Communication Strategies to Combat COVID-19 Vaccines Hesitancy

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Authors’ contributions

This work was carried out in collaboration among all authors. In the present study, all authors made a significant contribution to the work reported, whether that is in the study design, acquisition of data, analysis and interpretation, or in all these points; took part in drafting, revising or reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and reach a decision to be accountable for all aspects of the study. All authors read and approved the final manuscript.

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ABSTRACT

COVID-19 infectious disease resulted in a pandemic that has threatened millions of people in the world. It is caused by severe acute respiratory syndrome coronavirus (SARS-CoV-2), and it has created a global health crisis. Hence, the present study aimed at assessing communication strategies used by Ethiopian Public Health Institute and Ministry of Health to address COVID-19 vaccine hesitancy, make analysis of vaccination messages, and hybrid media messages to label best practices of communication techniques to address vaccine hesitancy. To attain this objective, a qualitative research method was employed to analyze messages that were disseminated with the

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hybrid national and regional media and social media platforms. MOH and EPHI disseminated messages; ministers, prominent people, opinion leaders and activists’ speeches used as subjects of the study. COVID-19 vaccination messages were selected through purposive sampling method. The contents of messages regarding health communication were analyzed. The finding showed that building COVID-19 vaccine acceptance through effective communication is important to stop the spread of the virus. The participatory and presumptive style communications are the possible method to promote COVID-19 vaccination before it reaches on refusal stage. Moreover, the results revealed that communication strategies contributed to vaccine advocacy and vaccination campaign to improve vaccine acceptance. MOH and EPHI used the hybrid media to mold the unscientific information and the misinformation of the vaccine. In sum, using effective communication strategies is very important to create awareness about COVID-19 vaccines, and avoid vaccine hesitation to strength the public vaccines acceptability.

Keywords: Communication; COVID-19; Ethiopian public health institution; media; minister of health; vaccine hesitancy.

ABBREVIATIONS

VPD : Vaccine Preventable Diseases; WHO: World Health Organization; MOH : Ministry of Health; EPHI : Ethiopian Public Health Institute

1. INTRODUCTION

The blowout of COVID-19 infectious disease resulted in a pandemic that has threatened millions of lives. It is caused by severe acute respiratory syndrome coronavirus (SARS-CoV-2) [1]. The virus didn’t have a vaccine for a year to cure, but to protect the spread of COVID-19, different mechanisms were taken: frequent hand washing with soap, using alcohol-based hand sanitizer, stay at home, avoidance of hand shaking/public gathering, and using face mask [2].

Scientists and health institutions were trying tirelessly to find the vaccine, and the first mass vaccination program started in early December 2020. 175.3 million vaccine doses have been administered in three platforms in Feb 2021 [3]. The vaccine was distributed all over the world by COVAX, and administered by the health organizations despite the doubts and limitations. Headache, muscle ache, feeling tired, fever and tenderness, swelling and/or redness at the injection site were the common side effects [4]. AstraZeneca brought a blood clot in Ghana [5], Netherland, France, Germany [6], so 18 suspended to use the vaccine [7].

Due to this, people in Ethiopia felt hesitancy on the cure of the vaccine. However, in Ethiopia there are 269, 782 total COVID-19 cases (34, 054 active cases, 231, 635 recovered and 4, 093 deaths) that were recorded on May, 2021 [8]. MOH and EPHI tried to disseminate information presentation mechanisms via hybrid media and declared a state of emergency [9] besides giving the vaccine. Ethiopian Public Health Institute (EPHI) prepared a national risk communication team and engagement plan to develop and identify the packages of key messages and shared with rapid response teams based on the polls result of the public even if it was not sufficient. 8335 hotline was being used by the institute to revive and respond to public calls and to monitor rumors and misinformation [10].

Ethiopia had received the first 2.184 million doses of AstraZeneca COVID-19 vaccine via the COVAX facility on Mar 7, 2021 [11,12], and MOH launched COVID-19 vaccine introduction ceremonies in high level national events at Eka Kotebe COVID-19 Hospital on March 13, 2021 [13]. At the ceremonies, different state ministers, Dr. Boureima Hama Sambo, the representative of the WHO in Ethiopia, prominent people, religious leaders, opinion leaders, UN, CDC, NGOs representatives, health workers and media experts were attended. The ceremony was going at the same time in different regional cities (FBC March 13, 2021 reportage).

Nevertheless, different media and opinion leaders expressed their hesitation concerning the vaccine. Diverse opinions and myths of COVID-19 are spreading and getting acceptability easily. Due to this, people were reluctant and maleficient towards vaccination, and they had low vaccine acceptability rate in Nigeria [14]. Even if the vaccine is testified and licensed by WHO to cure COVID-19, people have hesitancy about the medicine on vaccination services [15]. The
people have different understandings about the vaccine. The accuracy level of the medicine and the side effects lead people to hesitate. However, vaccination is one of the world’s most important medical interventions to save people against acute and chronic infections and their consequences in a year [16,17].

The concept of vaccine hesitancy has been considered by WHO as one of the top ten treats to global health [18]. Unquestioning acceptors, cautious acceptors, hesitant group, late or selective vaccinator and refuser have been identified by researchers concerning vaccines [19]. Different studies verified the COVID-19 vaccine hesitancy [20,21]. Long life of WHO experts established the vaccine confidence project and the vaccine advisory committee to create awareness, potential strategies and to strengthen vaccines acceptance hesitancy [22].

The social media platforms affected the mainstream media messages which were disseminated at the national level. COVID-19 vaccination did not have any complementary policy because it was a pandemic, and the vaccine was not accessible in a short period of time for the Ethiopian population. The Federal Government of Ethiopia planned to give a vaccine for 20% of the population at the end of 2021 (Fana Broadcasting Corporate March 15, 2021 Reportage). Nonetheless, the people politicized and gave low attention to the vaccine to compare with the current ethno-centered conflicts and war going in the state, and the negative attitude towards health institutions. The study which was conducted in Addis Ababa revealed that people were unwilling to take the vaccine due to the fear of the side effects; they developed negative attitudes towards the vaccine, and they saw it as biological weapons [23].

As a consequence, effective communication is necessary for the implementation of the vaccine policy. It can be delivered credible information to the people to build trust and avoid vaccine hesitancy. MOH and EPHI involve defining the organization’s overall strategy for communication, analyzing the relevant constituencies and delivering messages appropriately [24]. Based on these scenarios, the study was conducted to assess communication strategies used by MOH and EPHI. More specifically, the study tried to (1) identify vaccine hesitancy, (2) evaluate delivered messages, and (3) assess the best practices of communication techniques to address COVID-19 vaccine hesitancy.

2. METHODS

For the effectiveness of this study, a qualitative method was used to analyze messages disseminated with the hybrid national and regional media, and social media platforms in the time frame of March 13, 2021, to April 26, 2021. MOH and EPHI disseminated messages, ministers, prominent people, delegators, and opinion leaders’ speeches were the subjects of the study. The messages were selected using the purposive sampling technique; they were mainly prepared in Amharic language and transcribed into English language. The messages contents were analyzed concerning health communication to address COVID-19 vaccination information to the concerned body for vaccination campaign and advocacy and decrease the vaccine hesitancy.

3. RESULTS AND DISCUSSION

Most of the COVID-19 vaccines have great acceptability in many countries [25]; yet people will have hesitancy on the vaccines, for they are new. Vaccination hesitancy is complex and context-specified, varying across time, place, and vaccines [26]. Different countries have doubts about the vaccines, especially on AstraZeneca. Due to this, more than 18 countries suspended the vaccine [7]. They asked questions on perfection, especially the side effects. Thus, hesitantors, cautious acceptors, hesitant groups, and late or selective vaccinators were created. To avoid this hesitancy, participatory and presumptive style of communication is essential.

3.1 COVID-19 Vaccines Precautiousness Information

Vaccination is the primary presentation of disease and one of the most cost-effective public health measures available [27]. Currently, different countries give COVID-19 vaccines; however, the pandemic of misinformation about the vaccine is the major challenge. Health institutions, health experts, activists, and opinion leaders expressed their opinions in relation to the vaccines, and different countries suspended to giving the vaccination [7]. Ethiopia has given the AstraZeneca vaccine to higher officials and health workers in the first round. Nevertheless, different regional and national mainstream media and social media expressed the side-effects of
the vaccine. The people had fear of the side effects and the accuracy of the vaccine. They also thought that the vaccine as biological weapon [23]. Due to this, people worried in order to take the vaccination.

As stated in Table 1, all media platforms gave coverage for COVID 19 vaccination program and made an analysis on the side effects of the vaccines. Private radio stations and social media platforms raised the questions of vaccine accuracy, and they discussed the low qualities of AstraZeneca vaccine. In addition, radio, newspaper, and social media talked about the issues of safety testing.

As stated above, the health experts didn’t accept the vaccine to take with the priority of the government schedule. The Ministry made the vaccination campaign that higher officials, prominent people and health workers involved in the ceremony. However, after the vaccination, a number of COVID 19 cases and deaths were recorded, and it has become augmented.

Most of the people shared that the virus has quickly infected many people after the vaccine started in Ethiopia (Table 2). Besides, the Amhara ethnic has complained on the director of WHO, Dr. Tewodros Adhanom. WHO director was involved in a health conspiracy on our people especially in related to contraceptives; we still don’t believe, like and take the vaccine” (Table 2). People see the vaccine as 666 route [23], and they believe the vaccine makes them barren (Table 2).

Table 1. COVID 19 vaccine hesitancy media coverage

<table>
<thead>
<tr>
<th>Hesitancy on;</th>
<th>TV</th>
<th>Radio</th>
<th>Newspaper</th>
<th>Social media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side effects</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Accuracy/Low quality</td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Safety testing</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Little attention</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Doubts about vaccines</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Data recorded from March 13 – May 26, 2021

Table 2. Social media COVID 19 vaccine hesitancy messages

<table>
<thead>
<tr>
<th>#</th>
<th>News cutting in native language</th>
<th>English Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since the Corona vaccine arrived in Ethiopia, the virus has quickly infected many people. Why?

Corona Vaccination is a Conspiracy to Make a Barren!

Dr. Tewodros Adhanom, a World Health Organization official, is known to have been accused by the Amharas. During his time in the Ethiopian Ministry of Health, the doctor conspired against the Amhara tribe. ... So let's believe the vaccine came from the World Health Organization.
Though the pandemic spreading rate reached 30% at the state level, people showed reluctance on the prevention mechanism and vaccination. The anti-scientific arguments and emotive language led people to develop high hesitancy about the vaccination [28]. The Ethiopian government has to boost public trust and enthusiasm.

“We are in developing nations, the medicine donated by different countries and donators have limitations. Our health system and service are low, and it lacks the quality to check the side effect of the vaccine.” (Mahilet Taye).

As stated above, the quality or accuracy of the vaccine twisted hesitancy. Producers of the vaccines, the scientists’ outputs, the economic inequalities and the donor intentions were the major sources of the hesitancy. Due to this, they saw the vaccine as one major attacking mechanism to the blacks. Although it is a pandemic, people did not give much attention to the virus.

As stated in the background of this study, the Ethiopian government tried to address the vaccine for 20% of the population at the end of 2021 (FBC March 23 reportage). Except for the shortage of COVID-19 vaccines, EPHI had good experiences concerning the vaccination programs that were given in the state [29]. The MOH structure, communication strategy and the health workers had a good opportunity to give the COVID-19 vaccine to the public; however, the public perception and awareness have to be shaped before it reaches the refusal stage.

<table>
<thead>
<tr>
<th>#</th>
<th>News cutting in native language</th>
<th>English Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td><img src="image1.png" alt="Image" /></td>
<td>More than a dozen European countries stopping giving AstraZeneca, which causes blood clots. It causes other problems with hormone! Who has given a guarantee to continue to give the vaccine?</td>
</tr>
<tr>
<td>B</td>
<td><img src="image2.png" alt="Image" /></td>
<td>The World Health Organization (WHO) has stated that AstraZeneca does not cause blood clots. Few of the more than 17 million people who have been vaccinated with AstraZeneca are said to have coronary heart disease. Studies of side effects have shown that people who are vaccinated are more likely to have side effects. … the side effects are less common among older people than younger people.</td>
</tr>
<tr>
<td>C</td>
<td><img src="image3.png" alt="Image" /></td>
<td>… Therefore, as long as there is no scientific evidence that AstraZeneca vaccine will cause blood clots, Ethiopia will continue to provide the vaccine to its citizens, he said.</td>
</tr>
<tr>
<td>D</td>
<td><img src="image4.png" alt="Image" /></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Main stream media and activists vaccine hesitancy messages
"More than a dozen advanced European countries stop vaccinating AstraZeneca because of anemia and other hormonal problems. We continue to give the vaccine, why?" (Aster Bedanie) (Table 3).

She is an artist, activist and opinion leader who has 203,000 followers at the end of May 2021. She expressed her hesitancy and asked a question. Who has given a guarantee to take the vaccination? Most of her followers express their different doubts in the comments, and they had similar perceptions towards the vaccination.

"The side effects are less common among older people than younger people." Bisrat Radio (Table 3).

Bisrat radio also reported that the vaccine had side effects and more young people were affected by the vaccine effect. The net-generation is so sensitive and energetic to accept or reject issues in support of net messages.

"Ethiopia continued vaccinating AstraZeneca which eighteen countries stop vaccination’ Ato Yacob Aman, from MOH" Wasu Mohammed (Table 3).

He is a journalist and activist and he has 72,543 friends and followers. In this reportage, there was no reason why they continued giving the vaccine, and there was no reason why other countries stopped giving the vaccine.

"The vaccine has a side effect, but it is not serious. It also affected young people." Ethiopian Press Agency (Table 3).

The Ethiopian Press Agency testified about the side effects of the vaccines, but it didn’t verify to what extent it has affected people.

However, WHO and MOH gave a guarantee for the severe side effects of the vaccines. The overflow of unscientific information misled people to vaccine hesitancy. Public Health Institute has its own role for adequate communication towards the vaccine. The health experts addressed the scientific information to the public.

"If there is a serious health problem with the vaccine, the company that made the drug is responsible for it" (Vatican News, Table 4).

"Ethiopia has signed an international agreement to provide compensation to those affected by the severe side effects of the vaccine" (Bisrat Radio, Table 4).

Table 4. Vatican and Bistrat radio reportage

<table>
<thead>
<tr>
<th>#</th>
<th>News cutting in native language</th>
<th>English Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td><img src="https://example.com/image1.png" alt="Image 1" /> <img src="https://example.com/image2.png" alt="Image 2" /></td>
<td>The WHO has stated that AstraZeneca does not cause coagulation. Few of the more than 17 million people who have been vaccinated with AstraZeneca are said to have coronary heart disease. Ethiopia has signed an international agreement to compensate the victims if the vaccine causes serious side effects. In some parts of the world, AstraZeneca has been shown to cause coronary heart disease in some parts of the world.</td>
</tr>
<tr>
<td>B</td>
<td><img src="https://example.com/image3.png" alt="Image 3" /></td>
<td>He pointed out that there is a serious health problem caused by the vaccine and that the company that produced the drug is taking responsibility.</td>
</tr>
</tbody>
</table>
Identifying the demands of COVID-19 vaccines and promoting the acceptance of the vaccines is critical to achieving herd immunity and protect the most vulnerable population [30]. The Federal Ministry of Health and Ethiopian Public Health Institute had communication protocols to the vaccine. As mentioned above, Ethiopians were hesitant and reluctant of the vaccination due to lack of information [24]. This challenge needs effective communication strategies that build COVID-19 vaccines confidence and enables them to make decisions. MOH prepared COVID-19 vaccine prescription with a pamphlet and distributed to the community. EPHI and MOH gave pieces of trainings for journalists, health experts and officials.

All the national and regional media were cooperative to disseminate information to the public, but the message framing did not consider the communities characteristics. However, the misinformation and the WHO uncertainty on the vaccine led people to hesitate to take the vaccine. Presenting clear and accurate information concerning health literacy of the community is important to avoid people’s doubts [31]. MOH and EPHI tried to address the information based on the online survey as stated in Fig. 1.

Depending on the survey they tried to address in SMS messages (Table 6) of COVID 19 information by the cell phone of individuals. Nevertheless, all the messages focused on the preventable mechanisms and testing of the virus. As Chou stated, communication should make additional efforts to engage with and address the needs of vulnerable and marginalized population during communication development and dissemination to avoid exacerbating disparities [31]. The messages were prepared in Amharic language and disseminated for the mass without considering the characteristics of people. In addition, the communication methods were similar and clinch.

Table 5. COVID 19 misinformation, real information and WHO uncertainty

<table>
<thead>
<tr>
<th>#</th>
<th>Misinformation</th>
<th>Real information</th>
<th>WHO uncertainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ever since the corona virus entered in Ethiopia, the virus has quickly infected many people. Why?</td>
<td>More than a dozen advanced European countries have stopped to give AstraZeneca, which causes anemia and other hormonal problems!</td>
<td>If there is a serious health problem caused by the vaccine, the company that produced the drug is taking responsibility.</td>
</tr>
<tr>
<td>2.</td>
<td>The corona vaccine makes it barren. The WHO director, Dr. Tewodros Adhanom, was involved in a health conspiracy in Ethiopia; We still do not like this vaccine.</td>
<td>The WHO has stated that AstraZeneca does not cause coagulation. Of the more than 17 million people who have been vaccinated against AstraZeneca, less than 40 are said to have developed anemia. … Side effects are less common among older people than young people.</td>
<td>Ethiopia has signed an international agreement to provide compensation to those affected by the severe side effects of the vaccine.</td>
</tr>
<tr>
<td>3.</td>
<td>Corona vaccine is a 666 route.</td>
<td></td>
<td>Of the more than 17 million people who have been vaccinated against AstraZeneca, less than 40 are said to have developed anemia.</td>
</tr>
</tbody>
</table>

Fig. 1. MOH and EPHI online COVID 19 Survey to address need based information
### Table 6. EPHI COVID 19 SMS messages

<table>
<thead>
<tr>
<th>SMS messages in native language</th>
<th>English Version</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The increase in the number of patients with COVID-19 has been exacerbated by respiratory failure and death.</td>
</tr>
<tr>
<td></td>
<td>Get a new training about COVID-19 and have your certificate.</td>
</tr>
<tr>
<td></td>
<td>Participating in various gatherings increases the chances of being caught in COVID-19. Protect yourself from the virus.</td>
</tr>
<tr>
<td></td>
<td>Make sure you keep a record of the phone number and address you will be using when you make COVID-19 test.</td>
</tr>
<tr>
<td></td>
<td>If you suddenly have trouble smelling or feeling tired: isolate yourself and test COVID-19.</td>
</tr>
<tr>
<td></td>
<td>Physicians must decide whether to stay home for follow-up.</td>
</tr>
<tr>
<td></td>
<td>It is recommended that COVID-19 patients over the age of 60 be monitored at a specialized treatment center.</td>
</tr>
<tr>
<td></td>
<td>Patients with comorbidities are recommended to be monitored at a specialized treatment center.</td>
</tr>
<tr>
<td></td>
<td>Protect yourself from COVID-19 by reducing social gatherings such as weddings and mourning.</td>
</tr>
<tr>
<td></td>
<td>Protect yourself from COVID-19 as it is killing many of our people today.</td>
</tr>
<tr>
<td></td>
<td>Be careful not to overdo it, as you may be caught by COVID-19 during any of your activities.</td>
</tr>
</tbody>
</table>

#### 3.2 Building Vaccine Acceptance Through Opinion Leaders

The vaccination communication has a goal to inform message content, format, mode of delivery and partnership. Vaccine efficacy and safety are the goals of vaccine communication which needs different approaches [32]. Vaccination information from the official’s limitations and the counterpart of the vaccination...
messages were the challenges. Communication is the strategy to address COVID-19 vaccine acceptability effectively [33]. The messages should be prepared with plain language by considering the public needs.

Ethiopians had underappreciating the risk of COVID-19, and they had misconceptions about the effectiveness of the vaccines. The people didn’t trust information sources and the government’s health policy. Due to this, the MOH tried to use religious leaders to avoid the hesitancy of the people.

### 3.3 Ethiopian Public Health Institute Message Delivery Extent, Structure, Content And Medium

Health messages are persuasive that are designed to change the behavior of patients. They require knowledge to understand the attitudes, perceptions and motivations of the receivers of messages [34]. MOH and EPHI prepared COVID-19 recantations, vaccination messages and deliver them to the audience in different ways.

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Amhara Media Corporation

Patriarchs call on stakeholders to do their part to make the Coronavirus vaccine a success.

Religious leaders have urged the public to step up their efforts to prevent the spread of cholera virus.

Religious leaders also called on the public to take precautionary measures to curb the spread of Coronavirus. They called on stakeholders to do their part to ensure the success of the current Coronavirus.

First Mufti Haji Omar Idris, President of the Ethiopian Islamic Affairs Supreme Council; His Holiness Dr. Abune Aregawi, Head of the Special Office of the Patriarch of the Ethiopian Orthodox Tewahedo Church; Cardinal Abune Berhane Jesus, President of the Ethiopian Catholic Church Bishops’ Conference; Pastor Tadesse Adugna, President of the Ethiopian Union, on the seventh day of the Adventist Church vaccinated against Coronavirus.

A large number of health workers have been vaccinated against the current Coronavirus. Vaccinations are also being given to communities over the age of 65 and those with a health problem of 55-64 years, according to the Ministry of Health.

The ministry called on the community to take extra precautions as the number of people living in and out of the...
As shown above (Table 6), the messages were delivered 3-7 days. They had 45.5% of presentations contents to take preventive measures, 27.3% health experts' advice, the reset messages focused on examination, examination data recorded, training and zero-percent vaccination contents. The messages recipients were Ethiopians who can read the Amharic language. The messages didn't provide accurate vaccine information, increase vaccine confidence and acceptance though WHO recommended that vaccine messages should include assurance of vaccine safety and efficacy.

Clear and effective language helps to address the vaccine information and significant to the people [31,32]. The language that is used by medical experts and doctors has to reflect the
cultures, norms, traditions and values of society. Most delivered messages hadn’t had this structure. The messages prepared by EPHI should keep the structure of the message and enrich it with contents and address the appropriate media. Media is a more immediate short-term weapon to pursued people’s attitudes [35]. Creating awareness about the benefits of immunization, correcting false beliefs, rumors and providing accurate and scientific-based vaccination information is significant to avoid people’s hesitation.

Providing scientific and timely information about vaccination and emphasis on the facts over the misinformation are the basics to avoid vaccine hesitancy [31]. Create media relations and advocate the vaccine benefits with trust media channels are also the other mechanisms.

In Ethiopia, the media coverage and accessibility is poor. The number of health literacy is low. The health infrastructure is poor. In this extent, using the hybrid media is crucial to address the COVID-19 vaccine information. Most people do not have a web-2 communication sites; then, the messages have been prepared in different media formats and languages to prevent the anti-vaccination misinformation. Before the misinformation changes into viral and self-propagative, the EPHI should make the pro-vaccine advocates to combat the misinformation.

### 3.4 Possible Communication Strategies for COVID-19 Vaccination Campaign

The vaccination campaign has to run to create good awareness and vaccine acceptability to the audience besides giving the vaccine. Different COVID-19 vaccines were imported into the state by different donators, so access to the vaccine was not a big deal. Thus, the ministry has to conduct a media coverage survey and public perceptions polls. It helps to plan an appropriate vaccination strategy because listening is the first, planning is the second [36] technique. Hesitancy or resistance to vaccination are multifaceted and require different approaches based on the level of hesitancy [31]. Thus, identifying the hesitancy type and level is substantial to make a campaign. The messages and the media selection should be done based on the result of the survey. It helps to identify the appropriate media to use the campaign.

Effective communication is important to change the behaviors of people. To address correct and scientific messages to the target audience, media have the power to send messages to largely anonymous and heterogeneous audience. People, generally, remember what they read (10%), what they hear (20%), what they see (30%), what they say and write (70%), and what they say as they do something (90%). Moreover, the medium of the messages need high attention. The messages need to be simple and reflective. The messages should not be a slogan or call action. They have to use different expressions and contents depending on the nature of the audience. Evaluate the messages with different intervals because they will bring different impacts on the audiences.

In addition, using simple and natural narratives are important. Compelling different participants’ stories and making good narratives on how it affects people’s lives help to transform society into good practices. The media cares about the messenger because the medium is the message. Use prominent, opinion leaders; it will help to carry the messages. The narratives have to develop with a human interest angle and seek third-party verification.

### 3.5 Use Hybrid Media for Participatory Communication to Raise Awareness about COVID-19 Vaccines

Increasing the confidence of people who are taking the vaccine is the first duty of the vaccine providers. For any communication with the vaccine hesitant is discussion of science which addresses their specific questions or concerns [37]. COVID-19 pandemic needs a structured response, and MOH and EPHI tried to address the prevention mechanism, which adopts with WHO informs of community awareness creation and capacity development. Different scientists prepare information toolkits that talk about COVID-19 and address with national and regional active media.

Hybrid media have to give opportunities for a broad cross-section of the society to understand, discuss, decide and act on issues of COVID-19 [38]. This inclusive communication has to treat men and women, old and young, literate and illiterate, poor and wealthy equally. The media have to use participatory methodologies like storytelling, active listening and strategic questioning in order to identify shared concerns and observe, question and explore and make decisions together. The local facilitators have to lead this inclusive interaction by considering the
social wisdom and indigenous knowledge of the society that carries individual and community responsibilities. Besides, giving training for the health experts about presumptive style of communication changes the perceptions of people more importantly.

As the health institutions, MOH and EPHI should build good media relationships with national and regional media beyond the prominent social media activities. The networks help them to address the proper message to the target audience. The organizational public relations and communication experts can easily follow up the day-to-day activities of the media and make regular information briefings. The communication experts of MOH and EPHI prepare a conducive environment for the journalists to report the efforts of the institutions in offering background, current information and anticipation. It enables the EPHI to take the proactive communication with the hesitators.

Furthermore, responding to criticism is important to counter attack the misinformation. Setting the record straight, transparency, accountability, clarification and prevention are the possible mechanisms to responding the misinformation about the vaccine. Depending on the health specialists and doctors, scientific outputs share responsible and credible information to the public. Create transparency and honesty between the health institutions and the public is the output of open-door policy.

4. CONCLUSION

COVID 19 is becoming vaccine-preventable diseases (VPD); however, different people, media and health experts expressed their hesitancy. In contrast, communication strategies contributed to vaccine advocacy and vaccination campaign to improve vaccine acceptance. It is very important to create awareness about COVID 19 vaccines, and avoid vaccine hesitation to strength the public vaccines acceptability before it reaches on vaccine refusals. This is because vaccine hesitancy is believed to be responsible for decreasing vaccine coverage and increased the risk of VPD outbreak and pandemic. In this regard, hybrid media has the power to mold the opinion of the public and the unscientific arguments and precariousness information. MOH and EPHI prepared different communication strategies to address misinformation; however, uncertainty of the vaccine was also the obstacle to convince the people. Thus, building the vaccine acceptability through presumptive style communication is significant.

CONSENT AND ETHICAL APPROVAL

This study was approved by the research ethics committee of Debre Tabor University, Guna Tana Integrated Field Research and Development Center (Ref.DTU/Guna/515/13). The purpose of the study was explained to the respondents and written informed consent obtained from all of them before distributing the data.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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