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EXPLAINING LOW-RISK PERCEPTION OF COVID-19 AMONG MALAWIANS: A QUALITATIVE ANALYSIS OF INSIGHTS FROM COMMUNITIES

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Abstract

Objectives: This study aimed to evaluate the risk perception of Covid-19 among Malawian community members and provide recommendations on how to enact more effective risk communication strategies to ensure higher levels of adherence to Covid-19 safety measures. **Methods**: Four UNICEF partner organisations working in Risk Communication and Community Engagement interviewed 319 community members from 14 of Malawi's 28 districts regarding Covid-19 during home visits within the communities, and the responses were summarised into a compendium of insights (rumours, misconceptions, fears, expectations and suggestions regarding the nature of Covid-19 and its management). A rapid inquiry in the form of key informant interviews (KIIs) was conducted with nine health workers and community leaders who were directly occupied with Covid-19 health service provision and community mobilisation, to better understand possible reasons for the low efficacy of the risk communication strategies used. Data were then qualitatively analysed using IPA to establish recurring themes of the state of Covid-19 risk perception. **Results**: Findings showed that community members had a low-risk perception of Covid-19 stemming from several reasons, including misinformation and faulty attitudes about the pandemic, influences of political and socio-cultural factors, and less effective risk communication and community engagement which did not resonate with the target groups on influencing risk perception.

Keywords: risk perception, decision making, risk communication, health behaviours, stakeholder participation, Covid-19

Introduction

Having originated from Wuhan, China (Huang et al., 2020; WHO, 2020; Zavascki et al., 2020), Coronavirus disease (Covid-19), caused by a novel strain of coronavirus termed as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), is fundamentally a global crisis (Xu & Kraemer, 2020; UNODC, 2020). This pandemic has presented a unique challenge, threatening the lives and

livelihoods of millions of people around the world, in particular the elderly and women (Liu et al., 2020; Yan, et al., 2020). Being a novel virus, heretofore unknown in the international health sector, the coronavirus has raised innumerable questions and speculations among people about its nature, function, and effects on human beings (Wang et al., 2020). The pertinent questions that were raised with the onset of Covid-19 included how countries could ensure equal and effective distribution of limited healthcare resources and how ready people were to surrender their personal freedoms in the attempts to contain the pandemic (Komesaroff & Kerridge, 2020).

Africa experienced a delayed introduction to the virus compared to other countries around the world. However, since the first reported case of Covid-19 in Egypt on February 14th, 2020, the numbers of cases in Africa gradually increased (UN Tanzania, 2020). Covid-19's extensive effects touched numerous areas of the lives of millions on the African continent, leaving no public sector untouched, including education, industry, travel and countries' economies. In the months following the pandemic's entry into Africa, its impact resulted in some countries experiencing a decline in the demand for exports of goods and services (UN Mozambique, 2020) and major slumps in tourism due to travel bans (UNPD, 2020).

After observing the stringent measures taken by countries on other continents, several African countries also responded to the Covid-19 threat by enacting safety policies in an attempt to reduce the spread of the virus. Within East Africa for example, countries such as Rwanda, Kenya, and Uganda encouraged social distancing within communities, closed off borders, and enacted curfews that aimed to contain non-essential movement (UN Tanzania, 2020).

With regards to managing the emergence of Covid-19 in Malawi, several contextual factors had a significant role to play. The Malawian situation was unique because the entry of Covid-19 coincided with an unstable political environment, following the nullified May 2019 presidential elections results (Chitete, 2020). A consequence of this political climate was a significant lack of trust in the government bodies tasked with establishing an effective Covid-19 response. At the onset of Covid-19 in Malawi, the incumbent government of the time issued official communication about the disease with the intention of educating the general populace about recommended safety and preventive measures. However, the political context in which the communication was being shared affected its effectiveness in educating and directing Covid-19 related safety measures.

In April 2020, the Malawi government announced the intention to implement a 21-day national lockdown that was meant to shut down all central food markets and non-essential businesses, restrict hours for farming, and allow public transit only for hospital staff and emergencies (Daniel & Bickton, 2020; Masina, 2020). However, following a challenge by the Malawi Human Rights Defenders Coalition (HRDC), which argued that more consultation was needed to prevent the intended lockdown harming the poorest and most vulnerable of society, the lockdown was suspended by the nation's high court (Aljazeera, 2020) with no further attempts at an identical lockdown being communicated for months afterwards.

On the whole, despite the nationwide closure of schools, the recommendations to minimise public gatherings to less than 100 people, and the provision of hand-washing facilities in both public and private spheres, the Malawian response to the health recommendations publicised in the media appeared to be low. It was not uncommon to see people in public places without wearing masks, and public gatherings remained widespread. Taking into consideration the afore-mentioned court-mandated presidential re-elections on the 23rd of June 2020, local and international media was awash with images of crowds of thousands of people attending political rallies, going out to vote, and even attending various other public gatherings post-elections (AP, 2020; BBC, 2020; Shaban, 2020). This happened despite recommendations of alternative campaign strategies (for example, increasing the sharing of audio-visual campaign content over the radio and social media), which could have encouraged higher adherence to Covid-19 safety measures while forging ahead with the presidential elections (Masina (b), 2020; Mulauzi, 2020).

Low adherence to the internationally recommended safety measures can be explained by looking at the Health Psychology concept of Risk Perception, which is defined as "an individual's perceived susceptibility to a threat" (Ferrer & Klein, 2015). When it comes to possible harm to their health, people tend to assess risks using a mixture of cognitive skills (weighing the evidence, using reasoning and logic to reach conclusions) and intuitive or imaginative emotional appraisals (Harvard, 2011). The perception of one's risk to a specific illness is a strong predictor of one's health behaviours, which health psychologists define as "behaviour aimed to prevent disease" (Kasl & Cobb, 1966, Ferrer et al, 2016).

Study findings show that the extent to which people perceived themselves to be at risk of contracting the coronavirus influenced their likelihood of undertaking health behaviours such as frequent hand washing, social distancing and the wearing of a facial mask (de Bruin & Bennet, 2020; Waters, McQueen & Cameron, 2014; Taber and Klein, 2017). While some findings showed uniformly high-risk perception of Covid-19 across countries that demonstrated high adherence to recommended safety measures (Dryhurst et al, 2020), there were also findings that demonstrated that low risk perception resulted in low adherence to recommended safety measures in other countries (Population Council Institute, 2020).

In February 2020, UNICEF Malawi conducted an SMS-based survey aimed at understanding levels of Covid-19 knowledge and risk perception. The poll indicated that 76% of the people surveyed had heard of Covid-19, only 44% believed they were at high risk, with 15% mentioning low risk and 12% identifying no risk at all. Additionally, 28% did not know whether they were at risk or not. This shows a prevalence of low-risk perception of Covid-19 among Malawians.

In addition to the above quantitative findings, this study was conducted by evaluating insights collected from members of local communities, and analysing these insights in relation to the theoretical backdrop of Risk Perception and its effects on preventive health behaviour. The objectives of this investigation were to: identify key attitudes and beliefs contributing to the people's level of risk perception and subsequent adherence to safety measures, explore how rumours within communities had affected people's perception of risk of Covid-19 and evaluate the effectiveness of the communication strategies that have already been used in the attempt to influence behaviour change.

Literature Review

The concept of risk in health psychology is a complex one, more so because the process of perceiving risk is inherently subjective. When it comes to an individual's health, one is very likely to evaluate their extent of risk of contracting an illness using a myriad of different factors. In general, people with higher perceived risk of developing a negative health outcome are more likely to engage in health-protective behaviours (Waters, McQueen & Cameron, 2014; Taber and Klein, 2017). Studies have found that worry, as an effective element of risk perception, can be a significant predictor of intentions of health behaviour, meaning that higher worry is associated with higher intentions (Portnoy et al, 2014). Conversely, it can be concluded that when a person has a low-risk perception, they are just as likely to not engage in health-protective behaviours. Health research investigating factors that contribute to low adherence to preventative health behaviour recommendations for common diseases such as cancer, heart disease, diabetes (Ferrer et al, 2016) has conclusively attributed low adherence to a lack of intention to engage in preventive behaviours as a result of a low perceived risk.

Weinstein (1987) discusses how people can develop an "unrealistic optimism" regarding health risks. The phenomenon of unrealistic optimism occurs when individuals believe themselves to be at lower risk for outcomes than is warranted when examining their objective risk (Weinstein, 1980). People can have an optimistic bias – a tendency to claim that one is less at risk of harm than one's peers. This optimistic bias tends to increase with the perceived preventability of a hazard, thus the more people believe that a specific risk or disease is preventable, the higher is their optimistic bias (Mareida, 2020). Additionally, the health hazard in question – Covid-19 in this case – is most likely to elicit unrealistic

optimism when it is associated with the belief that if it has not yet appeared, it is unlikely to occur in the future.

With news of the Covid-19 pandemic having reached Malawi through various forms of media months before the identification of its first local cases, it is likely that unrealistic optimism was elicited in the minds of people in the country. This optimistic bias is likely to decrease only as people begin to perceive a higher frequency of said risk (such as, by noticing an increase in infection rates and deaths) and personal experience. For example, individuals perceive their risk for disease to be higher when someone in their family has been diagnosed with a disease (Ferrer & Klein, 2015). As a result, it is not uncommon for unrealistic optimism to yield low motivation to engage in health protective behaviours that would mitigate risk (Dillard, Midboe & Klein, 2009).

Leon Festinger's (1954) Social Comparison Theory – which involves comparing oneself with others (real or imagined) in order to draw conclusions about the self (Hoffner, 2014) – can be employed to explain human behaviour in various contexts, including social behaviour, substance abuse, marketing and buying behaviour, and health (Derlega et al, 2008; Arigo, Suls & Smyth, 2012; Arenth, Corrigan & Schmidt, 2006). Social comparison plays a vital role in how people interpret health threats and how they understand their own health risks, as well as their help-seeking behaviour in the event of illness (Tennen, Mckee & Affleck, 2000). An individual, when surrounded by people who appear to have low risk perception of Covid-19, is highly likely to compound the phenomenon by adopting a similarly low-risk perception, unless some contributing factors (such as those previously mentioned above) should present themselves to cause a perceptual change. All in all, factors such as the actual confirmed cases, number of deaths due to coronavirus, trust in the government or healthcare system, strongly impact people's Covid-19 risk perceptions (Mareida, 2020).

Risk communication, the process of providing individuals with information about the risks and benefits of certain health behaviours and/or medical treatments (Waters, McQueen & Cameron, 2013), also plays a pivotal role in the extent to which people can adhere to recommended health behaviours. In order for a risk communication strategy to be effective, it has to be customised to meet the specific interests, concerns, and habits of the target audiences (Ellis, 2018). If not conducted properly, a risk communication strategy will fail at its goal of imparting on people the knowledge of the extent of risk posed by Covid-19 and eventually result in minimal behaviour change. Importantly, whether people would be motivated to perform the recommended Covid-19 safety measures (WHO (b), 2020) strongly depends not only on the information being shared or the manner in which it is communicated, but also on the communicating party. Risk communication requires a process of building trust with the audience (Aako, 2004). Thus, if a government agency fails to understand how to effectively communicate about health risks, their trustworthiness and credibility may suffer, consequently worsening a crisis event.

In order to ensure appropriate behaviour change in targeted health interventions, it is necessary that the process of risk communication incorporate accurate information on the extent of risk being faced (Portnoy et al, 2014). When risk communication is done effectively, it can improve people's awareness of health risks and promote risk-reducing behaviour that promotes health and prevents disease (Ancker et al, 2006). Poor risk communication increases the risk that people's decisions on undertaking health behaviours will be more strongly influenced by rumour and misinformation. Rumours can spread about the nature of a disease, its origins, and in some cases also about the motives or the results of any public health intervention for the disease (Kaler, 2009).

In addition to information being shared to the Malawian public using traditional media (radio, television, and print) a significant amount of rumours have also been circulating through social media (for example, Facebook, Twitter and WhatsApp). The information ranges widely, from recommendations of home remedies to "cure" Covid-19, to identities of individuals that have allegedly tested positive or even died of the disease. In many cases, this misinformation spreads more rapidly on social media than news from reliable sources. The harmful result of excessive rumour-spreading on social media is two-fold. On the one hand, it can hinder the practice of healthy behaviours (such as handwashing and social distancing) and promote erroneous practices. On the other, exposure to a high

volume of information (whether accurate or not) can lead to media fatigue, causing the discontinuation of healthy behaviours that are essential to protect individuals (Tasnim, Hossain & Mazumder, 2020). Rumours not only have the ability to create social stigma, they can also substantially affect important health detection and disease-prevention behaviours (Difonzo & Bordia, 2007), frustrate successful government-led interventions due to heightened mistrust (Wang, et al, 2019) and lead to mental health problems such as stress, anxiety, depressive symptoms, insomnia, denial, anger and fear (Torales et al, 2020).

Ultimately, uncertainty appears to be widespread regarding Covid-19 among the general populace in Malawi, influenced by a myriad of different factors. Taking into consideration research findings, which show that uncertainty is associated with lower engagement in risk-reducing behaviour (Orom et al, 2017) it can be concluded that the current trend of low-risk perception is likely to continue unless significant changes are made in the processes of public engagement and communication. It is the intention of this paper to examine the insights contributed from members of various communities in Malawi, in order to better understand the underlying causes of the low-risk perception that is demonstrated by low adherence to safety measures. Upon doing so, it is expected that this improved understanding will lead to the development of more effective health and communication interventions that will yield greater acceptance and conformity to recommended interventions, in order to curb the further spread of Covid-19.

Methodology

Study Design

A phenomenological qualitative research design guided this evaluation of the risk perception of Covid-19 among community members in various districts of Malawi. Creswell (2007) recommends using this design when the goal is to understand the meaning of human experiences or the "lived experience". The qualitative approach is ideal since it is concerned with subjective assessment of attitudes, opinions and behaviour of respondents towards the research question (Kothari, 2004). The study utilised an interview guide with open-ended questions enquiring about rumours surrounding Covid-19, as well as misconceptions, fears, expectations and suggestions from community members on effective risk communication for behaviour change.

Study Locations and Participants

The study reviewed a compilation of insights collected by RCCE partners from community members during household visits in Blantyre, Dowa, Mwanza, Karonga, Mchinji, Nsanje, Machinga, Mangochi, Ntchisi, Nkhatabay, Mzimba, Lilongwe, Chikwawa and Zomba districts of Malawi. A total of 319 (162 males, 157 females) individuals were conveniently interviewed by the RCCE partners in these districts where they run various operations. These included 171 parents (86 male, 85 female), 43 children (21 male, 22 female), 12 politicians (7male, 5 females), 66 community/religious leaders (39 male, 27 female), and 27 health workers (14 male, 13 female). The data were collected during household visits where partners interviewed individuals, held group discussions in village forums with parents and community/religious/political leaders, and conducted individual interviews with different participants (health workers, political, religious/community leaders and children). The result of these inquiries was a compilation of insights which included rumours, misconceptions, fears, expectations and suggestions from the community members regarding the nature of Covid-19 and its management.

An additional rapid enquiry through Key Informant Interviews (KIIs) was conducted in Zomba and Blantyre districts, with 9 participants selected purposively. Purposive sampling is a non-random way of ensuring that particular categories of cases within a sampling universe are represented in the final sample (Robinson, 2014). This being a qualitative study, a sample size of 10 participants was planned, not to determine generalisation but to ensure sufficient coverage of relevant participants relevant to the research problem and to generate rich data (Higgin-Bottom, 2004). The study managed

to access 9 of the projected 10 key informants for the interviews, comprising 2 community leaders (1 clergyman, 1 chief), 3 community members, 4 health workers (2 nurses, 1 doctor, 1 district health officer) and 1 member of parliament in the identified study locations of Blantyre and Zomba.

Aside from the insights gained from the 319 participants, this additional rapid enquiry with 9 key informants was done in order to understand the intricacies of the health communication attempts that had been utilised in the communities in question, and investigate possible reasons for their low efficacy. Thus, it was important to identify health workers and community leaders who were directly occupied with the health service provision and community mobilisation duties.

Data Collection, Management and Analysis

This study used a semi-structured interview guide containing open-ended questions aimed at getting in-depth insight into the thoughts and motivations of people in 14 districts of Malawi, specifically with regard to their perception of the risk of Covid-19 and their health behaviour in response to that perception.

During data collection from the 319 conveniently interviewed community members, participants' responses were written down and later compiled into an Excel spreadsheet, categorised under the headings of "rumours, misconceptions, fears, expectations and suggestions". Direct quotes and summary sentences of the responses were entered into the corresponding rows of the spreadsheet and formed the compendium that was then qualitatively analysed for recurrent themes.

The key informant interviews were audio recorded, along with notes collected during the interviews. The notes were kept in the investigator's office in a locked desk drawer, and the audio recordings were transcribed. No names of participants were indicated on any of the material collected, with participants only being identified by demographic information including their location, role, and age.

For this current analysis, the key questions regarding risk perception, adherence to recommended safety measures and suggestions to improve community awareness were as follows:

- Since the announcement of the Coronavirus state of disaster in Malawi, how do you think people in your community view the seriousness of this disease?
- Why do you think some people in the community do not view Covid-19 as a high-risk disease?
- What is the impact of this (low risk) perception of Covid-19 as "harmless" among Malawians?
- What are some of the rumours you have heard in relation to Covid-19?
- How do these rumours affect some community health services?
- What intervention messages have you heard being shared in the media concerning Covid-19?
- Why do you think such rumours spread faster than intervention messages from organizations?
- What can such organisations do to improve communication so that they communicate to the masses faster than the rumours?
- How able do you think people are to prevent Covid-19?
- What do you think could be done to improve your ability to practise the recommended actions?
- Do you intend to practise (or do you practise) each of the actions mentioned?
- What do you think could be done to make sure people/children with special needs are reached with Covid-19 interventions?

This study utilised Interpretative Phenomenological Analysis (IPA) as the main method of analysis for the collected data. IPA is a Psychology-based qualitative data analysis method whose main aim in analysis is to identify themes (in what participants have to say about their experiences). Like other qualitative methods of research, IPA aims to capture the quality and texture of individual experience, but recognises that the researcher never has direct access to that experience (Willig, 2008). Therefore, the researcher's analysis is inevitably an interpretation of the participant's experience.

Data were analysed in five stages: (i) review interview notes for overall meaning, taking note of respondents' experiences, knowledge of rumours, attitudes and any other observations about Covid-19; (ii) identify themes so as to draw out patterns of meaning in the text; (iii) structure the extracted themes by listing the themes identified in the previous stage and attempting to look for relations between them; (iv) produce a summary table of the themes and clusters along with quotations to illustrate each theme and cluster; and (v) arrive at a thematic integration of all cases.

Thus, thematic approach was used to isolate common stories, attitudes and also the community generated suggestions on how to best handle about Covid-19 communication in order to ensure better adherence to safety measures.

Content analysis was also utilised to evaluate the findings in relation to pertinent social and psychological theories in order to not only explain behaviours in question but also to identify solutions and interventions that can be applied in order to ensure increased adherence to recommended health behaviours and safety measures.

Ethics

Before commencement of the study, relevant authorization was sought from the University of Malawi Research Ethics Committee (UNIMAREC). Participants were informed of the voluntary nature of participation in this study, and that they may withdraw at any time of the study. All participants were above the age of 18 and were informed clearly in their language what the study is about and how their information would be used. In the local house-to-house interviews and group discussions, verbal consent was given to take part in the study. For the Key Informant Interviews, written informed consent was obtained. Only in very special circumstance was verbal consent allowed (particularly when conducting telephonic interviews).

Considering the risk of about Covid-19 transmission through contact and close physical proximity, the researchers ensured that the safety of both the data collectors and participants was maintained by maintaining adequate physical distance in all in-person interviews, and with the utilisation of face masks. The researchers employed the use of hand sanitiser prior to and after the handling of all questionnaires and paperwork that was shared between them and participants.

Results and Discussion

With the use of IPA in the analysis of the data, insight was obtained into intrapersonal and sociocultural factors impacting about Covid-19 risk perception. Findings resulted in a detailed account of data explaining how misinformation has affected people's perceptions about the seriousness of about Covid-19, how aspects of the Malawian cultural context have impacted the levels of adherence to safety measures and how several community-suggested interventions could be carried out to improve said adherence. As such, three main themes emerged: a) about Covid-19 Misinformation and Attitudes, b) Socio-Cultural Influences on Behaviour, and c) Solutions Suggested and Enacted. Broad definitions and illustrations of themes and subthemes are presented to provide a deeper understanding of the role of about Covid-19 risk perception in people's decision-making on whether or not to adhere to the safety measures recommended by the Malawian government and health practitioners.

Covid-19 Misinformation and Attitudes

This theme outlines misinformation mentioned by the participants about how race and socioeconomic class presumably affect a person's level of risk to contracting about Covid-19. It also details the various rumours that were identified by participants regarding the origins of about Covid-19, its level of threat, modes of transmission and treatment. Also discussed under this theme are views that were expressed concerning the level of accountability that the government of Malawi demonstrated regarding the management of the pandemic in the country. All of these rumours, misinformation and misconceptions resulted in a certain attitude being held by the people in the community with regards to the pandemic and consequently how they behaved in the face of it.

Race and Socioeconomic Differences

Race and socioeconomic differences subtheme represent thoughts and perceptions that were held by people when discussing the threat of Covid-19 in Malawi. The trajectory of the about Covid-19 pandemic around the world is that it became significantly widespread in China before gradually progressing into the northern hemisphere several months before the first cases were ever reported in Africa, or in Malawi in particular (GardaWorld, 2020). Furthermore, the first patients that tested Covid-19 positive in Malawi were of South Asian (Indian) descent (Montsho, 2020) and this fact served to cement the misconception in the minds of the general public that the disease only affected people of different races except people of black/African descent.

In discussing the threat of Covid-19, some participants referred to the differences in race as the factor that made them to be less at risk of contracting it themselves, as captured in the following quotes:

"(This) is the disease for the whites and black people cannot die of it."
"Covid-19 is not real and it's for the white people and not blacks."
"(It) is for the whites and Indians not Africans."
"A black person is used to facing many problems as such they have built a strong immunity than their white counterparts."
"Covid-19 kills only white people."
"Africans have high immunity so they cannot die of Covid-19."

The assumption that Covid-19 was only a threat to people of a specific race or socioeconomic class directly impacted the level of risk that people believed themselves to be in. Particularly in the first four months (April to July) after the Government of Malawi declared a State of Disaster in the face of the pandemic threat, during which time a significant amount of the data of insights from community members were collected for this study, it appears that this misconception was widely held by many. In addition, the misconception existed that Covid-19 was a disease for people who were comparatively well-to-do, living in urban areas and those who travelled abroad.

Covid-19 is a disease for the rich and famous.
Covid-19 is an illness for town people.
If you go into the rural community, you find (them saying) "it is not for us, it's not part of us - It is for the people who are in town, (who are) educated…"
The local transmission rate is high because people see it as a harmless thing, and that they cannot contract it; it is a disease for foreigners.
People (in rural areas) have not been sensitized sufficiently. People there take this disease as one which is affecting people in town only.

As the months progressed and more cases were recorded (including several deaths) (Malawi Ministry of Health website, 2020) there appeared to be a slight shift in people's perception to their level of risk. In addition, Risk Communication and Community Engagement (RCCE) partners enhanced interactive communication to respond to people's insights observed in the first three months of Covid-19 cases being present in Malawi. Follow-on key informant interviews of this study, conducted in July

2020 observed that people seemed to view the disease as a more serious threat than they had originally thought, and this observation was supported by the evidence of corresponding health behaviour (the wearing of masks and handwashing).

> *But a small group of people are taking it seriously (now). You see some people are putting on masks, with others washing their hands frequently.*
> *This time they do believe that the risk is high. And they have to take certain measures.*
> *People in the middle to upper social class seems to view it as a higher risk than people of lower social class.*

In the response of the last key informant above, a connection was drawn between one's socioeconomic status and one's level of risk perception. Research has attributed such differences in risk perception according to socioeconomic status to be partly to do with education levels, as well as forms of media and information sources that are available to such people (He *et al*., 2020).

Rumours of the Nature of Covid-19: Origin, Transmission and Treatment

People's view about the level of risk posed by Covid-19 was also affected by the rumours circulating within communities about the nature of the disease, its origins, how it spread and how to treat it.

> *Corona is deliberately being spread to people during sample collection by health workers.*
> *Everyone diagnosed with corona should show signs and symptoms, if not then there are no real cases.*
> *Covid-19 was generated by lab technicians in China.*
> *The disease is not real; (it is) relating to "satanic" (Satanism).*
> *5th generation (5G) mobile network radiation causes* Covid-19

These rumours regarding the origin of the disease, as well as how it was spread and how it manifested in patients greatly affected people's willingness to cooperate with government-recommended safety measures in several ways. The rumour that Covid-19 was deliberately being spread by health workers significantly reduced people's willingness to go for testing in the first place, even if they might have been experiencing heightened symptoms of the disease. The lack of trust in health workers was also likely to reduce people's openness to revealing whether they had been in contact with a Covid-19 patient, negatively impacting any contact tracing efforts by the health practitioners. Such behaviours would eventually contribute to the further spread of the disease.

The belief that any patient who tested positive for Covid-19 needed to be symptomatic in order for the diagnosis to be valid greatly impinged on people's adherence to the recommendations of social distancing, since it was likely that people assumed that if a person was asymptomatic then they were "safe" to interact with. Conspiracy theories about the virus being created in a Chinese lab, being connected to Satanism or as a result of 5G mobile network radiation, also served to minimise the trust that people had in health officials, resulting in a lack of trust in the validity of the safety recommendations as well.

Additional rumours spread about Covid-19 were regarding the treatment of the disease.

> *Face steaming can cure Covid-19.*
> *Lemons and ginger are a treatment for Covid-19.*
> *Chopped onions when placed inside a room act as Coronavirus repellents.*

A combination of spiritual intervention and herbal remedies were widely recommended and shared among people in communities and online platforms such as WhatsApp and Facebook. It is possible that the seemingly easy and attainable solutions to the disease impacted on the level of risk that people associate with it.

Malawi Government Accountability

As previously mentioned, the onset of the spread of Covid-19 in Malawi coincided with a time of political tension in the country, being the months forerunning a court-ordered presidential re-election after the nullification of the previous elections in 2019 (Chitete, 2020). The apparent lack of accountability from the Malawi governing institutions began during the election campaign period, between March and June, 2020. During this time, political parties and presidential hopefuls regularly held massive campaign rallies attended by hundreds of people (Masina (b) 2020; Agenzia Fides, 2020), which would then be televised with warning captions and chyrons on the screen, beaming such messages as "Covid-19 is real, take precautions" (Mulauzi, 2020). However, starkly absent during the numerous campaign rallies themselves were any demonstrations of Covid-19precautions or safety measures being taken.

> *Why were they (politicians) the first to announce about Covid-19 but they are not observing social distancing during campaigns?*
> *Other government institutions like (The Ministry of) Agriculture (are) holding meetings without taking precautions on Covid-19.*
> *If Covid-19 is real and they want people to believe it why are they (politicians) not enforcing social distance and let alone not talking about the pandemic (during campaign rallies)?*
> *The same politicians, after winning the elections, are coming strong to say that now we have Covid-19 amongst us.*

Additionally, some political figures were observed telling multitudes of potential voters in attendance that it was untrue that any Covid-19 patients had truly been diagnosed in the country, and that the leaders who were in government at the time had simply made up the local Covid-19 patients – and even repatriated citizens from Covid-19 hot zones such as South Africa – in an attempt to stall or delay the up-coming elections (Phimbi, 2020; Masina (d), 2020).

> *Several statements came out during the campaign period to say that there is no Covid-19.*
> *People are not viewing it as a serious disease politically, because the politicians themselves are not setting a good example. They are the ones in the forefront, demeaning the seriousness of the disease.*
> *I remember during the political campaign rallies some political parties said stated that Covid-19 does not exist while some said the opposite. This confused some people and did not know what was true. As such people thought that (it) is a political gimmick.*
> *During the previous administration, a lockdown was proposed but shot down due to fears that it was being used as a way of stifling the elections… In Malawi, every issue is politicized.*
> *Government allowing these people (repatriated Malawians from South Africa) to self-quarantine in the village is just a move to spread the disease in the community so that the elections should not be held.*

Several participants talked about how they viewed the political stakes to be high enough that people felt willing to take the risk of exposure to Covid-19 in order to be involved in the electoral process, viewing the political crisis as bigger than the health crisis (Matonga, 2020; Xinhua, 2020).

> *Covid-19 was not an issue for people who are too hungry for change.*
> *Like myself, I had to go to vote, to stand in a long line where I could have contracted Covid-19.*

People's distrust in governing institutions significantly impacted on the level of risk perception regarding the Covid-19 pandemic. Of particular contention was a question raised regarding donor funds that had been provided to the Malawi government to aid in mitigating the spread of Covid-19. Reports showed that a minimum total of USD$37 million (approximately MK29 billion) was approved to be provided to the Malawi government in support of the fight against the pandemic by the World Bank (World Bank, 2020), and USD$150 million (approximately MK110 billion) by the IMF (Chiuta, 2020).

Suspicions arose about the validity of the figures of Covid-19 cases being announced in Malawi following a lack of accountability from the government in the management and allocation of these funds. Added to this were allegations of government officials abusing Covid-19 relief funds in the name of tokens and allowances, which were denied (Matonga, (b), 2020).

> *Covid-19 is not real; government has faked all the cases because they are looking for funding from development partners.*
> *How is the government spending the MWK 32 billion (*sic*) that the we heard they had received? It's (Covid-19 cases) political and created to disturb the country*

This general lack of trust therefore caused people to disregard government-led communication about the high level of risk of Covid-19, as well as the recommended safety measures that could be taken. As stated by Aako (2004) the effectiveness of risk communication suffers when the credibility and trustworthiness of the communicator is compromised in the eyes of the audience, consequently having a negative impact on the levels of adherence to recommended safety measures.

Socio-Economic Influences on Behaviour

This theme details how several pertinent socio-cultural contributors have affected the levels of risk perception of Covid-19 and self-efficacy to prevent it among community members in Malawi. The two subthemes here are economic factors and cultural practices and traditions, each of which was elaborated on by participants as playing a role in the extent to which people have been able to understand the risk communication and community engagement efforts conducted so far and to incorporate behaviour change in adherence to the recommended Covid-19 safety measures.

Economic Factors

Several barriers to people's adherence to recommended safety measures were attributed to economic hardships of various kinds. It was stated that the minimum requirements for maintaining proper hygiene practices, such as soap and running water, were not easily accessible to everyone. Considering that handwashing with soap has been emphasised as one of the recommended preventive measures for Covid-19, this lack of such basic amenities obviously limited possibilities of such practices. Additionally, the purchase of suitable protective items such as masks was mentioned as being beyond the ability of some low-income community members to afford.

> *Malawi is poor and people concentrate on having food than masks.*
> *Some community members are in poverty, with no [piped] water at their households, or soap.*
> *Poverty is the first thing that can make people to not take up this issue. Being in hunger, not having potable water to use for bathing, or soap…they can't believe it (Covid-19).*

The second key way that poverty was cited as a main contributor to people's inability to adhere to Covid-19 safety measures was concerning the nature of the majority of the population's livelihoods. Currently, Malawi is reported as being among the 10 poorest countries in the world, with over 70% of its population living on less than USD$1.90 a day (Stebbins, 2020; IMF, 2017). For a significant portion of communities (particularly in the urban, high density and low-income areas), their forms of income have been reported to be unstable at best. Of particular interest were people who made their living vending wares in markets, operating public transport or seeking piecemeal work on a daily basis. The message encouraging people to "Stay Safe, Stay at Home" in this case was considered to be in direct opposition to the economic needs of such people.

> *I also find that people are not taking it seriously because the disease has affected their economic life – their sources of income. So they think if they take the disease seriously then they will die of hunger. The harm [dying of hunger] will be bigger than dying with Covid-19.*
> *It (staying at home) is a big problem. In rural areas, people have to find food on a daily basis. That entails finding work daily. People cannot stay at home all day without going to the market*

> *Malawians live hand-to-mouth… If you stay home, there is no one who is coming to give you something to eat… Malawi cannot survive*
> *For a lot of people, staying at home will mean they will not have any money for food. They go out to find piece work to make an income for that same day.*

The economic concerns raised by the study participants closely echoed the objections raised by human rights bodies in Malawi, who sought an injunction to a proposed government-mandated 21-day lockdown, on account of the government not having made clear what provisions would be made for people living in poverty to ensure that they would be able to survive the lockdown period (Masina, 2020).

As of August 2020, the government of Malawi instated new restrictions, among them the mandatory use of masks in public places at the risk of a K10,000 (approx. $13) fine if not complied to (Masina, (c), 2020). The communication of these new restrictions were still met with opposition from human rights advocacy bodies, stating that since some people could not afford masks, the Malawi government needed to first distribute free masks to make the rule justifiable (*ibid*).

Cultural and Religious Practices and Traditions

It was also observed that the entrenchment of community members in various cultural practices greatly impinged on the ease of adaptation of recommended Covid-19 safety measures. Participants discussed how the safety measures being recommended, including social distancing, avoiding handshakes and the isolation of Covid-19 patients, were in direct opposition to the Malawian cultural ethos of communal living, friendliness, socialisation, respect for elders, and family support among others.

> *In Malawi, people are social, they love to interact and all that. Now, they see Covid-19 as an enemy to destroy all this.*
> *People also value social relationships a lot. Covid-19 is breaking such kind of relationships between people.*
> *The beliefs in the community, like hand greetings, are being challenged and going against our culture and customs.*
> *Covid-19 is going against our culture… as hand greeting. So this is an affront to our culture.*
> *…even for an isolated confirmed Covid-19 case (patient), culturally, we are supposed to care for them (the sick).*
> *Greeting by a hand shake is taken as respect among elderly people, as a result it is a taboo to greet an older person without handshake.*
> *… sneezing into the elbow are a borrowed leaf (from the West) … it is not in our culture.*

Proposed government restrictions on public gatherings were also met with protests, particularly during functions that held significant cultural and religious significance and usually drew large numbers of people in attendance.

> *During these times, cultural traditions like chinamwali (*initiation ceremonies*) are pulling huge crowds where guidelines are not being followed.*
> *No pandemic can withstand the power of God, so there is no need to practice social distance in church.*
> *Covid-19 will not attack the faithful because God is on the side of believers.*

Funeral rites, which hold very deep-rooted cultural significance in Malawi, were difficult to align to recommended Covid-19 regulations. Several occurrences were reported in local Malawian media of angry community members barring health officials from conducting burials of Covid-19 victims in line with the recommended health regulations (Kumwenda, 2020; Chunga, 2020; Manda, 2020).

> *People value their culture more (than Covid-19 safety measures) - so it is hard for them to forgo. Even with funerals, they are highly patronized and people do not care and are not fearful.*

They value that culturally, if someone is deceased, they have to go there because if they don't go there then they are going against culture.
There is also a culture of condoling the bereaved. If one stays away, they are labelled "proud". So there is pressure to avail themselves at these events.

There was a significant struggle to balance adherence to Covid-19 safety measures and cultural and religious beliefs and practices. As of August 2020, recommendations were made for travel to be done only when necessary, for people work from home if possible and limit congestion in public transportation. As for public gatherings such as weddings, funerals, engagement ceremonies and initiation ceremonies, the recommendations were altered from maintaining a maximum of 10 people to making allowances for attendance to take into consideration the venue of meeting and how many people could be accommodated while comfortably maintaining physical spacing of one square metre. Covid-19 measures of wearing masks and having suitable handwashing facilities were also maintained as mandatory for public gatherings (Masina (c), 2020).

Communication Challenges, Solutions Suggested and Enacted

Effective risk communication and community engagement (RCCE) plays a pivotal role in ensuring suitable behaviour change. The World Health Organisation defines risk communication as "the exchange of real-time information, advice and opinions between experts and people facing threats to their health, economic or social well-being" (WHO (c), 2020). Specific parties of interest involved in this exchange of information include government, agencies, corporations and industry groups, unions, the media, scientists, professional organisations, interested groups, and individual citizens (WHO, 2001). Ideally, risk communication should be an interactive process of dialogue about topics that cause concern about health, safety, security, or the environment (Persensky *et al.*, ND).

The goal of an effective risk communication strategy such as the one recommended by WHO specifically for Covid-19, was to help prepare and protect individuals, families and the public's health during response to the pandemic (WHO (b), 2020). A possible consequence of poor risk communication and low risk perception was low adherence to the recommended safety measures, which could result in heightened infection rates and possibly deaths. Therefore, ensuring effective risk communication was of utmost importance in Malawi.

This theme discusses the problems of risk communication as identified by community members, as well as some of the suggestions brought forward by them on how the government and health authorities could have better brought vital information about Covid-19 to the general populace to generate better adherence results.

Communication and Community Engagement Challenges

It was not unusual for the participants of this study to competently relate correct information regarding the specific recommendations for safety measures to be taken by the general populace in preventing Covid-19 infection. Participants were able to identify and relay the accurate information that they have been hearing through various forms of media.

Those of us with radios are able to receive the messages. We are told to put on a mask, observe at least a 1-meter gap with the next person, washing of hands.
In the media, they say one has to hydrate frequently. They also encourage those who suspect themselves of having Covid-19 symptoms to dial a toll-free number to get medical assistance.
The media is full with intervention messages … they say we are supposed to wash our hands with soap frequently. We should also avoid touching our faces if we have not washed our hands. We should also practice social distancing if we are in groups with more than 15 or 20 people and also ensure we are at least 1 metre apart.
Wash hands, use sanitizer, observe social distancing, wear masks in public, do not make unnecessary trips. That is what I have heard from the media.

Much as the local media appeared to spread Covid-19 prevention messaging, the problem of low adherence was still apparent. This implied the need for re-strategizing communication and community engagement to ensure that barriers to behaviour were thoroughly discussed and individuals, communities and leaders were engaged to address such barriers at household, community and institutional levels.

One question of particular interest was the role that rumours seemed to play in undermining the facts that were communicated in the media, and how these rumours were spreading faster than the facts that were shared by health and governing officials. The responses included the following:

> *Most of the time, the social media has misled (people) in certain interventions by the government.*
> *I think it is because of literacy levels or ignorance. A lot of Malawians have not gone to school and they cannot see the value of science. While in America, they are making informed decisions which are based on science … here, a neighbour's words are taken more seriously.*
> *Social media like WhatsApp is also fuelling rumours.*
> *… civic education is not being done intensively. We have not done a good job with regard to civic education.*
> *The happenings at the political level of government and the way information is disseminated enables rumour mongering. Thus people question what their role or responsibility is.*
> *People are living in a social environment and through platforms such as WhatsApp and phones, information travels quickly. So rumours spread faster than other interventions.*
> *Rumours are like gossip. It spreads faster from person to person. Whereas messages from organisations take time to create and disseminate, in this case, through radio.*

Some of the rumours and hoaxes that appeared, particularly in social media, led to people engaging in unnecessary, inappropriate and erroneous practices, presumably in an attempt to heal or prevent Covid-19 (Tasnim et al., 2020). The spread of such rumours tended to render official Covid-19 communication less effective, especially if they were combined with scanty civic education attempts, and the lack of education and reliable media sources (such as radio) on the side of the potential recipients of the risk communication.

Solutions Suggested and Enacted

With the critiques expressed against some of the communication strategies, participants were asked for their opinions on what a more effective communication strategy could be. The suggestions included incorporating local community leaders in the dissemination of information and conducting awareness campaigns in which government and health authorities went into the communities and had face-to-face interactions with the people.

> *They should hold medical campaigns and involve chiefs, pastors. There are some people who pay more attention to their pastors or chiefs rather than just taking things from the media.*
> *They should use influential people, mostly traditional leaders, faith leaders and traditional healers.*
> *The government should have involved the grassroots. But this (*prevention communication*) is only in the media. The media is not as effective in the rural area.*
> *Those organisations will need to have awareness campaigns; at least going to the typical villages and talking to the common man and common people on what Covid-19 is all about.*
> *Organisations can organize a group of people to go to the rural areas to spread correct information about the dangers of coronavirus.*
> *A common Malawian or person in the village or in town, he does borrow a leaf from who is making an awareness announcement in public … maybe using a PA [public address] system.*

For years, public gatherings have been widely used as a method of information dissemination in Malawi, partly due to illiteracy levels, which prevent a proportion of community members from

benefiting from written communication such as posters and flyers. The obvious limitation of the suggestions of community engagement within public gatherings was that such exercises were likely to attract large groups of people, which would directly counter the very basis of social distancing as a safety recommendation to prevent Covid-19.

Additionally, it was suggested that intensifying the current approaches on traditional media (radio, newspapers, TV), and making the prevention messages more relatable by using local languages, would be beneficial over time. Other participants recommended bringing the reality of Covid-19 closer to home by presenting survivors of the disease to share their experiences. Also, the provision of safety equipment to those unable to afford them was raised as another important intervention to be undertaken.

> *Let us put the prevention messages in Chichewa.*
> *They (people in communities) need to have evidence; to have a visual appreciation of a Covid-19 patient.*
> *If they can feature any person who has recovered from the pandemic to share his or her experience.*
> *The messages should (also) be coupled with interventions to help those people to implement the messages. Do not tell people to put on masks when they do not have the capability to buy the masks.*
> *Communities lack hand-washing facilities like buckets, soap and sanitizer, so they need to be supported by the organisations.*

Of these recommendations, several were already enacted by RCCE partners. The interventions took a socioecological model to address issues at personal and family level, community level, organisational/institutional level and policy level.

At personal level RCCE partners enhanced interpersonal communication to start addressing barriers faced by individuals and families in practising recommended interventions. Community change agents such as frontline workers, project officers and volunteers conducted household visits, while observing Covid-19 preventive measures, to interact with individuals and listen to their insights to explore actions that would be taken by them to address the issues. For instance, individuals and families were encouraged to use ash in the absence of soap.

At community level, small group village forum started to develop community-based interventions to address barriers. These were facilitated by project staff and frontline workers. Interventions included monitoring mechanisms to ensure families and communal places had handwashing facilities. Another intervention included supporting vulnerable families (including people with disabilities) to have handwashing facilities. However, different communities implemented measures at different levels; some doing better than others.

In addition, the village forums engaged government staff and politicians in ensuring that they supported communities to address some barriers. Politicians at community level were engaged to participate in sensitisation, particularly by reframing their own rhetoric concerning the pandemic. More work had to be done to ensure that restrictions were reinforced by district authorities and politicians, for example by avoiding large gatherings of people. Interactive mass media ensured that people's concerns and questions, such as those regarding treatment rumours, were addressed by health authorities and politicians. These radio programs included phone-in shows in order to raise awareness and receive community feedback.

At national level, RCCE partners through the RCCE Pillar advocated to the presidential committee to ensure that politicians reframed their rhetoric on the existence of the pandemic. Some politicians were deployed for participation in interactive national programs where they admitted the existence of the pandemic and called for action. Across all platforms, RCCE partners enhanced the utilisation of religious leaders as trusted sources of information. This was done through national PSAs

and trainings of religious leaders to use denominational platforms (including sermons and counselling) for motivating people to adhere to the recommended Covid-19 safety measures.

Despite all these efforts, some areas still needed strengthening. These included the need for policy engagement and strong political will to reinforce Covid-19 restrictions as a complement to the behavioural interventions undertaken by the RCCE partners. There was also the need to continue interactive communication to constantly address people's insights, and to magnify reliable sources of information so as to counter the risk of people being subjected to misinformation.

Conclusion

The unique situation that the Covid-19 pandemic placed the Malawian government and health authorities in, also required unique methods of enacting solutions. This article has discussed how low risk perception was the main barrier to people's successful adherence to communicated safety recommendations. In attempting to prevent infection and mortality as much as possible, attempts were made to communicate risk to members of local communities with the intention that this communication would motivate suitable behaviour change.

In order to prevent further risk of infection on the parts of both community members and organisation employees, substantial effort was made to utilise traditional media more than in-person interactions, such as through developing interactive radio programmes and catchy radio jingles in local languages in order to reach community members. In several instances, door-to-door awareness campaigns were utilised in conjunction with small group discussions. This was done in appreciation of three advantages that were presented by these methods: allowing people to ask questions, building the volunteerism spirit by using local community members to reach out to others in their communities, and benefiting from the sense of believability that came from using people coming from within the local vicinity.

What could easily be overlooked is that there is a "trickle up" effect of risk perception, as the public informs policymakers, who to some degree must adhere to the requests and perceptions of their constituents. Ultimately, change could be facilitated with the appreciation of the reciprocal relationship between policy and law makers/reinforcers and the general public. On the one hand, policy and legal interventions are paramount in addressing behavioural issues, and so these need to be effectively established, communicated and utilised. On the other hand, public's perception of risk informs policymakers, who have the responsibility of formulating suitable and effective interventions and communication strategies that could foster more cooperation and adherence of the public to recommended safety measures, with the ultimate goal of curbing the effects of Covid-19 in Malawi.

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