

Assessment of Adherence to Preventive Measures Against Covid-19 In Mkushi District

Daniel Katete

Abstract

The paper suggests that, cost-effective measures, which are not psychologically scary are likely to be more frequently adopted by the public than those that punctuate a dystopia especially social distancing, which was regarded to be at variance with socialization norms. The study was informed by hermeneutic survey and concludes that, handwashing hygiene was the most popular preventative measure with swab testing being the least sort after.

1. Background

Corona viruses are a large family of viruses which may cause illness in humans. In humans, corona virus is known to cause respiratory infections ranging from the common cold to more severe diseases such as aches and pains, nasal congestion, runny nose, sore throat or diarrhea. These symptoms are usually mild and begin gradually (World Health Organization, 2020). The outbreak of coronavirus began in Wuhan, China, in December 2019. According to the United Nations Covid-19 Emergency Appeal Zambia (2020), the Government of Republic of Zambia reported the first confirmed cases of COVID-19 on 18th March 2020. Rabadan (2020) further state that the severity of coronavirus in older people and those with underlying medical problems like high blood pressure, heart problems or diabetes, are more likely to develop serious illness. People can catch COVID-19 from others who have the virus, the disease can spread from person to person through small droplets from the nose or mouth which are spread when a person with COVID-19 coughs or exhales, these droplets may land on objects and surfaces around the person. Other people will catch the virus by touching these objects or surfaces, then touching their eyes, nose or mouth. People can also catch COVID-19 if they breathe in droplets from a person with COVID-19 who coughs out or exhales droplets. This is why it is important to adhere to public health guidelines such as social distancing, wearing masks, and applying hand hygiene.

Zambia is currently experiencing massive spread of COVID-19 seeing the number of COVID-19 cases relatively rising in the country (Muchanga *et al.*, 2020). The government has implemented preventive and control measures to contain the pandemic. However public adherence to health guidelines has affected the effectiveness of these measures in containing the pandemic. Therefore, there is a need to investigate factors that are influencing public adherence towards COVID-19 health guidelines.

The main problem addressed by the researcher arose from the situation that adherence to COVID-19 health guidelines could be influenced by associated factors which were not yet known by the time this research was proposed. Despite the public being advised that adhering to the health guidelines is the most effective way to contain the pandemic, the public risk perception and adherence and compliance towards health guidelines remained problems and worrisome (United Nations Covid-19 Emergency Appeal Zambia, 2020). Therefore the need to address challenges affecting adherence towards COVID-19 health guidelines and investigating the associated factors leading to non-adherence. Evidence from past epidemics shows that both information and risk perceptions influence preventive behavior, including adherence to PHSMs. People who are well informed may have a high level of awareness about COVID-19, but may not perceive that their personal risk of catching the disease is high or that the disease would have severe health implications. In addition, people must believe that they can change their behavior to effectively reduce risk both for themselves and the community at large. Misinformation narratives can undermine motivation to adhere to preventive measures (PERC, 2020).

Most surveyed respondents in Zambia were aware of the risk to the country from COVID-19, but their personal risk perceptions were lower. This was also observed by Muchanga et al. (2020). Many hold misconceptions about disease transmission and there are prominent narratives on social media questioning the existence of the epidemic in Zambia. With transmission accelerating, risk communication and community engagement should continue to reinforce public health guidelines. In Zambia, survey respondents' perceptions of community and personal risk from COVID-19 are in line with other AU Member States in the Southern Region and higher than the average across all AU Member States surveyed. Still, only one in three respondents in Zambia perceives a high personal risk of catching the virus. More than nine in ten survey respondents agreed that following public health guidelines could help protect themselves and others (PERC, 2020).

However, there is significant misinformation as two-thirds of survey respondents believe that the virus can be transmitted through close contact with livestock, while just over half believe rumors about foreign interference. These narratives could undermine preventive behaviors or lead to vaccine hesitancy. Early communication and community engagement to dispel misinformation about vaccines will be critical to ensuring vaccine uptake when a vaccine becomes available. This study assessed adherence to COVID-19 public health guidelines among residents of Mkushi.

2. Description of study area

Mkushi District is situated in the central province of the Republic of Zambia. The district covers an area of about 8,515 km² and it has an estimated population of 127,096 of which 63,624 are male representing (50.1%) and 63472 are female representing (49.9%) as indicated in the 2010 Census of population and Housing of Zambia. (Central Statistical Office, 2010). The district shares borders with the Democratic republic of Congo (DRC), Kapiri, Luano and Serenje District among others. The great North road runs through Mkushi as it connects Kapiri on the south west and Serenje on the north east border (Figure 1).

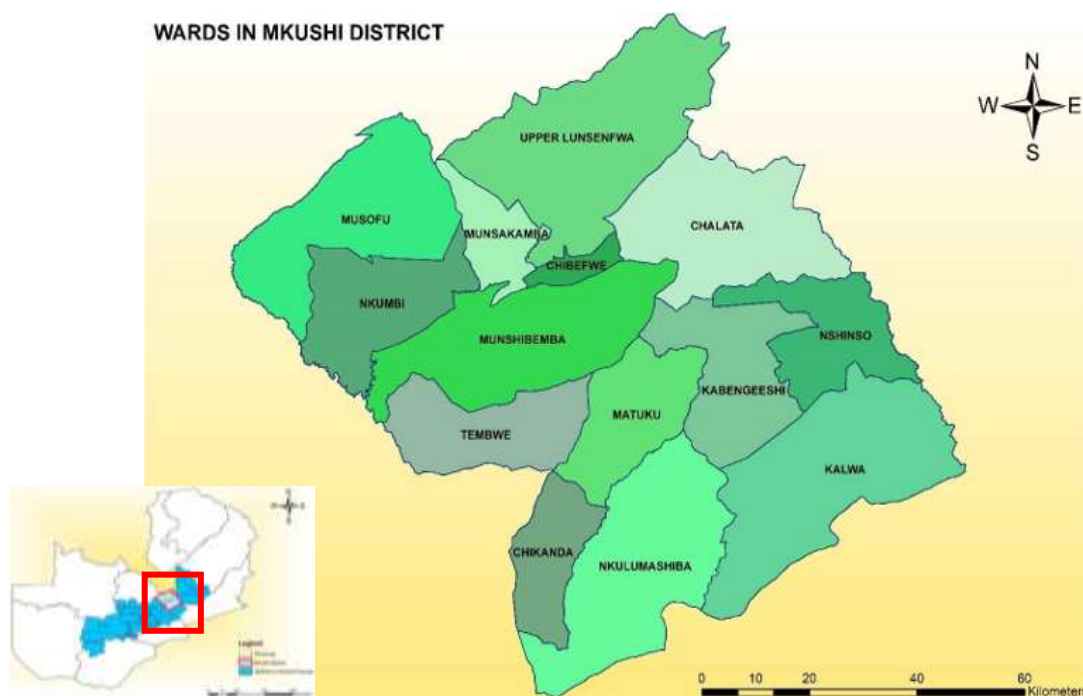


Figure 1: Mkushi location map showing Wards

The district which boasts of expatriate farmers also has large commercial operations and houses the prestigious Chengelo School. The district has fertile farmland which attracts most people to settle in the area, this attracts a lot of economic activities within Mkushi such as Agriculture. The farming systems practiced are Commercial farming with cultivation of more than 20 hectares, emergent farmers with cultivation of between 5 and 20 hectares and Small-scale farmers with cultivation of less than 5 hectares (Central Statistical Office, 2010)..

3. Research Methodology

The study was conducted using qualitative case study design because the focus was on examining social processes, interpretation as well as the creation of meaning in specific settings and social life using socially informed conceptual framework (Chalawila and Muchanga, 2022), which assumed that all perspectives that emerged from the study were informed by lived experiences of the participants and could actually be generalized to all those who had similar lived experiences. Qualitative research was necessary in this study in order to understand, explain, explore, discover and clarify situations, feelings, perceptions, attitudes, values, beliefs and experiences of a group of people (Merriam, 1988). This study aimed to describe factors influencing adherence towards COVID 19 health guidelines in Mkushi. Thereby, a descriptive survey informed by hermeneutics (Muchanga, 2020) helped to provide an accurate portrayal or account of the characteristics of an individual, situation or group in terms of their particular opinions, beliefs, knowledge or behavior (Creswell, 1994). The knowledge was constructed based on how participants perceive COVID19 health guidelines and through interaction between the researcher and the participants. Furthermore, an inductive process was implemented so as to organize data into categories and identify patterns (relationships) in order to reach a conclusion (McMillan and Schumacher, 1993).

The participants were selected based on their accessibility, especially the traders, civil servants, religious leaders and students. The targeted population were mainly the people in areas considered as COVID19 high risk such as markets, bus stations, offices, street vendors, religious groupings, and shopping centers. The sample size was made up of 21 participants representing the population of Mkushi. The population involved religious leaders, traditional leaders, civil servants (teachers, medical personnel), traders and students. My key informants included a senior health inspector from Mkushi town council, one official from the market committee and one health officer from the ministry of health. Participants from these different groupings gave a representative perceptions of adherence towards COVID-19 health guidelines.

To achieve the aim and objectives of the study the researcher mainly used semi-structured interview schedule to assess adherence to COVID-19 health guidelines in Mkushi District. Semi structured interview explored participants knowledge on COVID-19 and also in regards to adherence and compliance to preventive measures. The interviews were conducted through an online platform known as google form. The link for the interview was sent to Participants via WhatsApp and were allowed to answer at their own convenient time. The researcher transcribed all interviews, observations, documents, articles and reviewed literature before analyzing the data. The process of recording allowed the researcher to become familiar with the data (Stake, 1995). This study followed case study design where the data was analyzed case by case, looking for patterns within the data to explain the phenomenon. Therefore, interviews, observations, documents, and field notes were analyzed.

4. Research results

The study findings are presented in the following order, social-demographics, and thereafter, specific findings per specific objective of the study.

Demographic characteristics of participants

Figure 1 below shows age of participants in the current study, the majority of them (80%) were between the ages of 15 and 30.

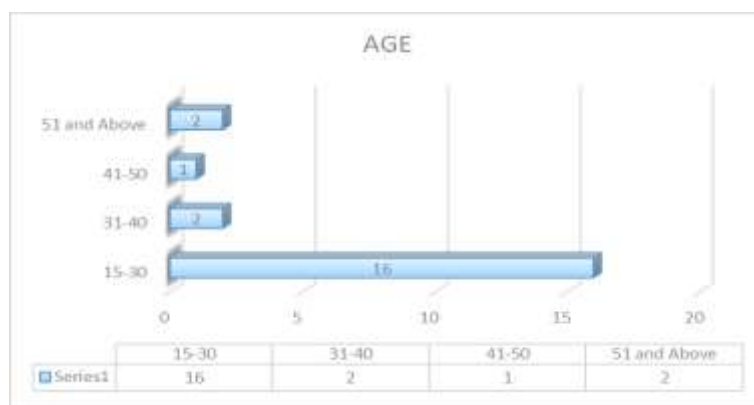


Figure 2: Distribution of Participants by age.

The study further found that, the majority of participants were 57% of males and 43% of females.

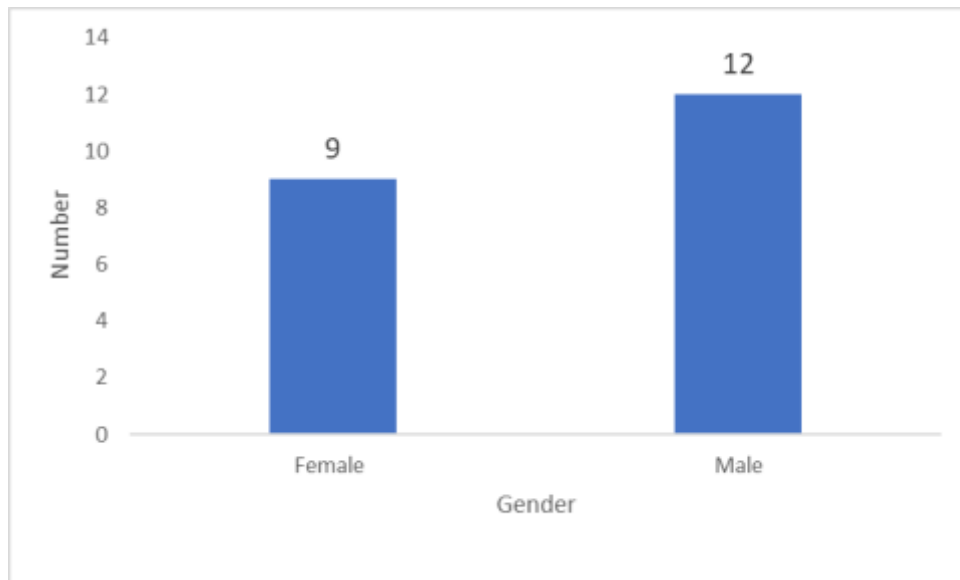


Figure 3: Distribution of Participant by gender

Figure 4 below shows that, the majority of participants were not working accounting for 64%, 32% were working and 4% accounted for health professionals.

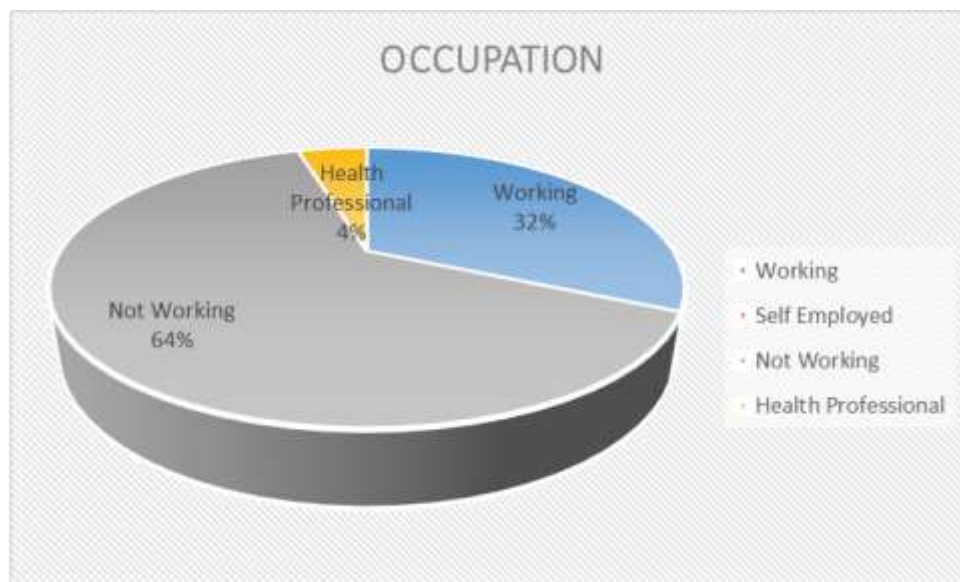


Figure 4: Distribution of Participants by Occupation

Status on wearing of masks in public spaces and sources of information on COVID-19

Figure 5 shows that, majority of participants wore masks in crowded places at all times accounted for 62% and 38% accounted for participants with poor adherence to wearing mask in crowded places.

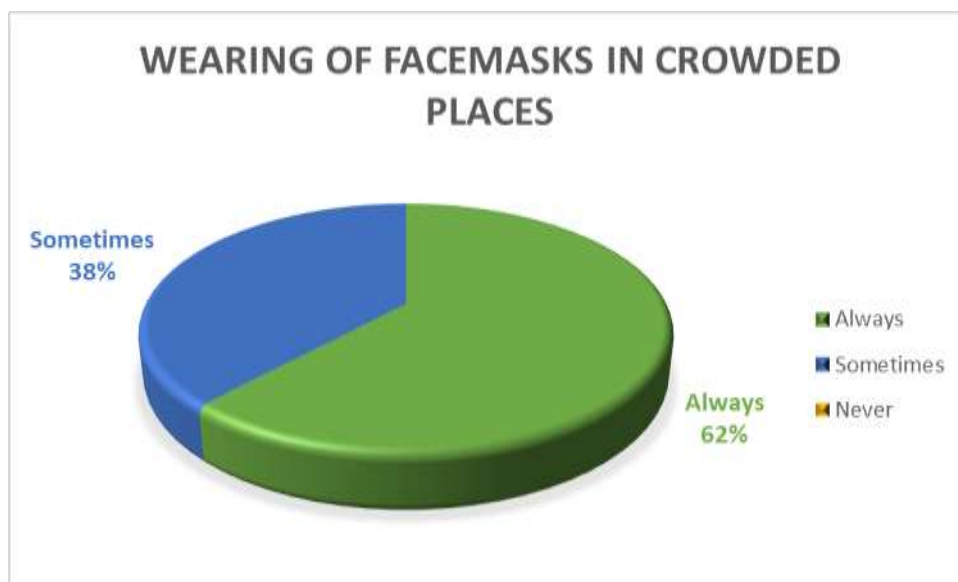


Figure 5: Use of Masks in Public spaces

Figure 6a below showed sources of information on COVID-19 of which 43% of the participants got information from Ministry of Health (MOH), 38% from social media platforms, 14% from World health organization (WHO) and 5% from friends.

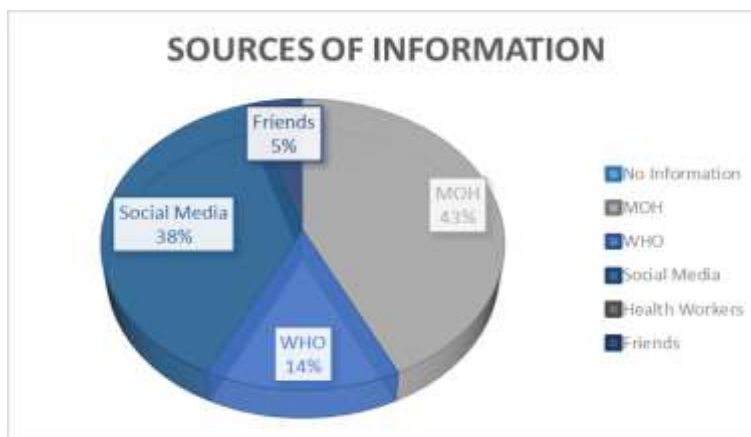


Figure 6a: Sources of COVID-19 Information

Attitude towards undergoing SWAB testing for COVID-19

Figure 6b below showed that majority of respondents were worried undergoing a nasal swab accounting for 62% while 38% did not worry having a nasal swab.

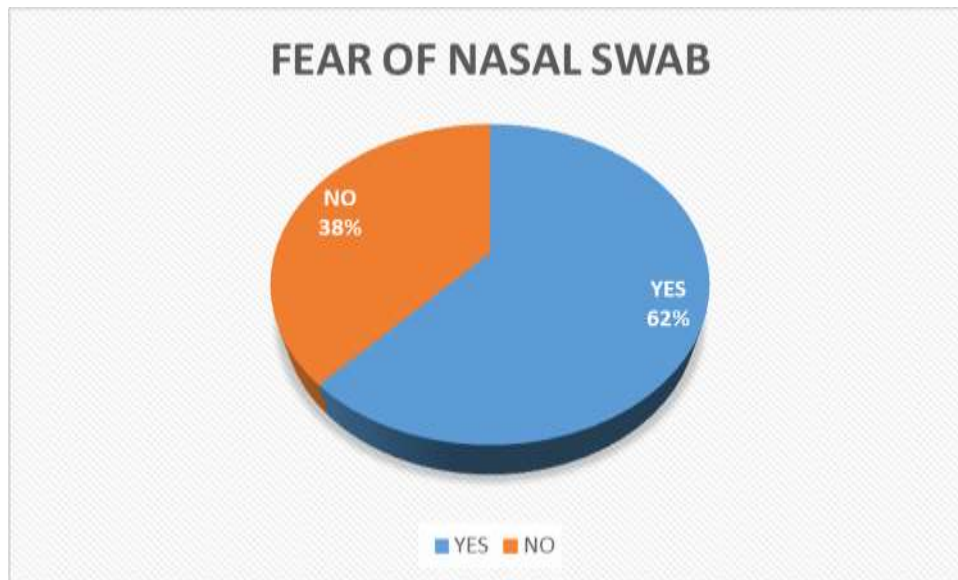


Figure 6b: Attitude towards undergoing SWAB testing for COVID19

Practice of Preventive measures

Figure 7 below showed 52% of the participants practiced preventive measure while 48% of the respondents had poor practice of preventive measures.

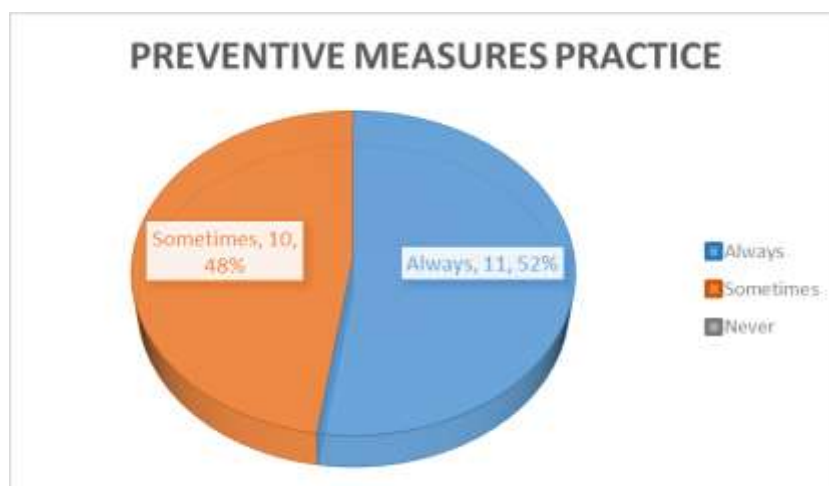


Figure 7: Practice of Hand washing as a preventive measure

Frequency of use of hand washing as a preventive measure

Figure 8 below showed that 38% of the Respondents washed their hands always with water and soap while majority had poor adherence to hand hygiene accounting for 57%.



Figure 8: Frequency of handwashing as a preventive measure

6. Discussion of research results

This study was conducted during government lockdown measures in order to contain the disease. During this period the government implemented a lockdown of most public and private services, and population movement restrictions national wide. Additionally schools were closed and the government implemented preventive measures during this phase such as mandatory wearing of facemasks, observing social distancing, and frequent hand hygiene.

Assessment of public knowledge on COVID19

This section discusses results that were obtained in the context of how knowledgeable residents were on COVID-19. Residents of Mkushi had adequate knowledge about COVID-19. Hence, they were more likely to practice preventive measures to avoid COVID-19 infection. According to Van der meer and Jin (2019), certain types of inaccurate crisis information can confuse individuals and make them less likely to protect themselves, which in turn can exacerbate the spread of the pandemic. This association between knowledge and adherence to preventive measures revealed the importance of prompt and accurate public health communication. Participant's major sources of information about COVID19 as presented in Figure 6 in previous chapter five, were the Ministry of Health (MOH) 43 per cent, Social media platforms (38 per cent), World Health Organization (WHO) 14 per cent and Friends (5 per cent).

In Mkushi, among the 21 respondents sampled, the majority had very good knowledge about COVID-19. The knowledge of COVID-19 is mainly acquired through health practitioners, social media and internet, which have proven to be a chosen tool to adapt to the physical constraint measure of prevention during the pandemic. In the current COVID-19 pandemic, responsibly and appropriately used social media and websites have the potential to disseminate crucial information rapidly and effectively. According to Oyeyemi et al., (2014), indicates the extent to which the citizens experienced that information on coronavirus (SARS-CoV-2 and the disease it causes, as simply inaccurate (misinformation) or intentionally misleading (disinformation). Those who experienced misinformation were willing to seek further information and to comply with official guidelines. Individuals perceiving more disinformation on the other hand were less willing to seek additional information and reported lower willingness to comply with official guidelines. Additionally, the government of Zambia and network service providers such as Airtel, MTN and Zamtel have collaborated and initiated a public awareness campaign on COVID-19. Social media platforms, websites, and short message service (SMS) text messages have been used to improve awareness and uptake of preventive measures to reduce the risk of transmission. This emphasized the importance of conveying appropriate messages to the public to better their understanding of the disease and improve their practices of preventive measures.

Assessment of adherence to COVID-19 health guidelines

Mkushi residents at least had 62 per cent mask adherence as shown in Figure 5 in chapter five above, none reported a high COVID-19 rate. Residents took precautionary measures by avoiding crowded places or wore facial masks as needed while those with less adherence to mask wearing accounted for 38 per cent. This study suggests high adherence to masks wearing could be a factor in reducing the spread of COVID-19. This association between high mask adherence and reduced COVID-19 rates should influence policy makers and public health personnel to focus on ways of improving mask adherence across the population in order to reduce the spread of COVID-19.

Participants practiced good preventive measures, indicating that they prioritized practicing good preventive measures such as wearing a face mask, social distancing and hand washing to prevent COVID-19. While 48 per cent of the participants had poor adherence to practicing preventive measures such as wearing of mask, social distancing and hand hygiene. This study found out community's adherence to the recommended COVID-19 preventive measures was not impressive. According to Liu *et al.*, (2013), indicates that rural residents reported lower levels of information appraisal skills than their urban counterparts. One possible explanation is that the current media coverage about COVID-19 prevention mostly focuses on large urban cities with high population density, which might not fully satisfy the specific needs of rural populations. Thus, rural residents might not be strongly motivated to engage in a thoughtful process of information appraisal and adopt the appropriate preventive measures. Tailoring health messages to meet a person's individual needs might be an effective strategy to promote preventive health behaviors against COVID-19 among rural audiences. Therefore need to address underprivileged groups, disseminate teaching aids in local languages and law enforcement in order to strengthen COVID-19 prevention practice.

Majority of participants had poor adherence to hand hygiene while 38 per cent had good hand hygiene and 5 per cent never practiced this preventive practice. Hand hygiene is a low cost, easy access, efficient strategy for the prevention of COVID-19 transmission but the adherence and compliance to the hand hygiene guidelines is still deficient and continues to be a major problem in Mkushi. According to World Health Organization (2020), individual adherence to sanitary protocols such as hand hygiene is critical to control the reproduction rate of the virus. It's necessary that greater efforts should be performed to improve hand hygiene in order to contain the spread of COVID-19. Hence there's need to stimulate awareness through education programs that improve adherence to hand hygiene among Mkushi residents in order to increase compliance. Regarding the barriers to practicing preventive measures as shown in Figure 9 at least 62 per cent attributed their barriers to fear of undergoing nasal swab. For some people, the idea of a cotton swab going deep into their nose was very frightening and discomfort. Glanz *et al.*, (2008), according to the health belief model, individuals should have an appropriate level of self-efficacy to overcome barriers to behavior. Self-efficacy is defined as the level of trust and confidence in overcoming barriers to a healthy behavior. Implementation of preventive and control measures is sufficient although further improvement is required in terms of adherence and compliance as 14 per cent felt the current preventive measures were not sufficient. While support for personal preventive behaviors (washing hands, wearing a mask) was high, there remained a room to strengthen adherence to physical distancing through sustained risk communication and community engagement. Water scarcity could punctuate several hygiene related challenges that transcend mere neglect of handwashing. Hence, since people in Mkushi preferred handwashing to other preventative measures, more water points especially dams for rural communities could enhance accessibility at household and public place level so as to promote handwashing hygienic practices that transcend COVID-19 era. Ajilore *et al.*, (2020) state that elevated knowledge, attitude and practice towards COVID-19 preventive measures are definitely related to higher commitment in appropriate defensive behavior during the pandemic.

6. Conclusion

The study concludes that, people are likely to adopt preventative measures that are easily accessible and are less traumatizing. This therefore confirms the reason why residents of Mkushi preferred using handwashing hygiene as intervention measure of choice that social distancing which according to the general narrative of the participants was at variance with cultural norm of socialization and, let alone testing for COVID-19. Progressive success in the decline of COVID-19 cases should be emphasized persistently to promote health and awareness using the media and other means. Every opportunity should be seized to remind people of

religious and cultural practices of handwashing, covering noses, and mouths, especially when sneezing and coughing.

References

1. Central Statistical Office (2010). <https://reports.unocha.org/en/country/Zambia/download>; 9 Dec 2020.
2. Chalawila, I. & Muchanga, M. (2022). Challenges Experienced By Postgraduate Candidates in the Application of Conceptual Frameworks in Scientific Research. *International Journal of Scientific Research and Management* 10(2):2321-3418. DOI: [10.18535/ijstrm/v10i2.e102](https://doi.org/10.18535/ijstrm/v10i2.e102)
3. Creswell, J. W. (1994). *Research designs: Qualitative and quantitative approaches*. essential health services during an outbreak: interim guidance, 25 March 2020.
4. <https://reliefweb.int/report/zambia/united-nations-covid-19-emergency-appeal-zambia>-Infect. Dis. 2013;13:192. doi: 10.1186/1471-2334-13-192. [PMC free article] [PubMed] infectious diseases in rural Zhejiang province, China: A cross-sectional study. BMC
5. Liu H., Li M., Jin M., Jing F., Wang H., Chen K. (2013). Public awareness of three major
6. may-october-2020-revised-july-2020
7. McMillan, J. H. & Schumacher, S. (1993). *Research in education: A conceptual*
8. Merriam, S. B. (1998). *Qualitative research and case study applications in education: Revised*
9. Muchanga, M. (2020). Reflexive Debate on Use of Philosophy in Scientific Research. IJHSSE. <https://www.arcjournals.org/pdfs/ijhsse/v7-i6/22.pdf>
10. Muchanga, M., De Souza, B., Negumbo, E., Tembo, T., Chipere, R.T., Nhnyete, S., Garapo, N.L., Coetzee, M., & Madiba, M. (2020). Exploring Educational Lives of the Excluded Youth under COVID-19 in the SADC region. Johannesburg: JET Education Services. Retrieved from: <https://www.jet.org.za/covid19research-response/sadcresearchchallenge/themes/theme-3>
11. PERC (2020). Partnership for Evidence-Based Response to COVID-19, www.preventepidemics.org/perc
12. Rabadan, R. (2020). *Understanding Corona Virus*. University Printing House, Cambridge, UNITED KINGDOM.
13. Stake, R.E. (1995). *The Art of Case Study Research*. Thousand Oaks, CA: Sage Publications
Thousand Oaks, CA: Sage.
14. United Nations COVID-19 Emergency Appeal Zambia (2020). World Health
15. World Health Organization. (2020). COVID-19: operational guidance for maintaining