr.or.tz.
9. 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)
10. The PI is required to ensure that the findings of the study are disseminated to relevant stake holders.
11. PI is required to be versed with necessary laws and regulatory policies that govern research in Tanzania. Some guidance is available on our website https://drp.muhas.ac.tz/.

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

8.6 ANNEX 6: 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.632/2021

04th October, 2023

The Regional Administrative Secretary,
P.O. Box 858,
IRINGA

Re: INTRODUCTION LETTER

We would like to inform you that the bearer of this letter is Rehema Mugeta with Reg. No. HD/MUH/T.632/2021 is a student at Muhimbili University of Health and Allied Sciences (MUHAS) "pursuing MSc. Behavioral Change Control.

As part of her studies, she will be doing an elective research titled: "**Mass Media Use and Antenatal Clinic Attendance Among Pregnant Women in Mufindi District Council.**"

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

Kindly provide her the necessary assistance to facilitate the conduct of her research.

We thank you for your cooperation.

Ms. Victoria Mwanilwa
For: DIRECTOR, POSTGRADUATE STUDIES

c.c Rehema Mugeta

9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam: Tel. G/Line: +255-22-2150302/6; Ext. 1015; Direct Line:+255-22-2151378;Telefax:+255-22-2150465;E-mail:dpgs@muhas.ac.tz;Web https://www.muhas.ac.tz

8.7 ANNEX 7: ACCEPTANCE LETTER

THE UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE

REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

Tel: +255 026 2702191
+255 026 2702715
Fax No. +255 026 2702082
E-mail: ras@iringa.go.tz
Website: http://www.iringa.go.tz

Regional Commissioner's, Office
4 Pawaga Road,
Gangilonga Street,
P.O.Box 858,
51108 IRINGA.

In reply please quote;
Ref. No. FA. 265/255/015/106

05th October, 2023

Executive Director,
Mufindi District Council,
P.O.BOX 223,
IRINGA.

RE: RESEARCH CLEARANCE

Reference is made to the heading above captioned matter.

2. This is to introduce to you **Ms. Rehema Mugeta,** a bonafide student of the University of Dodoma who is at no moment conducting research on *"Mass Media Use and Antenatal Clinic Attendance Among Pregnant Women"* **at Mufindi District Council.** The period of Research is from **09th October, 2023** to **20th October, 2023**.

3. Please avaid her all necessary assistance to achieve her Research objectives.

=== Thanks for your cooperation.

Helen Chisanga
For: **REGIONAL ADMINISTRATIVE SECRETARY.**

Copy:	Regional Administrative Secretary	- *To see in the file.*
	Ms. Rehema Mugeta	- Copy.
	MUHAS	- Copy.