NURSES/MIDWIVES' PERSPECTIVE ON THE IMPLEMENTATION OF THE NEW NATIONAL ANTENATAL CARE GUIDELINES AT THE REPRODUCTIVE AND CHILD HEALTH CLINICS IN DAR ES SALAAM CITY COUNCIL

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By

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A dissertation submission in partial fulfillment of the requirements for the degree of Masters of Science (Midwifery and Women's Health) of

The Muhimbili University of Health and Allied Sciences.

October, 2024

CERTIFICATION

In partial fulfillment of the requirements for the degree of Master of Science in Midwifery and Women's Health of Muhimbili University of Health and Allied Sciences, the undersigned certifies that he has read the dissertation titled **"**Midwives' and Nurses' Perspectives on Implementation of the new national antenatal care guidelines in Dar es Salaam city council" and hereby recommends it be accepted by the University of Muhimbili Health and Allied sciences.

…….

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Supervisor

…….

Date

……..

Mr. Victor Chikwala

(Co-Supervisor)

……

Date

DECLARATION AND COPYRIGHT

I, Victoria Michael Ntara, hereby declare that this dissertation is wholly original with no submission to other universities for consideration for any other degree.

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LIST OF ABBREVIATIONS

ARRH	Amana Regional Referral Hospital
ANC	Antenatal Care
CHMT	Council Health Management Team
CHW	Community Health Worker
CME	Continuous Medical Education
DHIS-2	District Health Information Software 2
FGD	Focus Group Discussion
FGD1	Amana Health Centre focus group number one
FGD2	Amana Health Centre focus group two
FGD3	Chanika health Centre
FGD4	Pugu Health Centre
FGD5	Kivule District Hospital
FANC	Focused Antenatal Care
HCP	Health Care Provider
HIV	Human Immuno- Deficiency Virus
HMT	Hospital Management Team
LMICs	Low and Middle-Income Countries
MMR	Maternal Mortality Ratio
MUHAS	Muhimbili University of Health and Allied Sciences

MoH	Ministry of Health
MDGs	Millenium Development Goals
NBS	National Bureau of Statistics
NMR	Neonatal Mortality ratio
PPP	Private-Public Partnership
PMTCT	Prevention of Mother To Child Transmission
RCH	Reproductive and Child Health
SDGs	Sustainable Development Goals
SP	Sulfadoxine - Pyrimethamine
SOP	Standard Operating Procedure
TDHS	Tanzania Demographic and Health Survey
TDHS-MIS	Tanzania Demographic and Health Survey and Malaria Indicator Survey
WHO	World Health Organization
GBV	Gender-Based Violence
RRH	Regional Referral Hospital

DEFINITION OF KEY TERMS

Antenatal care (ANC) is the care given to pregnant women and adolescents by a skilled healthcare provider to ensure the well-being of both the mother and her unborn baby during pregnancy. (1)

Contact means an active connection between a healthcare provider and a pregnant woman (2).

Guidelines are the set of rules or instructions that are given by authorities explaining or suggesting how to do something specifically the difficult one.

Maternal Mortality is the annual number of deaths of a female due to any cause either related to or worsened by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, regardless of the site and duration of the pregnancy.

Neonatal mortality is the death of a baby at the age from birth to 28 weeks of life (3).

Perinatal Mortality is a fetal death or early neonatal death. The death of a baby occurs at the age between 28 weeks of gestation and up to 7 days of life (3).

ABSTRACT

Background

Antenatal care guidelines are a worldwide known technical document that guides the provision of Antenatal care (ANC) to pregnant women, their unborn babies, and neonates. In Tanzania, three different ANC models have been practiced, which were the traditional model used in 2002 back, the Focused Antenatal Care (FANC) model from 2002 to 2019, where the new ANC model took over. Implementing the ANC guidelines contributes to positive pregnancy outcomes. Midwives and nurses play a crucial role in the implementation of ANC guidelines as 80% of ANC services in our country are provided by them. The number of contacts and quality of care during pregnancy are associated with maternal and neonatal outcomes. Recent studies found that the FANC model contributed to more perinatal deaths than the eight contacts ANC model. This is because asymptomatic conditions may occur suddenly in the third trimester and therefore increased number of visits may help to detect them earlier and allow for timely management. In Tanzania despite shifting from the FANC model to the new model in 2020, perinatal mortality remains unchanged (38 per 1000 live births). This study aimed to explore the nurses/midwives' perspectives on implementing the new national ANC guidelines at the RCHC in the Dar es Salaam city council.

Material and Method

This study is an exploratory qualitative design. The study participants were nurse-midwives working in the RCH clinics, who were involved in antenatal care at the selected health facilities in Dar es Salaam City Council, nurse-midwives with a minimum of six months of experience in antenatal care were included and those who were sick, on leave, or out for other duties at the time of the study were excluded. A purposive sampling method was used to obtain the health facility and participants of the study. The data was collected using focused group discussions. An audio recorder and notebook were used to store the collected data from the field. Thematic analysis as developed by Braun and Clarke used to analyze the data.

Study findings

Participants in this study perceived that the implementing of the new national ANC guidelines was usefulness in reducing maternal and neonatal death, improving pregnancy outcomes, and enhancing antenatal care service delivery and provider's proficiency with ANC. The perceived factors facilitating new national ANC guidelines implementation were the availability of health commodities, together with provider's awareness, positive attitude, knowledge and skills, refresher training, supervision, and clinical audit regarding the new national ANC guidelines. Perceived challenges to implementing ANC guidelines included inadequate staff, insufficient health commodities, lack of training and supervision, and improper health facility set up. Additionally, client's inability to afford some of ANC services were perceived as a barrier to the successful implementation of the new ANC guidelines.

Conclusion

We found that, while nurses/midwives perceived the implementation of the new ANC guidelines as useful and recognized factors that facilitated its implementation, several challenges were also perceived to hinder it. Therefore, all key stake holders involved in implementing the new ANC guidelines must work to enhance the existing facilitators and address the challenges to improve the implementation within the Dar es Salaam city council.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Antenatal care guidelines are the worldwide known technical document that guides the provision of Antenatal care (ANC) to pregnant women, their unborn babies, and neonates (4). When a woman attends, ANC is expected to meet a skilled health care provider who will provide a package of interventions to identify risks, prevent and manage any disease related to pregnancy as well as health education and health promotion interventions (5). Different ANC models have been practiced in our country for various periods of time prior to the new national ANC guidelines that are in use. The traditional ANC model was used in 2002 and back which had 11^{+} ANC visits, followed by the Focused Antenatal Care (FANC) model from 2002 to 2019 which had four ANC visits, and currently the new ANC model with 8 ANC contacts which was introduced in 2020 (4,6)**.**

Tanzania developed new ANC guidelines adopting the 2016 WHO new ANC guidelines in 2018 aiming to improve the quality of ANC services (4). The new ANC guidelines suggest changing visits to contacts as this implies the active connection between a healthcare provider and a pregnant woman (2). The contacts are scheduled at, the 12^{th}, the 20^{th}, 26^{th}, 30^{th}, 34^{th}, 36^{th}, $38^{th,}$ and 40^{th} weeks of gestation and if the woman has not given birth, she should have another contact at 41 weeks. Not only the contacts but the new ANC model recommends other new interventions (4,5). Among the reasons WHO changed the guidelines to eight contacts was the evidence that under the visit ANC model, there were more perinatal deaths (7,8). Eight contacts ANC model was found to reduce perinatal mortality to less than 8 per 1000 live births (5). This is because asymptomatic conditions like pre-eclampsia, fetal growth restriction, and unexplained fetal death may occur suddenly in the third trimester and therefore increased number of visits may help to detect them earlier or may elicit a report of reduced fetal movement and allow for timely management (7)**.** Studies found that the number of ANC visits as suggested

in the guidelines and quality of ANC is inversely correlated with maternal and neonatal outcomes(2,9).

Research indicates that implementing the ANC guidelines contributes to positive pregnancy outcomes for the woman and fetus (10). The guidelines stipulate the specific interventions a woman should receive in each contact (4). Therefore increases the provider's confidence in the care s/he provides because is evidence-based and improves the process of care (10). Studies confirm eight ANC contacts result in an increased number of women giving birth in the health facility and early post-natal care implementation in LMICs (11), it strengthens communication between provider and client and improves quality of care (10). It also reduces medical error and tension of health care quality against its cost. Healthcare providers need to use ANC guidelines to improve neonatal outcomes (9).

In the majority of LMICs, the updated ANC guidelines as proposed by the WHO are still not widely implemented. The prevalence of eight ANC contacts was found to be 1% in Senegal, Zambia, and Uganda, 2% in Mozambique, 3% in Guinea and Mali, 8% in Cameroon, 9% in Benin, 10% in Papua New Guinea, 20% in Nigeria, 30% in Albania, 43% in Ghana, and 74% in Jordan (12). (12). In our country, implementation began in the Dar es Salaam region in 2020 and spread to other regions, reaching the entire mainland by 2023 (DHIS-2).

One of the challenges facing the health care system globally is enhancing the quality of care while utilizing the guidelines (9,13,14). For example, in Ethiopia, although healthcare providers acknowledge the benefit of utilizing ANC guidelines, they do not utilize it fully (32.25%)(10,13).

Overall implementation of first-visit ANC standards among healthcare providers from the previous model in Tanzania was low at 47.1% (14). The number of contacts and quality of care during pregnancy are associated with maternal and neonatal outcomes (9). Following development and its establishment, the New ANC guidelines were expected to bring changes in the quality of ANC services and improve maternal and child health hence contributing to the reduction of perinatal death. Despite shifting to the new ANC guidelines, perinatal mortality

remains unchanged (38 per 1000 live births) within the period of implementation (3). This shows that there are challenges accompanying the implementation of the new national ANC guidelines. This study aimed to explore the Nurse/midwives' perspectives on the implementation of the new National ANC guidelines. The study was done in Dar es Salaam city council, Dar es Salaam region considering that, they are the earlier region that started implementing the guidelines.

1.2 Problem statement

Perinatal death remains unacceptably high despite a great achievement that has been made in maternal and child health in the country within seven years (3). Tanzania's national average for perinatal death is 38 per 1000 live births; however, the eastern zone has significantly higher rates, at 68 per 1000 live births (3). More than 85% of newborn deaths take place in the first week of life, and up to half of those deaths happen in the first 24 hours of life. Pregnancy, labor, and delivery account for the majority of these deaths (4,15).

Studies show that receiving high-quality antenatal care can considerably lower the death rates of both mothers and newborns (10). Pregnancy care provided in accordance with ANC recommendations benefits the expectant mother as well as the unborn child (4,10).WHO recommends the eight ANC contacts model as it is proven to reduce perinatal deaths by up to 8 per 1,000 live births (5). In addition to various interventions, Tanzania adopted new ANC guidelines in 2018, following WHO recommendations to reduce perinatal mortality (including neonatal mortality) and increase positive pregnancy experience (4,5). Implementation of this new guidelines commenced gradually in 2020, with Dar es Salaam being the first region followed by other regions. Despite changes in ANC guidelines, perinatal mortality remains unchanged (3). Moreover, experience from previous ANC models has revealed that providers' routine ANC practice is not following guidelines. The majority (52.9%) of healthcare providers do not utilize the ANC guidelines in their routine prenatal care practice (14). Healthcare providers offer some of the services when caring for prenatal women or provide a complete package to some and incomplete to other women (16). Underutilization of ANC guidelines results in low-quality ANC services which in turn demotivates clients into showing up in the

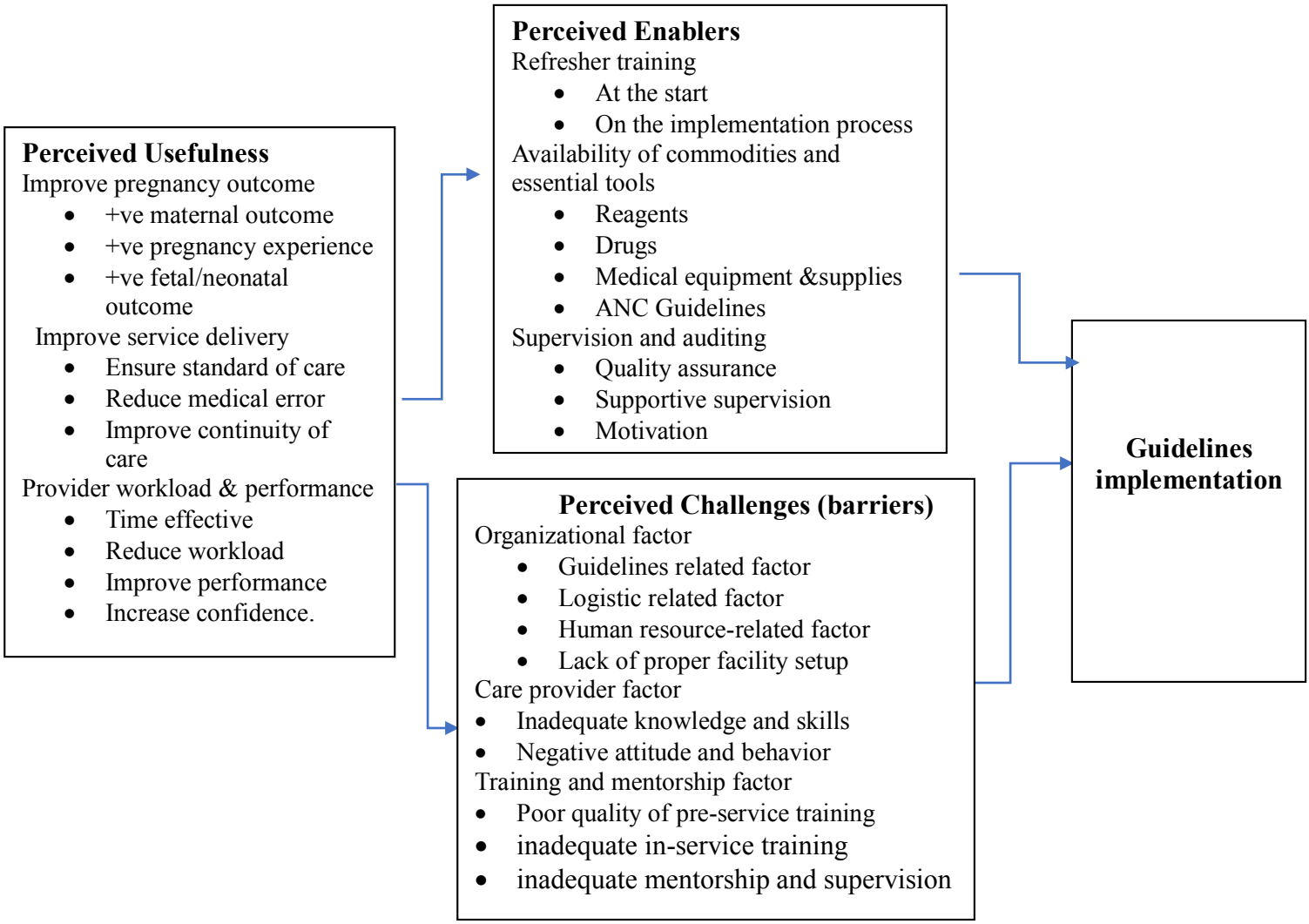
subsequent visits, and increases morbidity and mortality to both a woman and her unborn baby(4,9,10).

There is limited literature in Tanzania that reports healthcare providers' perspectives on the Implementation of the new ANC guidelines. Therefore, this study aimed to explore the perspectives of nurse/midwives on the implementation of new ANC guidelines in Dar es Salaam city council, to reveal unexplored issues surrounding guidelines implementation, hence providing insights into ways of improving guidelines implementation, thus contributing to the reduction in perinatal mortality.

1.3 Conceptual framework

This conceptual framework is developed by the researcher after a thorough review of the literature. It implies that providers' perceived usefulness of the guidelines affects guidelines **implementation.** This means if the health care provider (HCP) perceives the guidelines to be useful in any aspect it facilitates implementation and when perceived to be useless it will be one of the challenges to use the guidelines. At the same time facilitators like refresher training in the beginning and within the implementation process, availability of commodities and essential tools, supervision, and auditing will positively affect guidelines implementation. On the other side when HCPs encounter challenges like inadequate staff, supplies, knowledge and skills supervision, and quality assurance will negatively affect guidelines implementation.

Figure 1: Guidelines Implementation Model.



1.4 Rationale of the study

Considering the pivotal role that midwives and nurses play in ensuring the well-being of pregnant women through antenatal care, investigating their perspectives on the implementation of new ANC guidelines is essential. Their perspectives will help to identify potential challenges, gaps, or success in the implementation of guidelines hence providing the opportunity for the HMT and CHMT to formulate strategies to improve implementation of the guidelines. Furthermore, their insights can contribute to improving the effectiveness and relevance of ANC practices, ultimately enhancing maternal and child health outcomes in the region. The study will also shed light and serve as a reference to managers and other healthcare providers in enhancing other clinical guidelines implementation apart from ANC guidelines.

1.5 Questions

1.5.1 Main question

What are **nurses/midwives'** perspectives on implementing the new ANC guidelines in the Dar es Salaam city council?

1.5.2 Specific questions

1. How are the new ANC guidelines useful among nurses/midwives in the Dar es Salaam city council?
2. What factors facilitate the implementation of ANC guidelines among nurses/midwives in Dar es Salaam city council?
3. What challenges do nurses/midwives encounter in implementing the new ANC guidelines in the Dar es Salaam city council?

1.6 Objectives

1.6.1 Main objective

To explore the nurses/midwives' perspectives on the implementation of the new ANC guidelines
in Dar es Salaam city council.

1.6.2 Specific objectives

1. To assess the nurses/midwives perceived usefulness of the new ANC guidelines in Dar es Salaam city council.
2. To identify factors facilitating implementation of the new ANC guidelines among nurses/midwives in Dar es Salaam city council.
3. To describe challenges faced by nurses/midwives in implementing the new ANC guidelines in Dar es Salaam city council.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 General overview

There is a strong relationship between ANC guidelines Implementation with maternal and fetal outcomes (9). It is further noted that the recommendations in the guidelines have also a great effect on the overall outcome of the guideline's use (5). WHO and Countries example Tanzania are changing from one antenatal care guidelines to another to ensure the recommendations within the guidelines are up to date and evidenced to improve maternal and neonatal outcomes (4,5). Different studies have been done and explored the usefulness, factors facilitating as well as factors hindering the Implementation of Antenatal care guidelines worldwide. In this chapter, I will review different literatures to reflect on what other researchers have gone through in my study topic.

2.2 Nurses/midwives perceived usefulness of the new ANC guidelines

Literature affirms that utilizing guidelines is useful to both healthcare providers and clients who receive care from the person who follows the guidelines (4,9).

Various Studies found that the effective use of eight contact ANC guidelines strengthens communication between healthcare providers and clients, and improves the quality of care (10,17). When the pregnant woman in her first contact with the provider receives quality care, she gets motivated to attend the subsequent contacts (10). Therefore increasing the number of women delivering in the facility and postnatal care Implementation (10,17). Having the opportunity to meet a skilled healthcare provider more frequently provides the room for early detection of pregnancy-related complications and acting on them immediately hence reducing maternal and neonatal morbidity and mortality (4). This results in improved perinatal outcomes and positive pregnancy experiences (5,9).

A study done in Northwest Ethiopia on the "effect of complete adherence to antenatal care guidelines during first visit on maternal and neonatal complications during the intrapartum and postpartum periods" noted that the risk of neonatal complications was reduced by 44% following effective use of the guidelines in 1st ANC visit (9).

According to the study done by Seyoum T, with his colleagues, healthcare providers, perceive guidelines utilization to be useful as it increases consistency of care regardless of the person or place where the client receives the care, it is time effective, increases the provider's confidence of the care s/he provides because is evidence-based, it improves the process of care and builds strong relationship between provider and client. It also reduces medical error and tension of health care quality against its cost. Reduces staff workload and therefore improves performance. Furthermore helps providers plan their care in priority order, enhances women-friendly care, and can be used as a reference for quality assurance initiatives (10).

2.3 Factors facilitating the implementation of new ANC guidelines among nurses/midwives

Literature suggests that several factors facilitate the implementation of ANC guidelines among healthcare providers. Refresher training is among the major factors identified by several researchers (10,14,16,18). Yeneabat T. et al, in their study on "The effect of national antenatal care guidelines and provider training on obstetric danger sign counselling*"* found that refresher training increases the average number of Women who receive counselling in obstetric danger signs by 38% (16). Bintabara D. et al found ANC refresher training among providers to be associated with the utilization of first-visit ANC standards (14). Where by the study done in southern-eastern Tanzania by Gross K.et al underlined that the provision of ANC services as per guidelines requires trained staff who got refresher training concerning the recommendations in the guidelines and the importance of implementing it (18). The refresher training should be given to providers at the start of implementation and continuing education throughout the process (10,19).

Basic supplies for the provision of recommended interventions as outlined in the guidelines are another facilitating factor for Implementing the guidelines (16,18). New guidelines recommend various diagnostic tests/examinations for early detection of conditions and supplying various medicines as prophylaxis to prenatal women for prevention of anemia, malaria, PMTCT, Hypertension, pre-eclampsia, and others (4). The availability of basic medicines, examination tools, material resources, and reagents within the facility facilitates the Implementation of guidelines (10,13). A stratified analysis done in Tanzania on "Adherence to standards of first visit ANC among providers' found that providers highly adhere to guidelines recommendations in doing a physical examination and providing supplements to pregnant women during their visits because they are inexpensive and therefore available. Furthermore, receiving funds from the government, especially for private health facilities that operate under private-public partnership (PPP)is associated with guidelines Implementation more than those facilities that are fully private (14). It is probably insisting availability of supplies in the facility as this fund will aid in the procurement of medicines and reagents necessary for the provision of ANC services.

Having the guidelines at the service delivery site is another guidelines Implementation facilitating factor identified (10,16). A study on "The effect of national antenatal care guidelines and provider training on obstetric danger sign counselling*"* found the average number of women who receive counselling in obstetric danger signs increases by 24% following having ANC guidelines within a facility (16). It is in line with another study in Ethiopia which noted that the availability of guidelines in simple and easy-to-follow format may increase provider utilization. Nevertheless being on the internet that one can access via mobile phones increases its facilitating credit (10).

Other factors include continuous monitoring and feedback on implementation which motivate providers to engage in a certain task. Quality assurance and supervision could serve this purpose and therefore conducting quality assurance on an annual basis and supervision throughout the implementation process was found to be associated with guidelines implementation as identified by Bintabara D. et al and Seyoum T. et al.(10,14).

2.4 Challenges faced by nurses/midwives in implementing the new ANC guidelines.

The new ANC model comprises 49 recommended interventions that are grouped into five groups which are Maternal and fetal assessment, nutritional intervention, preventive measures, common physiological symptoms intervention, and health system intervention to improve the implementation and quality of ANC (5). Implementing these recommendations requires the availability of specific supplies, well-prepared staff, and health facility-friendly infrastructure that supports guidelines implementation (10,20). Unfortunately, existing challenges interfere with the availability of the mentioned requirements (10,20). The most commonly identified challenges are grouped as; Organizational factors, Healthcare provider factors, and Training and mentorship factors.

Organizational factors; include the guidelines-related factor as providers complain of guidelines unavailability, contents, and format complexity. A logistic-related factor includes interruption of electric power which interferes with laboratory services, inadequate supplies, and equipment (10). Human resource-related factor, includes inadequate staff and absenteeism lack of a continuing education system, inadequate audits and supportive supervision, and poor environmental conditions together with lacking proper facility setup (10,20,21). Healthcare provider-related factors including unawareness of existing new guidelines, negative attitudes, inadequate skills towards putting into practice the recommended interventions (10,20), inadequate staff motivation, and low salary contribute to the negative attitude of staff in adopting the new ANC guidelines recommendations (10). Training and mentorship are another group of factors mentioned in the literature that hinder the implementation of ANC guidelines (13,18,20)**.** Gross K.et al in a study done in the southern-eastern part of Tanzania, revealed that healthcare providers were delivering ANC services against guidelines and one of the contributing factors was inadequate training as only one provider among staff in four health facilities selected in their study got training on FANC guidelines (18). Tewodros. S.et al found that medical interns are allocated to provide routine ANC services with their inadequate experience and competence brought by the poor quality of their preservice training, therefore he suggested integrating pre-services and services for better utilizing the guidelines (10).

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study design

An exploratory qualitative study design was conducted from May to June 2024. The reason this design was chosen was its capacity to provide a means of investigating people's experiences in their own environment. This design was used because of its ability to offer an opportunity to explore people's experience in their own settings and therefore it addressed better the specific objectives of the study and appropriately answered the study questions (22). It allowed nurse-midwives to explore in deep their perspective concerning the Implementation of the new guidelines based on their experiences in the provision of ANC services, providing rich insights into the nuances of the Implementation of the new ANC guidelines in Dar es Salaam city council.

3.2 Study Area.

The study was conducted in the RCH clinics in four selected health facilities in Dar es Salaam city council in the Dar es Salaam region. The region is situated between 6°48'S and 39°17'E with an area of 1,493 km^2. The region has a total population of 5,383,728 accounting for 9.0% of the country's total population. It has a high growth rate of 5.6 which is higher than the country's growth rate (3.2) (23). Da es Salaam has five councils which are Ubungo municipal with 1,086,912 people, Temeke municipal with 1,346,674 people, Kinondoni with 982,328 residents, Kigamboni with 317,902 residents and Dar es Salaam city with 1,649,912 inhabitants. Dar es Salaam city is the headquarters of the region with 30.6% of the total region population (23). It has a total of 36 Wards, with 37 Public health facilities. They include Amana Regional Referral Hospital (ARRH) and Kivule Hospital, four health centers which are; Mnazi Mmoja, Chanika (Nguvu Kazi maternity Centre), Buguruni and Pugu, and 22 dispensaries (23). The staff working in the RCHC ranges between 3 in most dispensaries to 15 in hospitals, whereby two-thirds are Midwives and nurses in most of these facilities. The average number of clients attending the antenatal care clinics per day ranges from 30 (in dispensaries) to 220 in health

centers (DHS-2). Considering the number of staff, client volume, and authorities managing these health facilities, Kivule Hospital, Mnazi Mmoja, Chanika, and Pugu were recruited in the study. All of them were under the local government, the number of staff in the RCHC was 8 to 15 and the average number of clients attending per day was 80 to 220 (DHIS -2).

3.3 Study population

The study participants were nurses/midwives working in the RCH clinics, who were involved in antenatal care at Kivule District Hospital, Mnazi Mmoja, Chanika, and Pugu health centers in Dar es Salaam City Council. Midwives and nurses were chosen because the majority (80%) of ANC services in Tanzania are provided by midwives and nurses (6).

3.4 Inclusion criteria

Nurses/midwives with a minimum of six months experience in antenatal care, working in the RCH clinic at Kivule district hospital, Mnazi Mmoja, Chanika, and Pugu health centers in Dar es Salaam city council.

3.5 Exclusion Criteria

Nurse/midwives who were sick, on leave, or out for other duties at the time of the study were excluded.

3.6 Sample size

The study had 5 focused group discussions (FGD) with 4 to 7 participants in each group, making a total of 29 participants (24). Whereby Kivule had one FGD with 6 participants, Chanika had one FGD with 6 participants, Pugu had one FGD with 4 participants, and Mnazi Mmoja had two FGDs with 6 and 7 participants respectively. Conducting two FGDs at Mnazi Mmoja Health Center was because of the number of staff present and the nature of work in this facility where it was not possible to have them all in one group discussion as they usually extend their working hours following client overflow. The saturation point was reached when there were no more new ideas and the collection of more data could have no value.

Saturation is the point in a research process where enough data has been collected to draw necessary conclusions and any more collection of data will not produce added value. This is the most used principle in sample size estimation for qualitative studies (25).

3.7 Sampling technique

Dar es Salaam region and Dar es Salaam city council, as well as Kivule, Mnazi Mmoja, Chanika, and Pugu health facilities, were purposefully sampled. A purposive sampling method of eligible nurses/midwives within a selected facility was also used to recruit eligible participants. This means the researcher selected participants intentionally based on their characteristics of interest which for this study were nurses/midwives with experience of working in ANC clinic for not less than six months. (26). With the help of RCH clinic in-charges from the selected health facilities nurses- midwives, working in the ANC clinic for six months and above were employed to participate in the study. This sampling techniques were chosen because it allowed a researcher to select participants who had rich information concerning the implementation of new ANC guidelines following their knowledge and experience of working in the ANC clinic.

3.8 Data collection method

Focus group discussions with nurse-midwives were conducted after obtaining the written consent from participants. The discussion in each session took 22 to 52 minutes. The discussion was audio recorded after obtaining permission from participants to ensure capturing the information as it is stated by participants. The investigator led the discussion while the assistant investigator was recording and taking field notes and additional observations in the notebook. The discussions were in the Kiswahili language because most of the participants were able to express themselves better in the Swahili language than in English. Participants were encouraged to openly express their views and were assured of the confidentiality of their shared information and that no name would be disclosed. Five FGDs with a total of 29 participants were conducted and the saturation point principle reached where no more new insight emerged.

3.9 Data collection tool

FGD guide was used (24). The researcher developed this interview guide in close consultation with supervisors. The guide included topics and questions on new ANC guidelines gained from the guidelines and the literature review. The interview involved the main questions and probing questions. Modifications were made to the guide based on emerging themes. The topic guide was in the Kiswahili language because the discussions were in this language.

3.10 Data Analysis Process

This study's data analysis employed a thematic analysis technique. This approach was chosen because is a common and very flexible approach that could be modified to suit the needs of my study. Furthermore, the literature confirms that this approach is easy and quick to learn with little training, thus it was easy for a researcher who is a novice in qualitative research to use it with little assistance (27). The approach comprises six steps which were used to identify recurring patterns, themes, and insights from qualitative data as developed by Braun and Clarke (27). The 1st step is *familiarization*, where the recorded interview is transcribed into the transcripts after a researcher listens carefully and re-listens as well as reading thoroughly the written notes to get familiar with the data and to check for the accuracy of the data in relation to the audio record.

The second step was *coding*, the researcher read and re-read the Swahili transcript to assign codes. The codes were then translated into English. The applied codes were reviewed by the supervisors and modifications were made. Then *generating themes*, the modified codes were grouped according to the similarities to form sub-themes. Thereafter, similar categories were grouped again to make themes. The 4th step was *reviewing themes*, where themes were reviewed to check the relationship with the extracted code and data set to ensure clarity and relevance about the study objectives. The 5th step was *defining and naming themes*, where a researcher assigned names and defined all listed themes. In every step consultation with supervisors was done to review the process and its correctness. The final step was ***writing up*.** At this point, as the themes were ready for report writing, all findings obtained from the whole process of analysis were written (27).

The supervisors functioned as the external auditors of the data, scrutinizing, investigating, and questioning every step of the data collecting, analysis, interpretation, and conclusion-making process to ensure that the findings are consistent with and backed by the data.

3.11 Data Management

All collected data and information were confidential. This was achieved by assigning numbers instead of a real participant's name. Audio records were stored by the researcher and main supervisor to prevent other people from accessing the information.

3.12 Ethical consideration

The study received ethical approval from the Muhimbili University of Health and Allied Sciences (MUHAS) research and publication committee. The regional administrative secretary of Dar es Salaam, the executive director of the Dar es Salaam City Council, and the medical officer in charge of each chosen health facility provided permission to undertake the research. Written informed consent was obtained from the midwives and nurses following a detailed explanation of the purpose of the study and the voluntary nature of participating in the study. Permission to digitally record was obtained before starting the discussions. Confidentiality and privacy were ensured throughout the research.

3.13. Trustworthiness of the study

Evaluates the value and quality of the entire study, assisting in assessing the degree to which study results align with the study's objectives based on participant data. The aspects of establishing trustworthiness are credibility, dependability, confirmability, and transferability (28,29). Trustworthiness was achieved as follows;

Credibility: This was made feasible by the researcher by developing a relationship with participants through volunteering and working with them for hours building trust and rapport, which increased the opportunity to obtain rich and helpful information. In addition to the audio recording, notes were taken concurrently to support the spoken words. Participants were

requested to define the words that were unfamiliar to the researcher. Transcription was immediately done after each FGD by carefully listening to the audio record and reading the written notes. Supervisors were also continuously monitoring the study process (28).

Dependability: (reliability) of data. Usually, it measures the consistency and reliability of the study (29). To achieve this, research questions were clearly defined, and transparency in the method of data collection, analysis, and interpretation was observed. Where also on writing a report, methods and findings were detailed and accurately documented with evidence and examples to support the findings

Conformability: (accuracy, relevance). The study is expected to have the same findings in different moments (28). The researcher justified the methodology, theoretical framework, and analysis strategy. To ensure that conclusions are made from the experiences and ideas of the participants and not from the researcher's assumptions, the researcher used direct quotes.

Transferability: (generalizability). It measures the extent to which the study results can be applied in other contexts, circumstances, and settings (28). To achieve this, the researcher provided a detailed description of the research context, setting, study population, and procedure used in analysis to enable findings to be transferable to another similar setting.

CHAPTER FOUR

4.0 FINDINGS

4.1 Demographic profile of participants.

The study participants were 29 from five different FGDs, 28 females and one male. Where their age range is between 28 and 59 years. Table 1 presents these demographic characteristics.

Table 1: Demographic characteristics of participants

Characteristics	Frequency (n)	Percentage (%)
Age (in years)		
21 – 30	3	10.3
31 – 40	13	44.8
41 – 50	6	20.7
51 – 60	7	24.1
Sex		
Male	1	3.4
Female	28	96.6
Designation		
Nurse	11	37.9
Public Health Nurse	1	3.4
Assistance Nurse Officer	12	41.4
Nurse Officer	5	17.2
Academic Qualification		
Certificate	12	41.4
Diploma	12	41.4
Degree	5	17.2

Working experience (in years)		
0 – 10	12	41.4
11 – 20	10	34.5
21 – 30	4	13.8
31 – 40	3	10.3
Experience working in RCH clinic (in years)		
<1 year	1	3.4
1 – 10	24	82.8
> 10	4	13.8

4.2 Predetermined and emerged themes

The findings of the present study revealed four themes, where three were predetermined based on the study's specific objectives and one was undetermined. The predetermined themes were the usefulness of the guidelines, facilitators of new ANC guidelines utilization, and existing challenges of New ANC guideline utilization. The theme that emerged was midwives' and nurses' suggestions to improve new ANC guidelines utilization.

Table 2: Shows themes and sub-themes

Themes	Sub-themes
The usefulness of new ANC guidelines	New ANC guidelines reduce maternal and perinatal deaths.
	Improves maternal and perinatal outcomes
	Enhancement of ANC (Antenatal Care) Service Delivery
	Enhancement of Provider's proficiency with ANC.
Facilitators of new ANC guidelines utilization	Availability of commodities and essential tools
	Clarity of the ANC guidelines
	Providers' ANC Guidelines awareness
	Providers' knowledge and skills on ANC guidelines
	Positive provider's attitudes and behaviours
	Refresher training on new ANC guidelines
	Supervision & Clinical Audit
	Staff motivation and incentives
	Existing organizational policies
Existing challenges of New ANC guideline utilization	Inadequate staff
	Improper Health facility setup
	Inadequate health commodities and essential tools
	Guidelines related factors
	Individual related factors
	Inadequate training on ANC guidelines
	Inadequate supervision of ANC services
	Client related factor
Participants' recommendations to improve new ANC guidelines utilization	Need for Institutional Support.
	Need for Training and mentorship on ANC guidelines.

4.2.1 Usefulness of new ANC Guideline Implementation

Under this theme, four sub-themes emerged which were, New ANC guidelines reduce maternal and perinatal death, improve maternal and neonatal outcomes, improve the process of ANC, improve the quality of ANC, improve provider-client communication, improve provider's competence in the provision of ANC and improve provider's confidence on provision of ANC.

1. **New ANC guidelines reduce maternal and perinatal death.**

Respondents highlighted that using the new ANC guidelines reduces the number of deaths resulting from pregnancy, labor, and childbirth complications. They said having an increasing

number of ANC contacts, increases the opportunity to identify problems that pregnant mothers may encounter and manage them before they complicate. Those mothers who are identified with any complications are scheduled to come every week which means the problem is taken care of more often. Providers are more cautious with life-threatening conditions like pre-eclampsia and eclampsia. On top of identifying them early also knowing how to manage and referral protocol results in reducing maternal and perinatal deaths.

> *"...this new guideline has helped us to be very cautious with these cases that could lead to maternal death. For example, in the maternal health service, dealing with pre-eclampsia and eclampsia has significantly reduced maternal mortality rates. Knowing the appropriate management and where to refer mothers facing complications ensures they receive necessary care to save both their lives and that of their unborn child" (Participant 6, FGD 3)*

2. Improves maternal and perinatal outcomes

Respondents stated that interventions recommended in the guidelines help to prevent and manage pregnancy complications. They mentioned prevention of infections from mother-to-child interventions like testing for HIV which is now done five times from when the mother is pregnant up to eighteen months post-delivery, and syphilis testing which is done twice throughout the pregnancy period. Testing and managing those mothers found to be infected prevents the baby from getting infections from her mother and management also improves the mother's health. Prophylaxis against malaria which the mother receives from 13 weeks of gestation up to the time when labour starts prevents the baby from getting malaria and therefore prevents abortions and preterm deliveries. Screening of GBV which is recommended in the current ANC guidelines helps to identify mothers who are victims of violence and appropriately acting counseling prevents them from prolonged labor and neonatal depression. They said the new ANC guidelines help them to monitor closely the danger signs that are present to a client. Further counseling on healthy lifestyles such as exercises and nutrition for a pregnant woman, prevention detection, and management for anemia reduces obstetric emergencies like PPH

during labor. Therefore, the mentioned interventions result in improving the outcomes of both the pregnant woman and her baby.

> *"..looking at 'contacts', it has increased. Therefore, it helps to closely monitor the mother, and also, it benefits by showing how nutritional aspects are included in this new guideline, guiding us on what pregnant mothers should eat, how they should exercise, and what exercises they should do. ... And also, in terms of medication... it also helps us, and also in terms of identifying those with anemia, previously severe anemia was six, but now we have gone up to eight points five, you see, so it helps us to reduce those PPH during labor and other things, so it has benefits if you 'compare' to the old guidelines." (Participant 1, FGD 4)*

Participants also mentioned that monitoring the antenatal mother which is done regularly in every contact and for those with identified danger signs in the community by CHW is of great impact to the health of the mother and her unborn baby.

> *"In my opinion, I see that monitoring the mother at every visit has more benefits. For example, now we see a mother with danger signs, maybe she has anemia. It's necessary to consult with the CHW to follow her progress so we can understand how she's doing, and she's brought to the hospital through the CHW. It really has more benefits than the previous method."(Participant 3, FGD 2)*

3. Enhancement of ANC service delivery

Participants reported that when the new ANC guidelines are utilized, providers' work is simplified as the guidelines help them to easily identify danger signs. The new ANC guidelines explain clearly what action to take in a certain situation, and what intervention to give in a specific contact, so the provider is not using much energy to think about what to do to a particular client or how the care is to be given in a particular situation. The various tests recommended in the new ANC guidelines help providers identify conditions that the woman is having and manage them appropriately and timely. Participants acknowledged that having the number of

contacts increased makes a woman meet with a provider more often and hence even those conditions that the woman was not aware of are identified and managed on time. Not only that they added that the increased number of contacts allows healthcare providers to meet with clients more frequently, thus fostering a closer and friendlier relationship. Therefore, these interventions enhance antenatal care service delivery.

> *'Other benefits include identifying mothers with danger signs because of eight contacts. Early, for example, the eighth attendance. Initially, it was four visits, so you find a mother staying at home, unaware that she has danger signs. By the time she comes, it's already too late. But these eight contacts help the mother to be identified early with that problem, that danger sign, and she receives prompt care." (Participant 3, FGD 4)*

4. Enhancement of provider's proficiency with ANC.

Participants stated that providing ANC services while Implementing New ANC guidelines makes providers work professionally and increases their efficiency. The guideline stipulates the interventions to deliver to a pregnant woman in each contact, and where to refer the client when the need arises, but also it helps them be very cautious in monitoring clients throughout pregnancy. It helps them in making decisions about where to refer and what action to take in emergencies when happen. They further said testing pregnant women for HIV has benefits to both clients and health care providers. To health care providers testing for HIV gives them confidence when providing care because they know the kind of client to whom they are providing care and so they protect themselves from contracting infection from the clients who are HIV positive. It helps them to reduce complications like pre-eclampsia and eclampsia in pregnancy and delivery. With new ANC guidelines, they are checking clients for blood glucose levels which helps them identify the cause of those perinatal deaths which previously were for unknown reasons. This means ANC guidelines Implementation enhances health care providers' proficiency with antenatal care.

> *"The benefit to the service provider is that the guideline clearly states that when a mother comes, maybe at twelve weeks, she should return at how many weeks, it gives you a*

guideline that when a mother comes for the first visit, what things she should do, it gives you a guideline that when a mother comes for the first visit, what tests she is having first, what tests she is having at the second visit, what tests she is having at the third visit and so on..."(participant 1, FGD 5)

Again, they added that the new ANC guidelines help them know how to care for clients who are having complications and direct them on the type of service or action to take when the need arises.

"Yes, and also in how to care for those clients who face challenges like PIH, eclampsia, pre-eclampsia, it has also helped in management because the guidelines show us where to refer the client if they encounter these issues."(Participant 4, FGD 3)

4.2.2 Facilitators of new ANC guidelines utilization

In this theme, participants discussed the factors that facilitate the Implementation of ANC guidelines. Within this context, nine sub-themes emerged: Availability of commodities and essential tools, clarity of the ANC guidelines, providers' ANC guidelines awareness, providers' knowledge and skills on ANC guidelines, positive provider's attitudes and behaviors, refresher training on new ANC guidelines, supervision & clinical audit, and existing organizational policies. These factors facilitate new ANC guideline Implementation because they are all necessary requirements for guideline utilization. Providers need basic tools, medicines, and reagents to perform some of the necessary interventions, providers' awareness, positive attitudes knowledge, and skills towards the guidelines are necessary to be able to deliver the ANC services as per guidelines requirements. Training on the new ANC guidelines results in providers' awareness, and acquiring knowledge and skills. Where clinical audit and supervision and organizational policies help to improve new ANC guidelines and practices.

1. **Availability of commodities and essential tools**

Study participants acknowledged that the availability of health commodities like drugs such as FEFO, SP, and mebendazole, reagents, medical equipment, and other basic tools facilitate new ANC guidelines utilization. This is because the guidelines' recommended interventions require

several health commodities and tools. Participants said they have the soft and hard copies of the new ANC guidelines and therefore they do refer to them when providing care. Although they said if they could have an SOP which summarizes the ANC recommended interventions it could be much better for quick reference of the guidelines.

> *".I think they have a very significant contribution because when we say maybe the mother should test for HIV, she should be tested right at the beginning of the clinic visit, yes but also at week thirty-two but also after childbirth. So, if the equipment is not available it means that we will fail to implement the guideline. So, I see that the presence of equipment, medicine, and supplies has a very significant contribution to the achievement of these guidelines."(Participant 8, FGD 2)*

2. Clarity of the ANC guidelines

Study respondents pointed out the gu55ideline itself to be one of the facilitators of implementing it, explaining that the guideline is clear and therefore implementable. They stated that the new ANC guidelines clearly describe what to do to clients in a specific visit and to a specific client.

> *".the guideline clearly states that when a mother comes, maybe at twelve weeks, she should return at how many weeks..."(Participant 1, FGD 1)*

3. **Providers' ANC Guidelines awareness**

Study respondents demonstrated awareness of the new ANC guidelines, understood the shift from previous guidelines based on scientific evidence, and recognized the actions recommended by these guidelines. They said there are many ANC guidelines, mentioned FANC and the New ANC guideline, and that the new ANC guidelines were developed in 2018 and they started to use them almost two to three years ago in their facilities. This is because the FANC model was said to cause more maternal and neonatal deaths. They further said being aware that now the new ANC guidelines is to be used instead of the FANC push them to use it because doing otherwise will make other people don't understand them.

".‥there are many guidelines, in the sense that initially we had a guideline called FANC. The FANC guideline had four visits until completion, but now we have a new guideline with eight visits where this mother will be required to attend clinic visits eight and beyond. ...and the goal of this guideline was brought forth because it was seen that there were many infant deaths and it seemed that perhaps if the visits were increased, it would be easier to see a mother who had those dangerous indications and be able to take action. So, in these eight visits, the mother has been able to attend at close intervals, almost every month, so every time she comes, if she has a challenge, it is easy to help her so that at the end of the day it can help improve the health of the mother and child and reduce deaths from childbirth."(Participant 8, FGD 2)

4. Providers' knowledge and skills on ANC guidelines

Knowledge of providers on the new guidelines and skills is another facilitator of new guideline Implementation mentioned by respondents. They said first of all the provider should know the guidelines, and that this will be possible through training, and then skills are needed for them to be able to perform the required interventions as stipulated in the guidelines. Participants also mentioned experience working in a certain unit can also make it easier for that person to use the guidelines, this is because if a person worked in RCH for a long to that person understands and uses the new ANC guidelines easily compared to the one who is new in the unit, he/she will need more effort to cope with the new ANC guidelines.

"Firstly, you must understand the guideline, so the person must have received training, even on-the-job training, that there is a new guideline, one, two, three. There must also be expertise."(Participant 1, FGD 5)

5. Positive provider's attitudes and behaviours

Study respondents stated that healthcare providers' dedication to using the guideline, unity among them, and readiness are among the things that facilitate the implementation of the guidelines. Attitudes and behaviors of providers that are positive towards guideline Implementation facilitate its utilization. Participants acknowledged that when providers perceive that the guideline is something beneficial it is usually easier to implement. Without

leaving aside cooperation among staff and with clients. Participants also underline using good language when communicating with a pregnant woman will make the client free to express different situations she undergoes in her pregnancy period.

> *“I think it's up to us as employees to be dedicated and have the spirit because a guideline can be prepared here and not used. But if you are ready for the work, you will use the guidelines. So, it's also our unity and decision to work based on that guideline. Therefore, we follow the guidelines, but we are also ready ourselves." (Participant 3, FGD 5)*

6. Refresher training on new ANC guidelines

Regular training on the new ANC guidelines which may take place as on-the-job training and mentorship is noted by participants that they help to utilize the guideline. Most of the participants had informal training on the new ANC guidelines from their colleagues who attended the special training on the New ANC guidelines.

> *"On-the-job training enables us to adhere to the guideline. We receive regular education and updates as they occur, which helps us to follow the guideline effectively."(Participant 3, FGD 2)*

7. Supervision & Clinical Audit

Supervision and auditing were mentioned by participants, acknowledging that it reminds them to utilize the guidelines. They said as human beings they need to be reminded, so the supervision helps them to know where they did well and the areas to improve, they note and improve in the next time. Participant elaborated that nowadays supervision is more supportive than it was previously, so it is helpful because supervisees aren't afraid instead, they take it positively and make them ready to correct mistakes and properly follow the guidelines as they know that there is someone who will be tracking them.

> *“Supervision plays a significant role, It has a positive impact because nowadays supervision is supportive supervision. So, when there are shortcomings, we collaborate and are friendly and directed so that mistakes are not repeated later. Unlike in the past,*

supervision was different but now it is supportive. So, it's not that you are afraid of those who come to supervise, but you become friends so that we can follow the guidelines."(Participant 1, FGD 3)

8. Staff motivation

Respondents viewed recognition/motivation in terms of financial and in other forms as a facilitating factor of new ANC guidelines utilization. Participants said having paid for overtime makes them ready to continue providing ANC to late hours ensuring all clients receive services despite the fact that working hours end at 3.30 due to the fact that they will be paid for the exceeding hours. They further said being acknowledged by the management before their colleague in the clinical meetings influences them to use the guidelines.

".for example, currently, leaving work is at half past nine, but people follow the guidelines, which is why you stay. In other words, you follow procedures; you don't just rush to finish work or let the client leave, but you follow the guidelines to serve the client properly. Eventually, the institution planned that anyone who exceeds three hours working should be paid. That's motivation, as despite exceeding these hours, at the end of the day, I know I'll be compensated."(Participant 1, FGD 3)

9. Existing organizational policies

The study respondents mentioned various policies or cultures of their facilities which positively influences their redness to utilize the guidelines. They said example the routine of the hospital is that every pregnant woman has to do an ultrasound at the first contact it is in line with what is required in the guidelines so it makes it easier to comply with the guidelines. Participants also mentioned the routine of having clinical meetings that require every department to report the services provided in their department in the previous day influences them to work as it is expected of them.

'The hospital has implemented strategies like here at RCH for those starting clinics that it's better for them to do an ultrasound test. ...Looking at, this mother's gestation age, even though she is sure of her dates from her last menstrual period, we should also 'confirm' and make sure we also go through the test of 'ultrasound'. Therefore, the

decision of management or institutions helps us ...implement the guidelines…" (Participant 6, FGD 2)

Another participant stated;

"Another thing is that regularly we provide reports… during the clinical meetings. You report the services you provide to the clients in your unit. Saying perhaps you have seen how many 'danger signs,' you see. .... So, giving a report is one of the reasons. Ah, another thing is also given credit for the fact that today RCH did well, yesterday they attended many people, you see eh! So, they are given praise." (Participant 2, FGD 2)

4.2.3 Existing challenges of New ANC guideline Implementation

In this section, the challenges of implementing new ANC guidelines are going to be described as stated by respondents. Under this theme, there are eight sub-themes which are inadequate staff, improper health facility setup, inadequate health commodities and essential tools, guideline-related factors, individual-related factors, inadequate training on ANC guidelines, inadequate supervision of ANC services, and client-related factors.

1. **Inadequate staff**

Participants in the study noted the list of challenges to Implementing new ANC guidelines, of all the challenges inadequate staff is the overarching challenge identified. They said the new ANC guidelines have recommended many interventions to be performed for pregnant women this overburdened staff, again 8+ ANC contacts resulted in client overflow in the clinic while the number of health care providers who are the ones to provide this care remained the same number as when they were implementing the FANC model. They said the shortage is critical, which compromises the complete ANC guidelines implementation.

".. on the other hand, we face a burden because the workload becomes heavy, there are many papers and paperwork increases. Books pile up, tasks become numerous, but with the same number of staff. Therefore, the efficiency sometimes suffers. Due to the increase

in workload but with the same number of healthcare providers. That's my perspective." (Participants 4, FGD 3).

2. Improper Health facility setup

Respondents noted that clients are disturbed very much walking here and there to follow services because they are scattered and not found in one place. They said the pregnant woman may need to go for Laboratory tests they have to walk from RCH to another place, have an ultrasound have to go again to another unit and therefore they become tired, and in some cases, they may decide just to go back home without doing some requested tests or they may test and go back home with results instead of sending them back to the HCPs in antenatal care for interpretations and management if needed.

".:.when a mother arrives, she expects these things to be done quickly so she can leave, but sometimes she has to go around and spend a long time doing so. You might tell her to go and have a certain test done, perhaps an ultrasound, then she needs to go to another place to check her blood levels, and then to yet another place to test for hepatitis. So, she's going around, and it becomes a challenge. It's like we're causing her distress, making her go around for a long time."(Participant 6, FGD 1)

3. Inadequate health commodities and essential tools

Respondents pointed shortage of health commodities like essential ANC drugs, reagents was one of the drawback factors of new ANC guideline implementation. They said the equipment was available but not adequate. Equipment like weighing scales which is needed to be used by all clients and therefore made things difficult because it forced them to station it so that every woman passes there and is weighed before entering the ANC room for examination and other services therefore sometimes it happens that you doubt of the measurement but you may not be able to confirm what another person did. Blood pressure machines were also few and sometimes lacked a source of power. They underlined that the supply chain sometimes is a problem, they delay sending the malaria prophylaxis and supplements for the prevention of anemia and therefore clients were needed to buy, where by the following month most of their clients had

low Haemoglobin levels. Moreover, because the supplied commodities were not enough they usually gave women FEFO for only half a month and they told them to buy for the remaining half to complete a month, this also was a problem because not all women were able to buy them.

> *"I'm talking about medications. Sometimes the government delays in supplying drugs, for example, SP (Sulfadoxine-Pyrimethamine) for malaria and those for anemia, and it happens that they run out because the drugs didn't arrive on time. We have to write to the mothers to tell them to buy them. Not everyone buys, very few buy. For example, last month, anemia was very high because the drugs had run out, so we had to write to them to ask them what to do. They should buy it. But when anemia returned the following month, it was this many."(Participant 2, FGD 3)*

3. Guidelines related factor

Participants stated that the ANC guideline is full of recommendations which are very demanding. It is a challenge for new guideline implementation because they overwork staff. Participants complained that paperwork increased because of the increased number of interventions that need more books for documenting those tasks. They further said some recommendations are difficult to implement. For example, in order to give the pregnant woman, the recommended services properly every woman needs to spend more than thirty minutes in the antenatal room with her provider which if compared with the number of clients per day is impossible to comply with this requirement.

> *"...there are many papers and paperwork increases. The books are increasing, and the workload is high but with the same number of staff. Therefore, the local performance does not sit well. Due to that; many things have increased, but the service providers remain the same. From my perspective."(Participant 3, FGD 3)*

4. Individual related factor

Respondents admit that some of the providers' behavior and attitudes are against the new guideline and therefore limit its full Implementation and compromise clients' satisfaction. They said you may find an HCP who is using harsh language communicating with a pregnant woman, so the woman will not open up to the provider to share what she is experiencing from the

medicines that she took. They added that other HCPs may not want to utilize the guidelines just because of are reluctant to accept changes, especially for those who have experience working in ANC clinics because they used to practice in a certain manner and things were going with no problem, they are sometimes rigid to adopt changes. But also, they added that some providers may just have the habit of ignoring things for no good reason.

> *"... for example, a mother comes in, and as a service provider, you might become stern or use harsh language with her, maybe her hemoglobin level isn't increasing, the way you talk to her, maybe if she's taking medication, it makes her feel nausea, but if you start by scolding her directly, 'why aren't you taking your medicine, one two three,' we're deviating from those guidelines."(Participant 7, FGD 5)*

Another participant added;

> *"Perhaps one person feels we should follow the guidelines, while another says, 'Oh man, where's the time?' You see, that person's attitude…they disregard things."(Participant 4, FGD 3)*

5. Inadequate training on ANC guidelines

Participants pointed out that training to health care providers on the new ANC guidelines is not adequate. Most of them are oriented on the guidelines by one of their colleagues who attended the training outside the facility and came back to orient his/her fellow staff. They said not all people have the ability to deliver knowledge to the other person and therefore this training system makes some of the staff have partial knowledge of the new guidelines. Despite the system being not appropriate also it was found to be discriminatory because not all have the equal opportunity to attend such training instead the same person /people attend training always.

> *"..okay, he will come to give me feedback, but I won't be as proficient as he/she was…. And not everyone can give complete feedback, you know... they might give you feedback which is not complete..." (Participant 2, FGD 3).*

6. Inadequate supervision of ANC services

Participants despite acknowledging that the supervision is being done on the New ANC guideline noted that it is not adequate because it is not regularly and often conducted. They said supervisors were coming to do supervision but not regularly.

> *".."..although the supervisors who oversee us are coming. But it's not like they come every time, every time, every time."(Participant 7, FGD 2)*

7. Client related factor

The study respondents again pointed out the financial problems of clients as one of the challenges to Implementing ANC guidelines because some of them complain of having no money to pay for the service cost**.** They said although it is known that the services for pregnant women were free it is not as free as people thought instead, they are needed to share the cost. For example, in the issue of tests, some examinations like ultrasound need to be paid for but some women can't afford them. As the women stay for a long time in the RCH clinics, they should at least have something to eat while waiting for services but some women don't have even money to take something for themselves which makes them fail to tolerate waiting for services. Sometimes when you request them to go for a certain test they just go home instead because of financial constraints or ignorance of the importance of the requested tests.

> *"Example on the side of tests. Many pregnant women complain about money issues regarding tests. Because these tests require a contribution, it's not as free as we might think. So now many of them tell you…I have no money at all… But for us, it brings us challenges. We have to follow guidelines. Because the client will leave without testing sugar, for example, without testing ultrasound, so we contradict the guidelines." (Participant 4, FGD 3)*

4.2.4 Participants' recommendations to improve new ANC guidelines implementation

Here are recommendations participants of the study provided, perceiving that if taken into consideration they are going to address challenges and improve Implementation of new ANC guidelines. They are into two sub-themes, the one that needs institutional support and the other

that needs training and mentorship. The recommendations are based on the identified challenges and therefore ought to address them if translated into action.

1. **Need for Institutional Support.**

Participants stated that because the guidelines have more visits from four to eight which means the clients also increased in the antenatal clinics with the same number of providers, but also the recommended interventions increased which add the staff workload then recruiting more staff will relieve clients from long waiting for services and make guideline be utilized effectively. Participants have suggested also that, healthcare providers should be motivated in different ways to enhance their effectively utilize the guidelines. They said incentives in terms of money or other material things could be given to providers who are implementing the guidelines as a means of recognizing their effort.

> *"...because this guideline requires mothers to have eight visits. So that means it has increased from the four visits of FANC. So perhaps my perspective was that even the healthcare providers should consider how to increase their numbers so that even if we receive many mothers, we can share the workload and help the mothers leave the clinic earlier. Because with the few of us here, sometimes a mother stays until nine o'clock in the morning. So, I think increasing the number of healthcare providers would also help more."(Participant 8, FGD 2)*

Another participant stated;

> '*INCENTIVES'. They have to bring to us the motivation that directly relates to adherence to guidelines, not just relying on overtime payments. We need motivation that inspires us more and more. Overtime pay, which might come after two or three months, is it motivating or demotivating? We need other forms of motivation related to the guidelines. For example, recognizing someone who has performed well according to the guidelines, and giving something, celebrating achievements such as these weekly or monthly with something like a special meal. This is motivation not relying on overtime pay. (Participant 2, FGD 3)*

Under the same sub-theme, participants urged that, generally the new ANC guideline is very useful but the challenges to its implementation should be addressed first. Institutions should make sure the basic tools are adequately available this includes weighing scales in each ANC room, BP machines medicines, and reagents. They also added that concerning the issue of antenatal cards, they suggest the government should make the ANC cards which will be uniform all over the country with the updates in relation to new ANC guideline*s.*

> *"...Compared to Focused Antenatal Care, this guideline is good. ...Regarding equipment issues like weighing scales, we should have enough, just give us sufficient tools so that we have enough scales instead of each center having one or two, we should have even four scales, each room having a weighing scale."(Participant 1, FGD 1)*

Another participant said;

> *"..I felt there was a challenge with the cards. ...I wished there could be one type of card that follows this guideline. Meaning that it should specify what needs to be done, and what should be present. I wished there could be a uniform card for everyone. Because the guideline has been updated while our cards, for example, still follow the old guideline."(Participant 6, FGD 3)*

Also because of helping antenatal mothers from walking here and there following the services which are scattered due to improper facility setup, it could be wise to reorganize the RCH unit and build a separate laboratory unit for the ANC clinic so that all services will be available at the clinic. They suggested also, that the ANC rooms and buildings should be added to accommodate the need to make both clients and staff comfortable. One of the participants added this suggestion.

> *"I think in terms of improvements, having a laboratory in each RCH would greatly help us in implementing this new guideline effectively. For instance, when a mother comes to the RCH, it means she can complete all her services at the RCH and have time to leave home without staying for a long time at the center."(Participant 5, FGD 2)*

2. Need for Training and mentorship on ANC guidelines.

Participants expressed the need to address training and mentorship challenges by suggesting the following; that the refresher training on the ANC guideline should be provided regularly. They insisted the providers should have equal opportunity to attend training instead of being orientated by colleagues. They further added that mentorship is also needed to remind providers of their knowledge and therefore that mentors should be available at the facility level so that it will be possible for the provider to update their knowledge regularly**.**

"I suggest that training should be conducted regularly with different people in this unit where we are. Not just one person goes and then next, next, the same person again. You find that some of us remain dormant. Therefore, regular training in that specific unit so that everyone can master that unit."(Participant 2, FGD 3)

Participants also have suggestions for healthcare providers in the peripheral health facilities, that they should be oriented on the new ANC Guidelines so that they will be talking the same language to their clients. They noted that when clients come to their facilities as referrals from lower facilities when they give them education or ask them about the education or counseling that they got they find them have different information from the new ANC guidelines which meant providers in the peripheral health facility are providing information to the client which are not consistent with new ANC guidelines.

> "*...what I mean to say is that, in other peripheral centers, perhaps they too would be emphasized or receiving such training, so that they can assist those mothers there, because you often find many come from there to here, and when they come here and you ask them about something, they stay surprised like aaaaa, for us over there we haven't been told this, for us over there we haven't been trained on this. You see! So, it seems like we are providing different education here while they are given something else there" (Participant 2, FGD 2).*

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

The study aimed to explore midwives' and nurses' perspectives on the new ANC guidelines Implementation in the Dar es Salaam city council. This chapter discusses their view on the emerging themes outlined in the previous chapter. The four themes that emerged, were the usefulness of the new ANC guidelines utilization, Facilitators of new ANC guidelines implementation, Existing challenges of New ANC guideline implementation, and Midwives' and nurses' suggestions to improve new ANC guidelines implementation.

5.2 Usefulness of the new ANC guidelines

This study revealed that midwives and nurses had very positive perspectives on implementing the new ANC guidelines, enthusiastically expressing their views on the usefulness and benefits of these guidelines. The usefulness included reducing maternal and perinatal deaths, improving maternal and perinatal outcomes, enhancing ANC service delivery, and enhancing provider's proficiency with ANC.

Participants in this study acknowledge that changes made in the new ANC guidelines from the previous FANC model, which are not only contacts but other recommended interventions are useful. Implementing the new ANC guidelines reduces the number of deaths resulting from pregnancy, labor, and childbirth complications. The new ANC guidelines describe the interventions to be given to clients if any complications occur. Healthcare providers are very keen to manage conditions that are life-threatening like preeclampsia and eclampsia as recommended in the guidelines. Participants perceived that HIV and syphilis increased retesting schedules allow for prompt detection of infection and its proper management resulting in improved maternal and perinatal outcomes. Moreover, this study showed that knowing the status of the client helps midwives and nurses provide specific interventions to prevent transmission of infection to the baby and protect themselves from contracting infection. In addition, an increased number of contacts from 4 to 8 + allows pregnant women to meet with healthcare

providers more often and therefore makes it easier to identify risk or danger signs immediately and manage them appropriately. A prospective cohort study in northwest Ethiopia found that when providers adhere to the ANC guidelines during 1st visit reduce neonatal complications. However, it is further found to have no significant effect on intrapartum and postpartum maternal complications (9). The findings are similar to our study in that, implementing new ANC guidelines improves maternal and neonatal outcomes. However, it differs as it was found to have no effect on maternal outcomes. This could be due to the study type as in the prospective cohort study the two groups were followed and the reported findings were from what was observed, while in our study the findings were perspectives not observation. The findings could also differ because the study measured adherence to guidelines only in the first visit whereas in our study it is perspective on the Implementation of guidelines in its totality. Our findings are consistent with a qualitative study conducted in Ethiopia, which identified several benefits of using ANC guidelines, including improved safe motherhood, enhanced performance, and better service delivery processes. However, while the Ethiopian study noted a reduction in providers' workload as a benefit, our study revealed that participants perceived the new ANC guidelines as increasing the workload for healthcare providers (10). This could be because the study reports the benefits of using the previous FANC model of the ANC guidelines. As revealed in the present study, the new guidelines offer more benefits compared to the FANC model; however, the increased package of recommended interventions also increases providers' workload.

The present study revealed that an increased number of ANC contacts improves communication between healthcare providers and clients, as they become like friends because of meeting them more often. It is in line with another study which found that the majority of pregnant women perceive that they have good interaction and free communication with nurse-midwives (21). The similarity of this study could be because the study area (Kibaha and Bagamoyo district) was also implementing the new ANC guidelines. This could be good news because when healthcare provider relates positively to clients the opportunity to improve the quality of care increases as shared decision will be possible. Different studies found that pregnant women, do not attend or

delay booking for ANC clinics hesitating the harsh language and bad treatment from health care providers (18).

The national new ANC guidelines as it has been adopted from the 2016 WHO new ANC guideline recommends several interventions aiming to improve the quality of ANC services together with improving communication and support to pregnant women during the antenatal period (5).

5.3 Facilitators of new ANC guidelines implementation

The present study found that new ANC guidelines Implementation is facilitated by many factors. Participants noted that an adequate supply of basic tools and health commodities is one of the key factors to successfully use the guidelines. New ANC guideline interventions demand a large quantity of medical supplies, drugs, reagents, and other important tools to make it possible to carry them out. Other studies support the findings stating that the availability of basic medicines, examination tools, material resources, and reagents within the facility facilitates the Implementation of ANC guidelines (14,18)

Another facilitator identified by participants of this study was the clarity of the ANC guideline. In addition to clarity, it is stated that having an SOP for using the guideline makes it simpler to use the guideline as it is easier to make references while giving care to the client instead of having the need to pass through a whole document. The ANC guidelines should be available in a modified, simple, and easy-to-use flow chart (10).

Providers' awareness, knowledge, and skills, together with refresher training on the new ANC guidelines were perceived by participants to facilitate guideline utilization. Training provides HCPs with the awareness, knowledge, and skills necessary to utilize the guidelines. The findings are matched with other studies done in our country (14,18), and one in Ethiopia (16). These studies found that refresher training influences providers' adherence to the ANC guidelines.

Supportive supervision & and clinical audit, staff motivation, and existing organizational policies were pointed out in the present study to remind providers of their responsibilities. They explained that, as human beings, they do forget things, therefore they are reminded of what is supposed to be done and instructed on how things should be done through supportive

supervision and mentorship. Encouraging supervision may be able to reduce the harmful effects of informal practices in addition to promoting beneficial outcomes (18).

Motivation in terms of financial incentives, like overtime pay and other type of motivation are found to improve their effort to utilize the guideline. Previous studies noted that healthcare providers were unmotivated and therefore had negative attitudes towards their responsibilities(20). Participants revealed that their willingness, readiness, unity, and commitment to perform their responsibilities facilitate guidelines utilization. Having cooperation among staff and with clients which is made possible with the use of good language facilitates guidelines utilization. Women who took part in the qualitative exploration study of the perception of women and nurse midwives on ANC information and communication in Tanzania perceived that nurse midwives should be humble, friendly, and patient when attending them (21).

5.4 Existing challenges of New ANC guideline implementation

In the current study, the overarching challenge identified is a shortage of staff. This is mainly because of the great demand released by the overflow of clients and a huge amount of new ANC guidelines recommended interventions. Although the 8+ contacts are beneficial, participants acknowledged that they are very tedious as clients overflow into the clinics with inadequate staff. They said implementing each recommended intervention as per guideline requirements becomes impossible because the number of clients to attend per day is inconsistent with the number of HCPs. These findings are consistent with other studies done within the country and elsewhere (10,20,21). The study done in Mozambique on challenges and opportunities for implementing evidence-based ANC found that among the barriers to implementing antenatal care packages were staff shortages and high workloads. Challenging work environments force healthcare professionals to establish protocols that facilitate widespread care, such as health education sessions in groups (20). HCPs in the present study select interventions to perform that they think are important in that specific contact to mitigate scarcity and client overload. The study done by Heri R and Mselle LT found that women acknowledge obtaining ANC

information from the health care providers but some of them do not receive all ANC information as required nationally and internationally (21). Another study in Ethiopia found that clients who were receiving a complete package of ANC guidelines were those women with previous complications or late bookings (13). This means although the recommended intervention in the new ANC guidelines is acknowledged by providers to be useful and very important, they are partially utilized. It is the same revealed in other studies (10,13,14,19,20), that providers' adherence to the standards of the ANC guidelines is very low. Less than a quarter of women self-reported having screened for every risk factor and only two-thirds of clients admit to getting management of identified risk factors (19). In our study participants mentioned GBV screening as one of the areas not always utilized despite pointing out that it is a very important intervention to be done for pregnant women. The findings are consistent with another study which found, some of the interventions expectant mothers meant to receive, were given to almost all of the women, while others were not delivered to any of the women (18).

Inadequate health commodities and essential tools are another identified challenge to effectively utilize the guidelines. They mentioned for example inadequate weighing scales, BP machines nutritional supplements, and reagents for Hb estimation which make them unable to perform some of the interventions as per national new ANC guidelines. The findings relate to the previous study in Mozambique (20) and one in Ethiopia (10) which found that health facilities had a shortage of reagents, laboratory machines, functional instruments like BP machines, and other essential supplies necessary for the provision of care to pregnant women as per ANC guidelines requirement.

The study found also that, inadequate training on ANC guidelines and inadequate supervision of ANC services are other factors perceived by participants to interfere with the new ANC guideline utilization. The on-the-job training system by their peer staff who underwent the training outside the facility is not enough to give them enough knowledge for guideline utilization. In the other study it was reported that the training system called "training of trainers" is biased as it doesn't involve nurses who directly provide care to clients instead MCH supervisors are aimed. HCPs find the training not applicable to their daily practice and also, and

they also lack per Diem for attending the sessions (20). The current study's participants added that supervision of guideline Implementation is being done but not regularly and therefore not enough. Lack of monitoring visits and supervision is a hindrance to the ANC model's complete application. HCPs reported inadequate regular training programs to keep them up to date and inadequate supervision and mentorship to help solve challenges they encountered during the guideline implementation process (10,16,20). Supervision and refresher training should be given regularly to help staff follow the guidelines(13,20).

The individual-related factor which include health care providers 'reluctance to change, ignoring things, use of improper language, and aggressiveness is another identified challenge of guideline implementation. Other studies found the same challenge(10,21,30) that, providers' negative attitudes interfere with the effective provision of care to pregnant during the ANC contacts. Providers' harsh language to their clients is identified also as a barrier to pregnant women making early ANC bookings (30). The client-related factor was also identified. They included client ignorance of the importance of ANC services, inability to afford service costs, and other self-needs. One of the barriers to implementing the evidence-based ANC in Mozambique was a lack of knowledge on the purpose and importance of specific ANC interventions amongst women (20). Women who reported the cost of care as a hindrance to maternal care Implementation were less likely to access obstetric care (31). Another study found that women with higher socio-economic status were more likely to have early ANC booking (32)

The current study found improper health facility setup as another challenge. The RCH clinic was far from where the laboratory was, and so were other important services such as the registration area and ultrasound services. ANC rooms were also inadequate and narrow, these made the unfriendly environment for both clients and health care providers for guidelines utilization. Women noted that long waiting times and inadequate infrastructure were barriers to seeking ANC services (20). The guideline-related factor is identified in this study i.e. some guidelines recommended interventions are difficult to implement, they are time-consuming, and the increased number of contacts overwork staff.

5.5 Participant's recommendation to improve new ANC guidelines implementation.

The participants in the present study provided suggestions to improve new ANC guidelines utilization. They suggested the need for institutional support for the effective Implementation of new ANC guidelines. They stated that authorities should provide a safe, friendly, and good working environment by recruiting more staff which is consistent with the clients and intervention package of the guidelines, providing adequate stock of health commodities and basic tools. In one study it was commented that the dysfunction of the public health sector supply chain is an urgent problem that must be prioritized for action since the implementation of the ANC model depends fundamentally upon the availability of a large package of specific supplies (20).

Another suggestion was that the RCH clinic infrastructure should be improved so that a separate laboratory is within the RCH clinic, with adequate ANC rooms in terms of number and space, and all other services necessary for pregnant women available at the clinic. The study on adherence to a standard of first-visit ANC care among providers had almost the same perception that the provision of refresher training, availability, regular distribution of basic medicine, and diagnostic equipment influence adherence to 1st ANC standards(14). In this study, they also suggest training on the new ANC guideline to be provided regularly, especially special training that is carried out outside the facility, and all providers should have an equal opportunity to attend. The availability of mentors within the facility will also facilitate continuous medical education and fore facilitate guideline utilization. Regular provision of refresher training is recommended to help HCPs understand the importance of adhering to the guidelines effectively (13). Providers' refresher training for ANC increases the number of obstetric danger sign counseling (16).

Participants also suggested that, since the available antenatal cards are not updated and not uniform, then the government should develop updated ANC cards about the 2018 national new ANC guidelines and should be used in all ANC clinics. In most situations, providers usually use the ANC cards as a tool that helps the quick references of the guidelines.

It was revealed in the study done in Mozambique that, having ANC cards that are in line with the FANC guidelines would provide the healthcare providers with user-friendly "working guidelines" and would also be an approach to improve the performance of even the HCPs who have not been trained on the guidelines (20).

5.6 Strength of the Study

The qualitative nature of the study offered the chance to record respondents' perspectives from their experiences on the Implementation of new ANC guidelines in their typical social contexts. The results of this study are applicable to other contexts with a comparable setting, despite the fact that they were not intended for generalization.

5.7 Limitations of the study

This study was conducted only in the public health facilities at the level of health centers and hospitals governed by local government. Perspectives of midwives and nurses in the public sector and those in the private sector could be different considering their working environment in terms of staffing, supplies, infrastructures, and administrative issues. Therefore, further research involving private health facilities is needed on this subject.

5.8 Conclusion and Recommendations.

The findings of this study highlight that nurse-midwives perceived the new ANC guidelines implementation useful and that there were several factors facilitating the implementation of the new national ANC guidelines. Furthermore, there were challenges perceived to hinder the implementation of the new ANC guidelines to its fullest. Which denotes that the implementation did not fully adhere to the guidelines. Therefore, all key players of new ANC guidelines implementation need to improve the existing facilitators and address the existing challenges for better ANC guidelines implementation in Dar es Salaam city council.

The following could be done; recruitment of more trained HCPs especially nurses and midwives. A big challenge highlighted in this study is the HCP shortage and increased workload resulting from client overflow and increased ANC interventions, therefore recruiting more staff will provide a valuable solution. Provision of a conducive working environment. An adequate

supply of medicines, reagents, medical equipment, and other essential tools should also be procured in bulky to avoid stockouts, RCH clinic building should be expanded to allow an adequate number and size of rooms to accommodate all the necessary ANC services to be available within the clinic. Training and supervision. Refresher training, mentorship, supervision, and clinical audit should be conducted regularly by different levels of supervisors to update providers' knowledge and skills on New ANC guidelines and to help them solve difficulties encountered in the guideline implementation process. Motivation and incentives. The health facility management should also think about the various ways of motivating staff working in ANC clinics, making them feel that their efforts are acknowledged and recognized. Support to pregnant women. Pregnant women should receive additional assistance, such as free medications, family outreach programs, and transportation cost subsidies, in addition to being released from ANC fees.

This will be a great step towards improving the quality of ANC services and later on, improving maternal and perinatal outcomes in Dar es Salaam City Council and probably in the region at large.

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APPENDICES

Appendix I: Consent Form

ID. NO [ ]

CONSENT FORM FOR PARTICIPATING IN A RESEARCH

Title of the study: Nurses/midwives' perspective on the implementation of new antenatal care (ANC) guidelines at the reproductive and child health clinics in Dar es Salaam City Council.

Introduction:

My name is Victoria Michael Ntara, a student at Muhimbili University of Health and Allied Sciences, studying for a Master of Science in Midwifery and Women's Health. Researching "nurses/midwives' perspectives on the Implementation of new ANC guidelines in Dar es Salaam city council".

I want to explain to you some details of my study to give you a picture of what is going to be done in the study. The explanation is to help you make an informed decision to be part of the study. If you agree to be recruited, you will need to sign this form.

Aim of the study:

The aim is to explore the Nurses/midwives' perspectives on the implementation of the new ANC guidelines in Dar es Salaam city council.

Procedure to follow

To be recruited in this study is willing. Once you agree to participate in the study you will join your fellow midwives and nurses in a group discussion which will take not more than 60 minutes. The researcher will be available to give assistance and address any concerns that will be raised.

Advantages of participating in the study

Study findings are expected to contribute to providing a conducive working environment for ANC guidelines utilization. It will provide an opportunity for the HMT and CHMT to formulate strategies to remove barriers and strengthen facilitators of guidelines utilization. Furthermore, your insights will contribute to improving the effectiveness and relevance of ANC practices, ultimately enhancing maternal and child health outcomes in your region.

The harm of becoming part of the study:

If one is participating in this study there is no great risk expected to happen despite the potential minimal psychological, social, and emotional risk which could happen in any study.

Payment:

Participants are not expected to be paid in any form following volunteering in this study.

Privacy

Confidentiality will be maintained throughout the whole process of this study; no names or responses will be disclosed to anyone apart from the researcher and assistant researcher. Participants will be identified by special codes and the computer which will store data will be assigned with special code to ensure unauthorized people have no access. Notebooks and other tools used to keep the data will be highly secured and soon after analysis of data, they will be destroyed.

Right to withdraw

As I explained before; to participate in the study is willing, therefor if you agree to participate and their after you want to discontinue the study you will be freely allowed. Expect no impact for discontinuing/disagreeing to participating in the study.

Researcher contacts

You may contact me at any time for the issues about the study, by the following addresses cell phone: 0752931483 or by email: vickyntararic@gmail.com

Accord of Participant

I……. declare that I read and understood well the explanations in this form. I got a room to ask questions and obtain explanations where needed. I'm very clear about the harm and advantages of being part of the study. I got an explanation on the voluntary nature of participation and that if I would like to discontinue participating at any point in the process, I will be allowed to with no repercussions. Furthermore, the confidentiality will be maintained.

I am ready to be part of this research

Signature……. Date …….

Researcher declaration

I …… declare that I have explained in detail about the study and uncovered all issues about participating in this study to the above-mentioned participant. He/she willingly agrees/disagrees to participate in the study.

Signature ……. Date …….

Appendix II: Fomu ya ridhaa

Namba. ya utambulisho

RIDHAA YA KUSHIRIKI KATIKA UTAFITI

Jina la utafiti: Mtazamo wa wauguzi/wakunga juu ya matumizi ya muongozo mpya wa huduma kwa wajawazito katika halmashauri ya jiji la Dar es Salaam.

Utangulizi:

Jina langu Victoria Ntara, mwanachuo katika chuo kikuu cha afya na sayansi ya tiba Muhimbili, nasoma shahada ya uzamili katika sayansi ya ukunga na afya ya wanawake. nafanya utafiti kuhusu, " Mtazamo wa wauguzi/wakunga juu ya matumizi ya muongozo mpya wa huduma kwa wajawazito katika halmashauri ya jiji la Dar es Saalaam. Nataka nikuelezee kwa undani baadhi ya mambo yanayohusu utafiti wangu ili kukupa picha ya kile kinachoenda kufanyika katika utafiti. Maelezo hayo ni kukusaidia kufanya uamuzi sahihi wa kuwa sehemu ya utafiti. Ukikubali kushiriki utatakiwa kutia sahihi kwenye fomu hii.

Lengo kuu la kufanya utafiti

Dhumuni ni kugundua mtazamo wa wauguzi/wakunga juu ya matumizi ya muongozo mpya wa huduma kwa wajawazito katika halmashauri ya jiji la Dar es salaam.

Utaratibu wa kufuata

Kushiriki kwenye utafiti huu ni hiari. Ukisha kubali kushiriki kwenye utafiti utaungana na wakunga na wauuguzi wenzako kujadiliana kwenye kikundi kwa muda usiozidi dakika sitini. Mtafiti atakuwepo kutoa msaada na kufanyia kazi duku dku yoyote itakayojitokeza

Faida za ushiriki kwenye Tafiti

Matokeo ya utafiti yanatarajiwa kuchangia kuweka mazingira mazuri ya kazi yatakayo wezesha matumizi ya muongozo wa huduma kwa wajawazito. Yatatoa fursa kwa kamati ya uendeshaji wa hospitali na kamati ya afya ya halmashauri ya jiji kuweka mikakati ya kuondoa vikwazo na

kuboresha mambo yanayowezasha muongozo mpya kutumika. Zaidi ya yote mawazo yako yatachangia kuboresha ufanisi na uhalisia wa matumizi ya huduma za wajawazito na hatimaye kupeleke matokeo mazuri ya afya ya mama na mtoto katka mkoa wenu.

Madhara ya kuwa sehemu ya utafiti

Kama mtu anashiriki kwenye utafiti huu hakuna madhara makubwa yanayotarajiwa kumpata zaidi ya uwezekano wa kutokea kwa maudhi madogo madogo ya kisaikolojia, kijamii, kimwili na kihisia ambayo yangeweza kutokea unapofanyika utafiti wowote ule.

Malipo

Washiriki hawatolipwa kwa namna yoyote ile kwa kushiriki katika utafiti huu.

Usiri kwenye utafiti

Usiri utazingatiwa kipindi chote cha utafiti, hakuna jina wala maelezo yoyote yatakayowekwa wazi kwa mtu mwingine isipokuwa kwa mtafiti na mtafiti msaidizi. Washiriki watatambuliwa kwa alama maalum na kompyuta itakayohifadhi taarifa za utafiti itawekewa neno siri maalum kuhakikisha watu wasiohusika hawazifikii taarifa hizo. Daftari na vifaa vingine vitakavyotumika kuhifadhi taarifa za utafiti zitawekwa katika usalama wa hali ya juu na mara baada ya taarifa kuchambuliwa vifaa hivyo vitaharibiwa.

Kujiondoa kuwa mshiriki katika utafiti:

Kama nilivyokueleza awali kwamba; kushiriki katika utafiti ni hiyari, kwa hiyo ikiwa utakubali kushiriki na badae ukataka kujiondoa utaruhusiwa. Hakutakuwa na madhara yoyote kwa kujitoa au kwa kutokubali kushiriki kwenye utafiti.

Anuani za mtafiti kwa ajili ya mawasiliano

Unaweza ukawasiliana nami wakati wowote kwa chochote kinachohusu utafiti kwa anuani zifuatazo, nambari ya simu- 0752931483 au kwa barua pepe- vickyntararic@gmail.com

Makubaliano

Mimi ……. Nathibitisha kwamba, nimesoma na kuelewa vizuri maelezo ya kwenye fomu hii. Nimepata nafasi ya kuuliza maswali na kueleweshwa pale ilipohitajika. Nimewekwa wazi kuhusu madhara na faida ya kuwa sehemu ya utafiti huu. Nimeeleweshwa kuhusu uhiyari wa kushiriki kwenye utafiti na kwamba wakati wowote nikitaka kujitoa kwenye utafiti nitaruhusiwa bila tatizo. Zaidi ya yote usiri utazingatiwa.

Niko tayari kushiriki katika utafiti huu.

Sahihi …… Tarehe …….

Tamko la mfanya utafiti

Mimi……
…

nathibitisha kwamba, nimetoa maelezo ya kutosha kuhusu utafiti na kuweka wazi mambo yote yanayohusiana na kushiriki katika utafiti huu kwa mshiriki tajwa hapo juu . kwa hiyari amekubali /amekataa kushiriki katika utafiti huu.

Sahihi ……..Tarehe ……

Appendix III: Interview Guide

PART I

General information

Health facility name……

Participant's ID no…….

Date …….

Informed consent Written and signed YES/NO……

Participant's personal information

Gender (male /female) …….

Age……(years)

Designation…….

Education level……...

Working unit…….

Working experience……. (in your current designation)

The period working in this facility …….

Have you worked in another facility before this facility? ……If YES where? ……...When? ……

How long have you worked in the ANC?

PART II

Discussion

1. **Questions about nurses/midwives' perceived usefulness, of the new ANC guidelines utilization.**
    - Have you ever heard about ANC guidelines?
    - What type of ANC guidelines do you know? (Mention them) what can you say about them? Let us discuss.
    - What guidelines do you use now in the ANC services?
    - When did you commence using the new guidelines?
    - Are the guidelines available in your facility?
    - Did you receive any training on the new guidelines?
    - Do you think the new ANC guidelines are utilized in your facility?
    - In your opinion, how do you perceive the usefulness of the new guidelines in your daily practice?

    Probe. Why and how
        - To provider; In the aspect of time, work performance, cost, quality of care,
        - To the client; in the aspect of outcome to the pregnant woman and fetus, client Satisfaction, subsequent care e.g. the next ANC contacts, facility delivery, and postnatal care visits.

    - Can you give examples of how the new guidelines have influenced your approach to antenatal care?
    - What aspects of the new guidelines do you find most beneficial and why?

2. **Questions on factors facilitating the new ANC guidelines utilization.**
    - What factors do you think facilitate new guidelines utilization?

Probe;

- Provider's attitude and behavior. How?
- Knowledge and skills. How?
- Pre-service training, refresher training, coaching, and mentoring. Explain how?
- Availability of basic commodities and other essential tools, guidelines (availability, content, and format). How does it facilitate?
- Supportive supervision, quality assurance, and recognition. How do you think it facilitates?

➢ Have you noticed any organizational or institutional policies encouraging adherence to the new guidelines? Mention them and explain how.

Probe

- Quality assurance measures
- Performance incentives
- Regular audits and reviews

3. Questions on challenges of the new ANC guidelines utilization.

➢ What challenges/**obstacle**s do you face when implementing the new ANC guidelines?

Probe.

Challenges related to Organizational factor

- Guidelines-related factor (guidelines in terms of availability and contents). Explain
- Logistic-related factors (equipment and supplies, working environment, power supply. Explain
- Human resource-related factors (human resource availability, staff workload, absenteeism). Explain
- Lack of proper facility set up. Explain

Care provider factor

- Knowledge and skills. Explain
- Attitude and behavior. Explain

Training and mentorship factor

- Quality of preservice training. Elaborate
- Inadequate in-service training. Elaborate
- Inadequate mentorship and supervision. Elaborate
  - Are there any specific aspects of the guidelines that you find difficult to integrate into your routine care?

    Probe;

    - Which aspect?
    - How

  - Have you experienced any resistance from your colleagues or clients regarding adopting the new guidelines?

    Probe.

- Which resistance?
  - What do you think can be done to address the existing challenges and improve the Implementation of new National ANC guidelines?

4. Closing

- Is there any additional point that you want to add to what we have been discussing? (about usefulness, facilitators, or challenges to Guidelines utilization)
- Summarize
- Thanks for your participation

Appendix IV: Muongozo wa majadiliano

SEHEMU YA I

Taarifa ya jumla

Jina la kituo cha kutolea huduma ……

Namba ya utambulisho wa mshiriki ……..

Tarehe …….

Kibali cha maandishi kimesainiwa? Ndio /Hapana……

Taarifa binafsi za mshiriki

Jinsi (Me /Ke) ……..

umri…….(Miaka)

Cheo chako cha taaluma…….

Kiwango cha elimu……...

Kitengo unachofanyia kazi……

Uzoefu kazini……. (kwenye taaluma yako ya sasa)

Muda uliofanya kazi katika taasisi hii …….

Umeshafanya kazi kwenye taasisi nyingine kabla ya hii? ……kama NDIO

wapi? ……..... lini? ……

ni kwa muda gani umefanya kazi klinik ya wajawazito? ……

SEHEMU YA II

Majadiliano

1. **Maswali kuhusu mtazamo wa wauguzi/wakunga kuhusiana na manufaa ya kutumia muongozo mpya wa huduma kwa wajawazito.**
    - Mmewahi kusikia kuhusu muongoza wa huduma kwa wajawazito?
    - Miongozo ipi ya huduma kwa wajawazito unaifahamu? (itaje?) unaizungumziaje? Hebu tujadiliane
    - Ni muongozo upi mnautumia kwa sasa kutolea huduma kwa wajawazito?
    - Mmeanza lini kuutumia muongozo wa sasa?
    - Huo muongozo mpya upo kituoni kwenu?
    - Mmepata mafunzo yo-yote kuhusiana na muongozo wa sasa?
    - Mnadhani muongozo mpya unatumika kituoni kwenu?
    - Kwa maoni yenu, ni kwa namna gani mnadhani muongozo huu wa sasa una manufaa katika utoaji huduma wenu wa kila siku?

    Dododosa. Kwanini na namna gani

    - Kwa mtoa huduma; kwa upande wa muda, ufanisi wa kazi, gharama, ubora wa huduma.
    - Kwa mteja; kwa upande wa matokeo kwa mama mjamzito na mtoto aliye tumboni, kuridhika kwa mteja, na kwa huduma zinazofuata mf. Kuja mahuhudhurio yanayofuata, kuzalia hospitali na kuhudhuria kinik baada ya kujifungua.

- Je, unaweza kutoa mifano ya jinsi muongozo mpya ulivyothiri namna yako ya kuhudumia wajawazito?
- Ni vipengele vipi vya muongozo mpya unaona kuwa una manufaa zaidi na kwa nini?

2. **Maswali kuhusu mambo ambayo wauguzi/wakunga wanadhani yanawezesha kutumia muongozo mpya wa huduma kwa wajawazito**

   - Mnadhani ni mambo gani yanawezesha muongozo mpya wa huduma kwa wajawazito kutumika?

   Dodosa;

   - Tabia na mtazamo wa mtoa huduma. kivipi?
   - Uelewa na ujuzi. Kivipi
   - Mafunzo kabla ya kuanza kazi, mafunzo ya kujikumbusha kazini. Elezea namna gani?
   - Uwepo wa vifaa na madawa ya muhimu, vitendea kazi vingine na muongozo wenyewe. (upatikanaji, mudhui ana muundo wake). unadhani Kunasaidiaje?
   - Usimamizi shirikishi, ukaguzi na kutambuliwa. Unadhani kunasaidiaje?

   - Kuna sera yoyote ya taasisi ambayo mnadhani imehamasisha ufuasi wa muongozo mpya wa huduma kwa wajawazito? Zitaje na kuzielezea

     Dodosa

     - Shughuli za kuhakiki ubora.
     - Zawadi/kutambuliwa kwa utendaji mzuri
     - Ukaguzi na mapitio ya mara kwa mara

3. **Maswali kuhusu changamoto kwenye kutumia muongozo mpya wa huduma kwa wajawazito.**

   - Ni changamoto gani mnakabiliana nazo wakati mnatumia muongozo mpya wa huduma kwa wajawazito?

Dododosa.

Changamoto zinazohusiana na taasisi

Mambo yanayohusiana na muongozo (muongozo katika upatikanaji na yaliyomo) eleza

- Mambo yanayohusiana na vifaa/vitendea kazi (vifaa tiba, madawa, vitendanishi, mazingira ya kutolea huduma na umeme. Elezea
- Mambo yanayohusu watumishi (uwepo wa watumishi, mzigo wa kazi, utoro). elezea
- Kukosekana kwa mpangilio mzuri wa eneo la huduma. elezea

Changamoto zinazohusiana na mtoa huduma

- Uelewa na ujuzi. Eleza
- Tabia na mitazamo. Elezea

Changamoto za mafunzo

- Ubora wa mafunzo yanayotolewa vyuoni. Fafanua
- Kutokuwepo kwa mafuzo kazini. Fafanua
- Kutokuwepo kwa mafunzo na usimamizi shirikishi. Elezea

➢ Je, kuna kipengele chochote cha muongozo ambacho mnaona vigumu kukijumuisha katika utoaji wa kawaida wa huduma.?

Dodosa;

- Kipengele kipi?
- Kwa namna gani

➢ je, umekumbana na upinzani wowote kutoka kwa wafanyakazi wenzako au wateja kuhusu kupitishwa kwa muongozo mpya?

Dodosa.

Upinzani gani?

➢ Mnadhani nini chaweza kufanyika ili kutatua changamoto zilizopo na kuboresha matumizi ya muongozo mpya wa huduma kwa wajawazito?

4. **Kufunga**

- Una jambo lingine ungependa kuongeza kwenya yale ambayo tumejadili? (kuhusu manufaa, mambo yanayowezesha na chngamoto za kutumia muongozo mpya wa huduma kwa wajawazito)
- Muhtasari wa mjadala
- Asanteni kwa ushiriki wenu.

Appendix V: Ethical clearance letter

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/2206 Date: 29/04/2024

MUHAS-REC-04-2024-2206
VICTORIA NTARA
SHOOL OF NURSING
MUHAS

RE: APPROVAL FOR ETHICAL CLEARANCE FOR A STUDY TITLED: MIDWIVES' AND NURSES' PERSPECTIVE ON THE UTILIZATION OF THE NEW NATIONAL ANTENATAL CARE GUIDELINES IN DAR ES SALAAMCITY COUNCIL

Reference is made to the above heading,

I am pleased to inform you that the Chairperson 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: 29/04/2024
EXPIRATION DATE OF APPROVAL: 29/04/2025

STUDY DESCRIPTION:
Purpose:
The purpose of this explorative qualitative study is to explore the midwives' and nurses' perspectives on the utilization of the new ANC guidelines in Dar es Salaam city 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-%2015472.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

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

Appendix VI: Introduction letter

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

In reply quote;
Ref. No. HD/MUH/T.434/2022 06TH May, 2024

Regional Administrative Secretary,
P.O. Box 5429,
DAR ES SALAAM

Re: INTRODUCTION LETTER OF VICTORIA NTARA

The bearer of this letter is Victoria Ntara (HD/MUH/T.434/2022), a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing MSc. Midwifery and Womens Health.

As part of her studies she intends to do a study titled**"Midwives' and Nurses' perspective on the utilization of the new national antenatal care guidelines in Dar es Salaam City 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. Victoria Ntara

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

Appendix V: Permission letter

JAMHURI YA MUUNGANO WA TANZANIA

OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA
HALMASHAURI YA JIJI LA DAR ES SALAAM

Ref. DCC/D.F.31/IX/37 **21 Mei, 2024**

Mganga Mfawidhi
.....

YAH: UTAMBULISHO WA UTAFITI KUHUSU 'MIDWIVES AND NURSES PERSPECTIVE ON THE UTILIZATION OF THE NEW NATIONAL ANTENATAL CARE GUIDELINES IN DAR ES SALAAM CITY COUNCIL"

Tafadhali husika na kichwa cha habari hapo juu.

2. Ofisi ya Mganga Mkuu wa Halmashauri ya Jiji inapenda kumtambulisha **Ndg. Victoria Ntara** kutoka Chuo kikuu cha Afya na Sayansi Shirikishi Muhimbili (MUHAS) anayesoma Shahada ya uzamili katika Sayansi ya Ukunga na Afya ya mwanamke.

3. Amepewa kibali kufanya tafiti katika Halmashauri ya Jiji la Dar es Salaam. Lengo kuu la tafiti hii ni kuweza kutambua mitizamo ya wauguzi na wakunga kuhusu Muongozo mpya wa Huduma kwa Mwanamke mjamzito. Utambuzi wa mitizamo hiyo utasaidia kushauri wizara namna nzuri ya kuufikisha muongozo huo katika maeneo ama kuuboresha kwa wakati ujao.

4. Utafiti huu unatarajiwa kufanyika kuanzia tarehe **21/05/2024** hadi tarehe **21/07/2024**, katika **Hospitali ya Kivule na Mnazi Mmoja, Kituo cha Afya Chanika, Pugu na Buguruni**.. Aidha utahusu mahojiano na baadhi ya wauguzi na wakunga katika vituo tajwa.

4. Kwa barua hii naomba umpokee mtafiti huyu na kumpa ushirikiano kulingana na taratibu na miongozo iliyopo.
Natanguliza shukrani zangu za dhati

Anence Kamasho
Kny: MGANGA MKUU HALMASHAURI YA JIJI
DAR ES SALAAM

MGANGA MKUU
HALMASHAURI YA JIJI LA DAR ES SALAAM

OFISI YA MKURUGENZI, 1 MTAA WA MISSIONI, S.L.P 20950, 11883 DAR ES SALAAM,SIMU NA 2128800, 2128805.Tovuti.www.dcc.gp.tz.
Barua pepe info@ilalamc.go.tz

NB: Mtafiti amepewa sharti la kurudisha nakala ya matokeo ya tafiti hii pindi amalizapo uandishi wa taarifa. Endapo mtafiti huyu hatarudisha taarifa taratibu zilizowekwa za ufuatiliaji chuoni zitazingatiwa.

JAMHURI YA MUUNGANO WA TANZANIA
Ofisi ya Rais
TAWALA ZA MIKOA NA SERIKALI ZA MITAA

MKOA WA DAR ES SALAAM
Anwani ya Simu:
Simu: 2203156/58
Fa: +25522203213
Tovuti: www.dsm.go.tz
Barua Pepe: ras@dsm.go.tz
Unapojibu Tafadhali taja:

OFISI YA MKUU WA MKOA
3 Barabara ya Rashidi Kawawa,
S. L. P. 5429,
12880 - DAR ES SALAAM.

Kumb. Na. EA.260/307/01B/144

14 Mei, 2024

Mkurugenzi Halimashauri ya Jiji
DAR ES SALAAM

YAH: UTAFITI "Midwives and Nurses perspective on the utilization of the new National antenatal care guidelines in Dar es Salaam City Council"

Tafadhali husika na kichwa cha habari hapo juu.

2. Ofisi ya Mkuu wa Mkoa wa Dar es Salaam inautambulisha utafiti tajwa hapo juu ambao umeombewa kibali kutoka Chuo Kikuu cha Tiba na Sayansi Shirikishi Muhimbili (MUHAS kumb. Na: HD/MUH/T.434/2022). Utafiti unafanywa na Mwanachuo Victoria Ntara wa shahada ya uzamili katika Sayansi ya Ukunga na Afya ya mwanamke, kuanzia tarehe 22 Aprili, 2024 hadi 30 Juni, 2024.

3. Utafiti utafanyika katika Halmashauri ya Jiji la Dar es Salaam katika Kituo cha Afya Mnazi Mmoja, Buguruni, Chanika, Kivule na Pugu hususan kwa Wakunga na Wauguzi wanaofanya kazi katika Vituo hivi.

4. Mtafiti atafanya mahojiano kuhusu mitazamo yao kwenye muongozo mpya wa huduma kwa mwanamke mjamzito

5. Lengo la utafiti ni kukidhi matakwa ya mtaala wa masomo na kubani ni mtazamo wa Wakunga na Wauguzi kuhusu Matumizi ya muongozo mpya wa hudums kwa mama mjamzito..

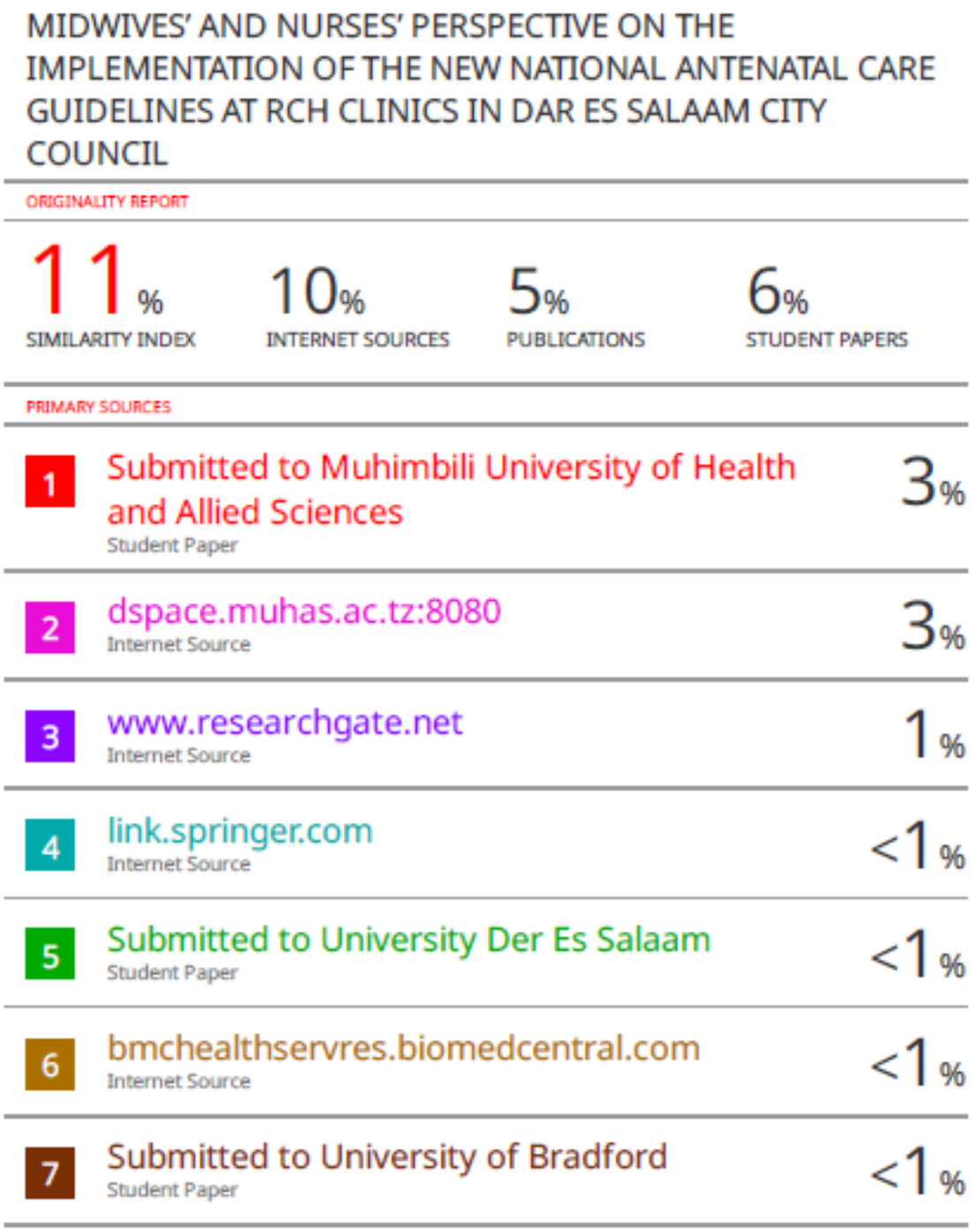
6. Kwa barua hii, **Mtafiti Victoria Ntara** amepewa kibali cha kufanya utafiti kwa kuwa ndiye aliyepewa dhamana ya kuusimamia.

Nashukuru kwa ushirikiano.

Dkt. Mohamed Mang'una
Kny; KATIBU TAWALA MKOA
DAR ES SALAAM

Nakala: Katibu Tawala Mkoa,
DAR ES SALAAM. – Aione Kwenye Jalada

Appendix VI: Plagiarism



MIDWIVES' AND NURSES' PERSPECTIVE ON THE IMPLEMENTATION OF THE NEW NATIONAL ANTENATAL CARE GUIDELINES AT RCH CLINICS IN DAR ES SALAAM CITY COUNCIL

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