



## **The Battle on Fake News: A Qualitative Study on Misinformation on Vaccination among the Residents of Surallah, Philippines**

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### **ABSTRACT**

*Background:* Fake news and misinformation are rampant in social media, and both are often blamed as the cause of the depletion of worldwide rates in terms of immunization and also resulted of vaccine hesitancy. With this, refusal to vaccination is addressed as one of the top 10 health threats around the world.

*Objectives:* The study aims to identify the misinformation that the respondents have stated regarding vaccination in Surallah, Philippines, determine the experiences encountered by the respondents about misinformation on vaccination, and determine the strategies and interventions executed by the respondents in the community after hearing or reading about vaccine misinformation.

*Methodology:* Phenomenological Qualitative Research design was used in the study. Purposive non-random sampling technique was utilized in selecting the respondents. The study participants were the 20 selected residents, following the inclusion and exclusion criteria of the study. Inclusion criteria included participants who are a resident of Surallah, possess any kind of media platforms, ages 18-70, and residents who have encountered news about vaccination from unreliable news articles based on the list of verified and reliable sources provided by the researchers. Exclusion criteria included those who are not residents of Surallah, ages below 18

and ages above 70, and with a medical condition that will hinder them from participating in the study. Scheduled virtual interview using zoom platform were conducted for data gathering. The eight (8) Urban Barangays were chosen in the Municipality of Surallah, which are the following: Centrala, Colongulo, Dajay, Lambontong, Lamian, Libertad (Poblacion), Tubi-Ala, Veterans.

*Results:* The findings of the study demonstrated that most of the fake news regarding vaccination that can be heard and read are about the exaggerated unpleasant side effects of the COVID-19 vaccine. Furthermore, the study showed that the sources of fake news and misinformation on vaccination are frequently obtained from social media and people react differently with these information and that the misinformation that were spread are exaggerated and it affects the relationship of the respondents with other people even with the professionals in a negative level. Additionally, the study revealed that the most effective intervention to combat fake news is to talk to health professionals for information and visit credible websites such as the DOH and WHO on the subject of vaccination.

*Conclusion:* In conclusion, there were several claims of the effects of vaccines which are exaggerated and that these claims negatively affected the relationship of respondents with their family, friends, health professionals, and persons in authority. The respondents in this study presented different kinds of reactions upon hearing fake news on vaccination such as anger, humiliation, and disappointment.

**Keywords:** *Fake News, Social media, Vaccine hesitancy, Vaccination, and Vaccine confidence*

## INTRODUCTION

With the hope to find a cure to end the COVID-19 pandemic, the vaccination scare among Filipinos is significantly rising. Vaccine hesitancy phenomenon was first described as “vaccine resistance” or “vaccine opposition” by researchers; however, these assertions have been deserted, and a new term, “vaccine hesitancy has emerged. The number of “fake news” cases has increased around the world, with political leaders using the term to put mistrust in the media, stop stories being published, and even imprison journalists <sup>[1]</sup>.

The number of measles outbreaks around the world bounced by 48.4% during 2018 and is still escalating quickly, blaming the rise on vaccine misinformation <sup>[2]</sup>. For this reason, politicians, health officials, and social media were forced to look for regulatory interventions <sup>[3]</sup>. The validity of facts has been a long-standing concern impacting companies, the medical industry, and culture, both in print and digital media <sup>[4]</sup>.

In the Philippines, it has been highlighted that the recent occurrence surrounding the dengue vaccine Dengvaxia has added to the reduction in vaccine confidence<sup>[5]</sup>. The warning of public confidence in vaccines worldwide is a cause for concern and a major challenge for public health experts<sup>[6]</sup>. Misinformation and misconceptions about vaccines merged with supply and demand challenges, problems with vaccine regulation and projections, an insufficient number of healthcare workers, and poverty have led to the health crisis. A multi-stakeholder application might address vaccine reluctance in the community. The different roles of political, health workers, and religious community leaders in supporting vaccination are very important<sup>[7]</sup>.

Thus, as prevalent as it is, the researchers chose to study the issue of the spread of fake news and misinformation, which may or may not affect the health protocol in the country, specifically the administration of anti-viral vaccines. The study aims to identify the misinformation that the respondents have stated regarding vaccination in Surallah, Philippines, determine the experiences encountered by the respondents about misinformation on vaccination, and the strategies executed by the respondents in the community after hearing or reading about vaccine misinformation.

## Literature Review

### *Fake news*

Today, the term “fake news” refers to the online information of intentionally or knowingly putting out or spreading false statements of facts that manipulate readers into thinking it’s true, and it’s currently taking over not only social media platforms but also the internet<sup>[8]</sup>. Fake news isn’t a modern idea. The spread of fake news is an old practice, and today social media allows misinformation to reach millions of people instantly<sup>[9]</sup>. It was distributed largely by yellow journalism before the era of modern technology, concentrating on sensational news such as crime, gossip, catastrophes, and satirical news<sup>[10]</sup>.

### *The rise of Fake News*

Nowadays, fake news is spreading like wildfire and has been a problem that has caused some undesired consequences. One of the problems today is to confront fabricated health news because of its possible effect on people’s lives. Propagating misleading lies about this important finding with defamation in true history affects the lives of people, and this deception could harm their welfare<sup>[11]</sup>. Studies have found that misleading news and disinformation may have detrimental impacts on public health. In the sense of pandemics, false news works by masking healthier habits and encouraging incorrect activities that improve the transmission of the virus and eventually lead to bad health consequences<sup>[12]</sup> by restricting the distribution of clear, relevant, and accurate dissemination of information from credible sources<sup>[13]</sup>, and by undermining brief containment measures and extended recovery efforts<sup>[14]</sup>.

### *Fake news on Social media*

In a globalization era, the dissemination of fake news information on health-related issues in social media and the forms in which its distribution has currently been addressed in detail<sup>[15]</sup>. Thorough anti-vaccine news is also shared through social media<sup>[16]</sup>. While unofficial, current research indicates that sensitivity to such material may directly impact immunization opinions and may contribute to a residual hesitancy of the vaccine. Large-scale analysis of Facebook data

in the context of hesitation in getting vaccination also finds that anti-vaccination groups are present in the minority, according to the study. However, the anticipated growth in anti-vaccination viewpoints is expected to dominate internet debate within a few years if no intervention is made<sup>[17]</sup>.

Nothing is known about the reasons for spreading misinformation on social media sites<sup>[18]</sup>. However, understanding the logic and related attitudes that cause people to spread falsehood online will help find a solution to the growing danger<sup>[19]</sup>.

### *Vaccine*

WHO reported that vaccines have the greatest impact on public health; it is one of the best achievements of the last century and is estimated to save 2–3 million lives each year. Depending on the origin of the infection, the disease to be suppressed, and therefore the targeted population, a vaccine may need induction of various adaptive immune mechanisms to be effective<sup>[20]</sup>. When making decisions about vaccines, it may result in having a little effect instead of solutions cause unsustainable solutions, miss indirect (e.g., secondary, tertiary, and beyond) effects, may lead to an unintentional result, and fall into wasted time, effort, and resources<sup>[21]</sup>.

### *Vaccine Confidence*

Public confidence in vaccination is vital to sustaining strong vaccination coverage rates required to protect people and families from vaccine-preventable diseases<sup>[22]</sup>. Low vaccine confidence puts a significant economic strain on the economy as a whole, leading to high direct health care costs, implicit productivity losses, and public health care spending in the healthcare industry<sup>[23]</sup>. Parents described some reasons that persuaded them to ignore their young children's vaccination. Each reason for vaccine-hesitant parents was different based on their experiences. Some parents delayed vaccines because they were incompatible with their natural way of living. Based on their experience, each of the explanations for vaccine-hesitant parents was different. Some parents delayed vaccination as they were conflicting with their natural lifestyle<sup>[24]</sup>.

Parents have shared the view that vaccines are harmful and dangerous and that they will have serious, long-lasting adverse effects on their children's adult lives<sup>[25]</sup>. These explanations illustrate how parents could give preference to different reasons not to immunize their children and consider better the various reasons for refusing or delaying vaccinations.

### *Vaccine Misinformation*

Misinformation can be famous, persuasive, and spread with relative ease<sup>[26]</sup>. Misinformation can have an effect on vaccine views and behaviors through a variety of mechanisms. For example, exposure to disinformation on the vaccine raised perceptions of the dangers involved with the vaccine, resulting in a more pessimistic outlook towards vaccination<sup>[27]</sup>.

Misinformation is appealing because it generally involves a concrete answer for wellbeing and a misleading assumption that little effort is needed to obtain good health results. Reporting about misleading information on medical care has been more common and nuanced over the years<sup>[28]</sup>. More research is needed to continuously survey the best ways to help fight existing misinformation and communicate these critical issues in different formats<sup>[29]</sup>.

## ***Vaccine hesitancy***

Vaccine hesitancy is a huge issue that must be addressed since the successful regulation of vaccine-preventable illnesses generally necessitates the indefinite retention of extraordinarily high rates of timely immunization<sup>[30]</sup>. Improving the quality of education and economic conditions among the population is the most critical factor in increased immunization rates as a portion of healthcare quality<sup>[31]</sup>. Overall, education, transparency, and accountability would be essential aspects to keep in mind when trying to increase the trust and confidence of vaccines.

## **METHODS**

### *Research design*

A phenomenological research design wherein the researchers seek to explain the nature of a specific phenomenon by looking at it from the views of those who have experienced it. The research design helped acquired a better understanding through firsthand experience and truthful reporting of actual conversations.

### *Sampling technique*

Purposive non-random sampling was utilized in selecting the respondents. Researchers selected respondents from their sampling frame following the characteristics of the researcher's preferences.

### *Participants of the Study*

The participants of the study were the 20 chosen residents of Surallah, Philippines. Respondents followed the inclusion and exclusion criteria of the study. Inclusion criteria included participants who are a resident of Surallah, possess any kind of media platforms, ages 18-70, and residents who have encountered news about vaccination from unreliable news articles based on the list of verified and reliable sources provided by the researchers. Exclusion criteria included those who are not residents of Surallah, ages below 18 and ages above 70, and with a medical condition that will hinder them from participating in the study.

### *Locale of the study*

The research was conducted in Surallah, Philippines. It is the 18th biggest Municipality of the region based on its urban area and placed 6th of the biggest towns in South Cotabato. According to Philippine Statistics Authority 2020, the Municipality of Surallah is subdivided into 8 Urban Barangays with a total population of 62,756 and 9 Rural Barangays with a population of 31,224. The researchers only selected the respondents from the (8) eight urban barangays because of the researchers' advantage on the accessibility to the respondent's data to be gathered.

The names of the 8 Barangays of the Municipality of Surallah are the following: Centrala, Colongulo, Dajay, Lambontong, Lamian, Libertad (Poblacion), Tubi-Ala, and Veterans.

### *Research Instrument*

The researchers utilized a validated guide questionnaire for the scheduled virtual interview with the use of cellphones and laptops to record the conversation through a videoconference with the respondents.

### *Data Analysis*

Thematic analysis method was utilized for analyzing qualitative data. The proponent of thematic analysis Braun & Clarke (2006) stated that thematic analysis is widely used for qualitative research. The process for thematic analysis started after the scheduled virtual interview. The researchers review the recordings collected and undergo the process of transcribing. After that, the researchers highlight the word, sentences, or paragraphs. Researchers together with their analysts closely examine and analyze the data to identify common themes. From the significant statements, codes and themes are formulated and established. After extensive analysis, researchers end up with an explanatory framework that describes the result of the study.

### *Ethical Consideration*

The research study was approved by the Pharmacy Ethics Committee (PREC) last January 30, 2021. The code of ethics number of the study is registered as SAC PREC-01- FEB-002. Before conducting the interview, the questionnaires used in the study undergone a standardization process for validation and reliability test. For the data gathering, the researchers provided a letter of consent approved by the research adviser and the mayor of the Municipality where the study was conducted. Permission letters were also sent to the respective Barangay Captains of a specific Barangay before conducting the study. Respondents were fully informed and instructed of the purpose of the study, the procedures that would be used to collect the data, and guaranteed that there were no potential risks or costs involved. The respondents provided signed consent that includes the information on the respondent's right to withdraw at any time without reason and penalty, assurance that participant identity will be kept highly confidential, right to access to their data, and right to ask for more information from the researchers.

## **RESULTS AND DISCUSSION**

Among the themes formulated, researchers selected the significant and major themes which conform to the problem statement of the study (Table 1).

**Table 1: Thematic focus on the battle of fake news on misinformation on vaccination**

<b>Statement</b>	<b>Themes</b>
Misinformation regarding Vaccination	<ul style="list-style-type: none"> <li>• COVID-19 vaccine may cause a zombie apocalypse</li> <li>• COVID-19 vaccine may cause death to many people</li> </ul>
Cause and Effects of Misinformation on Vaccination	<ul style="list-style-type: none"> <li>• Social media: a platform for speech and home of misinformation</li> <li>• Misinformation: triggers anger, doubt, fear, anxiety, and mistrust</li> <li>• Fake news experiences: Positive and negative effect</li> <li>• Beliefs on vaccine: Positive and negative effect of Fake news</li> <li>• Fake News on vaccination: Ignites</li> </ul>

	<p>vaccine hesitancy</p> <ul style="list-style-type: none"> <li>• Fake news build doubt and distrust in persons-in-authority</li> </ul>
Strategies and Interventions	<ul style="list-style-type: none"> <li>• Credible websites as tree of knowledge</li> <li>• Research: Solution to fake news deception</li> <li>• Government monitoring and proper dissemination of information of media</li> </ul>

## Misinformation on Vaccination

### *COVID-19 vaccine may cause zombie apocalypse*

Majority of the respondents stated that the fake news they encountered is that the COVID-19 vaccine may cause a zombie apocalypse because of the possible side effects of the vaccine that might bring to a person.

*“The COVID-19 vaccine is in the news. Many say that after you get vaccinated, you would turn into a zombie.” - R13.*

Respondent shared that being vaccinated with the COVID-19 vaccine will make a person turn into a zombie. Similar to their stories, last 2020, a news bulletin graphic of US-based media was reported for their claim that COVID positive patients eat each other after injected by COVID-19 vaccine, which turns out to be fake news after an investigation. Many were captured by this fake news and shared it throughout social media platforms.

The theme conforms to the result of the study done by Freckelton (2020), where he discussed that before the pandemic has started, there are already a lot of theories, claims, and movies representing a post-apocalyptic world in which a virus has converted the populace into zombies<sup>[32]</sup>. Such ideas will leave fear and panic in people's minds and render people vulnerable to engage in implausible conspiracy theories regarding vaccination. Therefore, a number of influences combined produce high levels of fear and anxiety, all of which can affect a pre-existing susceptibility against calm and informed decision-making during a pandemic.

### *COVID-19 vaccine may cause death to many people*

A number of respondents confessed that the fake news they encountered is that the COVID-19 vaccine may have unpleasant side effects that will create some health complications in the person's body and cause death.

*“I have heard so much about vaccination that there were those that died, and it had side effects that caused rashes.”-R19.*

Respondent reported that the COVID-19 vaccine caused unpleasant and unwanted side effects and, worst, may cause death. According to Sarrió (2020), fake news targets to evoke fear among the people<sup>[33]</sup>. For example, disseminating fake news to the population regarding vaccination, such as its adverse effect, may affect the decision-making and point of view of the people who have heard, read, or watch it.

The theme concurred with the findings of the study done by Larson *et al.*, (2018), where they revealed that different surveys showed a high degree of hesitation rather than in terms of vaccination, and the most recurring complaint related to the COVID-19 vaccination was the fear of its side effects <sup>[34]</sup>.

### **Cause and Effects of Misinformation on Vaccination**

*Social media: A platform for speech and home of misinformation*

Based on the study done by Duffy, Tandoc & Ling (2018), their findings show how social media users react to the information they get from social media platforms and how it affects interpersonal relationships between sender and receiver. Most social media users are not aware that the news and information they encountered are fake news <sup>[35]</sup>. One of the experiences respondents shared is that they can get fake news from Facebook and other social media platforms.

*"I mostly see such information on Facebook. This is the most active platform among people."- R17.*

Respondent claimed that Facebook and other social media platforms are now for entertainment and a medium or instrument to deliver fake news. As a result, social media platforms tend to increase the potential for altering the public's view of reality through the broadcast of fake news content. Thus, the findings and literature have shown how social media influence and affect people about vaccine information <sup>[36]</sup>.

*Misinformation: triggers anger, doubt, fear, anxiety, and mistrust.*

Most of the respondents confessed that one of their experiences after knowing that the information they have encountered is a product of fake news is that they feel mixed feelings and emotions such as doubt, fear, anger, fear, and mistrust.

*"My first reaction was that I lost trust in people who always talked about such things. I was upset to find out that the information I knew was wrong. I felt stupid for believing right away. Also, I was angered by how other people exaggerated and triggered my anxiety."- R5.*

Respondent reported that she feels doubtful, but there are times she feels upset and anxious at the same time, knowing that the information she gets is a product of fake news. The theme supports the findings of the study done by Ghanem, Rosso, & Rangel (2018), wherein they revealed that from an emotional perspective, false rumors triggered "fear," "disgust," and "surprise" in replies while truthful ones triggered "anticipation," "sadness," "joy," and "trust" <sup>[37]</sup>. Many experts fear uncivil and manipulative behaviors done on social media will persist and may get worse. This will lead to a split of social media into regulated, safe areas separated from free-for-all zones <sup>[38]</sup>.

*Fake news experiences: Positive and negative effect*

People may tend to misunderstand their family and people around them when they share information concerning vaccination. However, some respondents claimed that their experience regarding fake news on vaccination affects their relationship with their family and people in their community in both positive and negative effects.

*"In such a situation, it has a negative effect such as when you remind people about COVID, they don't listen to what I say. The good effect is that I get to remind them as much as*



*possible. I have done my part to remind them. And apply what I know that will keep them safe.”- R15.*

Additionally, another respondent also shared that the positive effect of fake news is that they can research and share it with their family and people around them. However, the adverse effect is that because fake news can be found anywhere, there are times where they can't guarantee whether it is credible and reliable information.

*“They feel the same way as me for the things I show them. Then you can talk to them in a good way, so they become aware of the truth. The downside is you don't know if what you tell them is true or not. You can't be sure of the things published on the internet to be true or not.”- R8.*

The respondents' statements explained how fake news affect their relationship with their family and the people in their community in both positive ways wherein they can and research and share factual information with their family and other people, while the negative one is that it can cause an argument with them for they have a different perspective and stand regarding vaccinations. Talwar *et al.*, (2019) discussed that fake news also has a positive impact. It enables individuals to authenticate news before sharing as it may lead to positive outcomes such as earning the trust of members within their social groups' improvement in their image<sup>[19]</sup>. In contrast, rumors and fake news created a rife political instability and conflict. Fake news has a severe adverse effect by increasing distrust within and across groups and aggravate the conflict between groups<sup>[39]</sup>.

#### *Beliefs on vaccine: Positive and negative effect of Fake news*

Fake news can affect people in terms of beliefs in vaccination. Respondents reported that their experiences regarding fake news on vaccination have both positive and negative effects on their views on vaccines. It may seem that fake news has no good effect yet, yet there are still some reasons and ways that fake news has a positive one.

*“It has negatively affected me because I easily believed what I read on Facebook. The good effect, on the other hand, is that I become more aware...”- R12.*

Like what R12 stated, respondents stated that fake news affects their belief regarding vaccine nation in both positive and negative ones. The theme supports the study of Kerr *et al.* (2021), wherein they discussed that there are a lot of factors that may influence a person's beliefs on vaccination which may lead for a person to support vaccination or not at all, and one of that factor is being misinformed. The general public must be given access to pivotal information on the authorized vaccines<sup>[40]</sup>. Negative influence of fake news on social media is a significant issue in public health because it has the potential to diminish or improve the efficacy of programs, campaigns, and interventions directed at residents' health, awareness, and well-being in terms of vaccination<sup>[11]</sup>.

#### *Fake News on vaccination: Ignites vaccine hesitancy*

Respondents claimed that fake news makes experience triggers doubt, confusion, and fear, which can affect their decision-making regarding vaccination.

*“It does affect my decision to get myself and my family vaccinated. There is doubt and confusion. Anyone would also believe that those were its effects. You can't be assured that “it is correct”.-R4.*

Respondent acknowledged that fake news triggers different emotions in terms of deciding whether to get vaccinated or not. Additionally, R7 explained the effect of fake news in terms of decision-making.

*"It is the same, fear. You will never know what it is. You don't know what to do, and you don't know if you would want to decide to get vaccinated because you have doubts"-R7.*

A key reason for vaccination reluctance is the propagation of false news and disinformation on social media, which stems from the measles, mumps, and rubella well as autism issues way back. This debate was found to have a significant impact on vaccination decisions in several studies. Therefore, the theme conforms to literature that fake news and disinformation on social media may trigger negative emotions, resulting in vaccine hesitancy and affecting people's decision-making<sup>[41]</sup>.

#### *Fake news build doubt and distrust in persons-in-authority*

Government has an immense responsibility during this pandemic time. They have a lot of responsibility, and one of that responsibilities are disseminating updates and information regarding vaccination. However, some respondents confessed that fake news makes them develop doubt and distrust of persons-in-authority.

*"When for example, someone from the town center says, "Don't go for it because it does not affect anyway." This dramatically cuts down our outlook and relationship with them. This is so because there is doubt and anger. Because of unreliable news, we lose trust in them."-R1.*

R1 recalled that fake news affects his relationship with the persons-in-authority so that they feel doubt and distrust them because some of the persons-in-authority are also spreading fake news regarding vaccination. Fear-along with trust in the government to handle the crisis and the likelihood of exposure-were the leading factors in whether people were willing to get a vaccine<sup>[32]</sup>.

The theme coincided with the results of the study done by Hartley & Vu (2020), where they found out that pandemic requires governments to consider the input of experts and ensure that scientific information will be translated for the public to have a proper understanding. However, misinformation and fake news, such as shared posts via social media, discredit the legitimacy of scientific experts and jeopardize the effectiveness of evidence-based policy proposals. The possibility of long-term implications makes the government look like they are not efficient with their responsibilities<sup>[43]</sup>.

### **Strategies and Interventions**

#### *Credible websites as the tree of knowledge*

The majority of the respondents reported that one of their interventions to avoid encountering fake news is to consult credible websites and people to prevent and fight fake news.

*"To confirm the information I have gathered is right, I read articles in credible websites or watch videos because they help find out the correct information."-R18.*

R18 stated that his strategies include searching and reading articles from credible websites and watching videos as well. Overall, people are pretty good at minimizing their belief in misinformation when shown with a precise evidence-based correction. For instance, providing

reliable alternatives helps to switch out the incorrect information with correct information. Also, repetition of corrections shows to help reduce the continued influence effect of misinformation [44].

The theme aligned with the recommendation of Dixon *et al.* (2015), wherein they advised that more research is needed to continuously survey the best ways to help fight existing misinformation and communicate about these and other vital issues in different formats [29]. There are many credible and legit information sources where a person can turn to in order to validate the information. Having a shred of evidence shows and proves what the data is, will be beneficial to avoid believing in fake news.

#### *Research: Solution to fake news deception*

Most of the respondents confessed that they learned and realized that instead of being deceived by fake news, it is important to research it first to have credible and reliable information. This learnings that they have after they encountered fake news and misinformation regarding vaccination is also one of their interventions to avoid fake news if they reencounter it.

*“Overall, I learned not to believe unfounded information easily. What we should do is read and watch the news. We need to know if what they say is the same as in the news. Another thing I learned is to use social media to verify the news about the vaccine we hear, especially if you suspect that it is fake.”-R11.*

Respondent 11 explained that it is essential to verify the information and not to believe an unfounded report. People must gather a lot of information to learn the best action and solution and not be deceived by fake news. Some of the respondents also confessed that they knew how to scrutinize data and do fact-check simultaneously. Thus, the theme conforms to the study done by Lazer *et al.*, (2018). Their research demonstrates that people prefer information that confirms their prior views and perceives data that confirms their preexisting opinions to be more compelling than erroneous information. Under some conditions, fact-checking may be seen as a beneficial practice. Research on fluency, the ease of information recall, and politics, familiarity bias implies that people prefer to recall facts or their feelings while neglecting the context in which they heard them [45].

#### *Government monitoring and proper dissemination of information of media*

The theme coincided with the findings of the study done by Swire-Thompson & Lazer (2020), where all health communicators such as the media, scientists, governmental bodies, and health practitioners should be eliciting corrective information [44]. Particularly during breaking news and disasters, the majority of the respondents advised that there must be government monitoring and media must find a proper way to disseminate information.

*“First of all, they should control and monitor the information that released on television. Such information must be accurate. They should check the accuracy of what radio men say. Many people, such as vloggers and influencers, are influencing people through the internet these days. They should not give out wrong information. They should fact check their information before posting it on their social media accounts.”-R3.*

R3 explained that government must monitor and control information dissemination. The media must deliver accurate information. Fact-checking must be done first before releasing a piece of

information on different media platforms. Many public health analysts, researchers, and government have called for translucent communication regarding information on the COVID-19 vaccine, including the effectiveness and side effects revealed from clinical trials, to upgrade vaccine uptake<sup>43</sup>. Thus, data must be appropriately disseminated with transparency, and adequate evidence from the medical experts and governments for every information given to the people may affect their perceptions on a specific matter.

### **Limitation of the Study**

A key limitation of the study is that, due to the pandemic, the researchers were unable to gather data personally and instead it was done through a virtual interview for safety purposes of both the respondents, and researchers. Furthermore, due to COVID-19 health protocols, poor internet connection, and signal for the virtual interview, the study limits its coverage to the twenty (20) chosen residents of the Municipality of Surallah, Philippines within its eight (8) urban barangays for better data accessibility. Lastly, because the nature of the study is a qualitative study, it produced large quantities of data and time consuming to analyse.

### **CONCLUSION**

In conclusion, numerous claims and fake news on vaccination about its effectiveness and safety have led people to believe that this information is true and also led to people creating conspiracy theories such as a zombie apocalypse is a possibility and that vaccines are deadly. The respondents showed mixed experiences and reactions upon encountering fake news on the subject of vaccination, like the feeling of anger, fear, doubt, confusion. The respondents also stated that they had developed their critical thinking skills and decision-making when reading health information online. That is why the best intervention is to research further information on vaccination from credible health websites such as the DOH and WHO before concluding something as factual and making decisions and to report such posts on social media that are not factual. It is also considered to report to authorities if there are posts or articles that doesn't follow the House Bill No. 6022 and Republic Act No. 11469.

### **RECOMMENDATIONS**

Having realized that fake news has an impact on the residents of Surallah, Philippines, the researchers formulated different recommendations to different departments of government and future researchers. First, to the Department of Health, to implement educational campaigns such as webinars and disseminate infographics about factual information and interventions to fake news regarding vaccination. Second, to the Local Government Units, to allow residents of Surallah, especially those who live far from town, to have access to right and understandable information which can be translated to their mother tongue. Third, to the Department of Education and CHED, to educate people from rural and urban areas about proper information dissemination to stop spreading fake news about vaccination and engage students to base information on primary and valid sources of information such as DOH and WHO. Lastly, Future Researchers should engage in further researches, such as identifying ways to stop the spread of fake news and help the community to have access to the right and credible information. Further study of fake news and misinformation on vaccination to be performed in other places or areas to have more insights of the people regarding the topic and future researchers to improve more the study by utilizing different research design and using different data gathering procedure.

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## CONFLICT OF INTEREST

There is no conflict of interest among the authors.

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