

## KNOWLEDGE, ATTITUDE AND PRACTICE OF HEALTH WORKERS TOWARDS MANAGEMENT OF DEPRESSION AMONG HIV-POSITIVE PREGNANT MOTHERS AT RAPHA HEALTH CENTRE III. A CROSS-SECTIONAL STUDY.

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### ABSTRACT

#### Background

The purpose of the study was to identify the knowledge, attitude, and practice of health workers towards the management of depression among HIV-positive pregnant mothers at Rapha Health Center III, Gomba district.

#### Methodology

The study adopted a cross-sectional study design with quantitative data collection methods. A purposive sampling method was used to select 30 study participants. A questionnaire was used to obtain data which were analyzed using Microsoft Excel 2016 in the form of tables and figures.

#### Results

The study revealed that (40%) of participants were below 30 years of age, (63%) respondents were single, (57%) of participants had attained a diploma level of education. 50% of the respondents had a working experience of 4-6 years. (87%) of the respondents agreed that perinatal depression needs a medical intervention (60%) of respondents had heard about screening questionnaires. The majority 20(67%) of the participants agreed that perceived and experienced stigma can cause patients to be less likely to pursue treatment. (80%) of the respondents agreed that recognizing and managing depression is often an important part of managing other health problems during the perinatal period. 70% of the respondents did not routinely screen their patients for perinatal depression with a screening questionnaire (73%) of the respondents reported that their health facility did not carry out regular training about depression in pregnant mother

#### Conclusion

The study concluded that most of the health workers were knowledgeable about the management of depression with negative attitudes towards its management and poor practice hence health educating mothers regarding the prevention of depression is recommendable.

#### Recommendation

Health workers should be curious to acquire more knowledge, change their attitude, and practice regularly on how to assess for depression and the proper management protocol.

**Keywords:** Attitude, Depression, Knowledge, Perinatal depression, Practice, Rapha Health Centre III

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### BACKGROUND OF THE STUDY

Depression is a rising global health concern characterized by decreased energy, sadness, feelings of guilt, low self-esteem, insomnia, chronic fatigue, and thoughts of death or suicide (World Health Organization, 2017). Signs and symptoms of depression exist on a continuum, with variations in the length and severity of depressive episodes (American Academy of Periodontology (AAP), 2019). The persistence of at least five of the diagnostic symptoms for two weeks or more is considered an episode of major depressive disorder;

the most common form of depression (Anxiety and Depression Association of America, 2018).

Globally, an estimated 3.8% of the population experience depression, including 5% of adults (4% among men and 6% among women), and 5.7% of adults older than 60 years. Approximately, 280 million people in the world have depression (Global Health Data Exchange, 2023). Depression is about 50% more common among women than among men. Worldwide, more than 10% of pregnant women and 13% of women after giving birth suffer from a mental

disorder, primarily depression. In developing countries like India, this is even higher, that is, 15.6% during pregnancy and 19.8% after childbirth (Sidhu et al., 2019). Almost all adolescent pregnancies (95%) worldwide occur in Low and Middle-Income Countries (LMICs) with the highest frequency in the Sub-Saharan African (SSA) region (WHO, 2018). Despite the intersecting burdens of antenatal mental health problems and the high frequency of adolescent pregnancy, few data exist on maternal mental health among AGYW in Sub-Saharan Africa (Dadi et al., 2019). In 2017, data from the Anxiety and Depression Association of America indicated that 7.1% of Americans reported having had at least one major depressive episode within the past year (NIMH, 2019). While this statistic may seem relatively low, the rate of suicide has increased by 33% over the last two decades (Hedegaard et al., 2018). In Africa, the prevalence of perinatal depression in Africa is even higher than global estimates. In a systematic review of studies among African perinatal populations, the pooled prevalence of antenatal depression was 26% and postnatal depression was 17% (Dadi et al., 2020).

In Sub-Saharan Africa, the sharp increase in cases of depression, as well as, the associated systemic and oral health outcomes, underscores the need for quality medical and oral health care for at-risk individuals. However, research has shown that patients with depression and other mental illnesses may not receive this comprehensive care due to healthcare professionals' stigmatized views of mental health conditions (Corrigan et al., 2014).

In East Africa, healthcare professionals (HCPs) are responsible for the management of depressive symptoms in primary care centers (PCCs) and antenatal care (ANC) clinics (Niemi et al., 2020). However, they do not always accurately identify depressive symptoms in pregnant women. In part, this is due to their lack of familiarity with standardized depression screening tools, such as the Edinburgh Postnatal Depression Scale (EPDS) (Evans et al., 2015).

In Uganda, the prevalence of perinatal depression ranges between 5 and 10% in pregnant women. In the postpartum period, between 6 and 40% of HIV and non-HIV perinatal populations are at risk for depression (Kaida et al., 2014).

## **METHODOLOGY**

### **Study design and rationale**

The study used a descriptive cross-sectional quantitative study design also known as cross-sectional analysis, which is the type of observational study that analyzed data from a population, or a representative subset at a specific point in time (Setia 2016). This study design was chosen by the researcher because it was relatively quick and easy to conduct (no longer periods of follow-up), data on all variables was collected at once, and one was able to measure

the prevalence of all factors under investigation and also was good for descriptive analysis and for generating hypothesis. Quantitative data collection involves the use of numerical values to assess information. The entire design was chosen because it enabled the researcher to obtain data at one point in time.

### **Study setting and rationale**

The study was carried out at Rapha Health Centre III, Gomba district. The health facility attends to more than 150 pregnant mothers living with HIV. The hospital is located in, Gomba District South Central, Kanoni-Gomba, Uganda. Rapha Health Centre III is a private not-for-profit health facility founded on a Christian foundation laid by Eden Revival Church Ministries. The health facility had a bed capacity of about 30 beds. Services offered at Rapha health center III include but are not limited to: Maternal and child health; family planning immunization, Outpatient services, pediatric services, minor surgeries as well as medical services. The researcher chose to conduct the research from this hospital because it was familiar to her since she works there hence permission for data collection was easily awarded to her.

### **Study population**

Pregnant mothers living with HIV attending a medical clinic at Rapha Health Center III. **Sample size determination**  
In this study, the sample size was determined using a formula originally developed by Roscoe in 1975, which proposed the rules of thumb for determining sample size. Where a sample size larger than 30 and less than 1000 was appropriate for most research, therefore according to this background, the study involved only 30 respondents.

### **Sampling procedure**

The researcher used a simple random sampling technique whereby the respondents were found at the school at the time of data collection, they were selected based on the objectives of the study. The researcher chose all potential respondents who met the study criteria an equal opportunity to participate in the study by picking papers from an enclosed box and any respondent who picked a paper with the word YES written on it was requested to participate in the study. This continued until a total of 30 respondents were achieved. The procedure was preferred because it was less biased, easy to apply, less expensive and it collected data in the shortest time possible.

### **Inclusion criteria**

Pregnant mothers living with HIV attending a medical clinic at Rapha Health Center III voluntarily consented to participate in this study.

## Study variables

The dependent variables are variables being tested and measured in a scientific experiment and for this topic; the dependent variable was the management of depression among pregnant mothers living with HIV. The independent variables are variables that are changed and controlled in a scientific experiment to test the effects on the dependent variables, and for my topic, the independent variables are knowledge, attitude, and practices of health workers towards the management of depression among pregnant mothers living with HIV.

## Data collection instruments

The researcher used a researcher-administered questionnaire where a set of questions about the objectives of the study were given to respondents to answer. Each respondent was given 20-30 minutes during their lunch time. They were written in the most simplified English that all respondents could understand easily. The questionnaire was divided into four sections; sociodemographic, knowledge, attitude, and practices. The researcher used this tool in collecting data from respondents because it was cheap, quick to administer, minimized bias, and easy to analyze.

## Data Collection Procedures

Upon approval of my research proposal by my supervisor and the Principal Lubaga Hospital Training School, an introductory letter was sent to the Medical Superintendent Rapha Health Centre III to allow the researcher to carry out the study. The clinical instructor introduced the researcher to the health workers and thereafter she also introduced herself to the patients and told them the topic and the objectives of the study. The researcher made sure that privacy was observed and respondents were assured of their confidentiality. The hard copies of the questionnaire were given to respondents and told them how to fill them. Every respondent filled out the questionnaire along with

clarification from the researcher where s/he did not understand and later, they were collected. The process took five days with 8 respondents every day.

## Data Management

Results were first checked for completion, correction of mistakes, and editing each day to avoid missing information after losing contact with the respondent. Questionnaires were put in an envelope and kept in safe custody under lock and key only accessible to the researcher. Collected data was sorted, edited, coded to avoid errors, and kept by the researcher for privacy and confidentiality.

## Data Analysis

The collected data was manually summarized, analyzed, and tallied and the results were processed using Microsoft Word and Excel programs for Windows. These programs processed and presented the information as frequency tables, figures, pie charts, bar graphs, and narratives.

## Ethical considerations

The research proposal was handed over to my supervisor and the Principal of Lubaga Hospital Training School for approval. Then an introductory letter from the School was sent to the Medical superintendent of Rapha Health Center III Gomba district, who in turn authorized the researcher to collect data from the respondents. They were informed about the purpose of the research and data collection procedures were explained to them. Informed consent was obtained from the respondents, who requested to participate in the study and were assured of confidentiality and privacy of their responses. However, the respondents reserved the right to withdraw from the research program at any time.

## DATA PRESENTATION AND ANALYSIS

### Demographic characteristics of the students

**Table 1: Showing Distribution of the Demographic characteristics**

Variable	Category	Frequency	Percentage (%)
Age	<30 years	12	40
	30-38 years	8	27
	38-45 years	7	23
	>45 years	3	10
Gender	Female	18	60
	Male	12	40
Marital status	Single	19	63
	Married	8	27
	Divorced	3	10
Religion	Catholic	7	23
	Moslem	3	10
	Protestant	6	20
	Born again	14	47
Level of education	Certificate	7	23
	Diploma	17	57
	Bachelor	4	13
	Postgraduate	2	7
Cadre	Nurse	8	27
	Midwife	5	17
	Doctor	1	3
	Clinical officer	10	33
	Others	6	20
Working experience	1-3 years	9	30
	4-6 years	15	50
	7-9 years	5	17
	>10 years	1	3
Clinical placement	Maternity ward	9	30
	Causality ward	5	17
	OPD ward	6	20
	Gynecological ward	7	23
	Others	3	10

In Table 1, the highest number 12(40%) of participants were below 30 years of age while the lowest 3(10%) were above 45 years. The majority 18(60%) of the respondents were females and the minority 12(40%) were males. The highest number 19(63%) respondents were single and the lowest 3(10%) were divorced. Most 14(47%) of the participants were born again and a few (10%) were Muslims. The highest number 17(57%) of participants had attained a diploma level of education while the lowest 2(7%) were post-graduates. The highest number 10(33%) of respondents were clinical officers and the lowest 1(3%) was a doctor.

Half 15(50%) of the respondents had a working experience of 4-6 years while a few 1(3%) had above 10 years of experience. The highest number 9(30%) of participants were placed in the maternity ward while the lowest 3(10%) were in other departments.

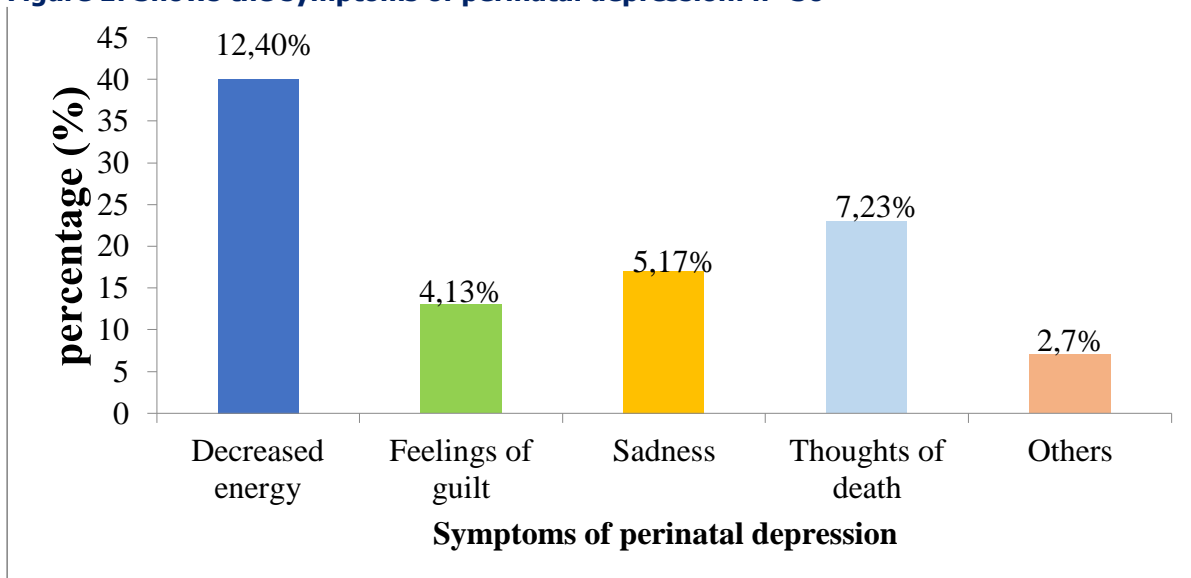
**Knowledge of health workers towards management of depression among HIV-positive pregnant mothers**

**Table 2: Shows the definition of perinatal depression (n=30)**

Variable	category	Frequency	Percentage (%)
Definition of perinatal depression	Depression that occurs during and after pregnancy	30	100

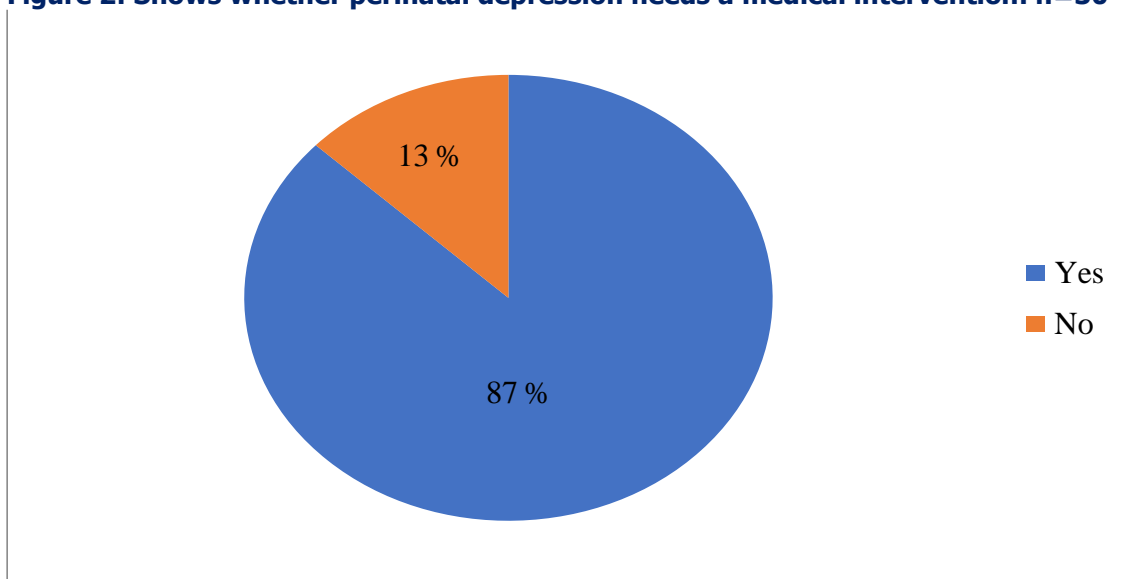
Page | 5 In Table 2, all 30(100%) of the respondents defined perinatal depression as the depression that occurs during and after pregnancy.

**Figure 1: Shows the symptoms of perinatal depression. n=30**



In Figure 1, the majority 12(40%) of the respondents reported decreased energy as a symptom of depression while the minority 2(7%) reported other symptoms.

**Figure 2: Shows whether perinatal depression needs a medical intervention. n=30**



In Figure 2, The highest number 26(87%) of the respondents agreed that perinatal depression needs a medical intervention while the lowest 4(13%) disagreed.

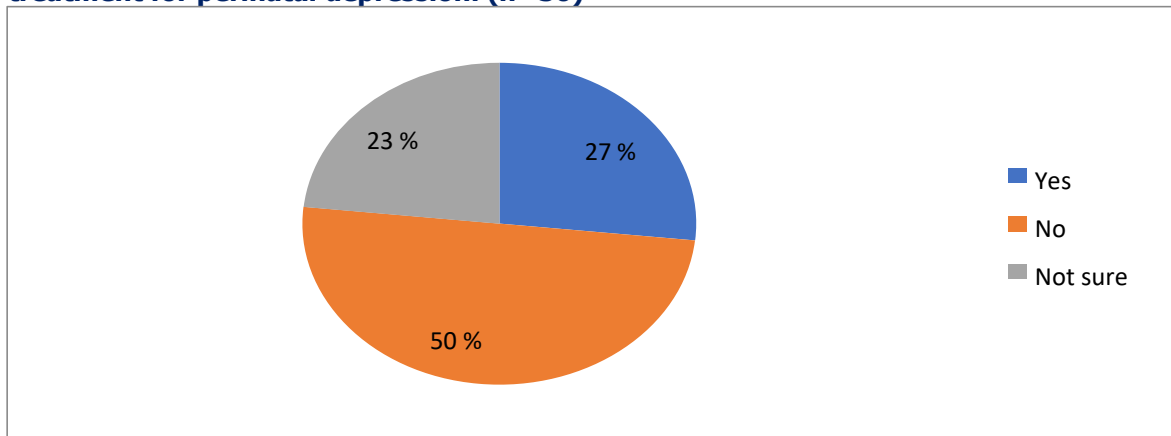
**Table 3: Shows the etiology of perinatal depression. n=30**

Variable	Frequency	Percentage (%)
Life stress	10	33
Genetic factors	4	13
Physical and emotional demands of childbearing and baby care.	6	20
Changes in hormones during and after pregnancy.	3	10
Weakness and faulty thinking and attitude of women.	2	7
Not sure	0	0
Others	5	17

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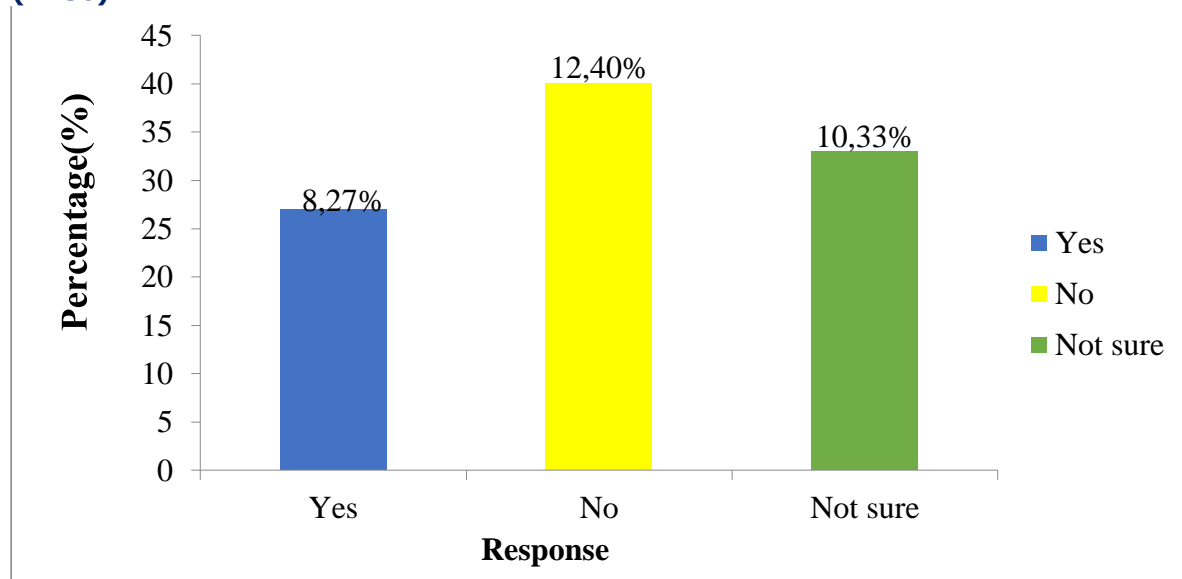
In Table 3, the highest number, 10(33%) of the respondents reported life stress as the etiology of perinatal stress while the lowest 2(7%) reported weakness and faulty thinking and attitude of women.

**Figure 3: Shows whether the respondents knew the appropriate screening tools and treatment for perinatal depression. (n=30)**



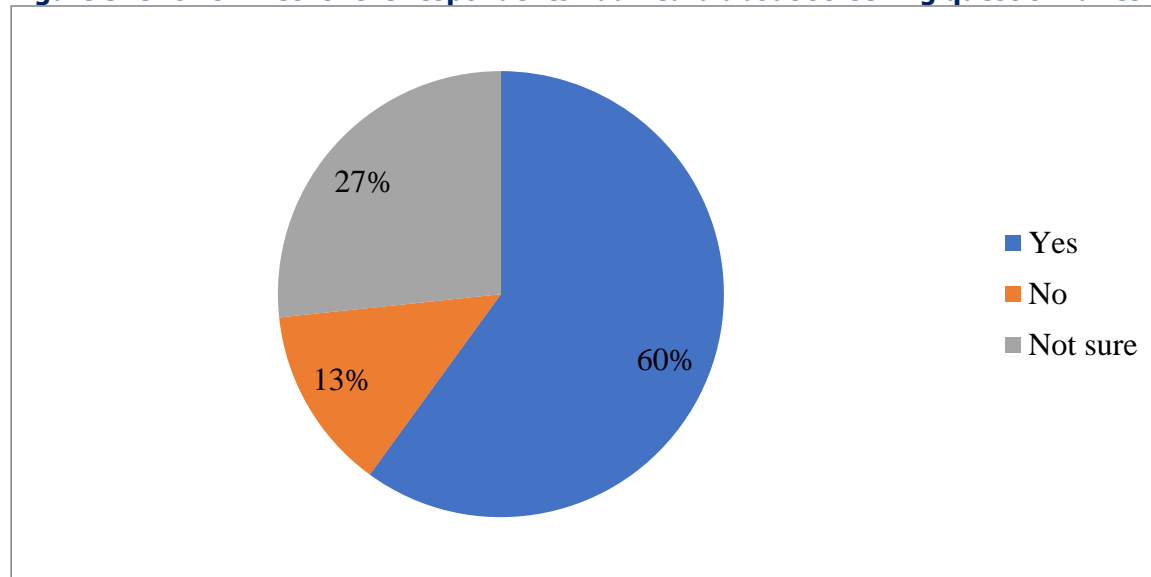
In figure 3, most, 15(50%) of the respondents did not know the appropriate screening tools and treatment for perinatal depression while a few 7(23%) were not sure.

**Figure 4: Shows whether the participants knew the screening methods used to diagnose. (n=30)**



In Figure 4, the highest number, 12(40%) of the participants did not know the screening methods used to diagnose Perinatal depression while 8(27%) knew.

**Figure 5: Shows whether the respondents had heard about screening questionnaires. N=30**



In Figure 5, the highest number 18(60%) of respondents had heard about screening questionnaires while the lowest 4(13%) had not.

### **Attitudes of health workers towards management of depression among HIV-positive pregnant mothers**

**Table 4: Shows the attitudes of health workers towards the management of depression among HIV-positive pregnant mothers (n=30)**

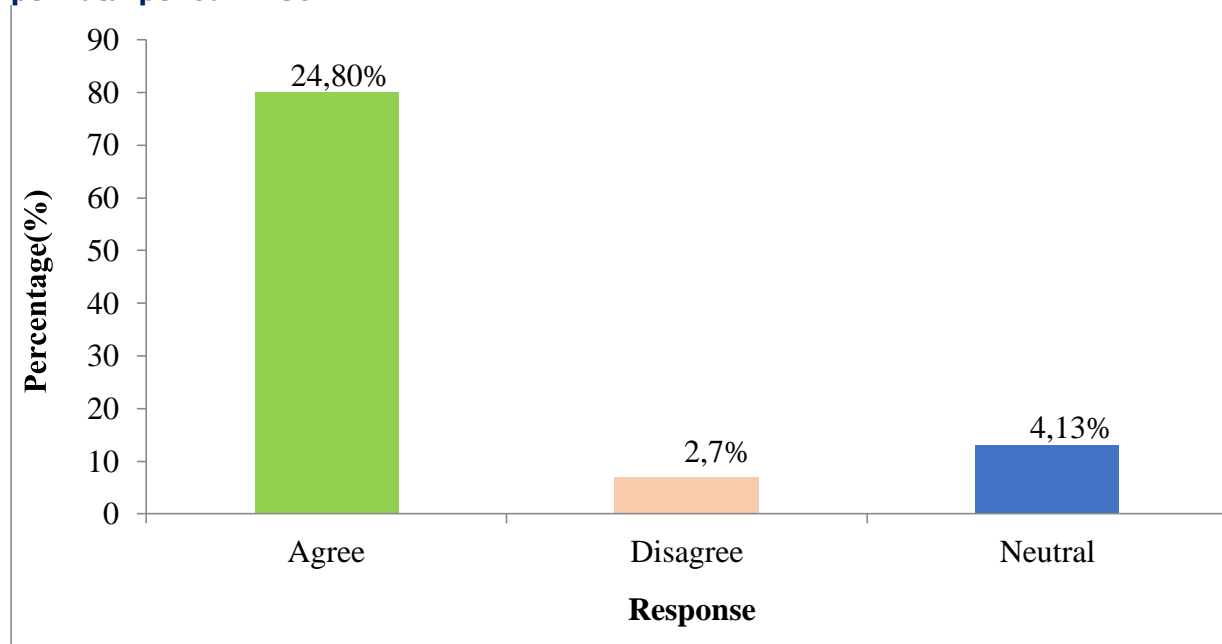
Variable	Category	Frequency	Percentage (%)
Perceived and experienced stigma can cause patients to be less likely to pursue treatment.	Agree	20	67
	Disagree	4	13
	Neutral	6	20
I feel confident in assessing suicide-risk patients presenting with perinatal depression.	Agree	5	17
	Disagree	18	60
	Neutral	7	23
There is a need for screening perinatal mothers for depression.	Agree	22	73
	Disagree	3	10
	Neutral	5	17
I feel confident working with perinatal depressive mothers.	Agree	8	27
	Disagree	13	43
	Neutral	9	30

In Table 4, the majority, 20(67%) of the participants agreed that perceived and experienced stigma can cause patients to be less likely to pursue treatment while the minority 4 (13%) disagreed. The highest number 18(60%) of respondents did not feel confident in assessing suicide risk patients presenting with perinatal depression while the lowest 5(17%)

were comfortable. Most 22(73%) of the participants agreed that there is a need for screening perinatal mothers for depression while a few 3(10%) disagreed. The highest number 13(43%) of participants did not feel confident working with perinatal depressive mothers while the lowest 8(27%) were confident.



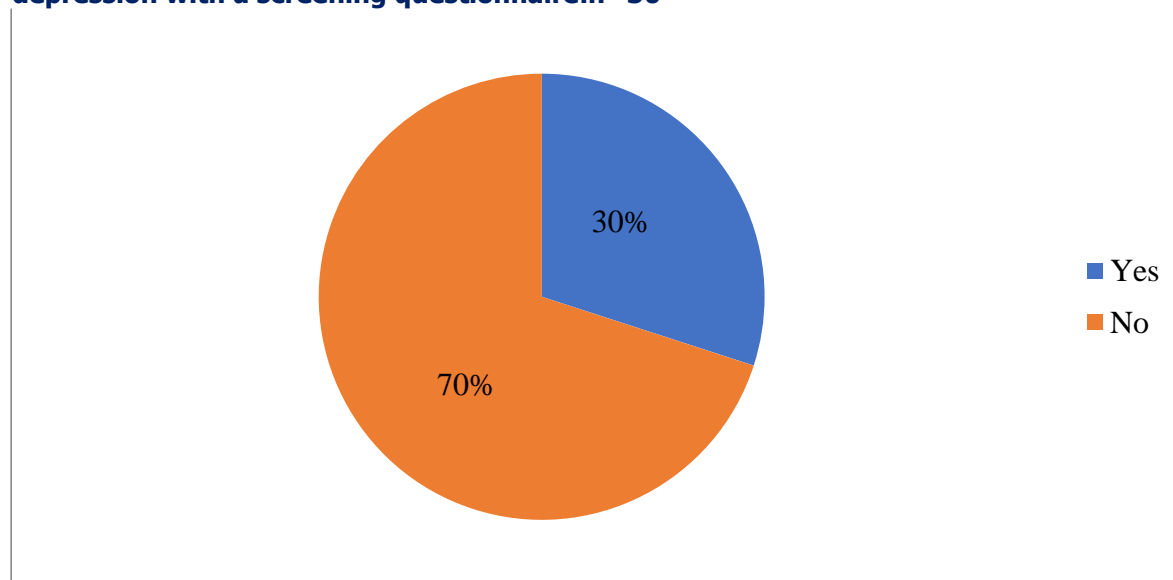
**Figure 6: Shows the responses of respondents towards recognizing and managing depression is often an important part of managing other health problems during the perinatal period. n=30**



In Figure 6, the majority 24(80%) of the respondents agreed that recognizing and managing depression is often an important part of managing other health problems during the perinatal period while the minority 2(7%) disagreed.

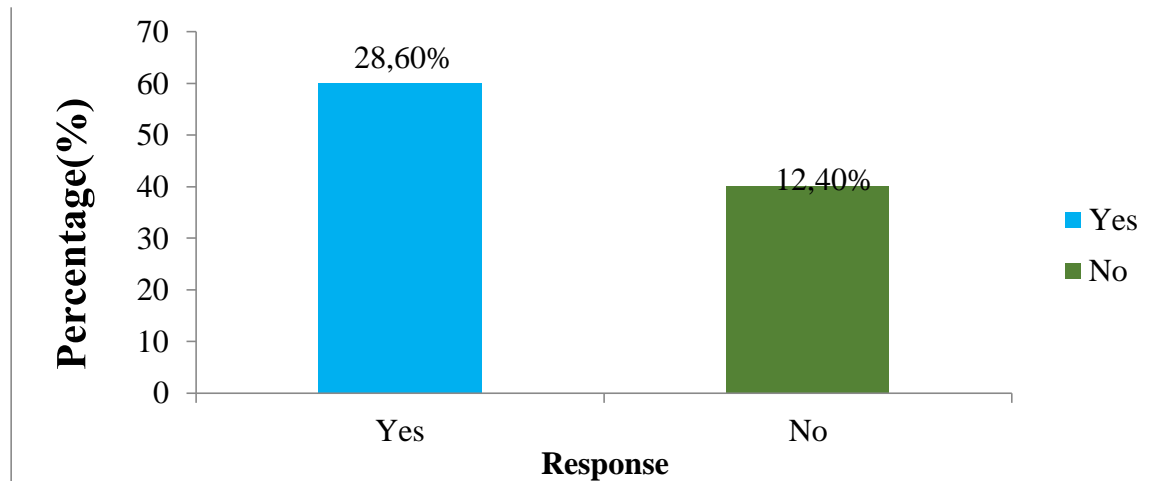
### Practice of health workers towards management of depression among HIV-positive pregnant mothers

**Figure 7: Shows whether respondents routinely screened their patients for perinatal depression with a screening questionnaire.n=30**



In Figure 7, the highest number, 21(70%) of the respondents did not routinely screen their patients for perinatal depression with a screening questionnaire while the lowest 9(30%) did.

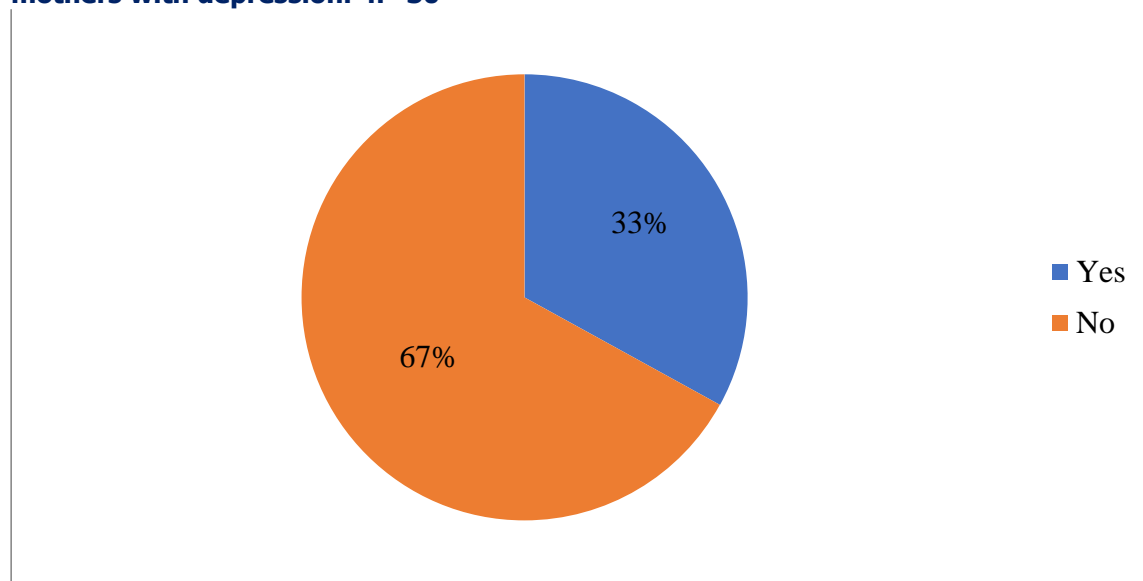
**Figure 8: Shows whether the patients had been prescribed psychotropic drugs. n=30**



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The highest number 18(60%) of the participants had been prescribed psychotropic drugs while the lowest 12(40%) had not.

**Figure 9: Shows whether respondents were being supervised when managing pregnant mothers with depression. n=30**



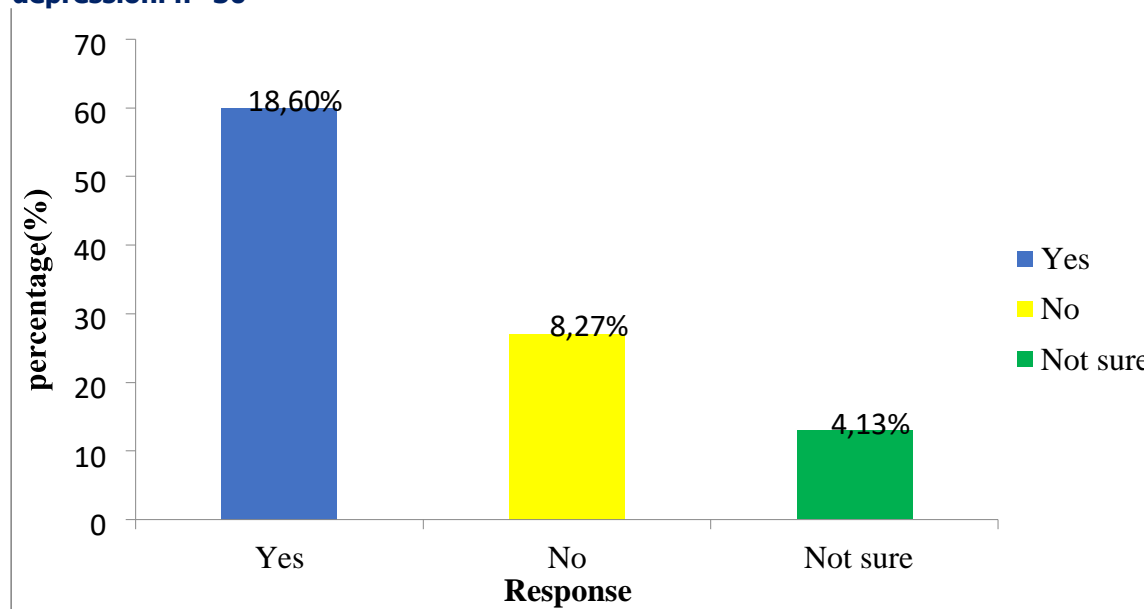
In Figure 9, the majority, 20(67%) of the participants were not being supervised when managing pregnant mothers with depression while the minority 10(33%) were supervised.

**Table 5: Shows whether the respondents had the necessary resources required for managing depressive patients. (n=30)**

Category	Frequency	Percentage (%)
Always	2	7
Sometimes	21	70
Not at all	7	23

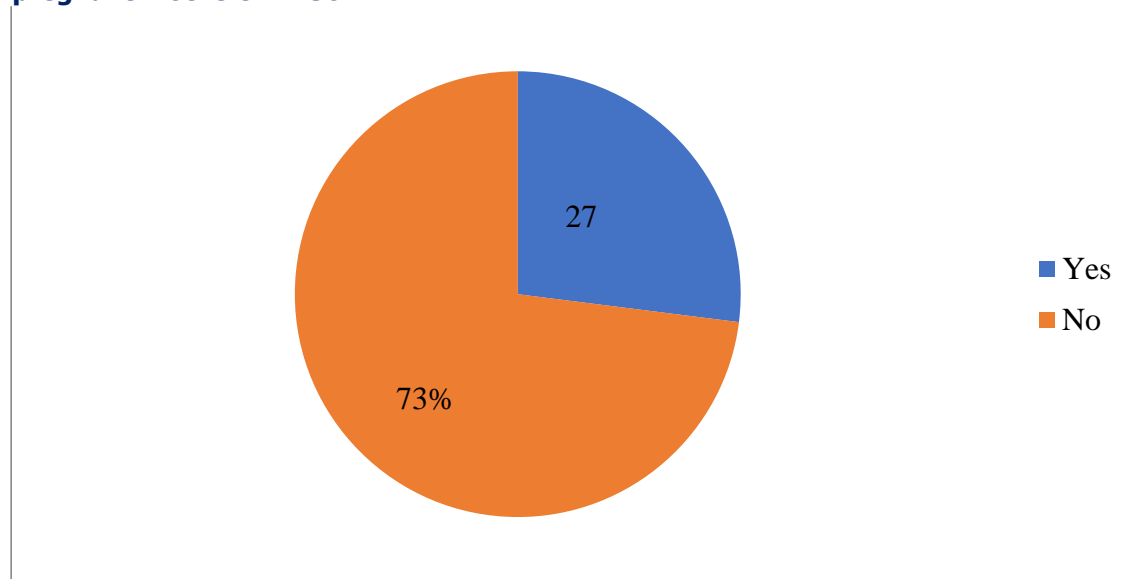
In Table 5, most 21(70%) of the respondents could sometimes get the necessary resources required for managing depressive patients while a few 2(7%) of the respondents could always get them.

**Figure 10: Shows whether the respondents used standardized questionnaires for screening depression. n=30**



In Figure 10, the majority, 18(60%) of the participants did not use standardized questionnaires for screening depression while the minority 4(13%) were not sure.

**Figure 11: Shows whether the health facility carried out regular training about depression in pregnant mothers. n=30**



In Figure 11, the highest number 22(73%) of the respondents reported that their health facility did not carry out regular training about depression in pregnant mothers while the lowest, 8 (27%) of the respondents reported that the facility did.

## DISCUSSION

### Socioeconomic characteristics of the students

The highest number (63%) of respondents were single. This was because most of them were young people who had not yet picked interest in marriage due to the desire to stabilize themselves first. Most, (47%) of the participants were born again. This was because the Rapha Health Centre is a born-again-founded facility.

The highest number, (57%) of participants had attained a diploma level of education. This implied that they had some relative knowledge about the management of depression but not to the same extent as people at bachelor's and other higher levels of education. This agrees with a study done by Papish *et al.*, (2013) which demonstrated that comprehensive, contact-based education as compared to an undergraduate psychiatry course integrating educational strategies was more effective in reducing stigma towards mental illness among second-year medical students. Postgraduate students were more knowledgeable than undergraduate students concerning the management of depression.

Half (50%) of the respondents had a working experience of 4-6 years. This was because most of them were young people who had just completed their education.

The highest number (30%) of participants were placed in the maternity ward. This was because the researcher picked more interest in the maternity ward since the research was about pregnant mothers.

### Knowledge of health workers towards management of depression among HIV-positive pregnant mothers

All (100%) of the respondents defined perinatal depression as the depression that occurs during and after pregnancy. This showed that all respondents knew the meaning of perinatal depression this is in line with the definition according to the WHO which also states perinatal depression is the depression that occurs during and after pregnancy. (WHO, 2020)

(40%) of the respondents reported decreased energy as a symptom of perinatal depression. This was because most of the depressed pregnant mothers lost their appetite and therefore could not feed on enough food would give them energy. This relates to a study done by (the World Health Organization, 2017) which reported that depression is a rising global health concern characterized by decreased energy, sadness, feelings of guilt, low self-esteem, insomnia, chronic fatigue, and thoughts of death or suicide.

The highest number (87%) of the respondents agreed that perinatal depression needs a medical intervention. This was because if perinatal depression is not treated, it could result

in a serious risk of harm to the mother and the child as well. For example, the mother could develop suicidal ideations, which can also lead to cardiovascular diseases. This agrees with a study done by Mulango et al., (2018) which revealed that 92.9% of the participants were aware that depression needs medical intervention.

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Furthermore, (33%) of the respondents reported life stress as the etiology of perinatal depression. This was because situations that are disturbing for example, lack of finances could make pregnant mothers overthink how they were to afford child care equipment to the extent of losing appetite therefore leading to perinatal depression.

Study findings established that (50%) of the respondents did not know the appropriate screening tools and treatment for perinatal depression. This was because the health center did not provide the appropriate screening tools and did not even carry out regular teachings about perinatal depression and its treatment to the staff. This agrees with the study done by Branquinho et al., (2022) which found that the knowledge of healthcare professionals is lacking in several aspects of perinatal depression like screening tools and treatment, which affects the quality of care.

Also, (40%) of the participants did not know the screening methods used to diagnose perinatal depression. This was because they had never diagnosed perinatal depression and saw no need to diagnose it since they believed it was a normal stage of pregnancy. This agreed with a study done

The highest number (60%) of respondents had not heard about screening questionnaires. This implied that they didn't regularly use them during their practice hence having less knowledge about their usage. This relates to a study done by Gupta et al., (2023) which reported that less than 50% of the participants had heard about the screening questionnaire.

In a study conducted by Mulango et al., (2018), it was revealed that 92.9% were aware that depression needs medical intervention. Only 1.8% knew a standard tool used to diagnose depression.

Gupta et al., (2023) reported that more than 98% of them were aware of an entity called perinatal depression. Around 89% of the participants do not screen patients for the perinatal period routinely using a screening questionnaire. Less than 50% of participants had heard about the screening questionnaire for the same. A study by Hassan *et al.*, (2020) in Malaysia among healthcare workers including doctors found that doctors had better knowledge about perinatal depression than other healthcare workers, though there was room for improvement.

In a qualitative study of healthcare providers (nurses and primary care physicians), it was concluded that they found it difficult to identify perinatal depression, prevent it, or intervene early because they were unaware of the screening methods (Meira et al., 2015).

### **Attitudes of health workers towards management of depression among HIV-positive pregnant mothers**

Study results established that the majority (67%) of the participants agreed that perceived and experienced stigma can cause patients to be less likely to pursue treatment. This agrees with a study done by (Corrigan et al., 2014) which reported that perceived and experienced stigmas may cause patients to be less likely to pursue treatment.

The highest number (60%) of respondents did not feel confident in assessing suicide risk patients presenting with perinatal depression. This is because they did not have enough experience dealing with perinatal depression. Similarly, Mulango et al., (2018) established that two-thirds agreed that the majority of the cases of depression encountered originate from recent misfortune. About 66% felt uncomfortable working with depressed patients.

Most (73%) of the participants agreed that there was a need for screening perinatal mothers for depression. This was to prevent the possible outcomes of perinatal depression. This agrees with a study done by Saini et al., (2016) which found that about 90% of participants agreed with the need for screening for perinatal depression.

A given number (43%) of participants did not feel confident working with perinatal depressive mothers. This could be because they didn't have enough information about the proper management hence leading to their poor attitudes. This relates to a study done by Mulango et al., (2018) which found that about 66% of participants felt uncomfortable working with depressed patients.

The majority (80%) of the respondents agreed that recognizing and managing depression is often an important part of managing other health problems during the perinatal period. This is because early recognition allows the health professional to devise means of how to control and prevent the mothers from going into depression. This agrees with a study done by Saini et al., (2016) which reported that around 89% of participants agreed that all health professionals should have skills in recognizing and managing depression.

### **Practice of health workers towards management of depression among HIV-positive pregnant mothers**

The highest number (70%) of the respondents did not routinely screen their patients for perinatal depression with a screening questionnaire. This was because they thought it was not necessary to screen them for perinatal depression since they believed it was a normal part of pregnancy. This agrees with a study done by Gupta et al., (2023) which reported that around 89% of the participants do not screen

patients for the perinatal period routinely using a screening questionnaire.

The majority (67%) of the participants were not being supervised when managing pregnant mothers with depression. This was because they thought it perinatal depression was not a big case that needed them to be supervised.

Most (70%) of the respondents could sometimes not get the necessary resources required for managing depressive patients. This was because the health center could not always provide the necessary resources as they thought it was a waste of resources and money.

The majority (60%) of the participants did not use standardized questionnaires for screening depression. This was because they were not aware of standardized questionnaires and the need for screening. This relates to a study done by Ford et al., (2017) which found that only 8% of the participants used standardized questionnaires for screening of postpartum depression, although most were aware of the need for screening.

The highest number (73%) of the respondents reported that their health facility did not carry out regular training about depression in pregnant mothers. This was because they did not find it necessary to screen the mothers for perinatal depression.

## CONCLUSION

The study concluded that most of the participants were below 30 years of age, single, born again by religion, at diploma level with a working experience of 4-6 years working in the maternity ward.

They had good knowledge, negative attitudes, and poor practices as reflected in chapter four and the results discussion.

## RECOMMENDATIONS

- The government of Uganda through the Ministry of Health should procure enough equipment to equip health workers with whatever they need to manage mothers with depression.
- Health workers should be curious to acquire more knowledge, change their attitude, and practice regularly on how to assess for depression and the proper management protocol.
- Health facilities should organize regular refresher training in the management of depression among mothers.
- Communities should be sensitized about the causes of depression and how best it can be prevented.

## ACKNOWLEDGMENT

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May God bless you abundantly.

## LIST OF ABBREVIATIONS AND ACRONYMS

<b>ADAA:</b>	Anxiety and Depression Association of America
<b>AAP:</b>	American Academy of Periodontology
<b>GHDx:</b>	Global Health Data Exchange
<b>LMICs:</b>	Low- and Middle-Income Countries
<b>MHC:</b>	Mental Health Commission of Canada
<b>MOH:</b>	Ministry of Health
<b>PCCs:</b>	Primary Care Centers
<b>PHP:</b>	Public Health Professionals
<b>SSA:</b>	Sub-Saharan African
<b>UN:</b>	United Nations
<b>NIMH:</b>	National Institute of Mental Health
<b>UNMEB:</b>	Uganda Nurses and Midwives Examination Board
<b>WHO:</b>	World Health Organization

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Funds were solicited from people

## CONFLICT OF INTEREST

The author declares no conflict of interest.

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