KNOWLEDGE, ATTITUDE, AND PRACTICES TOWARDS PREVENTING DEPRESSION AMONG STUDENTS AT KAMPALA SCHOOL OF HEALTH SCIENCES, WAKISO DISTRICT. A CROSS-SECTIONAL STUDY.

Isaac Murungi*, Cliffe Atukuuma
Kampala School of Health Sciences.

Abstract
Background
Depression is an illness that involves the body, mind, and thoughts that affect the way one eats, sleeps, feels about him or herself, and thinks about things. The study aims to assess the knowledge, attitude, and practices towards preventing depression among students at Kampala School of Health Sciences, Wakiso district.

Methodology
A cross-sectional study using quantitative data collection methods. A simple random sampling technique was used to select 50 respondents. The study included students aged 18-32 years.

Results
The majority of the respondents (92%) had never heard of depression before, and the other (8%) had never heard of depression. The majority (60%) heard of depression at school, and the least (4%) heard of it from religious gatherings. The majority (39%) knew suicidal ideation as a symptom of depression while the least (9%) knew lack of sleep as a symptom. The majority (64%) ticked Yes that they would disclose if they were depressed, and the least (36%) ticked No that they would not disclose. The majority (40%) ticked that talk to a close friend to prevent depression after an undesirable incident and the least (24%) talked to their parents to prevent depression after an undesirable incident, the majority (36%) ticked talking to a school counselor as the most helpful practice of prevention of depression among students and the least (12%) ticked keeping problem to self as the most helpful practice of prevention of depression.

Conclusion
The knowledge of depression among students was generally good. The overall altitude was poor as most of the respondents believed that depressed people were dangerous.

Recommendation
The administration of Kampala School of Health Sciences should introduce an Adolescent Depression Awareness Program in its school curriculum for all students despite the course being pursued.

Corresponding Author: Isaac Murungi*
Email: murungizaac@gmail.com
Kampala School of Health Sciences.

Background of the study
Depression is an illness that involves the body, mind, and thoughts that affect the way one eats, sleeps, feels about him or herself, and thinks about things. Depression is one of the most studied mental health disorders with varying prevalence rates reported across the globe (Mark Mohan Kaggwa et al., 2021). A study by the World Health Organization (WHO) shows an estimated 3.8% of the world's population experience depression including 5% of adults 4% among men and 6% among women and 5.7% of adults older than 60 years. WHO's Global Health estimate for depression reports the highest prevalence of 5.4% (Ismail Temitayo Gbadamosi et al., 2022). A study on documented literature about depression in 2020 shows in China between January 31st and February 5th the prevalence of depression symptoms at 12.2%. In another study in Italy between 24th March and 3rd May it was observed that 27.8% had depression symptoms. In

Bangladesh prevalence of depressive symptoms was 82.4% between May 6th and 12th, 2020 (Sarah Maria Najjuka et al., 2021)

A survey in the United States of America among college students in different states from 2022 to 2023 found that around 41% had symptoms of depression of which 20% had symptoms of severe depression, and 20% had moderate depression (Health et al., 2023). A study carried out in South Africa carried out among 2455 undergraduate students shows the proportion of students reporting minimal depressive symptoms declined from 69.44% in 2016 to 45.9% in 2019, whereas the proportion of those reporting symptoms of severe depression increased from 3.81% in 2016 to 12.63% in 2019 (Kim-Louise Rousseau et al., 2021).

In Uganda, a study carried out by Mbarara University of Science and Technology shows 27,989 out of 123,859 were screened positive for depression (Kaggwa & Mark

Mohan, 2022). A study carried out in Kampala at Makerere University among 331medical students at Makerere University College of Health Science showed in the majority of participants, the prevalence of depression was 21.5% (n=71) of which 64.1% had moderate depression (n=50) (Olum & Ronald, 2020). A study examining the prevalence of depression among Ugandan youth attending vocational training programs shows rural female youth students reported severe depression at 35.9% and depression-related impairment at 55.6% respectively (Badru Bukenya et al., 2021). The study aims to assess the knowledge, attitude, and practices towards the prevention of depression among students at Kampala School of Health Sciences, Wakiso district.

Methodology
Study design
This study employed a descriptive cross-sectional research design to quantify the distribution of certain variables in a study population. This design helped the researcher to systematically collect and analyze data on knowledge, attitudes, and practices toward the prevention of depression among students.

Study area
The study was carried out at the Kampala School of Health Sciences in Buloba, Wakiso district. This study area included both male and female students of consenting age at Kampala School of Health Sciences.

Study population and study participants
The target population of the study comprised students of Kampala School of Health Sciences in Buloba, Wakiso District.

Sample size determination
Kothari and Gaurav (2014) defined sample size determination as the number of items selected from the universe to constitute a sample. The sample size was calculated using Burton's formula (1975).
S= 2(QR)*O; where
S= required sample size
Q= number of days the researcher spent while collecting data
R=Maximum number of people per day
O=maximum time the interviewer spent on each participant
Therefore,
R=5 respondents
Q=5 days
O= 1 hour
2(5*5) *1=50, therefore the researcher will use 50 respondents.

Study variables
Dependent variable
The dependent variable was the prevention of depression among students.

Independent variable
The independent variable was the knowledge, attitude, and practices toward the prevention of depression among students.

Inclusion criteria
This was composed of students aged 18-32 years at Kampala School of Health Sciences who were present during the period of data collection, capable and voluntarily willing to provide information.

Sampling technique
A simple random sampling technique was used to select respondents. This was preferred because it accorded each group an equal chance of participation and therefore this helped the researcher to get statistical analysis related to sample distributions, hypothesis testing, and sample size.

Data collection tool
A self - self-administered, semi-structured questionnaire with both open and close-ended questions was used to collect data from respondents. It consisted of English questions on knowledge attitudes and practices regarding the prevention of depression to answer.
The questionnaire consisted of four sections which included; the first section as social demographic data, the second section as knowledge on prevention of depression, the third section as attitude towards, prevention of depression, and the fourth section being practices towards prevention of depression.

Quality control issues
The validity and reliability of the study were ensured by expert judgment technique where the data collection tool was submitted to the supervisor to check for its accuracy before using it to collect data. Data was collected under strict guidelines.

Pilot study
A visit to the study area was made before data collection. This helped in getting prior knowledge and further insight into the study area, the administrative requirements necessary, the target respondents, and informal permission to go to the study area.

Data analysis and presentation
The analysis of the data collected was done manually using tally sheets and data was systematically computed into frequency and percentage using findings to generate tables and figures for easy presentation.

Ethical consideration
The study protocol was presented for review and approval by the institutional review board of Kampala School of Health Sciences and approval for data collection was provided.
A data collection letter was presented to the administration of Kampala School of Health Sciences, and then written informed consent was sought from all

study participants before enrolment into the study after a thorough explanation of the study objectives to them and signed.

Confidentiality was maintained by the use of identification numbers instead of student names to get more reliable answers from the participants.

Data was safely stored in a safety box under lock and the key was only accessible to the principal investigator.

There was no psychological harm caused by asking very personal questions on the prevention of depression during the study.

Anticipated limitations of the study and possible solutions

Some respondents were not able to reveal their true behavioral practices, knowledge, and attitudes toward the prevention of depression in fear of criticism.

The researcher faced financial constraints during the study in gathering information from the internet, drafting questionnaires, printing, and typing

Results

Demographic data

Table 1 shows the distribution of respondents by age, sex, religion, tribe, and course being pursued. (N=50)

Age	Frequency (f)	Percentage (%)
18 – 20	6	12
21 – 25	40	80
26 – 30	4	8
Total	**50**	**100**
Sex		
Male	30	60
Female	20	40
Total	**50**	**100**
Religion		
Muslim	16	32
Anglican	14	28
Adventist	9	18
Catholic	12	22
Total	**50**	**100**
Tribe		
Muganda	22	44
Munyoro	10	28
Langi	8	16
Mugisu	10	20
Total	**50**	**100**
Course done		
DCM	28	56
DPH	8	16
CPH	14	28
Total	**50**	**100**

From Table 1, the majority of the respondents (80%) were within the age bracket of 21 – 25 years and the least (8%) were within the age bracket of 26 – 30 years. The finding also indicates that the majority of the respondents 60% were male and 40% female. majority of the respondents (32%) were Muslims and the least (18%) were Seventh-day Adventists. The finding also indicates the majority of the respondents (44%) were of the Baganda tribe and the least of the respondents (8%) were of the Langi tribe. According to the results, the majority of the respondents (56%) were pursuing a Diploma in Clinical Medicine and the least (16%) were pursuing a Diploma in pharmacy.

**Knowledge towards prevention of depression among students of Kampala School of Health Sciences, Wakiso District.**

Table 2 shows the distribution of respondents according to their knowledge about the prevention of depression. (N=50)

Response	Frequency (f)	Percentage (%)
Have you heard of depression?		
Yes	46	92
No	4	8
Total	**50**	**100**
Where you heard it from		
School	30	60
Social media	14	28
Community	4	8
Religious Gathering	2	4
Total	**50**	**100**
Do you know the signs of depression?		
Yes	46	92
No	4	8
Total	**50**	**100**

From table 2, the majority of the respondents (92%) had never heard of depression before, and the other (8%) had never heard of depression. The majority of the respondents (60%) heard of depression at school and the least (4%) heard of it from religious gatherings. More than half (92%) of the respondents knew of the symptoms of depression while the least (8%) did not know of any symptoms of depression.

Figure 1 shows the distribution of respondents according to the symptoms of depression they knew
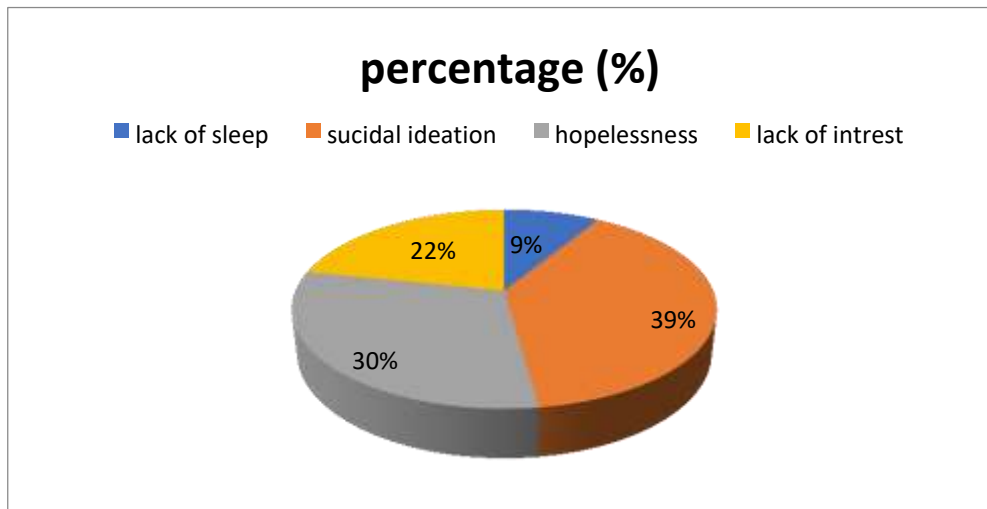
From Figure 1, the majority of the respondents (39%) knew suicidal ideation as a symptom of depression while the least of the respondents (9%) knew lack of sleep as a symptom.

Table 3; Shows the distribution of respondents according to whether they had good knowledge about the prevention of depression. (N=50)

Response	Frequency(f)	Percentage (%)
Yes	34	68
No	16	32
Total	**50**	**100**

Table 3 shows that the majority (68%) of the respondents had good knowledge about the prevention of depression while the least (32%) of the respondents did not have good knowledge about the prevention of depression.
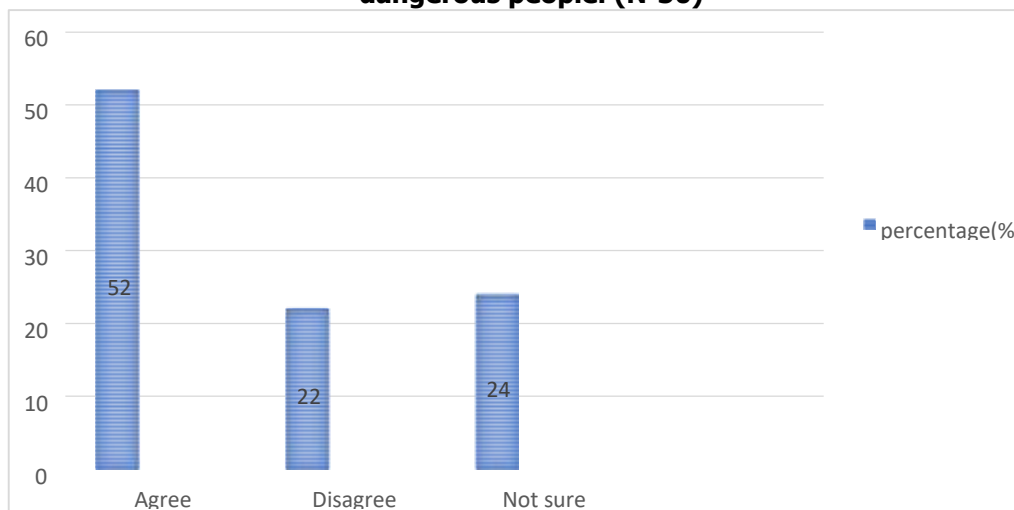
Table 4 shows the distribution of respondents according to their attitudes toward the prevention of depression among students at Kampala School of Health Sciences. (N=50)

Response	Frequency(f)	Percentage (%)
Disclose if depressed		
Yes	32	64
No	18	36
Total	**50**	**100**
Co-curricular activities		
Yes	48	96
No	2	4
Total	**50**	**100**
Elect a guild president with a history of being depressed		
Yes	16	32
No	34	68
Total	**50**	**100**

From Table 4, the majority of the respondents (64%) ticked Yes that they would disclose if were depressed, and the least of the respondents (36%) ticked No that they would not disclose. The majority of the respondents (96%) ticked Yes that co-curricular activities helped in the prevention of depression, while the least of the respondents (4%) ticked No that co-curricular activities don't help in the prevention of depression. The majority of the respondents (68%) ticked No that they would not elect a guild president with a history of depression, while the least of the respondents (32%) ticked Yes that they would elect a guild president with a history of depression.

Figure 3 shows the distribution of respondents by the percentage which depressed dangerous people. (N=50)

From Figure 3, more than half of the respondents (52%) agreed that people with depression are dangerous and the least 22% of the respondents disagreed that people with depression are dangerous.

Table 5 shows the distribution of respondents according to whether they think depressed students could snap out of it (N=50).

Response	Frequency(f)	Percentage (%)
Yes	42	84
No	8	16
Total	**50**	**100**

From Table 5, the majority of the respondents (84%) ticked Yes that depressed students could snap out of it while the least of respondents (16%) ticked No that depressed students could not snap out of it.

Practices towards prevention of depression among students at Kampala School of Health Sciences, Wakiso district.

Table 6 shows the distribution of respondents according to the practices towards prevention of depression among students at Kampala School of Health Sciences, Wakiso district. (N=50)

Response	Frequency(f)	Percentage (%)
Prevention of depression after undesirable incident		
Talk to my parents	12	24
Talk to a close friend	20	40
Play ball games	18	36
Total	**50**	**100**
Religious beliefs that guide on prevention of depression		
Reading the Quran and Bible	26	52
Singing hymns	22	44
Sacrifice for the gods	2	4
Total	**50**	**100**
How often do you take anti - depressants when you feel depressed		
More often	10	20
Rarely	14	28
Never	26	52
Total	**50**	**100**

Table 6, the majority of the respondents (40%) ticked that talking to a close friend to prevent depression after an undesirable incident, and the least of respondents (24%) talked to their parents to prevent depression after an undesirable incident. From the above findings, the .

majority of the respondents (52%) were reading a Quran or Bible to prevent depression and the least of the respondents (4%) ticked sacrificing to the gods as a means of preventing depression

Figure 4 shows the distribution of respondents according to the frequency of the most helpful practice for the prevention of depression. (N=50)
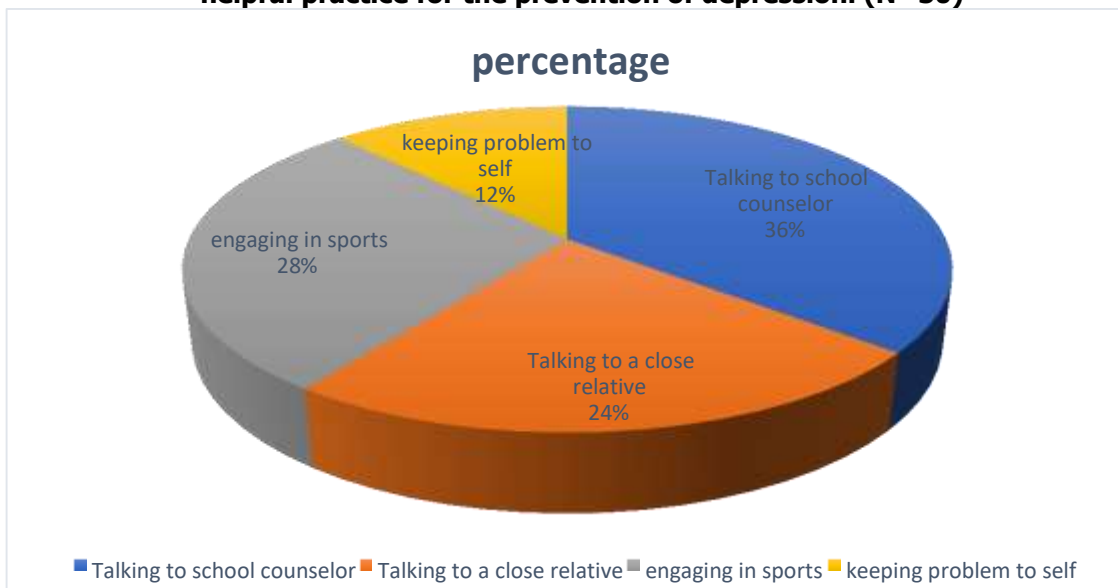
Figure 4, the majority of the respondents (36%) ticked talking to a school counselor as the most helpful practice of prevention of depression among students and the least of the respondents (12%) ticked keeping the problem to self as the most helpful practice of prevention of depression. Organizing seminars in school, self-restraint from sinning, drinking with friends, going on a date, having money all the time, and joining music, dance, and drama groups are some of the practices that were recommended by the respondents for the prevention of depression.

Discussion
Knowledge towards prevention of depression among students at Kampala School of Health Sciences, Wakiso district.

From Table 2, the highest percentage of respondents (92%) had heard of depression and the other respondents (8%) had not heard of depression implying that most of the students at Kampala School of Health Sciences had good knowledge of depression. This agrees with a study conducted by (Adebowale et al., 2020) on the knowledge and prevalence of depression among students at the College of Medicine University of Lagos which found that more than half of the respondents (56.50%) had good knowledge of depression.

From Table 2, most of the respondents (60%) had heard of depression from school compared to the lowest percentage of respondents (4%) who had heard it from religious gatherings implying that at school students had a better chance to get knowledge about prevention of depression amongst themselves. This is in line with study findings conducted by (Swartz & Karen, 2017) on the introduction of a school-based curriculum to improve depression literacy among US secondary school students where there was a rise in students (46%) approaching trained teachers with concerns about themselves after the introduction of Adolescent Depression Awareness Program.

Table 2, shows a majority of the respondents ticked yes that they knew symptoms of depression implying students could tell when either they or their friends are experiencing depression. This is in disagreement with study results conducted by (Thai &Quynh Chi Nguyen,2018) where the highest percentage of respondents (68%) would not label depression for the vignette implying they could not tell the symptoms of depression when either they or their friends are experiencing depression.

In figure1, the majority of the respondents (39%) ticked suicidal ideation as a symptom of depression among students. This is in agreement with the study findings of (Agbon & Azorondu Abigail, 2023) on the knowledge, attitude, and perception of depression as a predictor of suicidal ideation among undergraduate students in private universities where the majority of the respondents (71%) of the respondents ticked Yes that suicidal ideation was a symptom of depression.

From Figure 1, the least of the respondents (9%) ticked Yes that lack of sleep is a symptom of depression implying that the majority of the respondents did not know about depression as a clinical feature of depression. This is in line with the study findings by (Agbon &Azorondu Abigail, 2023) on knowledge, attitude, and perception of depression as a predictor of suicidal ideation among undergraduate students where the majority of the respondents (51.7%) ticked No that lack of sleep was not a symptom of depression.

Attitudes towards prevention of depression among students at Kampala School of Health Sciences, Wakiso district.

Figure 2, shows that the majority of the respondents (72%) ticked that they thought of depression as a mental illness. This implies that the majority of the respondents had a positive attitude towards depression. This is not in line with the study findings (Swed, 2022) on stigmatizing attitudes towards depression among students in Syria where 14.6% of the respondents stated that depression is not an actual mental illness. Surprisingly 2% of people with a medical background thought that as well. This is not also in agreement with the study findings by (Agbon & Azorondu Abigail, 2023) on knowledge attitudes and perception as a predictor of suicidal ideation among undergraduate students at a private University where over half of the respondents (56.2%) agreed that depression is not an actual mental illness.

Figure 2 showed that none of the respondents (0%) during the study thought of depression as a result of witchcraft. This implies that all the respondents believed that black magic could not cause one to become depressed. This is in disagreement with study findings by (Shebak & Shady S, 2019) on attitudes towards depression in Arab American Muslims in the United States where 34.7% of the respondents believed that black magic could cause depression.

In Table 4, the majority of the respondents (64%) ticked Yes that they would disclose if they were depressed and the least of the respondents (36%) could not disclose implying that they had a positive attitude towards depression. This is in line with study findings by (Swed & Shady S, 2022) where only the least of the respondents (18.80%) agreed would not disclose if they were depressed.

In Table 4, the majority of the respondents over half (68%) ticked No that they would not elect a guild president with a history of depression. This implies that the majority of the respondents had a negative attitude towards people with a history of depression. This is in disagreement with the study findings by (Swed & Shady S, 2022) where a small percentage of respondents (6.9%) agreed that could not vote for a person with a history of depression due to competence.

In Figure 3, more than half of the respondents (52%) agreed that people with depression are dangerous, implying that the majority of the respondents had a negative attitude towards associating with depressed

people as they feared that they could do something to harm them. This is in line with study findings (He &Haoyu, 2021) on the stigmatizing attitudes towards depression among male and female, medical and non-medical students where over half of the respondents (60.7%) agreed that people diagnosed with depression were dangerous.

From the table, the majority of the respondents (84%) ticked Yes that depressed students could snap out of it. This implies that most of the respondents believed that depression could be cured and wasn't a lifelong illness when given proper treatment. This is in agreement with study findings (He &Haoyu, 2021) on stigmatizing attitudes towards depression among female and male, medical and non-medical students where over half of the respondents (58.7%) agreed that depressed people could snap out of the problem. The findings are also in agreement with the study findings by (Osahon &Penaero T, 2021) on the knowledge attitude and perception of depression among full-time undergraduate students whereby the majority of the respondents (85.9%) thought that major depression was curable.

Practices towards prevention of depression among students at Kampala School of Health Sciences, Wakiso district.

Table 6 of my research showed that the majority of the respondents (40%) ticked that they would talk to a close friend after an undesirable incident to prevent depression, implying that talking to a close friend was a common practice among most of the respondents. This agrees with study findings by (Thai &Quynh Chi Nguyen, 2018) on knowledge of depression among students in Hanoi, Vietnam whereby the majority (81.1%) of the respondents agreed that listening in an understanding way by friends was helpful in the prevention of depression.

In Table 6, the majority of the respondents (52%) ticked that reading the Quran or Bible was the religious belief that guided them on how to prevent depression implying that religious beliefs played an important role in the prevention practices of depression used by students. This agrees with the study findings by (ESSA & MARIAM SAEED IBRAHIM, 2022) on knowledge attitudes and practices towards depression among girls in school towards depression where over half of the respondents (52.7%) believed depression might have other treatments such as reading the holy Quran. Furthermore, the results are in line with study findings whereby over half of the respondents (59.3%) consented that praying to God was a helpful preventive soln.

From Table 6, the majority of the students (52%) never took ant-depressants when they felt depressed. This implies that either the students never wanted to take medication in prevention of depression or had inadequate knowledge about the use of anti-depressants. This disagrees with the study findings (Swed & Shady S, 2022) on stigmatizing attitudes towards depression among University students in Syria whereby the majority (75.8%) agreed that anti-depressants were the most helpful practice in the prevention of depression.

From the figure, the majority of the respondents (40%) ticked talking to a school counselor as the most helpful practice in the prevention of depression implying that most of the respondents visited a school counselor to be advised during difficult life events. This agrees with the study findings (Swed & Shady S, 2022) on the stigmatizing attitudes towards depression among University students in Syria where by majority of the respondents (75.8%) agreed visiting a counselor was of great help in the prevention of major depressive disorder.

Conclusion

The knowledge of depression among students was generally good. The findings show most of the students had heard of depression before and knew its symptoms. The overall altitude was poor as most of the respondents believed that depressed people were dangerous and the majority of respondents also agreed not to vote for a guild president with a history of depression. Study findings also revealed that there were poor practices of preventing depression where the majority of respondents (52%) never went to health centers to get medication (anti-depressants) and entirely depended on religious beliefs such as praying to God and reading the holy Quran or Bible to prevent depression.

Recommendation

The government of Uganda through the Ministry of Health and its various health facilities should hold continuous campaigns to educate the students on symptoms of depression and better practices of prevention through community health education in various areas. This is aimed at improving knowledge on the poor practices of prevention of depression.

The Ministry of Education the National Curriculum Development Centre should formulate a student depression awareness program in schools. This is aimed at enabling students to acquire knowledge about depression, change their attitudes towards depression, and also learn of the various health ways in which depression can be prevented.

The administration of Kampala School of Health Sciences should introduce an Adolescent Depression Awareness Program in its school curriculum for all students despite the course being pursued. This is aimed at promoting students' knowledge of depression and its effects hence better prevention methods. The administration of Kampala School of Health Sciences should also emphasize the introduction of co-curricular activities such as playing ball games and ensure that all students participate.

List of Abbreviations
CPH: Certificate in Pharmacy
DCM: Diploma in Clinical Medicine and Community Health
MakCHS: Makerere University College of Health Sciences
SSA: Sub-Sahara Africa
WHO: World Health Organization

Source of funding

Conflict of interest

Author Biography
MURUNGI ISAAC, is a student with a diploma in clinical medicine and community health, at Kampala School of health sciences.
ATUKUUMA CLIFFE a tutor at Kampala School of Health Sciences.

References
1. Adebowale, B. A. (2020). Knowledge and prevalence of depression among students at College of Medicine University of Lagos. *European Journal of Public Health*.
2. Agbon, A. A. (2023). Knowledge, attitude, and perception of depression as a predictor of suicidal ideation among undergraduate students in private universities. *International journal of social sciences and humanities invention*.
3. Badru Bukenya, R. K. (2021). Depression, Anxiety and Suicide Risk among Ugandan Youth in Vocational Training. *SPRINGER LINK*.
4. ESSA, M. S. (2022). Knowledge, attitude, and practice among girls in schools towards depression, Khamis Maushyt. *ABC Research Alert*.
5. He, H. (2021). stigmatising attitudes toward depression among male and female, medical and non-medical major college students. *Pub Med Central*.
6. Health, P. M. (2023). Percentage of college students with symptoms of depression in the United States in 2022-2023. *Statista*.
7. Ismail Temitayo Gbadamosi, I. T. (2022). Depression in Sub-Saharan Africa. *PubMed Central*.
8. Kaggwa, M. M. (2022). Prevalence of depression in Uganda. *journals.plos.org*.
9. Kim-Louise Rousseau, S. T.-A. (2021). Trends in prevalence and severity of depressive symptoms among undergraduate students at a South African University. *South African Journal of Psychology*.
10. Mark Mohan Kaggwa, S. M. (2021). Prevalence of depression in Uganda. *Plos One*.
11. Olum, R. (2020). Prevalence and factors associated with depression among medical students at Makerere University, Uganda. *Pub Med*.
12. Organization, W. H. (2023). Depressive disorder (depression). *World Health Organisation*.
13. Osahon, P. T. (2021). knowledge and perception of depression among full-time undergraduate clinical students in a federal university. *Nigerian Journal of Pharmaceutical and Applied Science Research*.
14. Sarah Maria Najjuka, G. C. (2021). Depression, anxiety, and stress among Ugandan University students during the COVID-19 lockdown. *PubMed Central*.
15. Shebak, S. S. (2019). Attitudes towards depression in Arab American Muslims. *National Library of Medicine*.
16. Swartz, K. (2017). School-based curriculum to improve depression literacy among US secondary school students. *Pub Med Centre*.
17. Swed, S. (2022). Stigmatizing attitudes towards depression among university students in Syria. *PLoS one*.
18. Thai, Q. C. (2018). knowledge of depression among undergraduate students in Hanoi, Vietnam. *Pub Med Central*.

Publisher details