# Uncovering the Awareness of Coronavirus Disease (Covid-19) In Northern Philippines

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*Abstract* — Awareness is essential factor in control and prevention of communicable diseases especially Coronavirus COVID-19 that has affected everyone in the world. This study investigated the level of COVID-19 awareness in Northern Philippines. Cross-sectional study design and descriptive analysis Pearson correlation was used. Likewise, researchers developed a questionnaire that has undergone validity and reliability testing. The majority of those who responded to the questionnaire were highly knowledgeable about COVID-19 in terms of signs and symptoms, mode of transmission, and preventive steps. The key sources of knowledge about COVID-19 were YouTube, television, and WhatsApp. In conclusion, people's understanding of COVID-19 is extremely high, and the source of knowledge represents the studied population's concern. Adults should continue to campaign for universal health guidelines and provide themselves with factual data obtained from official government agencies with the authority to disseminate such statistics.

*Keywords — COVID-19, Public Awareness, Source of Information, Northern Philippines*

## I.    Introduction

When the new coronavirus (COVID-19) pandemic epidemic triggered a pneumonia outbreak in Wuhan, China, it constituted a worldwide public health disaster (McKenzie & Smith, 2020). Wuhan is a large city in central China with a population of more than 11 million people, located around 1,200 kilometers south of Beijing. In early 2020, 440 confirmed COVID-19 infections were reported in 13 provinces and municipalities in mainland China, as well as five other nations and areas on the other side of the planet (Peng Wu, 2020). COVID-19 has been classified a pandemic illness by the World Health Organization (WHO), impacting approximately 118,000 individuals in 110 nations and territories globally, with the potential for further global spread (WHO, 2020). Due to the pandemic's worldwide spread, the precise threshold for achieving those parameters is unknown. COVID-19 infected about fifty million people worldwide, resulting in one million fatalities (Alwan, 2020). The first local broadcast happened in the Philippines on March 7, 2020. (Haw et al., 2020).

The coronavirus-19, according to the National Foundation for Infectious Diseases (2020), is responsible for the common cold and sore throats in the upper respiratory tract. An infection

with the beta coronavirus that causes COVID-19 may range from cold-like symptoms to life-threatening respiratory tract infections like Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS). The beta coronavirus is found in bats (SARS). In humans, COVID-19 is a previously unknown strain. A zoonotic virus, such as the coronavirus, is one that may spread between animals and humans. SARS and MERS were spread to humans by civet cats and dromedary camels, respectively, according to extensive research. Coronaviruses that have not yet infected humans are found in animals (WHO, 2019). Several of the patients in the Wuhan, China, COVID-19 epidemic came from a wide variety of sources, including the seafood and live-animal trades. Patients who had no link to animal markets, however, suggested that the illness was being transmitted from person to person. According to Chinese authorities, there was a constant flow of people-to-people transmission in China. People-to-people transmission of the disease has been documented in nations outside of China, including the United States (Allam, 2020).

Community knowledge of any illness is critical for avoiding its spread (McIntyre, 2020). Numerous studies on community knowledge of communicable illnesses have been undertaken in the Northern Philippines. Research on COVID-19 examined the respondents' demographics and their degree of understanding of the virus's indications and symptoms, route of transmission, various methods of prevention, and source of information (Olaimat et al., 2020).

This study sought answers to the following questions:

1. What is the socio-demographic characteristics of the respondents in terms of gender, age, civil status, educational attainment, and occupation?
2. What is the primary source of information that the respondents use to learn about COVID-19?
3. What is the level of respondents' awareness about the signs, symptoms, modes of transmission, and prevention of COVID-19?
4. Are there significant relationships between the respondents' socio-demographic characteristics and their level of awareness of COVID-19?

Likewise, null hypothesis posits that there are no significant relationships between the respondents' socio-demographic characteristics and their level of awareness regarding signs and symptoms, modes of transmission, and prevention of COVID-19.

## II. Methodology

**Method**

Ethical approval was obtained after submitting the paper for review. Using descriptive research design, the were data collected from the general public in Northern Philippines with inclusion criteria as the following: a) they must be 18 years old or older, b) they must be able to read and write, c.) they are not working as health-care providers who are employed in any health care field were excluded because their experience may cause biased effect on the results of the

study. A total of 501 respondents participated voluntarily in this study. The researchers made use of a self-made survey questionnaire with information adopted from WHO- and CDC-reported information about the disease (CDC, 2020). The first part of the survey questionnaire consisted of the respondents' socio-demographic characteristics including age, gender, social status, educational level, occupation, and source of information on COVID-19. Second part addressed the respondents' levels of awareness on COVID-19 regarding signs and symptoms, mode of transmission, and prevention. Likert scale using extremely aware, moderately aware, somewhat aware, slightly aware and not at all aware was used to determine the respondent's responses. Moreover, the instrument was subjected to content validity and reliability testing. Content validation was done by five experts, namely, two nurses from the Infection Control Unit of a government hospital and two physicians from neonatal intensive care unit, and one Physician from the Emergency Unit of a government hospital. They checked into the content domain and the adequacy of the items in the questionnaire. Also, internal consistency was assessed, and Cronbach alpha result was adequate 0.93 indicating evidence of reliability. The instrument was administered online.

**Data Analysis**

The data gathered were tallied and analyzed using statistical software SPSS Version 21. Percentages and frequencies were used to determine the respondents' demographic profiles, including their sources of information on COVID-19. The mean was utilized to determine the public's levels of awareness of COVID-19 in Northern Philippines. Finally, bivariate correlation was used to determine the relationship of the respondents' demographic profiles and their levels of awareness on COVID-19, alpha levels were set at .05 level of significance.

### III. Results and Discussion

Table 1 presents the socio-demographic profile of the respondents including gender, age, social status, education, and occupation. Using descriptive analysis, frequency and percentage. 68.1% of the participants were female and 31.9% were male. Majority of the sample aged between 21-30 years old. About half of the sample were single and the other half were married. Regarding educational level, majority of the participants were bachelor's degree followed by secondary then diploma. For occupation, more than half of the sample has no occupation.

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Table 1. Sample socio-demographic characteristics (n = 501)

| Variables | Profile | Frequency | Percent |
|---|---|---|---|
| Gender | Male | 160 | 31.9 |
| | Female | 341 | 68.1 |
| Age | 15–20 | 117 | 23.4 |
| | 21–30 | 223 | 44.5 |
| | 31–40 | 102 | 20.4 |
| | 41–50 | 44 | 8.8 |
| | 51 and above | 15 | 3.0 |
| Civil status | Single | 250 | 49.9 |
| | Married | 217 | 43.3 |
| | Separated | 24 | 4.8 |
| | Widowed | 9 | 1.8 |
| | No response | 1 | .2 |
| Educational Attainment | Primary | 22 | 4.4 |
| | Intermediate | 42 | 8.4 |
| | Secondary | 139 | 27.7 |
| | Diploma | 54 | 10.8 |
| | Bachelor's Degree | 225 | 44.0 |
| | Master's Degree | 13 | 2.6 |
| | Doctoral Degree | 5 | 1.09 |
| | None | 1 | 0.2 |
| Occupation | Teacher | 46 | 9.2 |
| | Office/Employer | 30 | 6.0 |
| | Soldier | 29 | 5.8 |
| | Customer Service Job | 75 | 15 |
| | Administrative Staff | 31 | 6.2 |
| | Businessman | 13 | 2.6 |
| | Other | 17 | 3.4 |
| | None | 260 | 51.9 |

Regarding source of information about COVID-19. Table 2 present the frequency and ranking of the possible source used by the participants in order to get information about the COVID-19. More than half of the sample used YouTube as their primary source followed by television and WhatsApp. The least used sources were Instagram, Health brochure, and Facebook they have minimal number of users.

Table 2. Sources of Information on COVID-19

| Sources of information | Frequency | Rank |
|---|---|---|
| YouTube | 345 | 1 |
| Television | 189 | 2 |
| WhatsApp | 147 | 3 |
| Friend | 119 | 4 |
| Internet website | 104 | 5 |
| Hospital and health center | 85 | 6 |
| Family member | 79 | 7 |
| Radio | 67 | 8 |
| School | 60 | 9 |
| Newspaper | 41 | 10 |
| Instagram | 36 | 11 |
| Health brochure | 32 | 12 |
| Facebook | 31 | 13 |

Concerning level of awareness, Table 3 shows the level of awareness about COVID-19 signs and symptoms that includes fever, cough, difficulty of breathing, and shortness of breath. From the table, the respondents are extremely aware of the different signs and symptoms. This is evidenced by the computed overall mean of 4.33 which is interpreted as extremely aware.

Table 3. Level of awareness of COVID-19 signs and symptoms

| Signs and symptoms | Mean | Meaning |
|---|---|---|
| Fever | 4.39 | Extremely Aware |
| Cough | 4.37 | Extremely Aware |
| Difficulty of breathing | 4.28 | Extremely Aware |
| Shortness of breath | 4.27 | Extremely Aware |
| Mean | 4.33 | Extremely Aware |

The knowledge of the signs and symptoms have significant impacts. When one is aware of the signs and symptoms, they are able to distinguish which one is COVID positive or not. Likewise, the person experiencing it can cause them to seek medical consultation immediately. They are provided with the intelligent decision to engage with professional medical experts in order to protect their health.

Likewise, Table 4 shows the level of awareness of the mode transmission. It is highlighted from the table that as to the methods of transmission on the COVID-19, the results show that the respondents are extremely aware on the following: Respiratory droplet when an infected person cough or sneeze with a mean of 4.53; and direct contact with the patient with a mean of 4.60.

Table 4. Level of awareness of COVID-19 mode of transmission

| Mode of Transmission | Mean | Meaning |
|---|---|---|
| Respiratory droplet when an infected person cough or sneeze | 4.53 | Extremely Aware |
| Direct contact with the patient | 4.60 | Extremely Aware |
| Possibility of transmission from infected bats | 3.52 | Moderately Aware |
| Weighted mean | 4.22 | Extremely Aware |

Interestingly, the respondents have moderate awareness (mean of 3.52) on the possibility of transmission of the virus to infected bats. This shows that respondents are adamant in understanding this information because, this may not be a fact, but only a fallacy.

However, as to the mode of transmission on the novel corona virus, the respondents show that they are extremely aware as shown by the overall a mean of 4.22.

On the other hand, table 5 above shows the level of awareness of the respondents on the methods or ways to prevent novel corona virus (COVID 19). The items on: Avoid close contact with people who are sick; and cover mouth when coughing was noted to be the highest and both

with a mean of 4.86 and a descriptive interpretation of extremely aware. Moreover, the respondents are also noted to be extremely aware on the following: use tissue when coughing or sneezing with a mean of 4.87; Wash hands with soap and water to at least 20 seconds with a mean of 4.71; Avoid touching your eyes, nose, mouth with unwashed hands with a weighted mean of 4.63; Use an alcohol-based hand sanitizer with at least 60% alcohol if soap and water is not readily available with a mean of 4.57; and lastly, stay at home when you are sick with a mean of 4.53.

Table 5. Level of awareness of ways to prevent COVID-19

| Ways to prevent COVID-19 | Mean | Meaning |
|---|---|---|
| Wash hands with soap and water to at least 20 seconds. | 4.71 | Extremely Aware |
| Use an alcohol-based hand sanitizer with at least 60% alcohol if soap and water is not readily available. | 4.57 | Extremely Aware |
| Avoid close contact with people who are sick. | 4.86 | Extremely Aware |
| Avoid touching your eyes, nose, mouth with unwashed hands. | 4.63 | Extremely Aware |
| Stay at home when you are sick. | 4.53 | Extremely Aware |
| Cover mouth when coughing. | 4.86 | Extremely Aware |
| Use tissue when coughing or sneezing. | 4.84 | Extremely Aware |
| Mean | 4.71 | Extremely Aware |

In general, the respondents are extremely aware on all the above-mentioned methods or ways on how to prevent the COVID-19 with a mean of 4.71. This may be attributed to the low number of confirmed COVID 19 cases in Northern Philippines as compared to the other regions of the country wherein there has been surge of cases.

Table 4. Coefficient correlation between sociodemographic characteristics and COVID-19 awareness

| | Variable | Gender | Age | Status | Education | Occupation |
|---|---|---|---|---|---|---|
| *Signs and symptoms* | Fever | -.04* | .17 | .11 | .14 | -.09 |
| | Cough | .08 | .03* | -.00* | .02* | -.09 |
| | Difficulty breathing | .06 | .11 | .09 | .05* | -.18 |
| | Shortness of breath | .04* | .08 | .06 | .07 | -.09 |
| *Mode of transmission* | Respiratory droplet | .00* | .08 | .07 | .05* | -.05* |
| | Direct contact | -.05* | .02* | .06 | .00* | -.03* |
| | Possibility of transmission | .02* | .04* | .07 | .00* | -.05* |
| *Preventive measures* | Washing hands | .02* | .09 | .06 | -.06 | -.03* |
| | Use of alcohol | -.00* | .08 | .06 | -.06 | -.02* |
| | Avoiding close contact | .03* | .08 | .02* | -.04* | -.04* |
| | Staying at home | -.04* | .09 | .10* | -.01* | -.06 |
| | Covering mouth | -.03* | .12 | .09 | -.00* | -.08 |
| | Using tissue when coughing | -.03* | .09 | .05* | .04* | -.03* |

$*p < .05$ =significant

**Discussion**

The knowledge of the level of awareness in an important information that everybody needs to be oriented with. Regarding signs and symptoms of COVID-19, most of the respondents remarked that they were aware with a computed mean of 4.33. This suggests that the respondents knew the signs and symptoms such as fever, coughing, difficulty breathing, and shortness of breath. Knowing these signs and symptoms suggests that the respondents may be able to identify who among their friends and relatives are possibly infected with the disease (CDC, 2020). This will be validated through a laboratory test such as the swab test.

On the other hand, the respondents also remarked that they were fully aware of the mode of transmission of COVID-19. They are well aware that respiratory droplets from an infected person and direct contact with an infected patient were the modes of transmission of the virus. Respondents may know how to cut the chain of infection by not exposing themselves to these kinds of situations (Straif-Bourgeous et al., 2014).

Besides, the respondents were also aware of the ways to prevent the disease with a mean of 4.73. The respondents reported that they were extremely aware which is evidenced by a computed mean of 4.33 of COVID-19 as a whole. According to Johnson & Hariharan (2017), public health awareness on health-related issues is essential in providing information related to the prevention of an infectious disease.

Moreover, age, civil status, education, and occupation were significantly related to their level of awareness that fever is a symptom of COVID-19 (Ledda et al., 2020). As a result, it can be deduced that older people are well aware of the symptoms of COVID-19. Likewise, female people are more conscious of the effects of COVID-19. This explains why females are more detailed in the prevention of the disease to their members of the family. Moreover, there is evidence that higher level of education can contribute to greater understanding of the symptoms of COVID-19. This is relevant because, highly educated people have better understanding of what is currently happening and make relevant decisions based on their knowledge. Likewise, people with jobs appear to have better understanding of the symptoms of COVID-19. When employed, they want to be free from infection because they are providing food for the table and providing the needs of the family.

Moreover, civil status and occupation were significantly related to awareness that difficulty breathing is a symptom. According to Singhal (2020) difficulty breathing may be difficult for patients to identify this symptom themselves. Nevertheless, Xu, et al., (2020) explained that there is often respiratory distress in severe cases of COVID-19.

Thus, a person's work was a strong predictor of their awareness of shortness of breath as a symptom. Similarly, Allali, et al. (2020) said that COVID-19 patients report experiencing respiratory pain. An understanding of the symptoms may help identify those who may be infected. Although remaining at home is a preventative strategy for COVID-19 transmission, age and civil status were both strongly associated with this knowledge. The necessity of being at home was also explored by Guner et al., (2020). Age and social class have an impact on people's understanding of the need of covering their mouths to avoid the transmission of sickness. Similarly, Esposito et al. (2020) said that a cotton mask is a COVID-19 preventative tool. Wearing masks or facial coverings reduces the spread of COVID-19, according to Desai & Aronoff (2020).

## IV. Conclusion and Recommendations

The COVID-19 health catastrophe has given us a chance to study and comprehend the illness and consider ways to avoid transmission and eventually eliminate it. According to the study, COVID-19 is well-known in contemporary culture, with respondents from all ages, gender, and educational backgrounds aware of its existence. This is a chance for all of humanity to work together to wipe out the sickness once and for all. The spread of a disease may be prevented with the timely dissemination of information through social media. The Philippine government is making every effort possible to make the public aware of its educational campaign to raise public

awareness about COVID-19 and eventually prevent it from spreading. Saudi Arabians' perceptions about COVID-19 were revealed in research. There is the potential for the research to be reproduced elsewhere in the Philippines.

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