

Community Perception of COVID-19: A Qualitative Approach through Applying the Health Belief Model

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Abstract

Objectives: To explore community perception of COVID -19 pandemic.

Methods: In depth exploratory design was utilized. Purposive sampling technique was employed to select 45 participants from all categories of population. Semi-structured interview guide and observation checklist were used to collect data from participants. Thematic analysis was used to analyze the data.

Results: Though, at first everyone was scared when the disease outbreak in Ethiopia, currently there are many people who assume as there is no coronavirus in Ethiopia as some of them associate it with politics. Hotels, cafeterias and shopping centers are not as cautious as the first outbreak of the disease. As a result, the street is crowded and the public are restored as usual. Face masks and sanitizer bottles were selling in every corner of the road with no care at all.

Conclusions: community perceived susceptibility level of COVID-19 virus was found to be low and therefore, all stakeholders have to work together than focusing on politics where each one is working against each as there will no time for it in the future.

Introduction

The occurrence of COVID-19 pandemic has had multifaceted effect across the world. The outbreak and rapid spread of the virus has not only affected the lives of hundreds of millions of families, but also has disrupted the pace of economic and social development [1].

Moreover, the burden of health problems in Africa is proportionately higher than the rest of the world [2]. Consequently, the higher prevalence of malnutrition, anemia, malaria, HIV/AIDS, and tuberculosis in many African countries may coincide with and worsen the ongoing COVID-19 pandemic prevention and control measures in Africa [2]. To combat the enemy, [3] suggested social distancing including people taking crowded trains and attending weddings and social gatherings. As good experience a research conducted in South African suggested that religious and cultural activities of any form must be restricted at this time [4].

Likewise, recommended coffee shops and bars could have to change the way they served their customers before, relying on take away and perhaps charging them extra for use of indoor space [3].

Reputed scholars in the area of health psychology suggested that individual health decisions are determined by attitudes, behavior, lifestyles, and government policies [5]. More importantly, the Health Belief Model (HBM) asserts that change in behavior is determined after consideration of severity, benefit, and barriers to change [6]. Similarly, [7] research in China noted that individuals' psychological status determine the likelihood of implementing preventive measures as those with stronger anxiety and fear tended to adopt more severe practices of mask wearing and hand hygiene.

According to the model one will engage in a health-related behavior if one perceives susceptibility to an illness/condition that has severe consequences and that the benefits to the health related behavior outweigh the barriers [8]. Health, belief model has seven elements. These are susceptibility to illness, severity of the illness, the costs involved in carrying out the behavior, benefits involved in carrying out the behavior, Health motivation element reflects, barriers and cues to action/reminder of the severity [8].

[9] has applied HBM to treat cervical cancer. The HBM predicts regular screening for cervical cancer if an individual perceives that she is highly susceptible to cancer of the cervix, that cervical cancer is a severe health threat, that the benefits of regular screening are high, and that the costs of such action are comparatively low. Similarly, [10] tested the effectiveness of health belief model in predicting mosquito control behaviors. Thus, dengue fever awareness campaigns that target peoples' beliefs may be most effective in eliciting mosquito control behaviors. To treat major depression [8] have adopted health belief model and concluded that the main barrier preventing help-seeking was fear of the unknown treatment process and low self-efficacy.

[11] adopted HBM to teach adults about disease and their study suggest that perceptions of susceptibility and seriousness of health outcomes are related to individual's characteristics that is gender and age. Similarly, these results support the notion that when young adults feel susceptible to negative health outcomes and when health-care coverage is available, young adults will seek out preventative care services.

Current study areas, Robe and Shashemene towns, are the place where significant number of population makes in and out movement on daily basis.

Therefore, the researchers were intended to address the following specific research objectives:

- to explore community perceived susceptibility level of COVID-19 virus.
- to identify community perceived severity level of COVID-19 disease.
- to describe community perceived benefits of prevention measures of COVID-19 virus.
- to identify perceived barriers and cues to action in implementing the preventive measures of COVID-19 virus.
- to point out self-efficacy level of community in the process of implementing the preventive measures of COVID-19 virus.

Materials And Methods

Study Design

To explore community perception of COVID -19, we employed exploratory research design. The research was conducted from May to July, 2020.

Participants

Our participants are comprised of bank workers such as Bank managers, front makers, guards, traffic polices, drivers, hotel and grocery managers. Purposive sampling technique was employed to select participants from all group of population. Moreover, for this research 45 individuals interviewed. With regard to characteristics of participants' in terms of sex, educational level and age, we took both male and female whose age is between 26 and 70 years old. The minimum and maximum educational level of respondents were secondary school complete and second degree holders respectively.

Tools of Data Collection

To collect data from the aforementioned key informants, semi-structured interview guide used to explore participants' perceptions about the pandemic. Semi-structured interview guide was developed after reviewing the related literature.

Sample items for perceived susceptibility is how seriously do you erroneously believe you are at risk for inevitably developing COVID-19?), for perceived severity level of participants'we asked question like do you overwhelmingly believe that the consequences of getting COVID-19 are significant enough?, regarding perceived benefits of preventive tools key informants interviewed by providing question for example, how do you think the suggested prevention methods are worthwhile to prevent COVID-19 pandemic and what fears or concerns will be reduced?. To identify their self-efficacy about COVID-19 we asked how capably the key informants believe they are confident to implement the recommended prevention methods. Lastly but not least, perceived barriers and cues to actions we asked interviewees to explain any barriers they have been experiencing since the outbreak of the pandemic. In conclusion, observation checklist was used to observe people practices to contain the novel COVID-19 pandemic.

Ethical approval

The used procedure of this study was well approved by research committee headed by Madda Walabu University Research Community Engagement and Technology Transfer vice president. Besides, concerned researchers strictly implemented [12] research code of conduct that researchers have to inform participants about the purpose of the research, expected duration, and procedures, their right to decline to participate and to withdraw from the research once participation has begun and limits of confidentiality among others. To sum up, before recording their voices permission obtained from each key informants.

We completely implemented WHO directives such as social distancing, wearing a face mask and cleaning our hands by alcohol-based hand sanitizers. Therefore, during data collection, the distance between researchers and each participant was at least at 2 meters.

Data Quality Assurance

The researchers were spending enough time with participants on site and explained the process of data collection to the participant's in detail. Likewise, audio-recorded interviews and field notes were taken and kept in protected place via arranging all recoded audio data, the transcribed data and coded data by folder according to its type and all by one file name.

Ultimately, sufficient contextual information about the fieldwork sites provide to readers, which enable them to transfer the instances of the phenomenon described in the research to those that they have seen, emerged in their own situations.

Methods of Data Analysis

Thematic analysis was employed to analyze the data. Thus, during data transcription, researchers provided a label and collected it accordingly. To identify themes, data categorization was done after reading the transcript several times. Therefore, the following core themes were formed; perceived susceptibility level of COVID-19 virus, perceived severity, perceived benefits, Perceived barriers and cues to actions and self-efficacy level of community.

Results And Discussion

Perceived Susceptibility Level

The current findings seemed to indicate that most of the interviewees have high susceptibility as infected to the disease. For example, all Bank guards stated that due to close and frequent contact with customers they are extremely susceptible to be infected with corona virus-19.

Additionally, one traffic police viewed in this way:

we are at considerable risk because when a drivers break a law, we try to cease them and allegedly remove the cars plate. As a result, the drivers came with terribly constant distance implore us and sometimes touché us with their hands.

Another traffic police described collective vulnerability to the novel corona virus, because his anxious children came back to home from Addis Ababa the capital city of Ethiopia where the rate of confirmed case of COVID-19 is escalating rapidly than before. It would seem that it is not known how healthy they arrived, however, they prefer to live with their father and mother under whatever circumstance.

By using health belief model [6] noted that if one recognizes severity, benefit, and barriers of the disease the odds of desirable behavioral change follow. In the same way, most of our Bank interviewees have indicated their customers carry money for transaction instead of using any banking technology as a result, they felt terribly that they are at risk to get COVID-19.

For example, one participant more illustrated it as follows:

If the cash is too much, we inform our customers to accommodate inside the insufficient room with no expectations of distance between our clients to count the cash. Our customers also put off their face masks while talking with bankers and communicating with someone else with the phone because they assume they might not be attended to.

The finding indicated that the premium customers had a tendency to act out, because they desire the Banks to handle them as close as before. All drivers were very frightening because they travel from one area to another cause them very likely to be infected by corona virus.

Consequently, as a matter of coincidence, we approached one driver who willingly stopped driving due to fear of getting COVID-19. By standing in front of Shashemene Town main bus station he expressed his peculiar susceptibility to the pandemic as; *“it has been one month since I stopped going to work because the disease scared me so much that the people do not care about and I fear to use Facebook.”*

The current work is also supported by [9] that if an individual perceives that she/she is extremely susceptible to cancer of the cervix, that the benefits of routine screening are high, and that the costs of such action are comparatively low.

Perceived Severity Level

The key informants agreed that no disease was notorious as COVID-19 because the pandemic severely hurts all nations regardless of their personal background. Furthermore, other participants remarkably noted that at first; everyone was shocked when the disease outbreak in Ethiopia but now it looks like people adapt it.

Also hotel manager at Robe town shared his views as far as the severity of the disease is concerned:

COVID-19 is incredibly dangerous, that I find myself stay clean without terribly worrying about it. As a precaution, we ensure that we all hotel staff use face masks, sanitize ourselves frequently because we have repeated contact with money and we often tell our waitress or waiters to keep their distance when ordered by a customer and we allow a maximum of three persons to sit on one table.

Conversely, the findings disclosed that there were many people who have information about disease and assumed as if there was no corona virus in Ethiopia. In this manner, careless people are reluctantly taking COVID-19 pandemic as simple as common cold and the flu because they perceive as the disease does not kill because they constantly caught by it.

Perceived Benefits of preventive tools and Self-efficacy Level

Alongside interviewing the target participants, the researchers were observing some hotels at both towns to see how people are treating the pandemic. In most of the hotels, customers are not allowed to take a seat and share one table by more than three individuals and every workers wearied face masks and have sanitizer individually.

We also asked how they provided services for customers who rent their bed. One hotel manager was replied this *“as you can see we offer an accommodation service to our clients by keeping our bedrooms tidy and purify it regularly.”* More importantly, this interviewee reported that their hotel has been providing brief description about pandemic early in the morning once in a week to hotel workers before they

commence their work. In addition to this, their hotel has posted instructions in written form inside each side of the visible wall for the one who rent the bed about disease pathways and other precautions to be done. In addition, the waiters were cleaning the seats and dining tables by sanitizer soon after their primary customers left.

The experiences of Awash Bank also seem engaging in a manner of speaking not allowed to wear hand gloves, because they assume that if bankers wearied a glove, it would have protected only the one who wears it, but it could not support their customers from this virus. Likewise, one female employer of Awash Bank argued that *"we might forget to sanitize our sensitive hands frequently and we contact our clients' pass book and cash with our gloved hand so, we can easily transfer the virus to our clients."*

On the other side, a Bank manager suggested, for people who are close to modern technology they admittedly have to implement those services such as transfer of money through their mobile and ATM among numerous services given by the bank. The participant was directly relating it to the most reliable method that is stay at home therefore, they can definitely get the services they need and to reduce their contact with the Bank because being at home would keep away them from getting infected.

To identify the perceived self – efficacy level of participants, one driver reported the following; *"I undertake my precautionary measures to prevent the disease. I can cleanse my hands frequently with a sanitizer and wear a face mask and we do not allow those who do not use face masks to enter in our cars."*

In the same way traffic police goes further as stated by health professionals to prevent the disease he is using a glove while touching metal objects, washing hands often and refrain from touching the nose and eyes.

In addition to this, one more traffic police insisted his intelligent use of preventive measures to fight against the spread of COVID-19. The detail is quoted hereunder:

At a time we confronted a convicted driver; we have been wearing our glove to remove the car plate number, even to check whether there is/are extra passenger/s or not we are using face masks by maintaining our distance at two meters and we also read exit paper in the hands of driver assistant without touching it.

All traffic police asserted that they have been working hard to reduce the spread of the disease via teaching the people to utilize face masks and punishing drivers who violate declared state of emergency to save the people from the virus. As it was reported by [7] individuals' psychological status determine the likelihood of implementing preventive measures.

Perceived Barriers and Cues to Action

As it was reported community preventive strategies usage patterns are not completely accurate. A hotel manager noted even those who wearied masks don't cover their mouth and nose and there are also some people who use dirty face masks. Another person who wears the face mask is considered infected.

Moreover, one banker was apt to disclose that their customers become even more vulnerable because they have been buying and using a face masks sold on the street which is possibly affected by a lot of people to get the Bank services inside. Consequently, a Bank guard reported serious challenges he came across at the gate of his Bank one of the client came without mask and he informed him to wear his mask unless he can't get in and then the customer shared his friend's mask.

In the same way, a Bank manager insisted that there was clients who place a mask in their pocket or on their bag after they get in. A traffic police come into view that, as far as the disease is concerned people can be divided into two, the first group are those who possess enough knowledge about the disease, but they couldn't practice it, the second groups are those who don't possess enough knowledge about COVID-19 and unable to use the advice of health experts due to economy and lack of accessibility to hear from different medias. He assumed that relative to the second group, people who recognize the disease well are not practicing preventative measures.

In most of the hotel and grocery, the researchers were observed hand washing materials alongside water, soap and sanitizer placed in front of the gate, though majority of their customers reluctant to use it.

A hotel manager reported the following incidents as followed:

When we ask them to wash their hands, the customers say that; we don't wash our hands because we have cleaned it earlier and when we tell them to wear their face masks he/she replies we do not wear it because we are free but you who wearied the face masks have COVID-19.

People are not only misusing the face mask but also social distancing and use of alcohol and sanitizer. Evidences obtained from diverse interviewees noted that in some places there is still a hand shaking especially when relatives encounter each other. Furthermore, another participant reported that at the market the two parts are still shaking each other hands where no one wear a face masks.

Many participants agreed as if the Ethiopian communal way of life could aggravate the spread of disease because neighbors called one another to consume coffee and kiss children of one another if one requests to stop it they would assume as pushing them out. Correspondingly, one Bank worker revealed what he observed at his home as follows: *"you detest people some of my relatives from rural area came to my house for financial support and I requested them to wash their hands, and they assumed that I had thrown them in this difficult time."*

A driver would cling to his confidence in preventive measures, despite their clients' irrational belief; *"it is getting ridiculous people believed as there is no disease since most of them insult me when I ask them to use a face mask. My sole uses do not deter me from the disease since all are teasing. "*

In South Africa as [4] produced it religious and cultural activities of any form restricted. Simultaneously there is evidence to suggest that there is an awareness gap among the community in implementing the preventive measures. It was exposed that there are until now people who claim as there is no virus in Ethiopia and other people relate the virus with politics because they have a belief that the government

doesn't want to conduct elections. Besides, there was thinking that the government is not reporting numbers of infected cases on the media as other countries do.

Conclusion

Though the participants perceived COVID-19 is a chronic disease, most of the community attributed the pandemic to politics than contributing their parts to ensure everyone is protected. Since different commodities are distributed from Addis Ababa to various Ethiopian regions, where the prevalence of the disease is ridiculously high the people who carry the goods need to be given special attention by the government. Likewise, it is clearly suggested if both driver and passenger wear a face masks and if not the concerned body should not execute them the car exit paper.

What's more, if the driver allows passenger without face masks, traffic police must punish the drivers. Shashemane remain a Town where different passengers come from other zones and regions traverse it therefore, we recommend passengers' body temperature should be checked in its all five gates.

Significant care must be provided to market center by distributing it to different locations so that it does not invite more people. Since there is no water and alcohol at gates and entrances of bus stations both towns have to avail it at exist and entrance of bus stations alongside teaching the prudent use of preventive measures like social distancing which has no cost. Drivers and their assistants should clean up their cars after passengers left off.

More importantly, it is unreservedly recommended not to allow individuals selling protective measures on the streets rather community have to buy it from health centers.

Declarations

Ethics approval and consent to participate

We received ethical approval from the Madda Walabu University Research Community Engagement and Technology Transfer vice President Office. Informed written consent from participants was obtained at the start of the data collection.

Consent for publication

Not applicable.

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Authors' contributions

Gamachu Gishe and Tamirat Hailu conceived, designed, involved in the data collection, transcribed data, analyzed the data and prepared the manuscript.

Ramato Aman conceived, designed the study and took part on data collection. Sisay Dagno was involved in proposal writing. All authors have read and approved the finished manuscript.

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Competing interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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