

## HEALTH FACILITY FACTORS INFLUENCING MALE INVOLVEMENT IN ANTENATAL CARE AMONG CLIENTS ATTENDING ANTENATAL CLINIC AT NEBBI GENERAL HOSPITAL, NEBBI DISTRICT A CROSS-SECTIONAL STUDY.

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### ABSTRACT

#### Background

Antenatal care (ANC) is crucial for maternal and fetal health, yet male involvement in ANC remains low globally. Despite efforts to encourage male participation, studies indicate low levels of involvement across Africa, including Uganda. This study aims to identify factors influencing male involvement in ANC at Nebbi General Hospital.

#### Methods

The study employed a cross-sectional quantitative approach using purposive sampling to collect data from pregnant women and their partners attending the antenatal clinic, with a final sample size of 37 participants, and data analysis conducted using SPSS version 20.0

#### Results and discussions

There was a 100% response rate with 37 participants. The study revealed that distance to the facility, discussion of antenatal care with health workers, and comfort with health workers' gender were key determinants of male involvement.

#### Conclusion

Various health facility factors significantly influence male participation in antenatal care (ANC), affecting maternal and child health outcomes.

#### Recommendation

To improve male involvement in ANC, hospitals should provide flexible clinic hours, especially for working men. District health officers should address health facility factors and train health workers to effectively engage with male partners.

#### Nursing implications

Nurses should educate expectant mothers and their male partners on the importance of male involvement in ANC and its impact on pregnancy outcomes, advocating for flexible clinic hours to accommodate diverse backgrounds.

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### BACKGROUND OF THE STUDY

Antenatal care (ANC) is critical for the health and development of the fetus because it establishes a connection between the mother and her family and the healthcare system, potentially increasing the likelihood that a skilled attendant will be used at birth and promoting good health throughout the life cycle (Annie, 2021). ANC from a qualified health provider is essential to screening pregnancy and decreasing the danger of morbidity for mother and baby during pregnancy, delivery, and postnatal period (WHO, 2015).

The idea of male involvement in maternal well-being is currently being upheld as a basic component of World

Health Organization (WHO) activity for making pregnancy more secure (Manda-Taylor et al., 2017). Traditionally, ANC has been perceived as a responsibility primarily for women, with male partners often marginalized from the process. However, there is an increasing recognition of the importance of involving men in ANC to enhance maternal and child health outcomes (Kirui, 2021).

Like in most other African nations, family planning, getting pregnant, and giving birth have traditionally been seen as matters entirely about women in South Africa (Annie, 2021). However, social and sexual domination by males can seriously increase a woman's chance of infection and unintended pregnancy. Additionally, throughout pregnancy,

a man's sexual behavior can have an impact on the health of both the mother and the unborn child (Kirui, 2021).

Globally, men continue to have a low level of involvement in mother and child health in both developed and developing nations though the World Health Organization advocates for male involvement in ANC as a crucial component of a comprehensive approach to maternal and child healthcare (Nyasiro S et al, 2019).

Similarly, in Africa there appears to be a similar trend of low male involvement, for instance in Ethiopia 25% of expectants have their husband accompany them for ANC (Mamo et al., 2017). In Tanzania, it also observed that there is a low proportion of male engagement of 56.9% (Kabanga et al., 2019). In addition, reports from Kenya show that male involvement is at 34.1% (Muia et al., 2022).

According to MoH (2020), the maternal mortality ratio in Uganda remains high with 336 maternal deaths per 100,000 live births, Infant mortality is 43 deaths per 1000 live births, with 42% of the mortality occurring during the neonatal period of which most of them is as a result of low involvement of males who could assist in many ways (Babughirana, 2020). However, there are an increasing number of initiatives and programmatic efforts to come up with strategies that encourage male involvement in safe motherhood (Yargagwa & Leonardi-Bee, 2015). In Malawi and Uganda, women who were accompanied by their spouses were given priority in service provision as a strategy to encourage and support male participation in the utilization of ANC services (Atuahene et al., 2017).

This trend of low male involvement according to Byamugisha, et al. (2017) has been attributed to different factors that have been identified in other studies as: Health-facility factors, Cultural factors, and Socio-Economic factors.

According to Auma et al. (2023), a study was carried out in the Palabek Refugee Settlement, Lamwo district, Northern Uganda, to evaluate the factors associated with male involvement in ANC, the prevalence of male participation in ANC was 39%.

Anecdotal information at Nebbi District Hospital shows there is low male involvement in antenatal care services where only 09 males attended the ANC services at Nebbi General Hospital in the financial year 2022-2023. However, there is generally limited information to explain the poor involvement of males in ANC services. Therefore, the study aims to identify factors influencing male involvement in antenatal care among clients attending the antenatal clinic at Nebbi General Hospital, Nebbi District.

## METHODOLOGY

### Study design and rationale

This study was a cross-sectional study using a quantitative approach to determine factors influencing male involvement in antenatal care among clients attending the antenatal clinic at Nebbi General Hospital, Nebbi District. The selected

design was optimal for data collection at a specific moment in time since the data was collected at a specific point.

### Study setting and rationale

The study was conducted among clients attending the antenatal clinic at Nebbi General Hospital, Nebbi district. The hospital offers many health care services including immunization, child health services, HIV/AIDS management services, general patient management, surgery, laboratory services, nutrition services, antenatal, maternity and post-natal services, EMTCT program as well as RCT services among many others.

The hospital is located in the central business district of the town of Nebbi, in Nebbi District, in the West Nile sub-region, in Northern Uganda, about 78 kilometers (48 mi) southeast of Arua Regional Referral Hospital. ANC unit is usually run by 5 staff and it operates from Monday to Friday with a total of 4 examination beds used for the examination of the mothers. The study setting is chosen because it can be easily accessible by the researcher and has a specific population.

### Study population

The study was conducted among pregnant women and their partners attending the antenatal clinic at Nebbi General Hospital, Nebbi district at the time of the study.

### Sample size determination

The sample size was determined using the single proportion formula of Fischer et al as follows; -

$$n = (Z \alpha/2)^2 P (1-P)/e^2$$

Where;

**n** = sample size needed

**Z  $\alpha/2$** =level of statistically significant at 95% confidence interval (standard value 1.96)

**P**= proportion of males involved in ANC services i.e. 10%

**e**=maximum acceptable marginal error- 5% (0.05)

$$\text{Therefore; } n_0 = \frac{1.962 (0.1) (1-0.1)}{(0.05)^2} = 138.3$$

**n<sub>0</sub>**= 139 participants

Using the finite population factor for sample size adjustment by Glenn D. Israel 1994

$$n = \frac{n_0 \times N}{n_0 + (N-1)}$$

Where; - **N** = total number of clients attending ANC in a day =50

$$n = \frac{139 \times 50}{139 + (50-1)} = 36.96$$

**n** = 37 participants

Therefore, the study participants were 37. This is above the minimum number expected by UNMEB and representative of the entire population.

### **Sampling procedure**

Purposive sampling is a non-probability sampling technique where researchers intentionally select participants or cases available at the facility at the time of study. This was chosen since Nebbi Hospital is a high-volume facility, which serves clients from both rural and urban settings.

### **Inclusion criteria**

All the pregnant women and their partners attending the antenatal clinic at Nebbi General Hospital, Nebbi district at the time of study who consented to take part.

### **Exclusion criteria**

All patients who could not participate in the study, insane clients who refused to consent to the research, and clients under 18 years old.

### **Definition of Variables**

#### **Dependent variable**

The dependent variable is the outcome or response variable that is being observed or measured.

The dependent variable was male involvement in Antenatal Care.

#### **Independent variable**

An Independent variable is a variable that is manipulated or controlled by the researcher

The independent variable was the factors influencing i.e. health facility factors etc.

#### **Research instrument**

Self-administered structured questionnaires were distributed to gather data on the factors linked to male involvement among clients attending ANC at Nebbi General Hospital, Nebbi district. The questionnaire was composed of four parts i.e. part 1- introduction, part 2 health facility factors. A pilot study was conducted on 5 respondents on a single day at Jupangira H/C II to ensure the reliability and validity of the tool. Errors and ambiguous questions were identified and corrected with the help of the supervisor.

#### **Data collection procedure**

Following approval, an introductory letter was obtained from the principal of Jerusalem School of Nursing and Midwifery. The letter was then taken to the Medical Superintendent of Nebbi General Hospital. Subsequently, he introduced the researcher to the ANC ward in charge, who, in turn, introduced the researcher to the respondents. The purpose of the research was clearly explained to the respondents before they consented and filled out the questionnaires. Data collection spanned approximately four

(4) days, during which a total of 10 respondents were obtained per day.

### **Data management**

All study participants were given a unique identification number that was recorded in the questionnaire. The hard copies of the interview transcripts were kept under lock and key and the data was accessible only to the researcher. The questionnaires were carefully examined to verify the precision and thoroughness of the gathered information. Following that, the data were inputted, encoded, and refined using Statistical Package for Social Sciences (SPSS) version 20.0.

### **Data analysis**

Statistical Package for Social Sciences (SPSS) version 20 was used to conduct the analysis. Descriptive statistics was used in univariate analysis to describe independent variables, which were displayed as frequencies and percentages, such as age, education level, marital status, occupation, parity, and address. Through cross-tabulation, bivariate analysis will investigate relationships between dependent and independent variables. Testing was done on categorical data (binary, ordinal, or nominal) using Fischer's exact test or Chi-Square (X<sup>2</sup>). The following numerical (continuous) variables—mode, mean, range, variance, and standard deviation—were evaluated for indicators of central tendencies. Text, tables, and graphs were used to present the findings.

### **Ethical consideration**

#### **Approval**

Approval for the study was pursued by the Research and Ethics Committee. Furthermore, authorization was requested from the administrators i.e. MS Nebbi General Hospital. To formalize this procedure, an official letter issued by the institution was provided to the MS Nebbi General Hospital before the initiation of data collection.

#### **Consent**

A written informed consent form, delineating the research's objectives, potential advantages, associated risks, and the rights of the participants, was verbally explained to all respondents. Subsequently, participants were requested to express their consent after confirming their comprehension and willingness to participate in the study. Consent was indicated through a written signature or a thumbprint, particularly for individuals who faced challenges in writing.

#### **Privacy**

To ensure privacy, interviews with respondents were conducted in a confidential and secure environment, inaccessible to others. Additionally, all information and data collected were entered into SPSS and promptly secured with

a password, enhancing confidentiality and safeguarding the privacy of the participants.

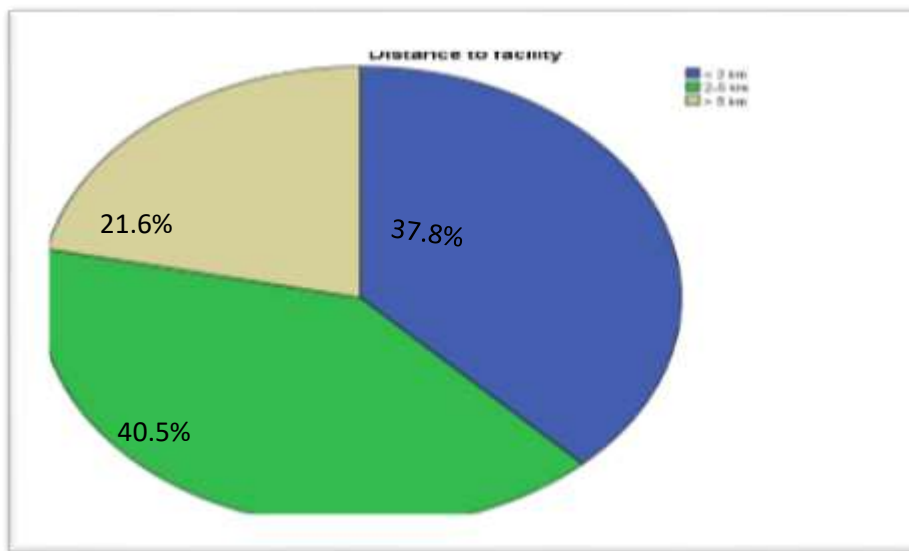
### Confidentiality

The data collection was carried out by the researcher personally, and the gathered information was stored in a

location with restricted access. Participant confidentiality was upheld by using initials instead of full names in all records. Access to the collected data was restricted to the research team alone, ensuring the confidentiality of participant information.

## RESULTS

**Figure 1: showing the distance of the facility from the respondents**



When considering the distance to the facility, 40.5% (15) of respondents lived within a medium distance, followed by 37.8% (14) who lived nearby, and 21.6% (8) who lived farther away.

**Figure 2: showing whether distance to the facility is a challenge to the respondent**



A significant proportion of respondents (40.5%, 15) found the distance to be a challenge, while the majority (59.5%, 22) did not perceive it as a challenge.

**Table 1: showing the residence of the respondents**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Urban | 21        | 56.8    | 56.8          | 56.8               |
| Rural | 16        | 43.2    | 43.2          | 100.0              |
| Total | 37        | 100.0   | 100.0         |                    |

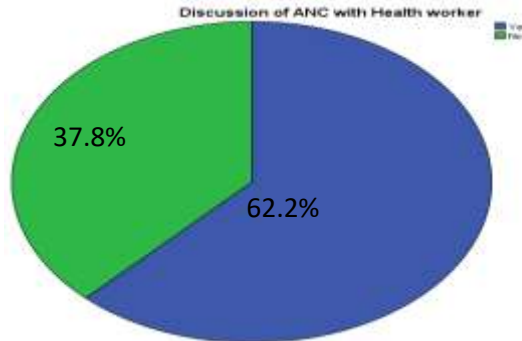
The majority of respondents (56.8%, 21) lived in urban areas, while 43.2% (16) lived in rural areas.

**Table 2: showing respondents' satisfaction with services at the hospital**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes   | 28        | 75.7    | 75.7          | 75.7               |
| No    | 9         | 24.3    | 24.3          | 100.0              |
| Total | 37        | 100.0   | 100.0         |                    |

The majority of respondents (75.7%, 28) were satisfied with the services delivered, while a minority (24.3%, 9) were not.

**Figure 3: showing whether the respondents discussed ANC findings with the health worker**



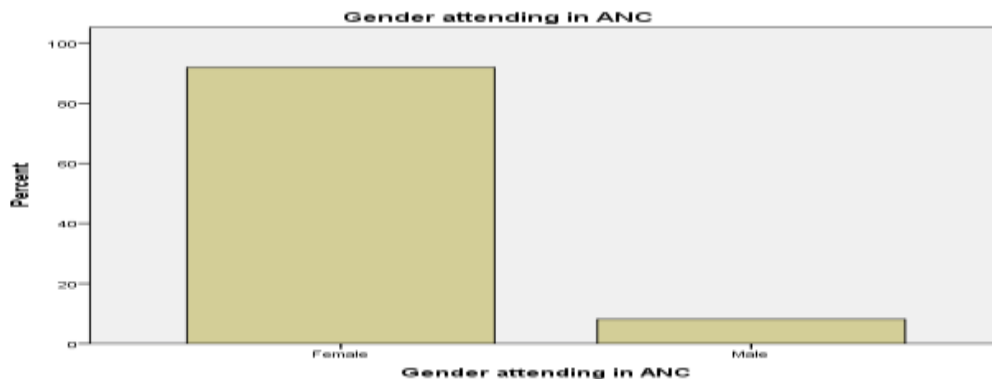
The majority of respondents (62.2%, 23) had discussed ANC with a health worker, while a minority (37.8%, 14) had not.

**Table 3: showing adequacy of space in the facility**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes   | 32        | 86.5    | 86.5          | 86.5               |
| No    | 5         | 13.5    | 13.5          | 100.0              |
| Total | 37        | 100.0   | 100.0         |                    |

The majority of respondents (86.5%, 32) found the space adequate, while a minority (13.5%, 5) did not.

**Figure 4: showing gender attending to the respondents**



Males attended the majority that is 91.9% (34) of respondents by females, while 8.1% (3), by males.

**Table 4: showing comfort with the gender attending to the respondent**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes   | 30        | 81.1    | 81.1          | 81.1               |
| No    | 7         | 18.9    | 18.9          | 100.0              |
| Total | 37        | 100.0   | 100.0         |                    |

The majority of respondents (81.1%, 30) were comfortable with the gender of the health worker attending to them, while a minority (18.9%, 7) were not.



**Table 5: showing satisfaction with the attitude of health workers by the respondents**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes   | 28        | 75.7    | 75.7          | 75.7               |
| No    | 9         | 24.3    | 24.3          | 100.0              |
| Total | 37        | 100.0   | 100.0         |                    |

The majority of respondents (75.7%, 28) were satisfied with the attitude of health workers, while a minority (24.3%, 9) were not.

**Table 6: showing access to information at the ANC clinic by the respondents**

|       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| Yes   | 24        | 64.9    | 64.9          | 64.9               |
| No    | 13        | 35.1    | 35.1          | 100.0              |
| Total | 37        | 100.0   | 100.0         |                    |

Most respondents (64.9%, 24) had access to information at the ANC clinic, while a minority (35.1%, 13) did not.

## DISCUSSION

### Health facility factors influencing male involvement in antenatal care

The majority of respondents (86.5%, 32) find the space adequate, while a minority (13.5%, 5) do not. In the Democratic Republic of the Congo, a study revealed that male involvement in ANC clinics is adversely affected by the insufficient space designated for male partners. The survey conducted by Deitkemena et al. (2012) highlighted that clinics often face limitations in accommodating both pregnant patients and their male partners simultaneously due to space constraints. This lack of adequate space not only hinders male partners from actively participating in antenatal care but also underscores the need for services specifically tailored to address men's concerns. Creating a welcoming environment for male partners in ANC clinics, with sufficient space and tailored services, is crucial for promoting their active involvement in maternal health care. The majority of respondents (81.1%, 30) are comfortable with the gender of the health worker attending to them, while a minority (18.9%, 7) are not. Men may feel uncomfortable in health clinics where the majority of the staff and patients are women. This imbalance in gender representation may contribute to a sense of unease or unfamiliarity for men in such settings. Therefore, ensuring gender diversity among health workers and providing education on relevant topics can help create a more welcoming environment for male partners in antenatal care clinics, ultimately promoting their active involvement in maternal health care.

The majority of respondents (62.2%, 23) have discussed Antenatal Care (ANC) with a health worker, while a

minority (37.8%, 14) have not. In Tanzania, only 23.5% of men accompanying their partners reported having the opportunity to discuss maternal health issues with healthcare providers, according to the study conducted by Gibore et al. (2019). This suggests a significant gap in engaging male partners in ANC discussions. Increased access to ANC information for men can lead to greater involvement in maternal health care, ultimately contributing to improved maternal and child health outcomes.

## CONCLUSION

Health facility factors such as space adequacy, health worker gender, and ANC discussion opportunities influence male involvement. Understanding and addressing these factors are crucial for promoting male participation in ANC and improving maternal and child health outcomes.

## RECOMMENDATION

The hospital should address work-related barriers by providing flexible ANC clinic hours to accommodate men's work schedules, especially for those who work long hours, and offer weekend or evening ANC clinics to make it easier for working men to participate.

Ensuring gender diversity among health workers and providing education on relevant topics can help create a more welcoming environment for male partners in antenatal care clinics, ultimately promoting their active involvement in maternal health care.

The district health officer should improve health facility factors such as ensuring that ANC clinics have adequate space to accommodate male partners comfortably, training health workers to create a welcoming environment for male partners, and providing them with relevant information and support. It should also encourage discussions about ANC

between health workers and male partners to increase their understanding and involvement in maternal health care.

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### LIST OF ABBREVIATIONS

ANC - Antenatal Care  
WHO - World Health Organization  
MoH - Ministry of Health  
RCT - Reproductive and Child Health  
SPSS - Statistical Package for Social Sciences  
HIV - Human Immunodeficiency Virus  
EMTCT - Elimination of Mother-to-Child Transmission  
MS – Medical Superintendent  
AIDS- Acquired Immuno-deficiency Syndrome

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The study was not funded.

### CONFLICT OF INTEREST

No conflict of interest has been declared.

### AUTHOR BIOGRAPHY

Adero Teddy is a student of Nursing and Midwifery at Jerusalem Institute of Health Sciences.

Atim Miria is a research supervisor and a tutor of Midwifery at Jerusalem Institute of Health Sciences.

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