Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
An analysis on the panic during COVID-19 pandemic through an online form

Christian Jasper C. Nicomedes\textsuperscript{a,}\textsuperscript{*}, Ronn Mikhael A. Avila\textsuperscript{b}

\textsuperscript{a} The Masters Psychological Services, Philippines
\textsuperscript{b} Trinity University of Asia, Philippines

\begin{abstract}
With the rapid spread of global pandemic coronavirus disease 2019 (COVID-19), people around the world express panic in various behaviors. This affects the economy of the county, social values, and psychological stress of the people involved regardless of the directness of contact with the infected. This study aims to analyze the panic responses of the people as well as the perception on the global issue through an online survey. The researchers used Health Anxiety Inventory and open ended questions regarding the feelings, thoughts and actions of people during the enhanced community quarantine. Quantitative and qualitative data were both analyzed and interpreted interactively. Results also show that there is a significant difference (\(p = 0.028\)) in the Avoidance behavior between locations. Furthermore, a significant difference (\(p = 0.000\)) also shows on the Symptoms of Hypochondriasis between exposure to COVID-19. COVID-19 Panic Framework were also conceptualized with the following themes arranged from negative to positive behaviors: Indifference, Annihilation, Nihilism, Paranoia, Sadness, Fear, Transmission of Virus, Shock, Government Blaming, Anxiety, Relating to Past Pandemics, Worry on Self/Family/Others, Information Dissemination, Composure, Compliance, Protection, Cautiousness, Optimism, and Health Consciousness. In conclusion, levels of health anxiety were consistent regardless of location and exposure to COVID-19 patients. Lastly, spectrum of panic consequences due to COVID-19 pandemic were constructed.
\end{abstract}

\section{Introduction}

In late December 2019, a novel coronavirus disease (COVID-19; previously known as 2019-nCoV) was reported to spread from Wuhan, China that eventually affected 26 countries worldwide (Xu et al., 2020). It is a person-to-person transmission however, it is still not proven to come from an asymptomatic carrier with normal chest computed tomography findings (Bai et al., 2020). As of writing, there are already around 300,000 confirmed cases, around 10,000 deaths and almost 100,000 recovered (\textit{World Health Organization}, 2020).

With the vast number of people being affected in just a short period of time, it overwhelms countries that result in being unable to provide health care, maintain the society of their community, or keeping the function of the economy. This could cause the disruption of the world economy, decline of stock markets, scarcity of supplies, worsening political instability, and governments losing hundreds of billions of revenues (\textit{Miller}, 2006).

This kind of global pandemic elicits various reactions from people depending on cultural orientations. Media communication may appear either accurate and effective to inform the public. However, it can also misinform and contribute to unnecessary public panic and result in undesirable responses (Jones et al., 2010). Real infections diseases have a vigorous psychological effect that becomes “moral panic” that spreads globally and is accompanied by a true sense of stigma (Gilman, 2010).

Moral panic is an extreme sense of concern about a threat that is perceived as destruction to physical safety or culture of the society (Goode, 2017). It is often used by journalists to describe how politicians and other media institutions attempt to incite (McRobbie and Thornton, 1995). It differs from social anxiety by the level of concern of safety. Social anxiety deals respectively on the basic issue whereas moral panic, together with the awareness of industrial risks, were mostly included in a discourse of safety (Ungar, 2001).

One of the reasons for this panic is that the information from the experts were not disseminated enough to reach the community at the right time (Greco, 2005). Likewise, lack of information and misinformation, often fueled by exaggerated popular media headlines and foci, have been shown to reinforce health-related fears and phobias (Taylor and Asmundson, 2004).

Another study found out that in times of any epidemic, social responses simultaneously appear as epidemic develops as well as the awareness of people. This is due to the urge of people to gain rationality over the problem (Panter-Brick and Fuentes, 2009). Other than
managing the society, it is burdensome to manage public panic since it is an existential state (Schmidt et al., 2002). Criteria of panic attacks include the following: recurrent unexpected panic attacks, persistent concern about subsequent attacks, worrying about the effects of the attack such as losing control, having a heart attack, and going crazy insane, and a significant change in behavior that is related to the attacks (Craske and Barlow, 2007). It could simply be defined as the arousal of fear appearing at an inappropriate time (Barlow, 2004).

This panic results in egoism such as panic buying, xenophobia and believing in every news item seen in social media. Crisis is created when there is a disbalanced and unintegrated society (Alakykin-Izvekov, 2017) that is very evident in the behavior of Filipinos since the announcement of COVID-19 cases in the Philippines. People are always willing to share its resources within the family but too reluctant to share it to other people because of the need to secure their individual development (Thayer, 2009). This can be seen as people were seen hoarding basic necessities especially alcohol, toilet paper, and other supplies (Madarang, 2020). With this, other people are left scarce of the supplies and now subject to danger. Burks (1966) calls it psychological egoism. It is a view that all reasonable desires are completely egoistic in nature.

It is also very evident that people tend to exploit resources in times of wide distress. Since the start of the COVID-19 scare, the majority of business establishments took the opportunity to increase prices on the basic necessities. Fortunately, the Department of Trade and Industry (DTI) issued a price freeze to control the suggested retail price of these basic necessities. However, the creativity of business owners still arose to take advantage of the situation. Supplies were hoard and were offered online at a much greater price. These acts violate the Consumer Act or Republic Act (RA) No. 7394 where overpricing is considered as an unfair sales act that involves taking advantage of consumers in times of need (Rivas, 2020).

Furthermore, the increasing number of COVID-19 cases emancipate xenophobic behavior directed to chinese people (Aguilera, 2020). Chinese nationals have been banned from some restaurants, and cruise ship operators have declared prohibitions on Chinese nationals from traveling on their cruise ships (e.g., Evelyn, 2020; Lowen, 2020). There are 32% of U.S. respondents in the Morning Consult poll accusing the Chinese government for the spread of COVID-19 into the U.S. The increasing number of infection-related xenophobia has been reported in many previous epidemics and pandemics, and appears to be an inappropriately common response when people are threatened with an infection that originates from outside of their community (Taylor, 2019).

On another note, the first confirmed COVID-19 case in the Philippines was on March 7, 2020. With the rapid growth of cases in the Philippines, various government agencies released a resolution on March 12, 2020 regarding the management of COVID-19 situation. It includes the suspension of classes in all levels, the prohibition of mass gathering, and ruling on community quarantine (Duque et al., 2020). This elicited panic responses from the affected areas. The situation was worsened by the reactions in social media especially in the midst of political issues in the country. The reactions were more ignited by the confirmation bias in which the tendency to interpret information in a manner that confirms the previously acquired misconceptions (Miller et al., 2009). The concern from the spread of disease was quickly turned into an argument of those who agree with the government and those with the opposition. In addition, the problem with the misinformation and disinformation also circulates the social media where more false speculations arise.

An emerging line of research exploring what might be called misinformation studies is trying to understand how and why fake beliefs arise during public health crises. Media coverage of the new coronavirus is still unfolding and has not yet been rigorously analyzed. But a study of two earlier epidemics that arrived just as new reports about COVID-19 continued to mount reveals the difficulty in reversing false rumors about a health crisis (Stix, 2020).

Panic attack is a distinct episode of anxiety. It is usually characterized by pounding heart, sweating, trembling, shortness of breath, feelings of choking, chest pain, nausea, stomach ache, dizziness, derealization, depersonalization, feeling of losing control, overwhelming fear of death, tingling, and chills (Berman, 2009). Living during this time of pandemic is a new experience to the majority of the population all over the world. COVID-19 may not be the most lethal but it is one of the pandemics that paralyzes not only our society but also our psychological well being. Hearing news including the spread of misinformation all over the places, people experience catastrophic misinterpretation of bodily sensations, a distinctive characteristic of panic disorder (Ohtst and Tuschen-Caffier, 2018). Previous studies identified a wide range of factors that contribute to health anxiety. This includes dysfunctional illness beliefs, catastrophic misinterpretation, somatopsychic amplification and neuroticism (Bailey and Wells, 2016). Hence, the rationale of this study is to investigate the consequences of this panic due to the COVID-19 outbreak.

This study delved into the panic of Filipinos during the COVID-19 pandemic in the Philippines. Specifically, it focused on psychological effects such as health anxiety, severity of avoiding the situation that causes fear or other unpleasant feelings, seeking reassurance about health. Likewise, the thought, experienced particular feeling and the action taken after the existence of COVID-19 will also be explored.

2. Methodology

2.1. Research design

This mixed methods study was used to address the panic responses of Filipinos with regards to the COVID-19 pandemic. Fig. 1 shows the convergent parallel mixed methods design was utilized where both qualitative and quantitative data are collected in parallel, analyzed separately, then merged (Creswell and Clark, 2011). The first phase was to gather data through online form that contains both quantitative and qualitative questionnaires. For the quantitative part, the Health Anxiety Inventory (HAI) Short Week was adapted to test the Illness Anxiety on COVID-19 among Filipinos. There are four sections in the health anxiety
inventory. The main section is composed of symptoms of health anxiety (hypochondriasis). The second section comprises questions about people’s attitudes to how awful it would be if they were to develop a particular illness. This is scored separately and is regarded as a treatment process measure. Ratings of avoidance and reassurance seeking are also included. The Health Anxiety Inventory main section is scored on a 0–3 basis and the section total is used. For the short version this is the first 14 questions. Four questions regarding usefulness are then totalled separately. Reassurance and avoidance seeking are simply totalled but the “other” items in each are not included in the total (Salkovskis et al., 2002). Afterwards, the qualitative data that was gathered through an open-ended question explored the reaction of Filipinos regarding the spread of COVID-19. The reason for collecting both qualitative and quantitative data is to corroborate results from the two forms of data to come up with a better insight on the problem than what would be gathered by either type of data separately. Thus in the second phase of the study, the responses were analyzed separately resulting in separate qualitative and quantitative outcomes. Lastly, the respondents who acquired extreme scores from the quantitative questionnaires were extracted to differentiate their panic responses towards COVID-19.

Due to limitation of social contact and urgency of this study, the researchers decided to gather data through online forms. The instruments were posted on various social media platforms to gather wider reach of data for a more generalizable result. The researchers adapted the Health Anxiety Inventory (HAI)-Short Week and included three open-ended questions:

1. What came to your mind when you knew the existence of COVID-19?
2. How do you feel when you know the existence of COVID-19?
3. What actions have you done with the knowledge of existence of COVID-19

2.2. Description of respondents

Researchers gathered both quantitative and qualitative data through online forms. Respondents were reached through convenience sampling. A total of 538 responses were analyzed that consisted of 253 (47%) working, 41 (7.6%) non-working and 244 (45.4%) students. The breakdown of respondents could be due to the access to technology since working and studying Filipinos have at least a gadget to access online forms. Another reason could be the non-working respondents do not appreciate the relevance of answering online forms since they are prioritizing more their survival.

Furthermore, the average age is 23.82 ranging from 13 to 67 years old. This also proves that most of the adolescents are active in using social media and the internet. The exposure to patients with COVID-19 was also surveyed with 7 (1.3%) direct exposure, 391 (72.7%) no exposure and 140 (26.0%) exposure within the community. During the time of writing, there are still few cases of COVID-19 in the Philippines and is concentrated in the capital region.

2.3. Data analysis

Both quantitative and qualitative data were analyzed simultaneously from the results gathered in the online platform. Qualitative data were analyzed with the use of Statistical Package for the Social Sciences version 21. Mean and Standard Deviation were utilized to acquire the level of Health Anxiety (symptoms of hypochondriasis, attitude to how awful if COVID-19 were developed, avoidance, and reassurance seeking) among respondents. Furthermore, to compare the Health Anxiety between locations (within and outside Metro Manila), Mann–Whitney U were utilized due to the imbalance of representation between groups. Kruskal–Wallis Analysis of Variance were also used to compare the means between exposure (no exposure, exposure within the community, and with direct exposure). Lastly, an inductive way of thematic analysis was conducted to extract the themes directed by the content of the data.

3. Results and discussion

3.1. Limitations

The data were gathered through an online survey with a total of 538 responses. Though the sample size was not enough to generalize for the whole population, the researchers recommend validating the results on further studies. In addition, the profiles of the respondents in terms of exposure to COVID-19 and location were not equally distributed thus nonparametric statistical analysis were used. The qualitative data gathering could have been more thorough through the use of a face-to-face interview, however, due to the implementation of community quarantine and physical distancing, this has not been possible. Moreover, the online survey only lasted for three days, hence the continuance of data gathering is advised to explore the changes of health anxiety across time. Lastly, there are very limited literature and studies with regards to the effects of COVID-19 to the panic of people since this is the only pandemic experienced in this generation that imposed this much safety protocols.

3.2. Quantitative results

The online survey ran for three days gathering a total of 538 responses. The researchers hypothesized that there is no significant difference on the Health Anxiety between Locations and Exposure. In general, the level of Health Anxiety in all domains of HAI were moderate. Since the result was tested on the first two weeks of the lockdown, there might have been changes on the levels afterwards. Thus the researchers left the online survey to further study the changes of Health Anxiety in relation to the duration of lockdown.

Table 1 shows the level of Illness Anxiety among respondents. It is very evident that respondents are suffering from moderate illness anxiety in all aspects: symptoms of hypochondriasis, attitude on acquiring COVID-19, avoidance, and reassurance seeking behavior. This means that the level of illness anxiety was not that high that it requires emergency psychological intervention and not too low that should be neglected.

Table 2 shows the significant difference in illness anxiety between locations. Results show that there is no significant difference on the symptoms of hypochondriasis, attitude on acquiring COVID, and reassurance seeking behavior. However, it reveals that there is a significant difference in avoidance behavior with respondents residing inside Metro Manila ($M = 29.59, SD = 10.26$) has less avoidance behavior than those living outside Metro Manila ($M = 31.76, SD = 11.13$). Possible reasons would be the differences on awareness, education, and proximity to COVID cases.

Table 3 shows the test of difference on illness anxiety between exposure to COVID-19. Results show that there is no significant difference in attitude towards acquiring COVID-19, avoidance, and reassurance behavior. However, it reveals that there is a significant difference ($p<0.00$) on symptoms of hypochondriasis. Respondents with direct

| Table 1 Level of illness anxiety of respondents. | Mean | Standard deviation | Interpretation |
|-----------------------------------------------|------|-------------------|---------------|
| Symptoms of Hypochondriasis                    | 29.43| 6.82              | Moderate      |
| Attitude to how Awful if COVID-19 were Developed | 7.48 | 2.64              | Moderate      |
| Avoidance                                     | 30.37| 10.63             | Moderate      |
| Reassurance Seeking                           | 38.16| 10.70             | Moderate      |
Contact with COVID-19 patients has higher symptoms (\( M = 32.29, SD = 7.32 \)), followed by exposure within the community (\( M = 31.36, SD = 7.02 \)), and lastly, without exposure (\( M = 27.70, SD = 6.61 \)). It can be inferred that symptoms of hypochondriasis rise as people become in closer proximity with COVID-19 patients.

The rise of research regarding the psychological effects of COVID-19 focuses on the anxiety, existential crises and interventions in which a significant number came from China. This research is few of the initial studies exploring the psychological consequences and impact of the pandemic outside China. A study shows that generalized anxiety disorder, depressive symptoms and poor sleep quality were very prevalent during this pandemic (Huang and Zhao, 2020). Another study shows that people mostly affected by this pandemic are women, people with existing psychiatric illness, people living in urban areas and those with preexisting chronic disease (Özdin and Bayrak Özdin, 2020). Tan et al. (2020) found out in their study that nonmedical health care personnel are more prone to develop psychological distress during this outbreak. Most of these researches focus on the levels of specific psychological distresses of the pandemic however, none of these explored on the qualitative effects similar to the results of this study.

**Qualitative results**

Fig. 2 shows the effect of COVID-19 to the panic among Filipinos. From the 1993 responses of 538 respondents exploring the feeling, thinking, and behavior caused by the COVID-19 pandemic, the following themes were extracted: Health Consciousness, Optimism, Caution, Protection, Compliance, Communication, Information Dissemination, Worry on self/family/others, Relating to Past Pandemics, Anxiety, Government Blaming, Shock, Transmission of Virus, Fear, Sadness, Paranoia, Nihilism, Annihilation, and Indifference. These themes were ranked by one hundred (100) experts based on the positivity and negativity of the themes. The researchers finalized the framework to create a spectrum of panic consequences of the COVID-19 pandemic from the most pessimistic to the most optimistic.

### 3.3. Health consciousness

One effect of COVID-19 is health consciousness. It is defined as a dominant way of thinking about personal habits from the diet to the lifestyle one has such as sleeping patterns and exercise. All are done to maintain or regain health (Nuriddin, 2018).

People became health conscious to boost the immune system – a way to prevent self from being infected. It is done by simultaneously checking their health status such as body temperature:

“I often check my health issues and body temperature.”

People also start to eat healthy foods to regain their immune system. When asked about their behavior after the announcement of arrival of COVID-19, they responded:

**“Eating healthy foods, gaining back my immune system”**

According to Ferreira et al. (2017), there are five levels of health consciousness: Medically Dependent Health Consciousness, Illness-Centered Health Consciousness, Informed Health Consciousness, Enlightened Health Consciousness, and Transformative Health Consciousness. These responses fall under Illness-Centered Health Consciousness that is defined as only a reaction to illnesses and only takes for a short period of time to help recover or prevent from having illness. These behaviors are usually not sustained over time.

Furthermore, this behavior is also done to prevent older people – in which are more prone from acquiring the disease:

“I sometimes check myself if I am having symptoms because I am afraid for the elderly that they might get this infectious disease especially my parents.”

Also included here is the constant sanitation and hygienic practice:

“I try to keep myself safe from the virus by wearing mask everytime I go outside and sanitizing my hands”

### 3.4. Optimism

On the other hand, optimism is also seen. It is defined as a personal attitude that primarily focuses on the most desirable aspects of a situation. Despite the spread of COVID-19, people still see the light of overcoming this by trusting the scientists:

“COVID-19 has instilled fear among many, but scientists all over the world are there and ready to fight back.”

Also, the hope of resolving this on a short amount of time:

“It will easily be spreaded but it will be addressed in a short period of time.”

According to a study by Ingledew and Brunning (1999), preventive health behavior has a positive effect on comparative optimism. Furthermore, optimism is also revealed to be one of the key components of resilience (Boldor et al., 2012).

### 3.5. Cautiousness

Moreover, along with health consciousness, people also start to be cautious on the sanitation of the surroundings. When asked on their behavior after the awareness of COVID-19, they responded with:

“A little more cautious about the cleanliness of myself and my surroundings.”

“I need to be extra careful and aware of the environment, especially my health.”

“I try to keep myself safe from the virus by wearing mask everytime I go outside and sanitizing my hands”

This also includes the government mandate social distancing in which people are requested to keep at least one meter away from each other to avoid transmission of COVID-19:

“Wearing face masks, bringing alcohol, trying to go home as soon as possible, staying away from crowded places, as much as possible.”

“Maintained my hygiene practices, continued staying at home, not engaging with people who are being loud and irrational about it, learning about the virus and more tips on how to prevent

### Table 2

| Difference between Location                  | \( p \)-value | Decision | Interpretation |
|---------------------------------------------|---------------|----------|---------------|
| Symptoms of Hypochondriasis                 | 0.746         | Accept H0| Not Significant|
| Attitude to how Awful if COVID-19 were      | 0.267         | Accept H0| Not Significant|
| Developed                                   |               |          |               |
| Avoidance                                   | 0.028         | Reject H0| Significant   |
| Reassurance Seeking                         | 0.899         | Accept H0| Not Significant|

### Table 3

| Difference between exposure to COVID-19     | \( p \)-value | Decision | Interpretation |
|--------------------------------------------|---------------|----------|---------------|
| Symptoms of Hypochondriasis                | 0.000         | Reject H0| Significant   |
| Attitude to how Awful if COVID-19 were     | 0.675         | Accept H0| Not Significant|
| Developed                                   |               |          |               |
| Avoidance                                   | 0.694         | Accept H0| Not Significant|
| Reassurance Seeking                         | 0.642         | Accept H0| Not Significant|
contracting it, and staying calm.”

In addition, upon exposing themselves from COVID-19 prone area, they voluntarily enter self-quarantine:

“Self-quarantine myself at home and share reliable news about it.”

Also, to avoid further contact with others on the following days, people starts to buy necessities ahead of time:

“Cleaned and sanitized the whole house where I live. And went to the groceries to buy and stock canned goods.”

3.6. Protection

Alongside cautiousness, people are also compliant with the individual protective measures to avoid acquiring COVID-19 such as wearing face mask and frequent use of alcohol:

“We are wearing face masks when going out, washing hands, and using alcohol.”

“I take extra precautions to make sure that my family and I are protected from the virus through proper hand washing.”

“Buy masks - wear it every time I go out. Bought alcohol - use it every time I touch or hold things in public and wash my hand with alcohol. I do not touch my face.

These protective gears include: face mask, alcohol, aerosol, gloves, eye protection, and respiratory protections (Department of Health and Human Services, 2020).

3.7. Compliance

Compliance in health psychology is defined as the extent to which the behavior of people coincides with the medical advice (Davey et al., 2014). With the continuous efforts of World Health Organization, Philippine Department of Health and other medical bodies to spread awareness on how to avoid acquiring COVID-10, people becomes compliant:

“Follow the preventive measures given by DOH & WHO.”

“Following whatever is being told by a professional health practitioner.”

Aside from the medical bodies, local government units also released recommendations on suspension of work and public transportation to maintain community quarantine and lockdown. Residents of Luzon especially Metro Manila were also compliant:

“Being extra careful of many things mostly with going out of our house. I didn’t go outside our house when the community quarantine was announced.”

3.8. Composure

Another positive panic outcome is the composure. It is when people still remain their sanity and calmness even in times of crisis. Reasons would be the trust on the experts and current advances on science:

“Staying calm and practicing preventive measures. Remember, we have modern technology on our side.”

Furthermore, it also helped alleviate the composure of people by gaining more knowledge regarding COVID-19. Social media has a good feature on spreading information, however, there is still a threat of misinformation that leads to widespread panic due to faulty tweets (Nguyen et al., 2012). Fake news heightens fear among people, however, reading valid and reliable source makes it easier to maintain composure:

“I was alert at first but I was able to maintain my calm and composure. I made myself more vigilant through reading information about the virus.”

3.9. Information dissemination

Amidst the global crisis of COVID-19, the spread of misinformation is still rampant. Fake news like this instills terror among people especially with the limitation to go outside to see the wider environment. Moreover, it catalyzes the panic that is already present within the community:

“Spread credible info and do my best to help others in any way I can while making sure I am okay.”
Although proper awareness does not lessen hypochondriasis (Noyes et al., 2018), reliable information dissemination is another way of showing concern to other people since the help that they can provide was limited by physical contact:

“I share with my family and friends about the precautionary measures for COVID-19. Also, the news updates regarding the virus and ask them to take care of their health.”

Some individuals are also equipped with the skill of identifying fake news from authentic news. This serves as an inhibitor to the spread of much threatening articles:

“Not spreading fake news, spreading scientific tips to deal with covid19, giving masks, and don’t panic.”

3.10. Worry on self/family/others

Another theme that has become evident is the worry on acquiring the COVID-19 for self, family and others. Worry on self mainly focuses on preventing to infect family members especially those in older age in which are more vulnerable to COVID-19:

“My mom’s wellbeing and vulnerability to the virus.”

“Afraid not only for myself but especially for my family and love ones.”

“I am thinking that I should not be infected because I have high risk family members.”

“I often thought that I will cause problems if I ever get infected. I am not scared of being sick at all, but I can’t compromise my family’s health.”

Furthermore, people are also worried about the so-called frontliners. These are the medical professionals that receive and take care of the patients with COVID-19. They are the most vulnerable due to the direct and prolonged exposure with those that are infected:

“Indifferent. I focus on my survival all the time. However, it would be nice if I had the capacity to help other medical professionals.”

Acute stress and media exposure on pandemics were seen to be associated with greater psychological distress (Thompson et al., 2017).

3.11. Relating to past pandemics

On a much lighter sense, when respondents were asked about their thoughts when they knew COVID-19 was spread in the Philippines, they often relate it to previous pandemics and plague:

“Plague, re-existence of coronavirus.”

People minimize the scare since the previous pandemics were known to be contained at a short period of time:

“I wasn’t shocked because there are similar ailments, like SARS.”

However, there are still some that relates this crisis on a much worse sense that killed significant amount of people:

“I thought it would be similar to the Black Plague that killed millions of people.”

3.12. Anxiety

Anxiety also emerged from the responses. It mainly deals on the excessive worrying about the further effects of COVID-19 to self:

“I felt a bit of anxiety since I am daily exposed outside.”

Showing anxiety in times of pandemic could lead to a positive outcome. A previous study during the Influenza A (H1N1) shows that the higher the anxiety people have, the more compliant they will be to the mandates of national and international authorities (Bults et al., 2011). Moreover, to a larger scale:

“Felt scared of the possibilities that may happen.”

“Slightly became anxious of its global infection.”

3.13. Government blaming

With a very controversial line-up of government in the Philippines, Filipinos often tend to channel their anxiety to the external locus of control. The validity is unsure, however, respondents provided well-explained responses regarding this issue. First one is the incompetence of leaders. Since the outbreak of COVID-19, it took the Philippine government much time to prevent the spread compared to other countries:

“It immediately made me think about the possible unfortunate things that could happen if the existence of COVID-19 would already spread to our country rapidly knowing that we have incompetent leaders to manage the situation.”

Furthermore, another response says that one of the sources of anxiety was the way the government handled it. On a press-conference by President Duterte, most of the speech were diverted to humor and other issues than delving to the more immediate problem:

“To be honest, at first I was scared upon knowing the existence of COVID-19 but as I watched how the Philippine government handles the disease, I’ve realized that I was only feeling scared because they suck big time at managing this pandemic. Medical solution not militar.”

Additionally, aside from the issues of the current government, poverty and poor public health system and irresponsibility of citizens was already a long time problem:

“That the public health system in the Philippines is very poor, and there is minimal chance of recovering from COVID-19. Also, that the government is unreliable and many Filipino citizens are irresponsible.”

3.14. Shock

Above the panic, worry, and anxiety, people were alarmed with the outbreak since it is a problem not usually experienced thus results to disorientation:

“Shocked and kind of afraid for the people.”

It is usually followed by fear and worry:

“Shock and worried about my friends, family and spouse about their health and my own health”

However, there are still some that overcame their shock and regained their composure:

“Shocked and panic but need to be calm.”

3.15. Transmission of virus

Since this crisis is different from others for being contagious, people are starting to be curious on how it is spread:

“I wondered how contagious this disease is.”

A study shows that pandemics such as this are a good predictor of health anxiety, contamination fears, and disgust sensitivity
(Wheaton et al., 2012):

“I am afraid of catching the disease then unintentionally transmitting it to others.”

Furthermore, the lack of visualization and knowledge of how it is spread increases the worry of people:

Quite scary knowing that it did spread across countries but I already knew that it would be pandemic knowing the situation as of now

3.16. Fear

It is very predictable to see fear in situations like this. The previously mentioned themes were seen to be the source of this emotion. One source of fear is the scarcity of local government:

“Scary if it reaches the Philippines, because I know we lack resources, budget and healthcare

Another is being infected due to exposure to people while commuting:

“Afraid that I might be one of the carriers of the virus since I’m a commuter and exposed to different people all the time, as well as walking everyday near a chinese columbarium where Chinese people roam around more often wearing masks.”

Due to fear, some media platforms use fear to advertise preventive measures to avoid acquiring COVID-19. However, this is found to be ineffective (Walsh, 2020).

3.17. Sadness

Another theme that was seen is sadness. It is usually combined with the hope of ending it soon:

“It feels sad to think that it was already pandemic but I hope it’ll end soon.”

This feeling is also due to the awareness of its lethality:

“Sad? Scared? Worried? Because we know that COVID-19 is dangerous and now a lot of people die because of this.”

Furthermore, it is still evident that this feeling is sourced from the lack of trust with the current government:

“Sad. I knew that our healthcare system is not as advanced compared to other countries. Our government cut our health budget, so I felt so sad when I heard about the existence of this virus.”

Expression of sadness is very common in times like this. A study done during the 2009 H1N1 outbreak shows that there are several tweets pertaining to sadness and is commonly shared by other users (Chew and Eysenbach, 2010).

3.18. Paranoia

When the number of cases reached more than a hundred, the government mandated the suspension of work and suggested a work from home scheme. People were obliged to stay indoors and were not allowed to roam around during the community quarantine. However, despite the safety of this mandate, people still feel unsafe since the transmission cannot be traced easily:

“When the WFH (work from home) initiative wasn’t brought up yet, I often felt paranoid when I was outside of my home; some of the hospitals mentioned on DOH’s list were near my workplace/home which made me feel uneasy. I worried about my parents, too, since they’re older and have more chances of seeing fake news on their feeds.”

A study supports this result stating that during the time of 1957 influenza, people exposed with the epidemic had higher risk of developing schizophrenia, paranoid states and other non-organic psychoses

3.19. Nihilism

Nihilism is defined as a condition in which people experience little meaning, dimensionality, depth, or transcendent bearing in the world, and where people feel empty or soulless (Fisher and Abram, 2013). Some of the responses shows this by wishing to acquire COVID-19:

“I wish I had it at some point.”

“I will die this year.”

Furthermore, instead of hoping for positive outcome, some thinks of losing lives with this COVID-19:

“That many lives will end. Including my loved ones.”

A study shows that widespread of fear elicits dangerous responses such as nihilistic thoughts and decadent lifestyle (Eckersley, 2008):

“That we were doomed and die out of it like the plague.”

3.20. Annihilation

Above nihilism, some people see this crisis as annihilation. Annihilation nullifies everything and makes life into nothingness (Landau, 2017). When asked about what they think upon perception of COVID-19, some responded:

“Ghost town. End of the world.”

It is also seen as a solution for overpopulation since it kills vast number of human beings:

“A solution for overpopulation.”

Furthermore, individuals also thinks that it will take away peace from the world:

“That it will cause chaos around the world and it’ll affect human behavior, mental health etc.”

3.21. Indifference

Feelings of Indifference were also prevalent to the responses. Indifference is a state in which a person wherein the individual stops giving cease care and/or stops taking action on something happening around him/her. People who are indifferent can be seen as cold, aloof, disinterested, unmotivated, and lacking in passion.

This may be the result of the emotional fatigue that came from the overwhelming anxiety emancipated from the pandemic crisis, this leads to one's emotions being worn out, thus leading to Indifference. Moreover, the negative thinking and distractions associated with anxiety from the current situation can ultimately lead to an apathetic outlook about a specific crisis (Abraham, 2018).

“I was actually afraid to think that I would contract COVID-19 because I have asthma, allergic rhinitis and a compromised immune system but then again, I’ve fallen indifferent to what could possibly happen to me anymore.”

“Nothing, come what may.”

3.22. Comparison between highest and lowest illness anxiety scorer

For the final interpretation, the researchers extracted the highest and lowest scorers from the Health Anxiety Inventory to compare the thinking, feeling, and behavior among respondents.

According to Lu (2015), different threats push different
psychological triggers Novels and exotic threats live Ebola or avian flu raise and currently COVID-19, raise anxiety level higher than more prevalent threats do. This reaction may have to do with our Amygdala which research suggests that it engaged in detecting novelty as well as processing fear. Thus, most respondents who neither score high or low on Illness anxiety, attitude, avoidance or reassurance towards the virus reported that they feel fear and anxiety:

“I got scared, what If I have those virus.”

“It's scary because it's like an invisible enemy.”

In relation to the overwhelming fear in the air and this is our first social media pandemic. This is the first time we've had a pandemic where the population heavily relies on social media, most people are trying to make sense of all information they read or watched online, share this with their family and friends that turns into this over-abundance of information, a lot which isn't true. The bulk number of social media users encountered ideologues who distract science or troublemakers intent on sowing confusion and distrust. For instance, some sources spread news about fake cures preventive measures for COVID-19 such as taking colloidal silver, steroids,acetic acid, essential oils and even taking cocaine (Guynn, 2020). Consequently, based on our results respondents who score high and low with attitude and low with reassurance towards the virus reported that they gave importance with proper Information Dissemination about COVID 19, they tend to gather more genuine information about the virus, fact check and report all sources who spread false informations, to lessen the panic and fear of their family and community:

“I've researched about the COVID-19 and have made it a point to share them with my friends and family in the hopes of NOT causing panic but by reassuring them of the precautions we could take individually and as a group”

“I read different kinds of journals and share news about covid with reliable sources.”

Moreover, respondents who scored high on Reassurance, Avoidance and Illness Anxiety and also surprisingly respondents who scored low on Attitude towards the virus reported that they practice Social Distancing and increase their Health Consciousness:

“If possible, I'm not going outside our community and keep distance with people and avoid crowded places.”

The overwhelming fear/anxiety that is evident to the extent that it emanicipates panic behavior exhibited through social withdrawal and isolation even sacrificing their day to day lifestyle and the increase in health consciousness is noted.

“Minimized going out of the house. Started eating healthy like eating fruits and vegetables everyday and taking vitamins everyday. Always wearing a mask when going outside. Always have alcohol with me. Social distance”

Lastly, respondents who scored high on Attitude and Avoidance report Nihilism. In addition, respondents who score low on Illness Anxiety exhibit Indifference towards the virus.

The apocalyptic point of view is manifested, the loss of hope and inability to see the brighter future decamped:

“Ghost town. End of the world. Lose hope.”

4. Conclusion

In conclusion, the level of Symptoms of Hypochondriasis, Attitude on Acquiring COVID-19, Avoidance, and Reassurance Seeking of the Filipinos is moderate. Results also show that there is a significant difference in the Avoidance behavior between residents inside Metro Manila and Outside Metro Manila. Furthermore, a significant difference also shows on the Symptoms of Hypochondriasis between exposure to COVID-19. COVID-19 Panic Framework were also conceptualized with the following themes arranged from negative to positive behaviors: Indifference, Annihilation, Nihilism, Paranoia, Sadness, Fear, Transmission of Virus, Shock, Government Blaming, Anxiety, Relating to Past Pandemics, Worry on Self/Family/Others, Information Dissemination, Composure, Compliance, Protection, Cautiousness, Optimism, and Health Consciousness. Lastly, the common theme of highest scorers on Health Anxiety Inventory (HAI) were Fear, Social Distancing and Health Consciousness. and Information Dissemination whereas the lowest scorers show disclosed Indifference and Nihilism.

Role of Funding Source

There is no funding source for this study.

CRediT authorship contribution statement

Christian Jasper C. Nicomedes: Conceptualization, Data curation, Formal analysis, Writing - original draft, Writing - review & editing.

Ronn Mikhail A. Avila: Conceptualization, Data curation, Formal analysis, Writing - review & editing.

Declaration of Competing Interest

We have no known conflict of interest to disclose.

Acknowledgment

The researchers would like to acknowledge the support of Psychological Association of the Philippines - CALABARZON MIMAROPA Chapter and Wardmates Family for their unending support to the researchers.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jad.2020.06.046.

References

Abraham, M. (2018). Anxiety: An Unusual Symptom, Retrieved from https://www.calmclinic.com/anxiety/apathy,
Agujera, J. (2020). Xenophobia “is A Pre-Existing Condition.” How Harmful Stereotypes and Racism are Spreading Around the Coronavirus. Time, https://time.com/5775716/xenophobia-racism-stereotypes-coronavirus/, retrieved February 8, 2020. Alyakinv-Izvekov, V., 2017. The anatomy of a sociocultural crisis: calamities in Pitririm A. Sorokin's philosophy of history. Biosemiol. – Neo-Aristot. 7 (2), 204–228. https://doi.org/10.2441/2225-1820-2017-00011.
Bai, Y., Yao, L., Wei, T., Tian, F., Jin, D.-Y., Chen, L., Wang, M., 2020. Presumed Asymptomatic carrier transmission of COVID-19. JAMA. https://doi.org/10.1001/jama.2020.2565.
Bailey, R., Wells, A., 2016. Is metacognition a causal moderator of the relationship between catastrophic misinterpretation and health anxiety? A prospective study. Behav. Res. Ther. 78, 43–50.
Barlow, D.H., 2004. Anxiety and its Disorders: The Nature and Treatment of Anxiety and Panic. Guildford Publications.
Berman, C., 2009. 100 Questions & Answers About Panic Disorder. Jones & Bartlett Learning.
Boldor, N., Bar-Dayan, Y., Rosenbloom, T., Shemer, J., Bar-Dayan, Y., 2012. Optimism of health care workers during a disaster: a review of the literature. Emerg. Health Threats J. 5 (1), 7270. https://doi.org/10.3402/ehtj.v5i0.7270.
Bults, M., Beaujean, D.J.M.A., de Zwart, O., Kok, G., van Empelen, P., van Steenbergen, J.E., . . . Voeten, H.A.C.M., 2011. Perceived risk, anxiety, and behavioural responses of the general public during the early phase of the Influenza A (H1N1) pandemic in the Netherlands: results of three consecutive online surveys. BMC Public Health 11 (1), 2. https://doi.org/10.1186/1471-2458-11-2.
Burks, D.M., 1966. Psychological egoism and the rhetorical tradition. Speech Monogr. 33 (4), 400–418. https://doi.org/10.1080/03637756609375507.
Chew, C., Eysenbach, G., 2010. Pandemics in the age of Twitter: content analysis of the online version, at doi:10.1016/j.jad.2020.06.046.
Crase, M.G., Barlow, D.H., 2007. Mastery of Your Anxiety and Panic: Therapist Guide. Oxford University Press, USA.
