Factors influencing the Adherence to Covid-19 Prevention Guidelines among the Elderly in Mbarara Regional Referral Hospital, Mbarara District. A Cross-sectional Study.

Boaz Mugisha Nuwabiine[a,1]

[a] Medicare Health Professionals' College, P.0 Box 16476. Kampala-Uganda.

Abstract

Background:
This study assessed the factors influencing the adherence to Covid-19 prevention guidelines among the elderly while specifically looking at the level of adherence, the individual the social factors influencing adherence to Covid-19 prevention guidelines among the elderly in Mbarara Regional Referral Hospital, Mbarara district.

Methodology:
The study adopted a cross-sectional and descriptive research design with a quantitative approach where a pretested questionnaire designed based on the specific objectives was used to collect data from 194 participants following informed consent.

Findings:
The majority of the respondents (61.9%) were female, those aged 60-80 years were 150 (77.3%), Catholics were 68 (35.1%), 134 (69.1%) were married and 134 (69.1%) had not attained any formal education. Also, the majority of the respondent 160 (82%) knew what adherence to Covid-19 prevention guidelines meant, 90 (56%) ever adhered to Covid-19 prevention guidelines, 149 (77%) did not adhere to all Covid-19 prevention guidelines and 115 (59.3%) were always with their friends and relatives. Additionally, most of the respondents (46.2%) perceived Covid-19 as a disease for the white people, (68.0%) with chronic diseases were adherent, history of being infected with Covid-19 influenced adherence (52%), and having enough knowledge was associated with good adherence (60.3%).

Conclusion:
The study, therefore, concluded that the level of adherence to Covid-19 prevention guidelines among the elderly was low majorly due to high-risk perception of contracting Covid-19, dissatisfaction with Covid-19 prevention guidelines, use of medicinal plants for treating Covid-19 related symptoms, area of residence and living in a homestead with many occupants.

Recommendation:
The study recommends that the country's Ministry of Health, through its decentralized systems, should use health workers to sensitize the public on COVID-19 through various fora, including community outreach since the population is more likely to trust information from health workers and any other trusted source leading to high adherence.

Email: mugishaboaz99@gmail.com Date submitted: 19th/05/2022 Date accepted: 04th/06/2022

1 Background to the study

Coronaviruses are a large family of viruses that cause a wide range of illnesses ranging from the common cold to severe diseases (Bai Y. *et al.,* 2020). A novel coronavirus also called COVID-19 is the new strain of the virus that causes respiratory illnesses such as common cold, Severe Acute Respiratory Syndrome (SARS), and Middle East Respiratory Syndrome (MERS) (Bai Y. *et al.*, 2020). The first case of the COVID-19 epidemic was discovered in Wuhan city, Hubei province of China with unexplained pneumonia on December 12, 2019, and 27 viral pneumonia cases, seven of them being severe, were officially announced on December 31, 2019 (Imai N. *et al.*, 2020).

As of January 10, 2021, COVID-19 affected over 218 countries and 2 international conveyances; globally, over 90.2 million confirmed cases and 1.9 million demises are informed (WHO, 2020). In Africa, over 3 million confirmed cases and +72,387 deaths are reported. After the cases were testified in March in Africa, the number of cases and death raised to +127,792 and +1985, respectively (WHO, 2020). In Sub-Saharan Africa, the cases and death tolls are still low as compared to the developed nations (WHO, 2020).

Coronavirus disease 2019 (Covid-19) typically shows flu-like symptoms such as fever, loss of taste, and cough (Rothan HA, 2020). Though there is still much to discover about the symptoms of the disease, it starts with a fever, followed by a dry cough, and it later leads to shortness of breath and sore throat (CDC, 2019). The first report from China indicated that 80% of infections are mild, and only 20% of patients (15% severe and 5% critical) require hospital admission (Remuzzi A, 2020).

Although coronavirus and influenza infections cause similar symptoms, the new coronavirus is different concerning significant community spread and severity (Wilder-Smith, 2020). Globally, the virus has affected 213 countries and territories and has resulted in greater loss of life and a broader economic crisis. As of August 2, 2020, more than 120 million people have been infected and more than 3 million deaths have been caused by the pandemic worldwide (WHO, 2020).

Considering its pandemic and the absence of effective treatment, the World Health Organization (WHO) has designed various mitigation strategies to combat the spread of COVID-19. Among these, staying at home, social distancing, wearing masks, and applying hand hygiene are the common precaution measures to break the pandemic (WHO, 2020). In addition, in response to the pandemic, countries across the globe have taken various measures to slow the spread of the virus and protect vulnerable groups from getting infected with the virus (Malm A. 2020). Such protective measures are believed to decrease further COVID-19 transmissions overall and to protect individuals at increased risk for severe illness including older adults, people with underlying medical conditions, and frontline health workers in particular (Khadka S, 2020).

Despite the repeated consensus that adhering to such guidelines is the most effective way to defuse the novel coronavirus, the community's risk perception and poor adherence to COVID-19 mitigation measures remain a problem. A significant proportion of communities did not perceive the virus as a risk to health. People also think that it originated from a laboratory, mostly causes mild symptoms, and affects the elderly (WHO, 2020). These negative behaviors toward COVID-19 in the community across the world remain a great concern and can be mainly associated with lack of knowledge, misperception about the disease, lack of appropriate information, and the social and economic factors as well as lack government concern (WHO, 2020).

In Africa alone, there are increasing numbers of COVID-19 cases. As of August 2, 2020, a total of over 17,999 confirmed cases and over 1000 deaths are reported. By August 6th, Africa had recorded over 20,900 cases and over 2000 deaths (WHO, 2020). One-fifth of the cases (20%) but more than a quarter of the deaths (28%) occurred in the past seven months, suggesting that the rate of mortality and the number of critical cases are increasing. The most affected countries in Africa were South Africa, Egypt, Nigeria, and Ethiopia. The COVID-19 pandemic reached Sub-Saharan Africa by the end of February 2020. With high levels of poverty and generally fragile health systems, sub-Saharan Africa is facing a complex regional COVID-19 epidemic and could also become a difficult-to-control virus reservoir, from where COVID-19 may be reintroduced to other regions that may have achieved control (WHO, 2020).

In Uganda, the confirmed cases of covid19 by mid-2021stood at 70,176 infections, 48,480 recoveries, and about 1,200 deaths (MOH, 2021). In regards to this, the Ugandan government progres-

sively implemented several stringent public health measures to prevent and contain any local COVID-19 epidemic. By 18 March 2020, the Ugandan President banned all public gatherings and encouraged the public to observe the physical distance, not cough, sneeze or spit in public, and to observe strict hygienic rules of handwashing with soap and water or using sanitizers, regularly disinfecting surfaces, such as tables and door handles among others (GOU, 2020).

In the Mbarara district where the study is being conducted, the risk of COVID-19 has become high. To this effect, there is a need for information about the community's adherence to the recommended prevention guidelines. However, to date, no study assessed the community's adherence to the COVID-19 pandemic in the study area (MOH, 2020). Therefore, this study aimed to assess the community's adherence to COVID-19 prevention guidelines and its associated factors among the elderly in Mbarara Regional Referral Hospital, Mbarara district.

2 Methodology

Study design

The study utilized a descriptive cross-sectional design involving quantitative data collection techniques. A descriptive cross-sectional study was selected because it generated the required data.

Study area

This study was conducted at Mbarara regional referral hospital located in Mbarara city and the Western region of Uganda. Mbarara city is the second-largest city in Uganda after the capital city of Kampala. The District headquarters at Mbarara is located approximately 290 kilometers (180 mi), by road, southwest of Kampala, the capital city of Uganda and the largest city in the country.

Mbarara hospital is a government-owned referral hospital that serves as a referral hospital for the region and specifically for the districts of Mbarara, Bushenyi, Ntungamo, Kiruhura, Ibanda, and Isingiro.

Mbarara hospital offers services like general outpatient services, patient services (admissions), dental/oral health services, maternal and child health services, operations, HIV/AIDS management services, psychiatry services, eye services, and physiotherapy services. It has got a bed capacity of 600 beds with an average patient turn up of about 1200 to 1500 per week. Mbarara hospital also acts as a practice facility for medical students attending Mbarara University of science and technology school of health sciences.

Study population

The study population comprised elders seeking treatment services at the outpatient clinic of Mbarara Regional Referral Hospital.

Sample size determination

The sample size was calculated using the Kish and Leslie formula (1965) for single proportions

d^2

Where n is the sample size

Is the standard normal deviation at 95% confidence level (i e) 1 96

Is the proportion of elders (which is at45% or 0 45

q=1-p (1-0.45) = 0.55

d = allowable error = 7% or 0.07

Therefore, N = 1.96^2 x 0.45 x 0.55

0.07 x 0.07

= 3.8416 × 0.2475

0.0049

= 0.950796

0.0049

=194 respondents

2.1 Study variables

Dependent variable

Adherence to covid19 prevention guidelines among the elders.

Independent variables

The knowledge towards adherence to covid-19 prevention guidelines among the elderly.

The attitudes towards adherence to covid-19 prevention guidelines among the elderly.

The practices towards adherence to covid-19 prevention guidelines among the elderly.

Sampling technique

The study adopted a simple random sampling technique while selecting the respondents who participated in the study.

Sampling procedure

The researcher used a simple random sampling procedure to sample the respondents who participated in this study.

Therefore, the researcher sought permission from; first the District Health Office of Mbarara district then the Medical Director of Mbarara Regional Referral Hospital and after which he sought permission again or acceptance or consent from each respondent that was approached and requested him

or her to participate in the study. The researcher sampled respondents per day considering their availability in the health facility for 30 days to capture 164 respondents.

Data collection method

Data was collected using the self-administration of questionnaires to the respondents. The questionnaire was used because it ensures a high response rate and it requires less time and energy to administer.

Data collection tool (s)

A semi-structured questionnaire with both closed and open-ended questions phrased in the English language was employed to obtain data from the respondents. This was used because it is easy to administer and the researcher was interested in collecting quantitative data only.

Data collection procedure

The study employed a self-administration approach to data collection to ensure that the unintended people did not fill the questionnaire or be interviewed

After the data collection, it was edited to check for double entries and missing information, data coding was done, data entry in Microsoft Excel 2010, data cleaning, and exported to a computer program SPSS for analysis. Data were analyzed by grouping the ideas as per the objectives of the study and presented in form of tables, graphs and text, frequency distribution tables, and pie charts.

Piloting the study

The researcher piloted the study in Mbarara Community Hospital to establish the feasibility, duration, cost, and adverse events and improve upon the study design before the performance of full-scale research.

Quality control

Research assistants were recruited and trained to administer pre-tested questionnaires. The skills of these research assistants helped in probing for further responses.

Respondents' identities were kept unknown as they were not written in their names on the questionnaires.

Questionnaires were pre-tested to check for their validity and accuracy after which adjustments were made before being administered to the target study participants.

The Inclusion criteria

Eligible participants in the study were elders least aged between 60-80 years seeking health care services at the outpatient clinic of Mbarara regional referral hospital.

The exclusion criteria

Illegible participants in the study were people whose age did not fall between 60-80 years

Those who asked for financial compensation to take part in the study were well excluded.

Also, those who consented to take part in the study and became absent at the time of data collection were excluded from this study.

3 Data analysis and presentation

Data were analyzed manually by tallying and sorting and put into categories. Microsoft Excel software was used to analyze the data and presented in frequency distribution tables, bar graphs, pie charts, and simple narrations.

Ethical Consideration

A letter was obtained from Medicare health professionals' college research review committee introducing the researcher to Mbarara regional referral hospital who in turn authorized the researcher by authentication of an introductory letter from Medicare health professionals' college by the provision of an introductory letter to the hospital in charge.

The consent of the participants was sought with informed written consent before the study was conducted. The researcher gave a full explanation of the research procedures to the participants, who must understand it. Consent forms made were used to seek written consent before interviewing. The information given was kept confidential. The names of the participants were not included in the report. Participation was voluntary and one was free to withdraw from the research at any time without any punishment or loss of benefit.

4 Study Findings

4.1 Social Demographic characteristics of the respondents.

According socio-demographic characters as shown in table 1 above, the findings found out that the majority of the respondents 120 (61.9%) were female while the males were 74 (38.1%), those aged 60-80 years were 150 (77.3%) making them the majority while those aged 80 years and above were

Table 1. Distribution of the respondents by social-demographic characteristics (n=194)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Female	120	61.9%
	Male	74	38.1%
	Total	**194**	**100**
Age group	60-80 years	150	77.3%
	80 years and above	44	22.7%
	Total	**194**	**100**
Religion	Anglican	60	30.9%
	Catholic	68	35.1%
	Born again	35	18.0%
	Muslim	31	16.0%
	Total	**194**	**100**
Marital status	Single	14	7.2%
	Married	134	69.1%
	Others	46	2.4%
	Total	**194**	**100**
Level of education	None	131	67.5%
	Primary level only	34	17.5%
	Secondary level only	20	10.3%
	Tertiary level	09	4.6%
	Total	**194**	**100**

the minority 44 (22.7%), in regards to religion, the Catholics dominated 68 (35.1%) while the Muslims were the least 31 (16.0%) with those married dominating 134 (69.1%) and the single ones being the least 14 (7.2%). Regarding the level of education, more than half 134 (69.1%) had not attained any formal education while the fewest 09 (4.6%) had attained up to tertiary level of education.

5 The level of adherence to Covid-19 prevention guidelines among the elderly.

The majority of the respondent 160 (82%) knew what adherence to Covid-19 prevention guidelines meant while the minority 34 (18%) did not know what adherence to Covid-19 prevention guidelines meant.

The majority of the respondents 149 (77%) did not adhere to all Covid-19 prevention guidelines while the minority 45 (23%) adhered to all Covid-19 prevention guidelines.

Most of the respondents 74 (38.1%) who did not adhere to all Covid-19 prevention guidelines did not adhere to keeping social distance while the least 02 (1.0%) did not adhere to washing hands with soap and water.

Majority of the respondents 104 (53.6%) did not adhere to Covid-19 prevention measures sometimes while the minority 30 (15.5%) did not adhere to Covid-19 prevention measures at all.

More than half of the respondents 115 (59.3%) did not adhere to Covid-19 prevention measures because they were always with their friends and relatives while the minority 12 (6.2%) did not adhere because they did not fear Covid-19

6 The individual factors influencing adherence to Covid-19 prevention guidelines

Majority of the respondents 119 (61%) said that their attitudes and perception about the threat of covid-19 influenced their adherence to the prevention guidelines while the minority 75 (39%) said that it did not influence them.

Most of the respondents 90 (46.4%) whose attitudes and perception about the threat of covid-19 influenced their adherence to the prevention guidelines perceived Covid-19 as a disease for the white people while the fewest respondents 17 (8.8%) perceived that Covid-19 cannot survive in their area.

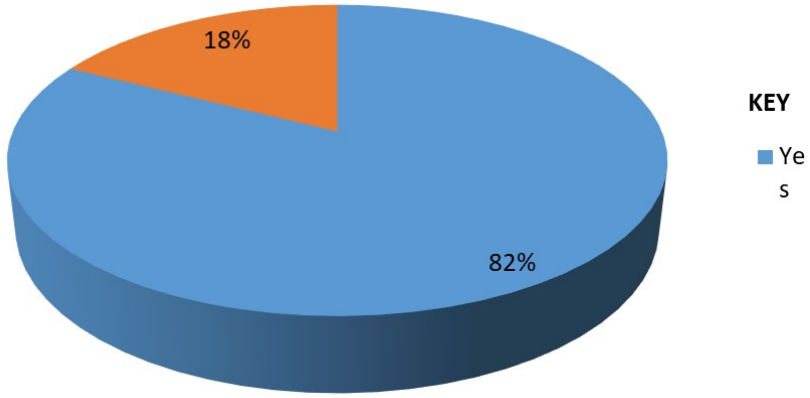

Figure 1. Showing whether respondents knew what adherence to Covid-19 prevention guidelines meant (n=194)

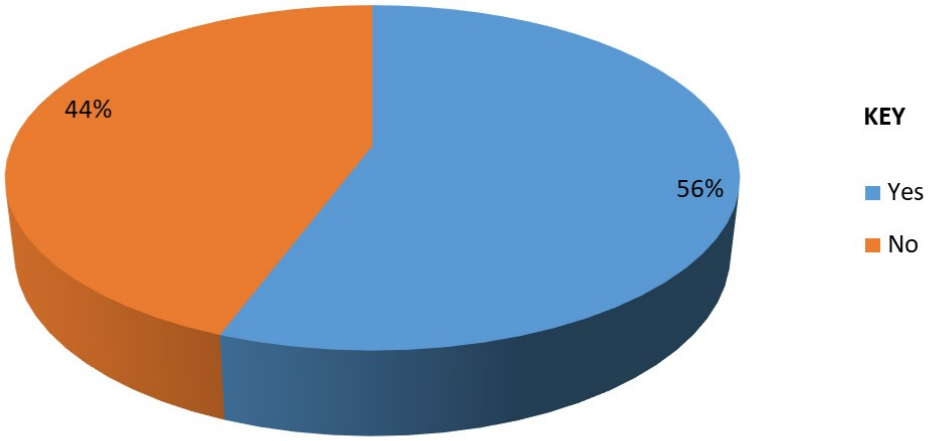

Figure 2. Showing whether respondents who knew what adherence to Covid-19 prevention guidelines meant ever adhered to Covid-19 prevention guidelines (n=194)

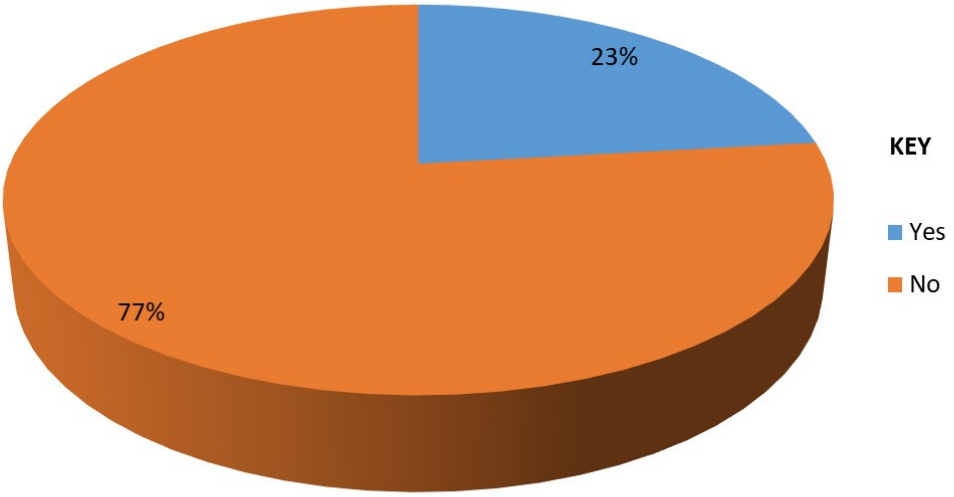

Figure 3. Showing whether respondents adhered to all Covid-19 prevention guidelines (n=194)

Table 2. Showing respondents who did not adhere to all Covid-19 prevention guidelines by the prevention guideline they did not adhere to (n=149)

Covid-19 prevention guidelines	Frequency (n)	Percentage (%)
Washing hands with soap and water	02	1.0%
Sanitizing with alcoholic sanitizer	37	19.1
Wearing a facemask	17	8.8
Avoiding handshake	30	15.5
Keeping social distance	74	38.1%
Being at home	06	3.1
Others	28	14.4
Total	194	100%

Table 3. Showing the reasons why respondents did not adhere to Covid-19 prevention measures (n=194)

Reason for not adhering	Frequency	Percentage (%)
It is of no use	22	11.3%
It is tiresome	45	23.2%
I am always with close friends and relatives	115	59.3%
I do not fear Covid-19	12	6.2%
Total	194	100%

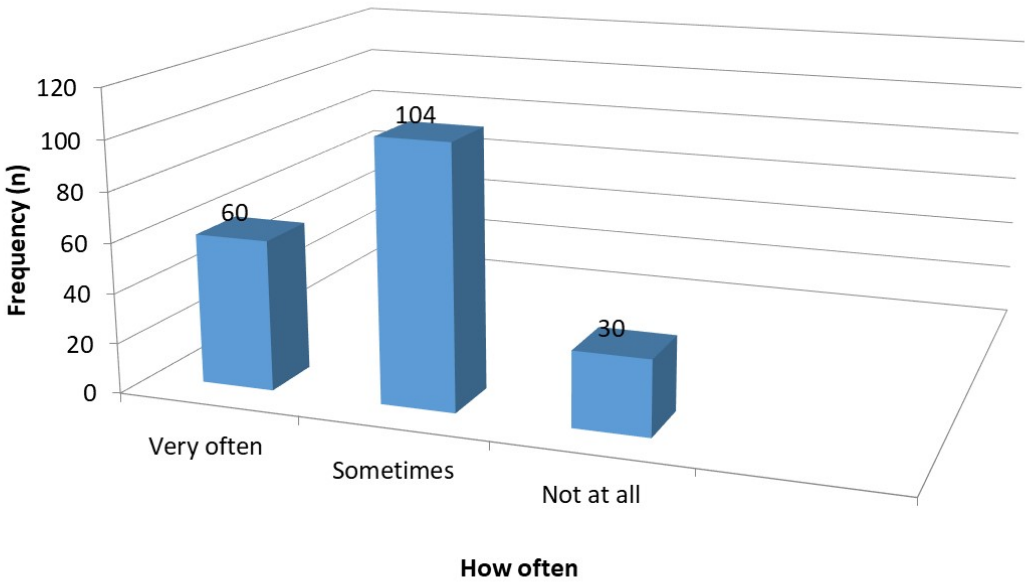

Figure 4. Showing how often respondents did not adhere to Covid-19 prevention measures (n=194)

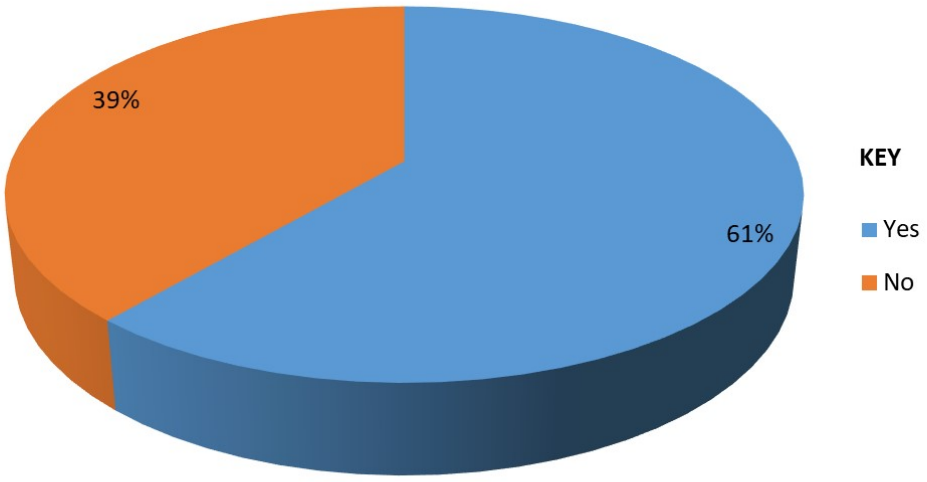

Figure 5. Showing whether respondents attitudes and perception about the threat of covid-19 influenced their adherence to the prevention guidelines (n=194)

Table 4. Showing respondents whose attitudes and perception about the threat of covid-19 influenced their adherence to the prevention guidelines by their perception about Covid-19 (n=194)

Perception about Covid-19	Frequency (n)	Percentage (%)
It is a dangerous infection	28	14.4%
It is a mild infection	19	9.8%
It is for the white people	90	46.4%
It cannot survive here	17	8.8%
Others	40	20.6%
Total	194	100%

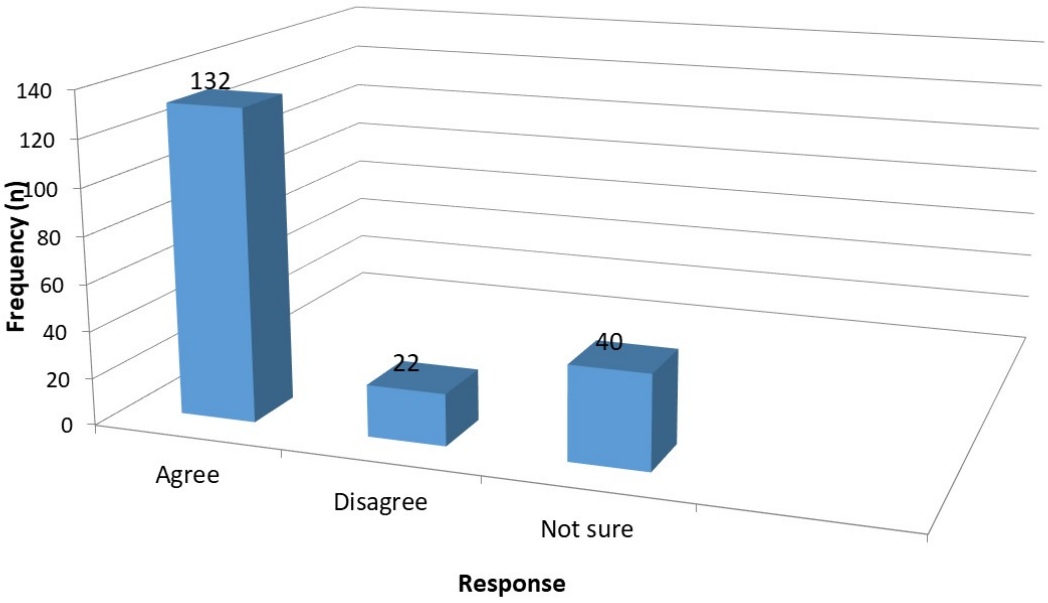

Figure 6. Showing whether having a chronic disease positively influenced adherence to Covid-19 prevention guidelines among the respondents (n=194)

Majority of the respondents 132 (68.0%) agreed that having a chronic disease positively influenced adherence to the Covid-19 prevention guidelines while the minority 22 (11.3%) disagreed having a chronic disease positively influenced adherence to the Covid-19 prevention guidelines.

The majority of the respondents 100 (52%) said that a history of being infected with Covid-19 disease influenced their adherence to its prevention guidelines while the minority 94 (48%) said that it did not influence their adherence to Covid-19 prevention guidelines.

Most of the respondents 59 (30.4%) perceived their risk of contracting Covid-19 infection as high while the least respondents 39 (20.1%) did not know their risk of contracting Covid-19 infection.

More than half of the respondents 130 (67%) reported that dissatisfaction with Covid-19 prevention guidelines affected their adherence while less than half 64 (33%) reported that it did not affect their adherence to Covid-19 prevention guidelines.

The majority of the respondents 117 (60.3%) said that having enough knowledge determined their level of adherence to Covid-19 prevention guidelines while a minority 18 (9.3%) said that being young determined their level of adherence to Covid-19 prevention guidelines.

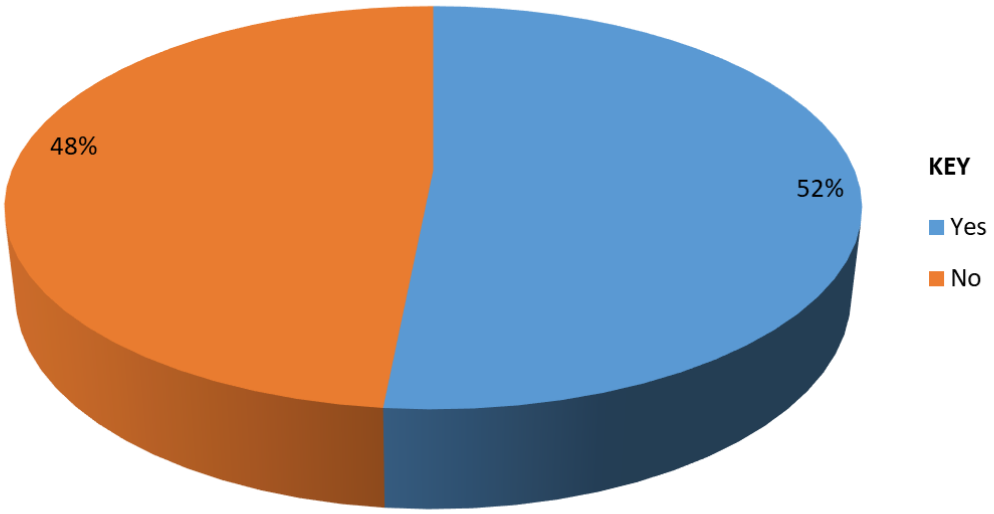

Figure 7. Showing respondents by whether history of being infected with Covid-19 disease influenced adherence to its prevention guidelines (n=194)

Table 5. Showing how respondents perceived their risk of contracting Covid-19 infection (n=194)

Risk perception about contracting Covid-19	Frequency (n)	Percentage (%)
High	59	30.4%
Moderate	41	21.1%
Low	55	28.4%
I do not know	39	20.1%
Total	194	100%

Table 6. Showing respondents by the variable that determined their level of adherence to Covid-19 prevention guidelines (n=194)

Variable	Frequency (n)/	Percentage (%)
Having enough knowledge	117	60.3%
Worry about one's life	34	17.5%
Being old	25	12.9%
Being young	18	9.3%
Total	194	100%

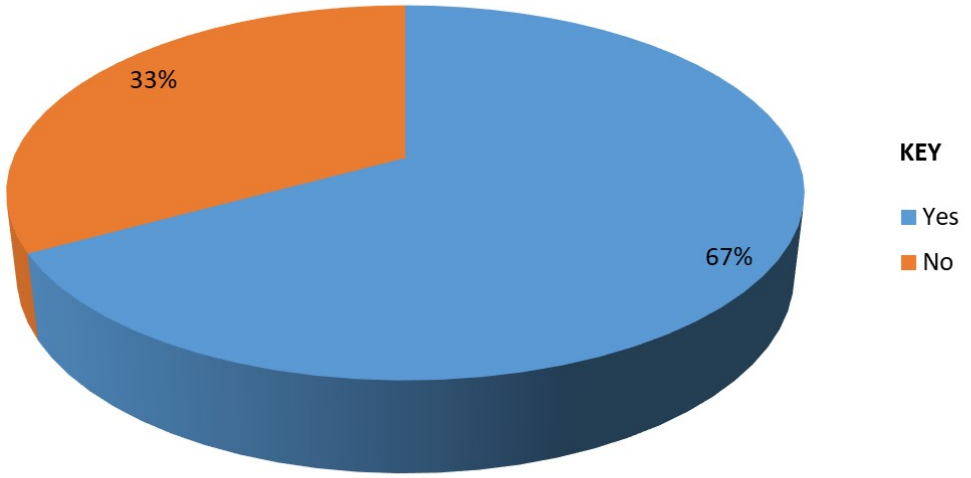

Figure 8. Showing respondents by whether dissatisfaction with Covid-19 prevention guidelines affected their adherence (n=194)

7 The social factors influencing adherence to Covid-19 prevention guidelines.

More than three quarters 180 (93%) of the respondents ever used medicinal plants for treating Covid-19 related symptoms while a few respondents 14 (7.0%) had never used medicinal plants for treating Covid-19 related symptoms.

About half of the respondents 99 (51%) reported that female gender adhered to covid-19 prevention guidelines more while less than half 95 (49%) said that males adhered more to covid-19 prevention guidelines.

Three-quarters of the respondents 170 (88%) said that the area of residence influenced the adherence to Covid-19 prevention guidelines while the least respondents 24 (12%) said that it did not influence adherence to Covid-19 prevention guidelines.

Majority of the respondents 102 (52.6%) who said that the area of residence influenced the adherence to Covid-19 prevention guidelines listed urban residence to have influenced adherence more while a minority 10 (5.2%) listed rural residence.

Half of the respondents 97 (50.0%) stated that living in a homestead with many occupants makes adherence to Covid-19 prevention guidelines difficult while the fewest respondents 12 (6.2%) stated that living in a homestead with many occupants played no role in adherence to Covid-19 prevention guidelines.

More than half of the respondents 111 (57%) said that the source of information influenced their adherence to Covid-19 prevention guidelines while less than half of the respondents 83 (43%) said that it did not influence their adherence to Covid-19 prevention guidelines.

8 Discussion:

The level of adherence to Covid-19 prevention guidelines among the elderly.

The findings of the study revealed that the majority of the respondent 160 (82%) knew what adherence to Covid-19 prevention guidelines meant while the minority 34 (18%) did not know what adherence to Covid-19 prevention guidelines meant. These study findings indicate that information regarding adherence to Covid-19 prevention guidelines was available to the respondents. This is probably due to the mass health education cam-

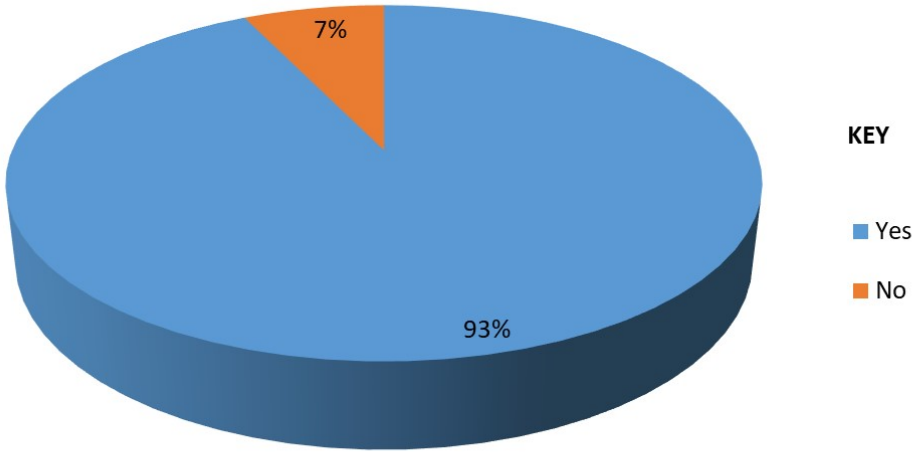

Figure 9. Showing whether respondents ever used medical plants for treating Covid-19 related symptoms (n=194)

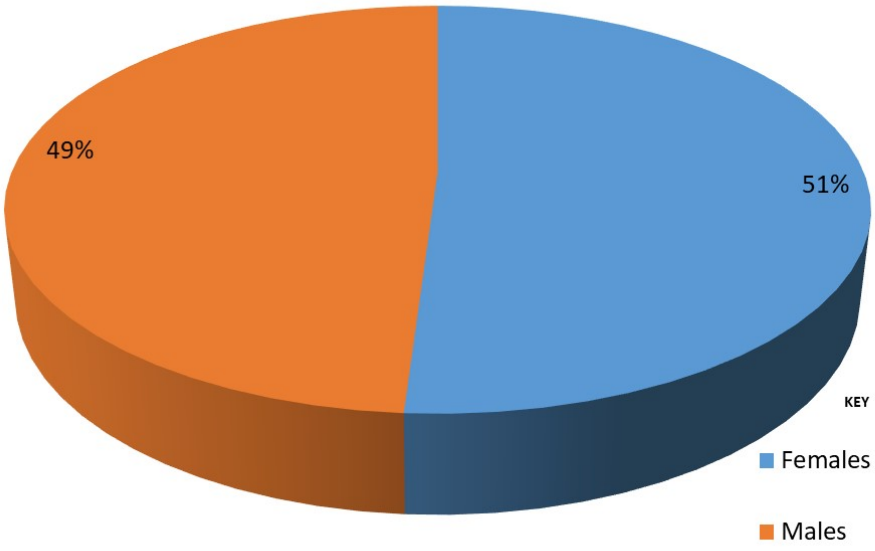

Figure 10. Showing respondents by the gender that adhered to covid-19 prevention guidelines more (n=194)

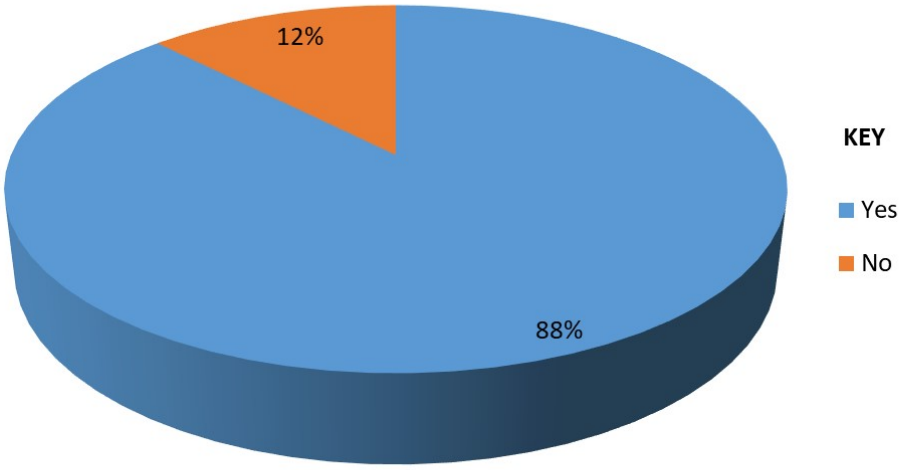

Figure 11. Showing respondents by whether area of residence influenced the adherence to Covid-19 prevention guidelines (n=194)

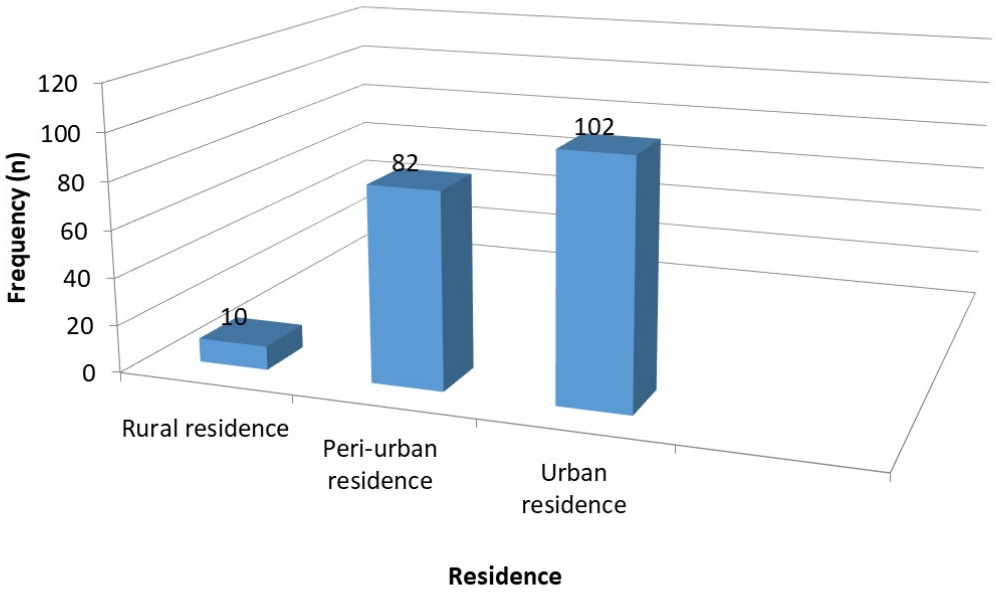

Figure 12. Showing respondents who said that the area of residence influenced the adherence to Covid-19 prevention guidelines by the residence that influenced adherence more (n=170).

Table 7. Showing how respondents thought about living in a homestead with many occupants (n=194)

Thought	Frequency(n)	Percentage (%)
Makes adherence easier	60	30.9%
Makes adherence difficult	97	50.0%
Plays no role in adherence	12	6.2%
I do not know	25	12.9%
Total	194	100%

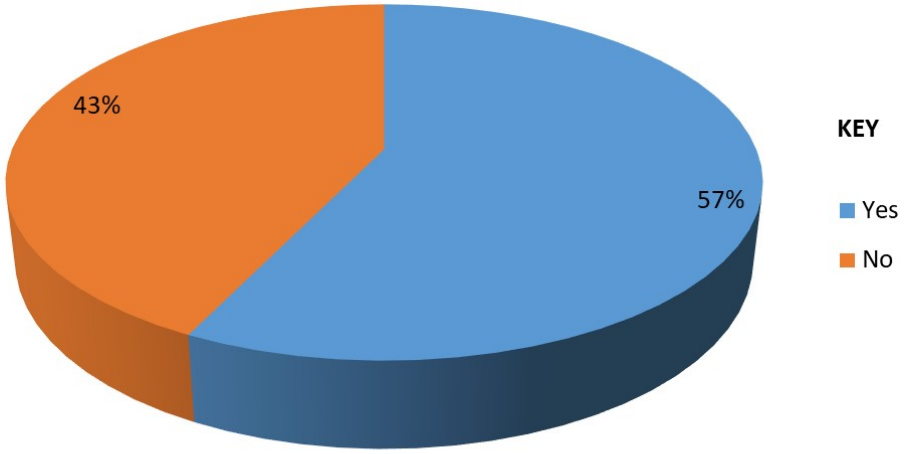

Figure 13. Showing respondents by whether the source of information influenced adherence to Covid-19 prevention guidelines (n=194).

Table 8. Showing respondents who said that the source of information influenced their adherence to Covid-19 prevention guidelines by the source of information that influenced their adherence (n=111)

Source of information	Frequency(n)	Percentage (%)
Health worker	166	(85.6%)
Traditional healer	05	2.6
Church leader	08	4.1%
An elder	03	1.5%
Others	12	6.2%
Total	194	100%

paigns conducted by the ministry of health regarding Covid-19.

Findings also found that More than half of the respondents 108 (56%) who knew what adherence to Covid-19 prevention guidelines meant ever adhered to Covid-19 prevention guidelines while less than half 86 (44%) did not adhere. The findings of this study imply that the majority of the respondents perceived the Covid-19 infection as a dangerous infection. Adherence to the Covid-19 prevention guidelines could be a result of protecting oneself and others from contracting the virus. These study findings correlate with a study conducted by Harper *et al.,* (2020) which found that 52.7% of their respondents adhered to good COVID-19 prevention practices.

Moreover, the Majority of the respondents 149 (77%) did not adhere to all Covid-19 prevention guidelines while the minority 45 (23%) adhered to all Covid-19 prevention guidelines. This is probably because of difficulty in implementing some prevention strategies coupled with insufficient finance for purchasing some equipment like alcohol base sanitizers which hence renders adherence to such measures difficult. The findings of this study are in line with a study conducted by Ssebwami, (2020) which reported that a portion of about 61% of their respondents was found not to have adhered to all the recommended Covid-19 prevention guidelines.

Additionally, most of the respondents 74 (38.1%) who did not adhere to all Covid-19 prevention guidelines did not adhere to keeping social distance while the least 02 (1.0%) did not adhere to washing hands with soap and water. These study findings indicate that keeping social distance for difficult for most of the respondents. This is probably because of the presence of family members, friends, and relatives in a family which makes it difficult for each other to give a distance, it may also be due to the limited social structures which would rather be used for creating sufficient space for social distancing. The findings of this study disagree with a study conducted by Block *et al.,* (2020) which showed that 88.2% of their participants adhered to the physical distancing rule.

Further, still, the majority of the respondents 104 (53.6%) did not adhere to Covid-19 prevention measures sometimes while the minority 30 (15.5%) did not adhere to Covid-19 prevention measures at all. This study result indicates that Covid-19 prevention measures were not fully implemented by the majority of the respondents. This is probably due to the perception of being safe from contracting the virus at certain points, it may also be due to the economized utilization of the prevention equipment like hand sanitizers coupled with the health conditions which may probably force an individual to breach the prevention guideline. The results of this study agree with a study conducted by Azlan, (2020) which found that 70.3% of their respondents breached the preventive measures put in place.

More so, More than half of the respondents 115 (59.3%) did not adhere to Covid-19 prevention measures because they were always with their friends and relatives while the minority 12 (6.2%) did not adhere because they did not fear Covid-19. The findings of this study imply that the presence of friends and relatives made it difficult for the majority of the respondents to adhere. This is probably due to the need for social company from friends and families which hence makes them always gather together. These study findings agree with a study conducted by Gallaway & Robinson, (2020) which reported that adherence to the proposed measures could not be achieved by informing people about the risks posed by the virus alone since 90% of them were always with their friends and families.

The individual factors influencing adherence to Covid-19 prevention guidelines

The study found that the majority of the respondents 119 (61%) said that their attitudes and perception about the threat of covid-19 influenced their adherence to the prevention guidelines while the minority 75 (39%) said that it did not influence them. The findings of this study indicate that attitudes lay a role in how people behave and this is probably due to the influence of the risk perception of the disease which hence influences their willingness to uptake measures towards preventing it. This study's findings agree with a study conducted by Kebede et al., (2020) which found that the significant factor affecting adherence to COVID-19 mitigation measures was the attitude towards COVID-19 preventive measures where the respondents who had a favorable attitude towards COVID-19 preventive measures were 6.54 times more likely to adhere towards the mitigation measures than respondents who had an unfavorable attitude towards COVID-19 preventive measures.

The study also reported that most of the respondents 90 (46.4%) whose attitudes and per-

ception about the threat of covid-19 influenced their adherence to the prevention guidelines perceived Covid-19 as a disease for the white people while the fewest respondents 17 (8.8%) perceived that Covid-19 cannot survive in their area. These study findings indicate a less likelihood of adherence to all Covid-19 prevention guidelines among the respondents. This is probably because Covid-19 originated from the whites and fatally affected and killed whites more than Africans. The findings of this study agree with a study conducted by Ahmed *et al.,* (2020) which revealed that 65% of the individuals perceived the threat of COVID-19 to be mild and referred to as a disease for the white people.

Furthermore, the Majority of the respondents 132 (68.0%) agreed that having a chronic disease positively influenced adherence to the Covid-19 prevention guidelines while the minority 22 (11.3%) disagreed having a chronic disease positively influenced adherence to the Covid-19 prevention guidelines. The findings of this study indicate a probable more adherence to Covid-19 prevention guidelines among respondents with chronic illnesses. This is probably because chronic illness acted as a predisposing factor for Covid-19 infection. These study results correlate with a study conducted by Ambelu, (2020) which revealed that 87% of the individuals who had other underlying health conditions for example diabetes, hypertension, HIV/AIDS, and asthma among others were found to be more adherent to the Covid19 prevention guidelines.

Moreover, the majority of the respondents 100 (52%) said that a history of being infected with Covid-19 disease influenced their adherence to its prevention guidelines while the minority 94 (48%) said that it did not influence their adherence to Covid-19 prevention guidelines. This is probably because the previously infected respondents rated the severity of possible reinfection as higher thereby expecting the experience of infection with COVID-19 to be worse than it was hence making them be more adherent to the preventive guidelines. The findings of this study agree with a study conducted by Azlan, (2020) which that the group his respondents who were previously infected with COVID-19 were found to be 4.36 times more likely to adhere to the prevention guidelines than their counterparts.

Additionally, most of the respondents 59 (30.4%) perceived their risk of contracting Covid-19 infection as high while the least respondents 39 (20.1%) did not know their risk of contracting Covid-19 infection. The findings of this study imply that most respondents were aware that they can contract Covid-19 and were less likely to adhere to the prevention guidelines. This is probably due to the link between the high-risk perception of COVID-19 and anxiety which may result in unnecessary behaviors associated with an increased level of impairment within the individual and the community at large thus, the community's adherence to mitigation measures would be negatively affected by the high-risk perception of COVID-19. Further, still, More than half of the respondents 130 (67%) reported that dissatisfaction with Covid-19 prevention guidelines affected their adherence while less than half 64 (33%) reported that it did not affect their adherence to Covid-19 prevention guidelines. The findings of this study indicate that more satisfied respondents with Covid-19 prevention guidelines adhered more than less satisfied respondents. This is probably because satisfaction leads to the development of positive attitudes towards the utilization of a service being provided including adherence to the stipulated prevention guidelines.

More so, the majority of the respondents 117 (60.3%) said that having enough knowledge determined their level of adherence to Covid-19 prevention guidelines while a minority 18 (9.3%) said that being young determined their level of adherence to Covid-19 prevention guidelines. This study's results imply that adherence level among the respondents was correlated to the level of knowledge. This is probably because knowing leads to a better understanding of the information being provided and leads to proper implementation of the guidelines issued. The findings of this study correspond with a study conducted by the Government of Uganda (2020) which found that nearly all the participants (96%) who had sufficient knowledge adhered to the guidelines.

The social factors influencing adherence to Covid-19 prevention guidelines

According to the findings, more than three quarters 180 (93%) of the respondents ever used medicinal plants for treating Covid-19 related symptoms while a few respondents 14 (7.0%) had never used medicinal plants for treating Covid-19 related symptoms. The findings of this study indicate that the use of medicinal plants for treatment is still a common practice. This is probably because the ef-

fective treatment for Covid-19 was not found, it may also be due to ease of accessibility in regards to costs and availability of medicinal plants which makes them popularly used. These study findings agree with a study conducted by WHO, (2020) which reported that 57% of their respondents were fond users of medicinal plants/herbs and were less likely to adhere to the Covid-19 prevention guidelines.

Furthermore, about half of the respondents 99 (51%) reported that the female gender adhered to covid-19 prevention guidelines more while less than half 95 (49%) said that males adhered more to covid-19 prevention guidelines. These findings indicate that adherence varies across the gender and that individual's gender determined the likelihood of adherence. This is probably due to the difference in the risk perception among the genders, it may also be because males are always more exposed because they usually work hard to take care of the family making it difficult for them to achieve the maximum adherence level. Additionally, the majority of the respondents 170 (88%) said that the area of residence influenced the adherence to Covid-19 prevention guidelines while the least respondents 24 (12%) said that it did not influence adherence to Covid-19 prevention guidelines. The findings of this study indicate that adherence varies across different residential settings. This is probably due to the difference in the implementation levels and the activeness of the enforcers, it may also be due to differences in social class in terms of levels of knowledge, and economic and social status. The findings of this study agree with a study conducted by Mahero and Matama, (2020) which found that the area of residence influenced adherence among 85% of their respondents.

Further still, the majority of the respondents 102 (52.6%) who said that the area of residence influenced the adherence to Covid-19 prevention guidelines listed urban residence to have influenced adherence more while a minority 10 (5.2%) listed rural residence. This indicates that being an urban resident was associated with adherence to the Covid-19 prevention guidelines. This is probably because of strict enforcement of these guidelines in urban areas coupled with the availability of sufficient information together with the high knowledge level exhibited by the urban residents. This study's findings agree with a study conducted by Mahero and Matama, (2020) which reported that living in a city was associated with adherence than in a rural setting since they found out in their study that living in Kampala City Centre was associated with high (78%) adherence to preventive measures.

Also, half of the respondents 97 (50.0%) stated that living in a homestead with many occupants makes adherence to Covid-19 prevention guidelines difficult while the fewest respondents 12 (6.2%) stated that living in a homestead with many occupants played no role in adherence to Covid-19 prevention guidelines. This study's findings indicate that families with many occupants are less likely to adhere to Covid-19 prevention guidelines. This is probably because large families are associated with poverty which makes it difficult to afford prevention equipment like face masks, hand sanitizers, and soap, it may also be due to lack of sufficient space which hence results in crowding making it difficult to implement most prevention measures. The fi digs of this study correlate with a study conducted by Echoru *et al.*, (2020) which reported that households with many residents were 6.7 times less likely to adhere to COVID-19 prevention guidelines.

More so, more than half of the respondents 111 (57%) said that the source of information influenced their adherence to Covid-19 prevention guidelines while less than half of the respondents 83 (43%) said that it did not influence their adherence to Covid-19 prevention guidelines. The findings of this study indicated that the majority of the respondents relied on the source of information to adhere to the guidelines. This is probably because of the difference in the manner of dissemination of information by different sources which hence leads to differences in the understanding of the information being disseminated. This study's findings agree with a study conducted by MOH, (2020) which revealed that the source of information regarding COVID-19 was a major determinant in the implementation of the guidelines in almost all their respondents (98%).

Findings also found that three-quarters of the respondents 166 (85.6%) listed the information from the health workers as being more influential to adherence while the minority 03 (1.5%) said that information from an elder influenced their adherence to Covid-19 prevention guidelines. The findings of this study imply that health workers were seen as the main source of information regarding Covid-19. This is probably because health workers are regarded as knowing matters related to health and

diseases therefore their information would be easily accepted by the majority of the population and the guidelines issued by them would be adhered to effectively. These study findings are in line with a study conducted by MOH, (2020) which reported that 90% of their respondents required COVID-19 related information from health workers to adhere to the issued preventive measures.

9 Conclusion

The study established that the level of adherence to Covid-19 prevention guidelines among the elderly was low (27.6%) since the majority of them did not adhere to all Covid-19 prevention guidelines by breaching Covid-19 prevention measures sometimes and did not keep social distance moreover they were always with their friends and relatives. Additionally, findings also revealed attitudes and perceptions about the threat of covid-19, having a chronic disease, history of being infected with Covid-19, high-risk perception of contracting Covid-19, dissatisfaction with Covid-19 prevention guidelines, and having enough knowledge as the individual factors that influenced adherence to Covid-19 prevention guidelines among the elderly. Furthermore, the major social factors that were associated with adherence to Covid-19 prevention guidelines among the elderly in this study included; the use of medicinal plants for treating Covid-19 related symptoms, being female, area of residence, living in a homestead with many occupants, and source of information regarding Covid-19.

Recommendations

Based on the findings, the regulatory authorities and government should focus more on continuous education of the general public through different media outlets on the importance of adherence to Covid-19 prevention guidelines and the consequences of non-adherence.

The government and the partnering organizations should avail vaccines to all health facilities even in hard-to-reach areas and if possible, more vaccination points should be established in all communities and people encouraged to go for vaccination as a means of preventing covid19.

The government and other partnering organizations should give a platform for science and innovation where traditional medicines are given a trial to ascertain their effectiveness in use as supportive treatment and prevention medicines for Covid19.

The country's Ministry of Health, through its decentralized systems, should use health workers to sensitize the public on COVID-19 through various fora, including community outreach since the population is more likely to trust information from health workers and any other trusted source.

10 Acknowledgement

First and foremost, I want to give glory and honor to the almighty GOD who through his mercies and blessings enabled me to finish this work successfully.

I want to extend my sincere appreciation to my family; firstly to my father Mr. Mugisha Robert, my mother Mrs. Mugisha Medius for their financial support during this tough period of studies, and to my sisters Mugisha Merab and Mugisha Gloria, my brother Mugisha Denis and my friend Dr. Mujuni David for their different kinds of support towards me, they were such a blessing to me during my entire academic journey most especially at the time of writing this report.

I am also grateful to the district health officer of the Mbarara district and the entire administration for having accepted and allowed me access to the facility to make this study successful.

Additionally, I want to appreciate the efforts of my supervisor Miss. Santa Gloria for her supervisory role and the endless support she offered me during this entire study despite her ever-busy schedule.

Finally, I am grateful to the administration of the Medicare health professionals" college, the Head of Departments, all lecturers, my fellow scholars, respondents, and my research assistants. Thank you all for your contributions towards the completion of this report, May the good Lord bless you all abundantly.

Study limitations

Some respondents may shy off from taking part in this study since the study is assessing sensitive health conditions. The researcher however encouraged them that the study would benefit them as well and all the information given would be kept confidential.

Some respondents lied about their responses hence leading to information bias. However, the researcher and the assistants allowed them more privacy and ample time to fill out their questionnaires.

Some respondents also wanted to be financially compensated to provide the information required, however, this was solved by explaining to them that the study is purely for academics and not for any economic benefits.

The study was unfavorable weather. However, gumboots and raincoats, and umbrellas shall be used to manage the unfavorable climatic conditions.

11 List of Abbreviations

COVID-19 : Corona infectious disease

DHO : District Health Officer

MOH : Ministry Of Health

SPSS : Statistical Package for Social Sciences

UDHS : Uganda Demographic and Health Survey

WHO : World Health Organization

12 Operational Definitions

Accessibility - Is the ability to willingly benefit from a health system or entity.

Adherence - It is the act of sticking to the stipulated rules.

Corona virus- A flue like novel infection

Elderly- People who are above fifty years of age

Guidelines- Rules put forward by authorities

Prevention- Controlling a condition from occurring

A References:

1. Ahmed, M.A.; SieweFodjo, J.N.; Gele, A.A.; Farah, A.A.; Osman, S.; Guled, I.A.; Ali, A.M.; Colebunders,(2020). Adherence to Preventive Measures and Evolution of the Disease Burden. Pathogens, 19, 71-111.https://doi.org/10.3390/pathogens9090735PMid:32899931 PMCid:PMC7560173

2. Azlan AA, Hamzah MR, Sern TJ, Ayub SH, Mohamad E (2020). Public knowledge, attitudes and practices towards COVID-19:. PLoS One.journal.579:270-273.https://doi.org/10.1101/2020.04.29.20085563

3. Bai Y, Yao L, Wei T, Tian F, Jin D-Y, Chen L, (2020).Presumed asymptomatic carrier transmission of COVID-19:.Jama.PMID.https://doi.org/10.1001/jama.2020.2565PMid:32083643 PMCid:PMC7042844

4. Block R, Berg A, Lennon RP, Miller EL, Nunez-Smith M (2020). African American adherence to COVID-19: public health recommendations. HLRPhttps://doi.org/10.3928/24748307-20200707-01PMid:32926172 PMCid:PMC7410494

5. CDC(2019) Symptoms of COVID-19. https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

6. Echoru, I. (2020). Misconceptions on COVID-19 Risk Among Ugandan Men: Results From a Rapid Exploratory Survey, Front. Public Health journal. 917351. doi:10.1101/2020.01.23. 917351.

7. Gallaway, M.S.; Rigler, J.; Robinson, S.; Herrick, K.; Livar, E.; Komatsu, K.K.; Brady, S.; Cunico, J.; Christ, C.M (2020). Trends in COVID-19 Incidence After Implementation of Mitigation Measures. Afr J Prim Health Care Fam Med. 2020;12.https://doi.org/10.15585/mmwr.mm6940e3PMid:33031366 PMCid:PMC7561223

8. Government of Uganda (2020).President Museveni COVID-19 Guidelines to the Nation on Corona Virus. State house Entebbe, Uganda.

9. Harper CA, Satchell LP, Fido D, Latzman RD (2020). Functional fear predicts public health compliance in the COVID-19 pandemic. International journal of mental health and addiction.pg ;26:767-772https://doi.org/10.31234/osf.io/jkfu3

10. Imai N, Dorigatti I, Cori A, Donnelly C, Riley S, Ferguson N (2020). Report 2: Estimating the potential total number of novel Coronavirus cases in Wuhan City, China. Asian Pac J Trop Med. pg;13:260.

11. Kasozi, K.I.; MacLeod, E.; Ssempijja, F.; Mahero, M.W.; Matama, K.; Musoke, G.H.; Bardosh, K.; Ssebuufu, R.; Wakoko-Studstil, F.; Echoru, I (2020). Misconceptions on COVID-19 Risk Among Ugandan Men: Results From a Rapid Exploratory Survey,. Front. Public Health.https://doi.org/10.3389/fpubh.2020.00416PMid:32850606 PMCid:PMC7405654

12. Kebede Y, Yitayih Y, Birhanu Z, Mekonen S, Ambelu A (2020) Knowledge, perceptions and preventive practices towards COVID-19 early in the outbreak among Jimma university medical center visitors, Southwest Ethiopia. PLoS ONE 15(5): e0233744.https://doi.org/10.1371/journal.pone.0233744PMid:32437432 PMCid:PMC7241810

13. Kebede Y, Yitayih Y, Birhanu Z, Mekonen S, Ambelu A (2020). Knowledge, perceptions and preventive practices towards COVID-19 early in the outbreak among Jimma university medical center visitors, Southwest Ethiopia. PLoS

One.journal. pg;6(2):e19847https://doi.org/10.1371/journal.pone.0233744

14. Khadka S, Hashmi FK, Usman M (2020). Preventing COVID-19 in low-and middle-income countries. Drugs & Therapy Perspectives. pg;8:340. https://doi.org/10.1007/s40267-020-00728-8PMid: 32292266 PMCid:PMC7152742

15. Mahero, M.W.; Matama, K.; Musoke, G.H.; Bardosh, K.; Ssebuufu, R.; Wakoko-Studstil, F,(2020). Misconceptions on COVID-19 Risk Among Ugandan Men: Results From a Rapid Exploratory Survey, Front. Public Health. 105:419-423.

16. Malm A (2020). Corona, Climate, Chronic Emergency: War Communism in the Twenty-First Century. J Hosp Infect. 2020;105:419-423.

17. Remuzzi A, Remuzzi G (2020). COVID-19 and Italy: what next? The Lancet.https://doi.org/10.1016/S0140-6736(20)30627-9

18. Rothan HA, Byrareddy SN (2020).The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak.J ournal of autoimmunity. 14:255-264.https://doi.org/10.1016/j.jaut.2020.102433PMid:32113704 PMCid:PMC7127067

19. Ssebwami, J (2020). FULL SPEECH: Museveni announces 14-day shutdown in Uganda as govt enforces discipline to stem Coronavirus spread. In PML Daily; Post Media Ltd.: Kampala, Uganda, 2020.

20. WHO (2020). Director-General's opening remarks at the media briefing on COVID-19. Geneva, Caliornia.

21. Wilder-Smith, A. COVID-19 in comparison with other emerging viral diseases: risk of geographic spread via travel. Trop Dis Travel Med Vaccines 7, 3 (2021).https://doi.org/10.1186/s40794-020-00129-9PMid:33517914 PMCid:PMC7847598

22. World Health Organization, (2020). Naming the Coronavirus Disease (COVID-19) and the Virus That Causes It. Geneva, Caliornia.

B publisher details:

Publisher: Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256775434261
Location: Wisdom Centre, P.O.BOX. 148, Uganda, East Africa.