

RESEARCH ARTICLE

Exploring the Challenges of Implementing COVID-19 Guidelines: Experiences of Commuters in the Copper Belt Province, Zambia

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Abstract:

Background: The first case of COVID-19 in Zambia was confirmed on the 18th of March 2020, to date 320, 412 people have been infected and 3983 Covid related deaths have been reported. In Zambia, public transport is mainly by road, dominated by intra-city minibuses. This mode of transport particularly involve serious human interaction and compliance with Covid -19 preventive measures, especially in urban areas had not been systematically evaluated.

Aims: To explore the challenges to compliance in implementing the recommended WHO COVID -19 guidelines in Copper belt Province, Zambia.

Design: An explorative qualitative study.

Methods: A total of forty three (N = 43) in-depth one-to-one semi-structured interviews were undertaken from February to April 2022 with commuter transport users who included Drivers (n = 18), bus conductors (n = 12), and passengers (n = 13). All these were drawn from the three town under study and interviews done on one-to-one basis. Thematic analysis was utilized, and the themes that emerged were supported by quotes from the interviews held with participants.

Results: Following data analysis the research study found that Bus drivers and conductors experienced tremendous reduction in income due to restricted movements of passengers as well as social distancing which called for a reduction in the number of passengers in a particular bus, cost of face masks and hand sanitizers added to the cost of doing Business. This left them with no profit and most of them were retrenched. Passengers reported discomfort caused by the face masks which prevented some of them from breathing properly,

while others reported impact on their business and restriction in movements. A section of respondents felt that Covid was a hoax therefore prevention guidelines were an infringement on them.

Conclusion: This study highlights the fact that creating an enabling environment for doing business is critical by ensuring Covid -19 prevention materials are subsidized or provided for free. In addition provision of loans to transporters to cushion the challenges are crucial. Furthermore there is need to maximize information dissemination to raise awareness and depoliticize the fight against Covid -19.

Keywords: Experiences, Challenges, Prevention measures, Covid-19, Commuters, Pandemic

Introduction

COVID-19 is an infectious disease caused by coronaviruses, specifically, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Gorbalenya A.E et al, 2020; World Health Organization, 2020). From the time the disease was first reported in the Wuhan Province in China in December 2019 (World Health Organization, 2020), it has affected more than eighteen million people globally, with over six hundred thousand deaths (John Hopkins University, 2020). The World Health Organization (WHO) declared COVID-19 as a pandemic on 11th March 2020 (World Health Organization, 2020).

COVID-19 is a highly contagious disease (John Hopkins University, 2020) and the causative virus has been proved to survive outside a host for varied durations depending on the nature of the surface (Van Doremalen et al, 2020).Commuter vehicle's interior surfaces are made up of various surfaces that can be mediums by which COVID -19 can be transmitted. Pathogenicity of COVID-19 depends on host factors such as age and other comorbidities (Wu et al, 2020). Currently there is no approved treatment for COVID-19 however a vaccine has been found for prevention in vulnerable populations (World Health Organization, 2020). Acquiring a vaccine does not offer full immunity from contracting the virus but just reduces the chance of experiencing a severe form of disease should one contract it in future.

The first case of COVID-19 in Zambia was confirmed on the 18th of March 2020 (Chipimo et al., 2020). By this report was compiled the world had recorded in excess of 519,875,454 confirmed cases and 6,284,834 deaths due to COVID – 19. (The Zambia National Public Health Institute, 2022; John Hopkins University and Medicine, 2021). Furthermore, Zambia had recorded in excess of 320, 412 positive Covid- 19 cases and 3983 Covid-19 related deaths (The Zambia National Public Health Institute, 2022).

To curb the transmission and spread of Covid - 19, the Government of Zambia instituted the golden rules backed by the United Nations Children's Fund and World Health Organization's recommendations (United Nations Children's Fund, 2020), which include avoiding or limiting physical contact, regular hand washing

with soap under running water, sanitizing hands with alcohol-based sanitizers with 70% alcohol strength, and limiting large gatherings among the general population, mask up in public and seeking medical attention early if symptomatic (Ministry of health, 2020). Furthermore, the use of a vaccine in eligible the population and preventive behavioral change messages also have been utilized in the fight against Covid -19 (Ministry of Health, Zambia, 2021).

Emphasis has been placed on ensuring the above measures are enforced in all public places, including markets, buses and bus terminals. This was partly because the majority of urban-dwelling Zambians as is the case in the Copper belt rely on open markets for groceries and informal public transportation for daily commuting. Among the many measures highlighted, social distance is a challenge in many developing countries due to scarcity of resources and living styles for example congested economic activities at stations and minibuses (Sigh and Adhikan, 2020).

Around the world, urban public transport systems include buses, cable cars, trams and light trains etc., operating on fixed schedules, routes and fares. In Zambia, like in many developing countries, public transport is mainly road based, dominated by intra-city minibuses (Zambia Institute for Policy Analysis and Research -ZIPAR, 2020; Ministry of Transport and Communication, 2019). These minibuses largely used on the Copper belt are not spacious by virtue of the interior design. They are heavily congested with no allowance for physical distancing (ZIPAR, 2020). These vehicles being owned and managed by private individuals, result in little or no risk management by local authorities. Furthermore, overcrowding and shortage of transport is one of the well-known problems affecting developing countries (Chigbu & Onyebueke, 2021). Inadequate transport means that people travel in overcrowded conditions and this situation further creates a favorable environment for COVID-19 transmission and spread. In light of the above, it is critical to explore challenges to implementing these preventive measures. At the time of the study, the country was still recording active positive COVID -19 cases as earlier indicated. Furthermore compliance with these preventive measures, especially in urban areas where serious human interaction takes place, had not been systematically evaluated. Therefore the study explored challenges to compliance in implementing the recommended World Health Organization COVID -19 guidelines in Copper belt. This study is needed to provide evidence to guide policy and behavior change communication aimed at reducing the spread of COVID-19.

Methodology

This research employed the exploratory qualitative approach (EQA) underpinned by Interpretive Phenomenological Analysis (IPA), to understand the challenges of Covid-19 pandemic (BouDiab & Werle, 2018). EQA is important for understanding the problem rather than offering the solution to the problem (Gericke et al, 2018). The research team included experienced qualitative researchers from Nursing, Natural science, Education, Business and Theology.

In this study the temporal and spatial framework encompassed considerations of geo-spatial arrangement of the study areas affected the implementation of Covid_19 guidelines. The rationale was to cluster Copperbelt province towns that were explored into space domains based on their similar characteristics as observed in Melin and Castillo (2021). The selected study areas on the copperbelt had similar geo-political, economic and environmental settings which also provided an

opportunity to capture the temporal trends of the time series of the whole Copperbelt province with respect to Covid_19 pandemic management.

Recruitment and participants

The study recruited 43 commuter minibus users consisting 18 drivers, 12 bus conductors and 13 passengers from the three Districts (Table 1). This number, was evenly distributed across the selected districts of the Copper belt province. The inclusion criteria for participation was that the participants were public transport users or workers. They were required to be residents of either Ndola, Kitwe or Luanshya district in the Copper belt province of Zambia. Operational definition of bus conductor in this research, is a person whose job is to collect fares and sell tickets on a bus. The researchers approached the District Administrators of the respective town councils, with information leaflets requesting the said participants to participate in the study. Those who were interested to participate in the study had their names and details submitted to the researchers. A purposive sampling method was applied because there was need to focus in depth on relatively small samples in order to find information-rich cases or make the most out of limited resources. Therefore participants were identified in relation to the three categories of transport users namely; bus drivers, bus conductors and passengers of inter-town buses in the specified towns.

Table 1. Characteristics of participants

Participant category	Gender		Age			Study Site			Total
	Male	Female	< 18years	18-39years	≥ 40 years	Kitwe	Ndola	Luanshya	
Drivers	18	0	0	13	5	6	6	6	18
Bus Conductor	12	0	2	9	1	4	5	3	12
Passengers	5	8	1	4	4	7	3	3	13
Totals	35	8	3	26	10				43

Data collection

One -to- one Semi structured interviews were utilized to elicit feedback from all participants because it allowed them to express their lived experiences without the constraint of writing, and allowed the research team to better capture their perspectives (Brown et al 2018). The interviews were conducted over a period of one and a half month. Prior to the semi structured interviews, all participants were asked to read and sign an informed consent form which gave them the right to withdraw from the study at any time without giving any reason. They were also provided with an information sheet to read and understand the information concerning the research study.

Each interview lasted between 20 and 45 minutes. All the interviews were held in line with COVID-19 social distancing requirements and masking to mitigate the

risk of possible infection between researchers and research participants. The interviews were held both in English and Bemba (native language spoken widely in the study region) by 4 bilingual interviewers. Interviewers are trained in qualitative research methods and are familiar with all participants. Interviews were digitally recorded and transcribed verbatim by the interviewers immediately after obtaining the recordings. Debriefing sessions were held, and field notes recorded. Confidentiality was upheld by neither identifying interviewees nor third parties mentioned in the interviews and by de-identifying the transcripts. After research completion, the then anonymous interviews will be stored securely with anticipation to destroy them once the research is published.

Ethical considerations

The study protocol was approved by the Tropical Disease Research Center Ethics Committee (TDRC), IRB REGISTRATION NUMBER: 00002911/FWA NUMBER: 00003729 and subsequently the research study was cleared by the Zambia National Health Research Authority (NHRA). A written consent form was used to uphold the participants' rights (Polit & Beck 2012). All participants were asked to read and sign an informed consent form which gave them the right to withdraw from the study at any time without giving any reason. They were also provided with an information sheet to read and understand the objectives of the research study. Potential benefits of the study were highlighted to them which subsequently they gave permission to participate in the study. Participants were free to ask questions and get explanations before they were engaged in the study. Although there were no participants who expressed psychological distress, crisis teams were available and contact lines were provided were participants would reach out to in case of psychological distress.

Data analysis

The data was analysed using a thematic approach and guided by the four stages of data analysis in Interpretive Phenomenological Analysis. N*vivo was used to organise the data and enhance management during analysis. The analysis followed a four-stage process as follows: -

In step one (1) of the analysis, transcripts were read repeatedly to identify accounts of experiences that were important to the interviewee. The emic phenomenological position which was employed here concerns hearing and understanding the participant's story in their own words and keeping their experience at the centre of their account. In step two (2), the etic phase, the accounts identified were re-read and pertinent sections summarized and given codes representing the researcher's interpretation. Steps 1 & 2 reflect the 'double hermeneutic' aspect of IPA whereby the participant interprets their own life experiences and the researcher further interprets the participant's account. Step three (3) involved identifying how these codes clustered together into themes and how themes related to each other. Interviews were coded on a case-by-case analysis and themes labelled using key words and phrases from participants where possible to retain an idiopathic approach. In step four (4) comparisons were made across the body of interviews to determine how prevalent themes were and how important they were to interviewees. The authors gave priority to the interviewees' accounts rather than their own personal and professional knowledge of challenges of

implementing Covid-19 WHO guidelines. The results section therefore provides description of these themes, using verbatim quotes in support of themes.

Result presentation and thematic analysis

During data collection the response rate was overwhelming totaling sixty respondents, however when analyzing the data it was discovered that at forty three saturation in terms of responses was reached. The questions below were utilized with proportionate themes during the interviews; participants' perspective on the perception and experiences about Covid 19; knowledge of prevention guidelines; attitudes towards implementation of the prevention guidelines; availability of protective equipment and, accessibility and availability of transport.

Introduction (Perception and experiences about Covid 19)

1. How do you perceive Covid -19? Or tell us your views about Covid-19.
2. How has COVID-19 affected your livelihood/your daily routine through the course of this pandemic?

Knowledge of WHO guidelines on Covid 19 (Knowledge of prevention guidelines)

1. What do you think of prevention of the spread of covid-19?
2. What do you know about the recommended guidelines for prevention of Covid 19 pandemic?
3. What are your thoughts concerning Covid 19 information dissemination?
4. Who do you think helped in creating awareness to ensure adherence to Covid 19 guidelines.

Attitudes towards implementation of the prevention guidelines (Attitudes towards implementation of the prevention guidelines)

5. What do commuters you interact with think about the prevention guidelines?
6. Do you think most commuters are aware that there are stipulated prevention guidelines?
7. How often do you practice the stipulated guidelines for prevention of Covid spread?
8. Who do you think can contribute so more commuters can have confidence in implementing guidelines?
9. What specific role do you think the said entities/individuals can play in influencing commuters to implement prevention guidelines?

Availability of protective Equipment: (Availability of protective Equipment)

10. What materials are you supposed to use to protect yourself against Covid 19 when commuting?
11. Are the materials to use when commuting easily available?
12. How often do you use these materials?
13. What limitations have you faced (if any) in acquiring these safety materials?

Accessibility of transport: (Accessibility and Availability of transport)

14. How accessible is transport in your area?
15. How spacious are the vehicles?
16. Is the available transport ideal to achieve the prevention of Covid -19 spread?
17. Anything you can add?

Following data analysis in line with major and sub-themes themes (Table 2), the research study found that despite Covid -19 being real some section of respondents felt that it was a hoax; it impacted business negatively-reduced income due to restricted movements of passengers as well as social distancing which called for a reduction in the number of passengers in a particular bus; costly face masks and hand sanitizers despite being available; Loss of employment due to retrenchment; Passengers discomfort caused by the face masks which prevented some of them from breathing properly; available and accessible transport though difficult to maintain social distance on board and willful failure to consistently adhere to stipulated Covid -19 prevention guideline.

Table 2. Major and sub-themes related to the challenges of implementing Covid -19 prevention guidelines in copper belt, Zambia.

Major Themes	Subthemes	Quotation
Perception and experiences about Covid 19	Reality of Covid – 19	<p>“...I know that corona is real because I have seen people that have died in my family and my community.” Driver and fleet manager.</p> <p>“...Covid is real even though it does not affect us terribly like our friends in Europe and South Africa because here in Zambia it is warmer.” Conductor.</p> <p>“...Covid is a reality, so severe a respiratory disease that is killing many people worldwide.” Passenger.</p> <p>“..... I think COVID-19 is a mere fabrication and its prevention guidelines are a trouble, iam just following them out of guilty conscience as everyone is trying to follow them. Otherwise they are a trouble to me.” passenger.</p>
	Effect on livelihood	<p>“...business has gone down in that we do not transport as many people as we use to before Covid hit us. People are not moving a lot, many fear to move on public transport like buses for fear of contracting Covid-19. This translates in reduced income. Furthermore we spend a lot of money on facemasks and hand sanitizers.” Driver.</p> <p>“...we do not work the way we used to because there are so many restrictions therefore a lot of people have lost employment, companies have closed down and this brings about poor economy leading to fewer people moving on buses. For example before Covid i used to make four trips in a day but now it’s just one or two. ” Driver.</p> <p>“...Covid has affected us a lot, imagine the ideal is that for me to load this bus up to capacity i get help from the call boys who i have to give commission at the end. That on its own is an expense knowing that iam not making many trips as before. Furthermore we pay the station management for the water they draw in drums for customers to do handwashing as well as buying sanitizer to sanitize every passenger getting on the bus.” Conductor.</p> <p>“...Covid has affected my livelihood a lot for instance, i used to sell clothes but because of the restrictions such as lock down preventing importation of goods and</p>

		<p>also people are not buy clothes as they used to. Business is slow. How do i survive? I have just resorted to start selling fish since people can't stop eating." Passenger.</p> <p>"...just observe the way it is now we can't greet each other freely, we have to move covering our faces all the time and we can't even breathe properly." Passenger.</p> <p>"...before Covid used to sell fish that i use to buy from the western province, now because of restrictions in movements i could not travel to go and buy fish freely instead i started selling vegetables which I can source within my locality. But you know there is no meaningful profit it's just for survival." Passengers.</p>
<p>Knowledge of WHO prevention guidelines</p>	<p>Awareness of measures</p>	<p>"...i am aware of hand washing or hand sanitizing, wearing face masks, social distance as well as vaccinations, but this whole thing is too politicized." Driver</p> <p>"...i know of the prevention measures that are put in place are good such as hand washing, masking up and social distancing even though this one is not practiced by transporters, you can see for yourself the way we are seated." Passenger.</p>
	<p>Dissemination of information</p>	<p>"...i heard about these measures from the Television and here at the station. The health workers disseminated the information but there is need by local government to do more." Driver.</p> <p>"...the messages have been spread but may be some have not heard like those who do not have TVs or have no access to social media.</p> <p>"...if there are people who haven't gotten this information ...they are few because such messages have been there on TV, radio and social media, its only that there is relaxation this time around in terms of enforcing the prevention measures." Passenger.</p>
<p>Attitudes towards implementation of the prevention guidelines</p>	<p>Frequency of following guidelines</p>	<p>"...i follow the guidelines and they are okay, i only experience challenges sometimes with passengers who deliberately do not want to follow guidelines." Conductor.</p> <p>"...using of face masks was serious the time when Covid -19 was reported not now." <i>passenger.</i></p>
<p>Availability of protective equipment</p>	<p>Availability of protective equipment/materials</p>	<p>"....the materials to use are well known like the masks and hand sanitizers, the only limitation in acquiring COVID-19 safety materials is money. Money is hard to find nowadays. Whatever little you get you have to use it to buy food." Driver.</p> <p>"... The material are available but money is a limitation as the economy is bad, Sir the cost of living is very high, just spending on those materials you have to think twice." Conductor</p> <p>"....the materials iam supposed to use to protect myself from COVID-19 are these well-known ones such as; Face mask, hand sanitizers, soap for washing hands and others." passenger</p> <p>"....Materials are not easily accessible due to the fact that Government does not freely distribute them, there is politics involved in the process. Mostly they are only sold, now with the high cost of living it is not easy to access them." <i>passenger.</i></p> <p>"....the materials to use when commuting are not easily available. The materials were available in the past when the outbreak was just announced but now a days they are not readily available." <i>passenger.</i></p>
	<p>Cost of procuring protective equipment/materials</p>	<p>"... The material are available but money is a limitation as the economy is bad, Sir the cost of living is very high, just spending on those materials you have to think twice." Conductor</p> <p>"....the materials iam supposed to use to protect myself from COVID-19 are these well-known ones such as; Face mask, hand sanitizers, soap for washing hands and others." <i>passenger</i></p>

		<p>“...Materials are not easily accessible due to the fact that Government does not freely distribute them, there is politics involved in the process. Mostly they are only sold, now with the high cost of living it is not easy to access them.” <i>passenger.</i></p>
<p>Accessibility and availability of transport</p>	<p>Accessibility of buses</p>	<p>“...Transport is always available and especially during Covid19 partial lockdowns, pupils, teachers and other commuters were not traveling. Hence, more buses were usually just packed.” Passenger.</p> <p>“...Transport availability was increased by covid19 partial lockdowns as the number of customers (commuters) reduced significantly to the point of affecting daily cashing.” Conductor.</p> <p>“..Buses are always available during day time and before 21hrs. After 21hrs transport usually get scarce and cases of over-loading are common since traffic patrols are not conducted at that time.” Driver.</p>
	<p>Space in the buses</p>	<p>“...This is a 29 seater minibus, to be frank with you achieving social distance is impossible for one reason. The bus itself and its seats is not a problem, we were told to reduce the number of passengers to 14. Now tell me sir how will I make money for fuel “cashing” and other associated expenses if I reduce the number of passengers in the name of maintaining social distance?” Driver/Conductor.</p> <p>“...the bus is spacious but to effect social distance it means we reduce on the number of passengers. This can only work if we are supported by government in a way that fuel is subsidized, others we will be running our business on losses and we risk our jobs.” Driver.</p> <p>“...This bus is ideal to do the much talked about social distance, but as you can see it’s not the case right now....we are loaded like animals, these people (drivers and conductors) are only interested in money and they do not care about our lives.” Passenger.</p> <p>“...This bus is not ideal, just look at how squeezed we are, furthermore we spend a lot of time waiting for the time to get full, this dangerous because we are being exposed.” Passenger.</p>

Perception and experiences about Covid 19

Covid- 19 was largely perceived by almost all categories of participants as a reality because of the devastating effects observed in the community:

“...*I know that corona is real because I have seen people that have died in my family and my community.*” Driver and fleet manager.

“...*Covid is real even though it does not affect us terribly like our friends in Europe and South Africa because here in Zambia it is warmer.*” Conductor.

“...*Covid is a reality, so severe a respiratory disease that is killing many people worldwide.*” Passenger.

There was a small number of passengers that felt Covid was not real and it was just a mere fabrication as could be seen by the response of one passenger below.

“... *I think COVID-19 is a mere fabrication and its prevention guidelines are a trouble, iam just following them out of guilty conscience as everyone is trying to follow them. Otherwise they are a trouble to me.*” passenger.

With regard to the effects of covid-19 on livelihood, it was reported that it had affected various aspects of livelihood including but not limited to business, income, socialization as espoused by the following experiences from various respondents.

“...*business has gone down in that we do not transport as many people as we use to before Covid hit us. People are not moving a lot, many fear to move on*

public transport like buses for fear of contracting Covid-19. This translates in reduced income. Furthermore we spend a lot of money on facemasks and hand sanitizers.” Driver.

“...we do not work the way we used to because there are so many restrictions therefore a lot of people have lost employment, companies have closed down and this brings about poor economy leading to fewer people moving on buses. For example before Covid, i used to make four trips in a day but now it’s just one or two.” Driver.

“...Covid has affected us a lot, imagine the ideal is that for me to load this bus up to capacity i get help from the call boys who i have to give commission at the end. That on its own is an expense knowing that iam not making many trips as before. Furthermore we pay the station management for the water they draw in drums for customers to do hand washing as well as buying sanitizer to sanitize every passenger getting on the bus.” Conductor.

“...Covid has affected my livelihood a lot for instance, I used to sell clothes but because of the restrictions such as lock down preventing importation of goods and also people are not buy clothes as they used to. Business is slow. How do I survive? I have just resorted to start selling fish since people can’t stop eating.” Passenger.

“...just observe the way it is now. We can’t greet each other freely. We have to move covering our faces all the time and we can’t even breathe properly.” Passenger.

“...before Covid era, I used to order fish from the Western province to sell on the Copper belt province. , However, because of restrictions in movements i could not travel to go and buy fish freely instead i started selling vegetables which I can source within my locality. But you know that there is no meaningful profit in selling vegetables. I do it just for survival.” Passengers.

Knowledge of WHO prevention guidelines

An overwhelming number of participants in all the categories had average knowledge on the guidelines that are laid down to prevent Covid 19. They were a bit critical though about the dissemination of messages of these prevention guidelines, pointing out that there could be some people who may not have been reached by these messages. This was attributed to the fact that some people in Zambia may not have access to television, radio and social media which were the most exploited mediums for dissemination of prevention measures.

a) Awareness of measures

“...I am aware of hand washing or hand sanitizing, wearing face masks, social distance as well as vaccinations, but this whole thing is too politicized.” Driver

“..I know of the prevention measures that are put in place are good such as hand washing, masking up and social distancing. Even though social distancing is not practiced by transporters, you can see for yourself the way we are seated.” Passenger.

a) Dissemination of information

“...I heard about these measures from the Television and here at the station. Health workers disseminated Covid information but there is need by local government to do more.” Driver.

“...the messages have been spread but may be some people have not heard, like those who do not have TVs or have no access to social media.

“...if there are people who haven’t gotten this information ...they are few because such messages have been there on TV, radio and social media, its only

that there is relaxation this time around in terms of enforcing the prevention measures.” Passenger.

Attitudes toward implementation of covid-19 guidelines.

There were varied attitudes exhibited by different respondents with regard to implementation of guidelines for prevention of Covid 19 spread. When asked what they thought about the Covid -19 prevention guidelines, to some respondents, the guidelines are burdensome since they do not believe that Covid -19 is real. Others do not follow the laid down rules simply because they do forget about them or feel Covid-19 has subsided:

“..... COVID-19 prevention guidelines are a trouble to people. I think they are more troubling than a solution to a problem at hand. Especially that they are mandatory.” Passenger.

“..... I think COVID-19 is a mere fabrication and its prevention guidelines are a trouble, iam just following them out of guilty conscience as everyone is trying to follow them. Otherwise they are a trouble to me.” Passenger.

“...i know that Covid- 19 is real and as such i try by all means to follow the guidelines, but the problem is with some of the passengers i interact with who feel it is a hoax so they wouldn't want to wear masks and others just do things deliberately.” Driver

“...i follow the guidelines and they are okay, i only experience challenges sometimes with passengers who deliberately do not want to follow guidelines.” Conductor.

Availability and accessibility of protective equipment/material

Availability and accessibility of protective materials were perceived with mixed feelings by different respondents. Majority of them reported that they were available, however the hindrance that came out strongly is lack of money needed to procure them. Others however feel they are not available because government whom they anticipate to distribute free things does not do so.

“.....the materials to use are well known like the masks and hand sanitizers, the only limitation in acquiring COVID-19 safety materials is money. Money is hard to find nowadays. Whatever little you get you have to use it to buy food.” Driver.

“... The material are available but money is a limitation as the economy is bad, Sir the cost of living is very high, just spending on those materials you have to think twice.” Conductor

“....the materials iam supposed to use to protect myself from COVID-19 are these well-known ones such as; Face mask, hand sanitizers, soap for washing hands and others.” Passenger

“....Materials are not easily accessible due to the fact that Government does not freely distribute them, there is politics involved in the process. Mostly they are only sold, now with the high cost of living it is not easy to access them.” Passenger.

“.....the materials to use when commuting are not easily available. The materials were available in the past when the outbreak was just announced but now a days they are not readily available.” Passenger.

Furthermore usage of these materials mentioned above was not an issue to some but others explained that they are not consistently using them because they feel Covid - 19 has subsided hence there is no need to worry. One respondent said,

“Using of face masks was serious the time when Covid -19 was reported not now.” Passenger.

Accessibility and availability of transport

It was reported by majority respondents that transport was always available and easily accessible during day time before twenty one hours. They only become scarce after 21 hours.

“...Transport is always available and especially during Covid19 partial lockdowns, pupils, teachers and other commuters were not traveling. Hence, more buses were usually just packed.” Passenger.

“...Transport availability was increased by covid19 partial lockdowns as the number of customers (commuters) reduced significantly to the point of affecting daily cashing.” Conductor.

“...Buses are always available during day time and before 21hrs. After 21hrs, transport usually get scarce and cases of over-loading are common since traffic patrols are not conducted at that time.” Driver.

Pertaining to the available transport being spacious to maintain social distance, many respondents felt it is possible to maintain social distance in available buses but it is not being effected due to various reasons as explained by some respondents below:

“...This is a 29 seater minibus, to be frank with you achieving social distance is impossible for one reason. The bus itself and its seats is not a problem, we were told to reduce the number of passengers to 14. Now tell me sir how will I make money for fuel “cashing” and other associated expenses if I reduce the number of passengers in the name of maintaining social distance?” Driver/Conductor.

“...the bus is spacious but to effect social distance it means we reduce on the number of passengers. This can only work if we are supported by government in a way that fuel is subsidized, others we will be running our business on losses and we risk our jobs.” Driver.

“...This bus is ideal to do the much talked about social distance, but as you can see it's not the case right now....we are loaded like animals, these people (drivers and conductors) are only interested in money and they do not care about our lives.” Passenger.

“...This bus is not ideal, just look at how squeezed we are, furthermore we spend a lot of time waiting for the time to get full, this dangerous because we are being exposed.” Passenger.

Discussion

This study identifies a wealth of experiences depicting challenges of implementing Covid -19 guidelines based on findings from representative stakeholders in the three studied areas of Copper belt province of Zambia. While there were similarities among the three sites, minimal variations occurred on the aspect of attitude as highlighted by some of the participants.

Perceptions and knowledge of Covid-19 prevention and control are key to preventing outbreak of the disease in the community and in dealing with the pandemic (Hasford et al, 2020). The study revealed that most commuters perceived Covid-19 as a reality and they experienced many challenges as a result of this pandemic. Drivers and conductors experienced tremendous reduction in income due to restricted movements of passengers as well as social distancing which called for a reduction in the number of passengers in a particular bus, cost of face masks and hand sanitizers, and in addition to that; town councils required them to pay a certain amount for water at the bus terminuses as well as payment of the rank marshals. This made it very difficult to breakeven for cashing and consequently, most of them lost jobs. Passengers reported discomfort caused by the face masks which prevented some of them from breathing properly. However, according to Alkhaldi, G. et al, (2021), insight on perceptions of Covid-19 preventive measures will help identify population groups with relatively low risk perception or low adoption of preventive measures and this would enable design of policies and interventions tailored to this population. This, therefore calls for the central government to strengthen key public health messages and design health awareness campaigns tailored to different stages of an outbreak. Furthermore, gaining insights into risk perception and experiences can help build community resilience and influence behavior to increase the uptake of future vaccination or treatment (Alkhaldi, G. et al, 2021).

Awareness of the prevention guidelines for Covid 19 however does not always influence positively people's adherence to the stipulated rules. This notion is consistent with a study which was done in the United Kingdom (Hills and Eraso, 2021) to establish factors associated with non-adherence to social distancing rules during the COVID-19 pandemic. Not being vulnerable to Covid -19 was among reasons associated with a lower intention to socially distance (Hills and Eraso, 2021). In our study, it was evident too with some of the respondents that despite them being aware of measures of preventing Covid -19, they would still fail to practice all of them. There were confounding factors some of which were beyond respondents' control like in the case of social distancing while on a bus (Owners of the buses would not allow social distance because this would mean they would only carry few passengers, thereby reducing their income). However for others, it was out of their wish not to practice them. This showed a bias towards attitude which is a challenging attribute to deal with. It requires willingness on the part of the individual or community involved to change. The government and relevant stakeholders need to continue to create an environment that will allow all its citizens to view the reality in the situation affecting them. And one way to do this is to depoliticize matters of national interest. This will give room for constructive criticism and people will take things seriously.

Development of a positive attitude or change of attitude and behaviour from a negative perspective takes recognition and perception of susceptibility to the problem, severity of the problem, barriers to taking action, competence to successfully perform behaviour and perceived benefits of taking action (Glanz et al, 2002). The health belief model (HBM) is one of the old models that has been used to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals. (Glanz et al, 2002). The research participants exhibited varied attitudes with regard to Covid 19 prevention guidelines. Some attributed their failure to practice prevention guidelines to forgetting while others do not believe that Covid -19 is real or they feel Covid-19 has subsided. To these, observing prevention guidelines was a challenge because it altered their usual way of life especially that it was mandatory. There is need therefore for central and local

government not to relax in disseminating public health information that will be appealing to citizens to highlight how susceptible they are to the disease and be vigilant in enforcing laws against defaulters. Existing laws are adequate but there is need to institute statutory instruments appropriate to the prevailing situation which will be done in simpler terms and local languages to be understood even by a lay person.

Furthermore, the novel coronavirus pneumonia (COVID-19) has created great demands for medical supply and resources (Yu-Jun Zheng, et al, 2022). Determining these demands timely and accurately is critically important for the prevention and control of the pandemic (Yu-Jun Zheng, et al, 2022). Regarding the protective equipment availability, results from the study indicates that protective material or equipment for COVID-19 prevention were available and these materials include face mask, hand sanitizer. Despite being available access to them was restricted by lack of money to procure them. Respondents expected government which is a major player in offering health services to distribute such materials free of charge especially that there were a lot of well-wishers that participated in donating such materials and other resources to the Government. Lack of free distribution was a problem especially to the less privileged who could not afford to buy. It means they would continuously be exposed to the virus. Government which is a major provider of health services to the people therefore is supposed to decentralize the free distribution of protective materials. When doing this, community leaders and all stakeholders at all levels must be involved from planning to implementation stages to promote transparency and accountability. In addition to that the government should further empower local manufacturer of these products especially small scale entrepreneurs with start-up capital as well as other incentives such as soft loans there by bringing down the cost of production. This in turn will reduce the price such that they will be affordable to almost every citizen. Aloui-Zarrouk et al, (2020) in their research also shared the same sentiments that, face masks should be made available, free of charge or at a low and controlled price if the prevention and control of this pandemic has to be effective. In addition local government need to provide piped water and public toilets in all stations as way of improving general sanitation in the station which is key in controlling disease like Covid -19 from spreading. This would cut down on expense of buying hand sanitizers by commuters since cost was the greatest concern to accessibility of protective materials by many. Lastly the whole process must be depoliticized so that people from all sections of society can participate fully without being discriminated on the basis of political affiliation.

COVID-19 pandemic affected the transport sector relatively around the globe. The study reviewed an inevitable reality of the devastating impact that Covid-19 exerted on all aspect of life in Zambia. The ripple effect did not spare the transport sector and consequently its three players, namely, drivers, conductors and commuters. Public transport was particularly hindered, since people may perceive it as unsafe and decide to avoid it (Marra, Sun and Corman, 2022). Furthermore numerous governments imposed restrictions, as lockdown or curfews, remote working and closure of businesses added to the impact. A substantial number of people reduce movements and social contacts, to avert the risk of being infected. Public transport suffered particularly from the pandemic, since passengers may perceive the system as unsafe and a possible source of infection (Aloi et al., 2020). However, it is worth noting that Covid-19 guidelines impacted the transport sector differently thereby inducing unprecedented responses. Passengers' responses for instance showed that transport was very accessible and available. They attributed availability of transport to reasons advanced above. This was in conformity with

Anderson et al (2020) who in their study found that social distancing measures reduced ridership by decreasing travel demand levels. It was also observed that commuters developed a very high standard of expected fitness features of the transport compared to the pre Covid-19 era. In as much as commuters enjoyed accessibility and availability of transport, drivers and conductors on the other hand, suffered significant decline in revenue. The unprecedented decline in demand for transport, came with reduction in revenue as highlighted by Tirachini and Cats (2020). The social distancing guidelines which demanded reduced number of passengers on the bus meant further reduction in revenue while the guidelines of more frequent and rigid cleaning of vehicles strained the revenue by increasing expenses from the already existing station levies, road tolls and road taxes. Some drivers lost jobs when some transporters decided to park their vehicles amid high operation cost against low income flow and this exerted a grievous impact on families. Therefore, most drivers and conductors preferred contravening the guidelines to breakeven for cashing instead of being fired for failing to cash. It is therefore imperative for government in consultation with all transport sector players to come up with strategies that will benefit all players. While passengers enjoy access to the readily available transport in a healthy friendly environment, drivers, conductors and bus owners should be able to keep their businesses afloat.

Conclusion

It is evident from the study results that challenges of implementing Covid – 19 preventive measures are enormous. They range from financial, social to attitudinal challenges among others. This study further highlights the fact that creating an enabling environment for doing business is critical by ensuring Covid -19 prevention materials are subsidized or provided at no cost. In addition, provision of loans to transporters for mitigating the capital deficit resulting from high operation cost is necessary. Furthermore, there is need to maximize information dissemination to raise awareness and depoliticize the fight against Covid -19. Lastly, it is imperative that workable practice guidelines are established and are consistent and efficiently disseminated to the public. These efforts will empower not only the sector players but the general citizenry.

Implications for practice

The findings from this study will benefit both local and central government as they consider to ameliorate various challenges related to the prevention of COVID-19 disease spread through understanding the core of people's challenging experiences. Secondly this study involved three categories of people who were affected, therefore their wealth of experience will help policy makers to plan and classify interventions that will be appropriate to various societal groupings. This will not only help in timely interventions but will enable the administration to concentrate only on result based interventions. In terms of research, this study has highlighted further research areas such workable interventions to alleviate challenges of implementing Covid -19 prevention.

Limitations of the study

This study mainly focused on commuters of within and inter-town buses restricted to the copper belt, therefore other studies can be further customized to apply to intercity and across country commuters of big buses and other transport mode to enable comparisons of experiences. In addition, this study was qualitative in nature, future research could make use of mixed methods approach to increase the latitude of interrogating issues of this nature.

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