

FILIPINO PSYCHO-EMOTIONAL STATES AND BEHAVIORS AT THE ONSET OF THE COVID-19 PANDEMIC

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ABSTRACT

The onset of the COVID-19 pandemic in the Philippines has induced significant disruptions and upheavals in the daily lives of Filipinos. Consequently, various feelings, thoughts, and behaviors have been elicited in reaction to the information and actions of different societal actors (i.e., government and media). It is essential to examine these beginning stages in crisis situations as they provide a baseline for developing management strategies in similar future contexts. Using a mixed-method triangulation design, the study explored these initial pandemic-related reactions from January to April 2020. Sentiment analysis of people's online comments indicated that the onset of the pandemic was associated with a rise in reported negative emotions, with the top emotions being worry and anger. The only positive emotion reported was a certain level of hope. These results in emotionality complemented those from the online survey where the reported negative emotions during the news of the outbreak only intensified with the declaration of Enhanced Community Quarantine (ECQ) and ECQ extension. In addition, there was a strong overall perception of threat stemming from the pandemic and low confidence in the country's medical system to handle the emerging crisis. Moreover, negative emotions stemming from the unfolding pandemic were seen to negatively affect mental health. Emotional support from family and friends, on the other hand, was seen to sustain the mental well-being of the respondents. The results from the sentiment analysis and the online survey highlight the role of emotions in emerging crises and emphasize the urgency of developing interventions which address the pandemic's detrimental effects.

Keywords: *Behaviors; cognitions; COVID-19; feelings; mixed methods; prediction*

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BACKGROUND OF THE STUDY

From March to August 2020, the COVID-19 pandemic has been at the center of every activity and life in the country. The Philippine government, just like governments in other countries in the world, faced an extremely tough battle against the COVID-19 pandemic. The government's capability and medical systems in handling this crisis are being challenged while the economy and individual social life are significantly disrupted.

The pandemic has generated a large volume of research in less than a year since it started. If one searches for "research on COVID-19" on Google, one gets over 5.4 billion hits, and if one limits the search to "scholarly articles for research on COVID-19," the number of hits goes down, but the number is still large at over 1.2 million hits. The pandemic has posed three significant challenges: 1) to science and the medical profession, to know all there is to know about the novel Coronavirus, and to find a vaccine and cures for this disease as soon as possible; 2) to social scientists, to understand the thoughts, feelings, and behaviors aroused by the disruptions and upheaval triggered by the pandemic and their impact on subsequent thoughts, feelings behaviors and people's responses to the events; 3) to government, to provide good leadership and effective strategies and solutions for its citizens to be able to navigate this crisis safely and maintain their general well-being. Finally, one can also envision (as an additional challenge) these sectors working together cohesively to provide targeted and holistic resolutions to macro- and micro- issues posed by the pandemic's onset and continuance.

This study picks up on the challenge to social scientists and was conducted to look into people's emotions, feelings, and behaviors during the early stages of the COVID-19 pandemic in the Philippines from January to April 2020. The information gathered in the study is potentially useful for the government, media and communications specialists, and mental health professionals by bringing awareness to these issues and by providing information that can be used in addressing and managing detrimental cognitions, emotions, and behaviors during the early stages of crisis contexts like the pandemic.

REVIEW OF LITERATURE

Crisis situations, according to Pearson and Mitroff (1993), typically unfold in five stages: signal detection, preparation/prevention, containment/damage limitation, recovery, and learning. For the COVID-19 pandemic Philippine context, the first three stages began with the detection of the COVID-19 outbreak in Wuhan, China. This was followed by preventive action from the government through the convening of the Inter-Agency Task Force (IATF) in January 2020 and coordination efforts within the Department of Health across its regional offices. Subsequently, the investigation and containment of suspected COVID-19 cases within the country began in earnest on January 30, 2020, when the first case was confirmed, and on the next day, a travel ban was enacted. From March to April 2020, lockdowns and quarantines served to further prevent the spread of COVID-19 in the country. These initial crisis stages are critical in predicting how citizens may subsequently behave with regard to government action aimed at containing and limiting the harms caused by the pandemic.

In particular, people's emotions and strong affect are seen as major drivers to action (or inaction) that activate other emotions that may even have physiological consequences. Documented in the psychological literature are studies that make these various connections, particularly in the time of disasters (Bavel et al., 2020; Cava et al., 2005; Nicomedes & Avilla, 2020; Qian et al., 2005; Yeung & Fung, 2007). The Cava et al. (2005) study is especially noteworthy in highlighting the pattern of emotions triggered by a quarantine experience (i.e., during the SARS epidemic in Toronto) from uncertainty to fear to boredom to stigmatization and ultimately to self-reliance and support.

A number of studies have focused on the psychological effects of our drastically altered social scenario at the onset of the COVID-19 pandemic. A study by Australian researchers looked at the impact of a month's confinement due to the pandemic on fairly healthy adults living in 64 cities in China. Adverse effects on mental and physical health, life satisfaction, and well-being were noted for those who mainly stayed at home, especially for those who completely stopped working and for those who had once been physically active (Zhang et al., 2020). A literature review of studies on the emotional impact of the pandemic came up with similar conclusions, noting the increase in psychological problems during the pandemic (e.g., anxiety, depression, stress) and the rise in fear during mass quarantine (Lima et al., 2020). One source of the psychological distress could be repeated media exposure to the pandemic which only serves to amplify anxiety and distress (Holman et al., 2020).

The American Psychological Association (2020), noting the crucial role that leaders play in times of crisis, provided several research-based tips for improving leader communication skills to maximize trust and minimize stress during the pandemic. The suggestions included managing their own stress so as not to amplify their constituents' anxieties, sharing information with empathy and optimism, using credibility to build trust, being honest and transparent, providing regular communication, providing a forum for feedback, and being a role model. A leader seen to violate their own government's rules and regulations quickly brings down trust levels and greatly diminishes people's willingness to support and follow public health policies. An example of which was exemplified in the incident in the UK that was eventually labeled the Cummings effect (Fancourt et al., 2020) and in the Philippine case when Sen. Koko Pimentel violated the rules of quarantine despite having tested positive for the virus (Cepeda, 2020).

These studies highlight the interactive role of citizens and government in managing the onset of the pandemic. However, most of the studies conducted that show the initial reactions to the onset of the pandemic have been done in other countries. Their socio-cultural contexts are most likely different from the Philippine collectivist culture as most of the initial studies came out of Western-individualist societies (e.g., Poland: Debowska, Horeczy, Boduszek, & Dolinski, 2020; Spain: Rodríguez-Rey, Garrido-Hernansaiz, & Collado, 2020; United States: Khubchandani, Kandiah, & Saiki, 2020). In addition, these countries' socio-economic divisions may be less extreme compared to the Philippines.

The current study aims to explore these factors in the local setting with a focus on describing the psycho-emotional state and perceptions of Filipinos at the onset of the pandemic while ascertaining drivers of wellbeing maintenance and adherence to preventive measures. The study utilized the stages on crisis management provided by Pearson and Mitroff (1993) to contextualize and ground the findings during signal detection, preparation/prevention, and containment/damage limitation stages. Furthermore, Lazarus and Folkman's theory (1984) on stress and coping is also utilized to frame the effects of a highly stressful event like the pandemic on mental health and utilized coping strategies.

OBJECTIVES

The study aimed to investigate people's feelings and responses to the COVID-19 pandemic across the initial stages of the pandemic and through the various government actions. Specifically, the study sought answers to the following objectives:

1. To describe how people felt about COVID-19 (the disease and the pandemic) from when it was just a small news item about the Wuhan epidemic to when the Philippine government took drastic action via an initial Metro Manila lockdown, to a wider Luzon lockdown, and, eventually, to enforcing enhanced community quarantine;
2. To find out how people get their information (i.e., sources) about COVID-19 and how they feel, process, and react to this information and their sources;
3. To look into how people feel about the government's response and pronouncements related to the pandemic; and
4. To find out how people deal with these feelings and how these, in turn, affect them and their behaviors.

METHODOLOGY

The study used a mixed-method triangulation design utilizing both qualitative and quantitative methods to data collection. The first approach was meant to obtain a general overview of the feelings people were experiencing across the pandemic's initial stages (i.e., the first three months of COVID-19 in the Philippines) by looking at the comments posted by people on the social media sites of several news agencies (e.g., ABS-CBN, GMA, Sunstar, Philstar). The qualitative evaluation of these postings provided a general picture of how people were feeling and reacting to the events as they unfolded and as the pandemic progressed.

The second approach looked more closely at individuals' feelings, perceptions, and cognition of the events and main actors in the pandemic scenario, using an online survey. The study also inquired into the initial attitudes towards and behaviors during early quarantine.

Approach 1: Sentiment Analysis

The qualitative sentiment analysis is premised on two important methodological considerations – case sampling and the coding process.

Case Sampling

The initial step in this phase was the construction of an overall timeline of events, based on the timelines of two major news agencies: ABS-CBN and Sunstar. This researcher-developed timeline breaks down the initial stages of the pandemic into three. The first stage from January to February 2020 covered events and news relating to the case of COVID-19 infection among Chinese tourists. The second stage during March 2020 covered events relating to the local transmission and initial lockdown. The third stage during April 2020 covered the extension of lockdown and quarantine procedures as COVID-19 spreads even more across the country.

To determine which comments would be included in the sentiment analysis, news articles from social media (i.e., YouTube and Facebook) and other major online news sources (i.e., ABS-CBN, CNN, GMA, Philippine Daily Inquirer, Philippine Star, Rappler, Cebu Daily News, and Sunstar) with the highest number of views covering the period of interest were chosen as initial candidate sources.

At the outset, there were 76 identified for the period from January 20 to April 30, 2020, the timeframe of the study. These 76 candidate sources were further narrowed down to 48 by eliminating minor events evaluated as insignificant by the research team, guided by its communications expert, and by the citations that were repeated mentions. These 48 were then reviewed at length by the research team and further narrowed down to the final 18 sources deemed as important and noteworthy during the pandemic. Hence, the top 20 comments from each of those 18 sources were collectively analyzed to obtain an indication of peoples' sentiments at the onset of the pandemic (see Appendix 1 for a list of the source news items.)

Coding Process

Given the large volume of comments, the research decision was to select only the top 20 comments (based on the medium's algorithm) under each news item to be analyzed for their sentiment content through inter-rater open coding. A qualitative approach to sentiment analysis goes beyond merely assessing the affective valence of linguistic cases as positive or negative but considers the context and more nuanced significance of people's emotional or affective state in specific instances of their emotive expressions (Gaspar et al., 2016). Four members of the research team reviewed the comments with two reviewers assigned per comment to do the sentiment analysis. Agreement by the evaluators on the comments (i.e., arriving at the same or similar sentiment assessment) was critical. When there was disagreement on a judgment call, all four raters came together to discuss the most precise sentiment reflected in the comment until consensus was attained. A total of 748 emotion codes were generated from the comments. The analysis of the emotional sentiments reflected in the comments is contextualized and related to the events covered with each stage at the onset of the pandemic.

Main Insights

Figures 1 to 4 graphically present, via word clouds, the sentiment shifts throughout the devised timeline featuring the top 20 sentiments or affective responses identified in the open coding.

Beginning

Anger, concern, worry, and panic are the most salient sentiments during this phase. Certain comments bear out initial denial and slow response of the government in addressing the issue as the root of the said sentiments, which the following example aptly shows: “Happy now? Looks like these people are very confident about our medical capabilities where in fact we can't handle such! These idiots are getting Filipinos killed. (BC3)” It is worth noting that the sense of panic is directed towards the incidence of a Chinese national who was found infected with the virus while on tour in the Philippines.

Figure 1

Sentiments in the Beginning Period



Contempt or disgust is also of consequence not only because it is as prominent as panic, but because the said affective stance is only partly attached to the (infected) Chinese national, per news reports, as it quickly extends to sticking to the Chinese as a people or China as a country in toto. Such instances signal the potential for particular incidents to produce racist and xenophobic attitudes, which to an extent is obscured by a state of urgency and concern, as demonstrated by this comment: “When China take ownership, everything they can have around Asia. And now they're spreading viruses rapidly with the help of Chinese New Year celebrations. A tactic to kill their enemies around their neighborhood in Asia. Next zombie apocalypse. (AC5)” (See Figure 1 for the word cloud representation of this phase).

Second

Anger peaks towards the end of the first lockdown alongside a rise in contempt or disgust. This emotion may have been fueled by the actions of two high-ranking officials - Congressman Lagman, as he made statements that opposed the provision of extra powers to the president, and Senator Pimentel, when he broke quarantine rules by visiting a hospital with his pregnant wife, potentially compromising the safety of everyone in the facility as he was later found to be COVID-19 positive. Compared to the beginning phase above, contempt and anger in the middle phase are directed at prominent state officials who are seen as acting contrary to what is deemed as desirable considering the exigencies of the situation (note that the two officials belong to opposing camps).

Figure 2

Sentiments in the Second Period



What is interesting in this phase is the surfacing of hopefulness and satisfaction, which should be seen with reservation since most of the comments accounting for them are in praise of Duterte and not of particular programs related to the health crisis. It can even be argued that these comments bear features akin to a “manufactured script” used by alleged troll farms or troll armies. See this comment, for instance: *“Kita na yung pagod sa mahal natin PANGULO...salamat po, kasi kahit pagod na kayo, anjan pa din kayo para gampanan ang tungkulin nyo...matatapos din po ang lahat ng ito.* (GC5; The beloved president’s fatigue is apparent. Thank you because even though you are tired, you are still there to do your duty. This will all end.)” Nevertheless, feelings of dissatisfaction and indignation are also relevant in this phase, presenting a counterpoint to the more agreeable position offered by the former ones. (See Figure 2 for the word cloud representation of this phase.)

Overall, at least based on the brief initial period covered by the research, sentiments stemming from comments in COVID 19-related news reports begin with anger, concern, worry, and panic before moving toward greater anger and disgust, and finally ending in frustration and suspicion. Worry and panic are understandably more prominent in the earlier stages since people coming from the government are in denial of the seriousness of the situation. It will be recalled that no less than the president and the Department of Health (DOH) secretary themselves tagged the virus as no different from the common seasonal flu. Not long after the confirmation of the first local transmission, the government was deemed ill-prepared to tackle the health crisis. This negative perception is exacerbated by officials who were deemed to behave inappropriately considering the gravity of the situation the nation faces, thus, contempt and disgust alongside anger emerge during the second phase. As demonstrated by the confusion and uncertainty contained in the comments belonging to the third phase of the devised timeline, the period of extended quarantine is characterized by frustration—due to perceived government inefficiency and incompetence—and suspiciousness —brought about by a lack of reliable information on the actual state of the country in the midst of a global health scare (see Figure 4 for the word cloud representation of the overall situation).

Figure 4
Sentiments over the Whole Period



Approach 2: Online Survey

The second approach involved a survey conducted via *Zoho*, an online survey application, to look into how individuals felt at the onset of the pandemic, where they source their information and how that made them feel, how they felt about the action of the government and its various agencies, how they dealt with their feelings, and how they see the future with this pandemic.

Participants

Participants in the study were recruited through online invitations coursed through professional and social contacts of research team members. The link to the study site was indicated in the invitations. There were 1313 survey site visits, but only 577 actually responded. However, only 288 participants ultimately completed the survey, for a 50% response rate. The participants came from all over the country: NCR – 14.2%, Luzon – 10.8%, Visayas – 68.1%, and Mindanao – 6.6%. Ages ranged from 18 to 69, with a mean of 30.5 years (SD=9.8). The majority of respondents were female (73%). The majority self-classified as middle class (81% placed themselves on rungs 4 to 7 on a 10-step socio-economic status (SES) ladder, 15% marked themselves as upper SES (steps 8 to 10 on the ladder) and only 4% classified themselves as lower SES (steps 1 to 3 on the ladder). Everybody had at least a high school education or better. At the time of the survey, the majority of the respondents were living with their families (87%) or friends (5%) and had a fair amount of communication with both family members and friends. Only 8% of the respondents were living alone.

Measures

Questions in the survey were divided into sections covering background information (i.e., demographic information, living arrangements, and perceived prevalence of COVID-19), psycho-emotional responses to COVID-19, COVID-19 information source perceptions, perceptions on government action and response, coping strategies, and views on the future.

Psycho-emotional responses to COVID-19 were measured using scales developed by Qian et al. (2005) in the context of the SARS outbreak. These scales focused on psychological (i.e., threat perceptions; Cronbach's alpha = .72) and behavioral responses (i.e., health-seeking and illness preventive behaviors; Cronbach's alpha = .63) to the onset of COVID-19 in the Philippines. The researchers further added items present in our context to further improve the measures. To capture participants' emotions, a modified version of the Positive and Negative Affective Scale by Thompson (2007) was utilized including only the following emotions: worried, afraid, angry, pessimistic, helpless, hopeful, relaxed, anxious, stressed, and depressed, emotions also noted in the qualitative sentiment analysis phase. Furthermore, participants were asked to reflect on how much they felt these emotions at different times during the onset of COVID-19 in the Philippines:

Recognition of the first case in China (Cronbach's alpha = .77), initial community lockdown/quarantine (Cronbach's alpha = .76), and extension of the quarantine (Cronbach's alpha = .78). Participants' attitudes and experiences of the quarantine were also explored.

The succeeding set of mainly researcher-developed questions focused on two key aspects relating to information and government action. First, questions on information focused on participants' general sources (i.e., internet, television, radio, newspaper, family, and friends) as well as their satisfaction with and perceived utility of such. Subsequently, this was nuanced by focusing on the government (i.e., national and local) and medical experts as sources of information as modified from questions developed by Qian et al. (2020) in their study. The modifications focused on asking participants to rate the amount, sufficiency, and reliability from these three sources. Thereafter, participants were asked to rate the quality of government response in various aspects of disease control and management such as testing, contact tracing, quarantine, and social distancing enforcement as well as on providing aid, PPEs, and medical attention to COVID-19 patients (Cronbach's alpha = .90).

The final set of questions focused on their coping and their view of the future. Questions from Carver (1997) were adapted which focused on the coping strategies utilized by the participants. The study only used one item per type of coping strategy akin to what was done by Yeung and Fung (2007) in their study (Cronbach's alpha = .64). The final question on views of the future asked the participants to imagine what the new normal would look like after the pandemic ends and to write three statements that would describe that.

Procedure and Ethical Considerations

Interested respondents opening the study's online link were first directed to an informed consent page where they were given information about the study objectives and the nature of their involvement, to answer a 20 to 30-minute questionnaire on their thoughts, feelings, and behaviors during the pandemic. They were also informed that they were free to quit any time they felt uncomfortable with the questions or for whatever other reasons without any adverse consequences and were provided the name and contact information of the principal investigator for any queries or issues. Potential respondents were assured of the confidentiality of their answers and data protection measures were described. The questionnaire had four sections with questions meant to address each of the specific study objectives. After answering the survey, respondents were provided a short debriefing statement where the names and contact information of institutions providing psychosocial support via online counseling and therapy were also provided.

FINDINGS

At the time of the survey (from April 25 to May 25, 2020), there was limited awareness of COVID-19 positive cases among the respondents, with only 23% having personal knowledge of anyone who was positive for the virus. Only 12% of the respondents personally knew somebody who died from COVID-19 and 20% had personal knowledge of somebody recovering from COVID-19. Consistent with the limited personal knowledge of actual cases of COVID-19, the majority had fairly low estimates (not more than 25%) of the number of cases in their barangay and their cities or municipalities.

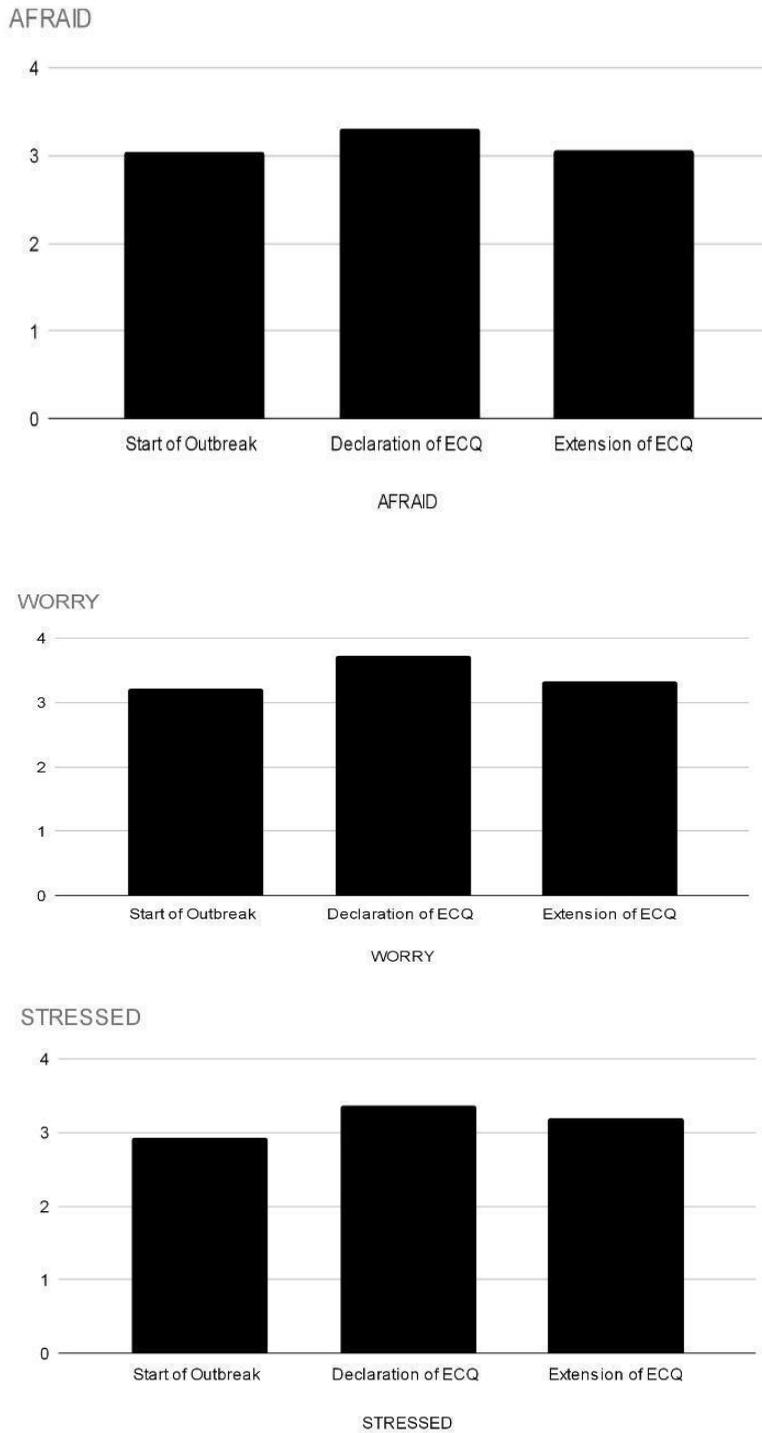
Despite the limited personal knowledge of actual cases, however, respondent assessments of the COVID-19 threat (on a 1-5 scale, with 5 being strong agreement) indicated a fairly high overall perception of the threat ($M=4.06$, $SD=0.74$). There was strong agreement with the statement that anyone could be COVID-19 positive ($M=4.01$, $SD=1.01$), that one's health has been threatened by the virus ($M=3.83$, $SD=1.01$), that one's life has been threatened by the virus ($M=3.77$, $SD=1.08$), and that one should take all actions to avoid being infected ($M=4.62$, $SD=0.74$).

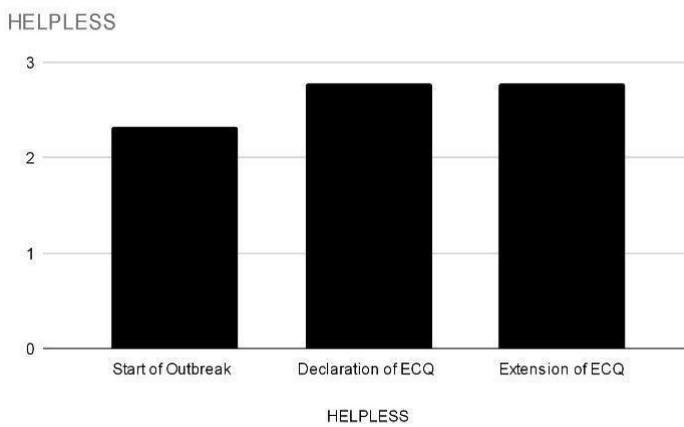
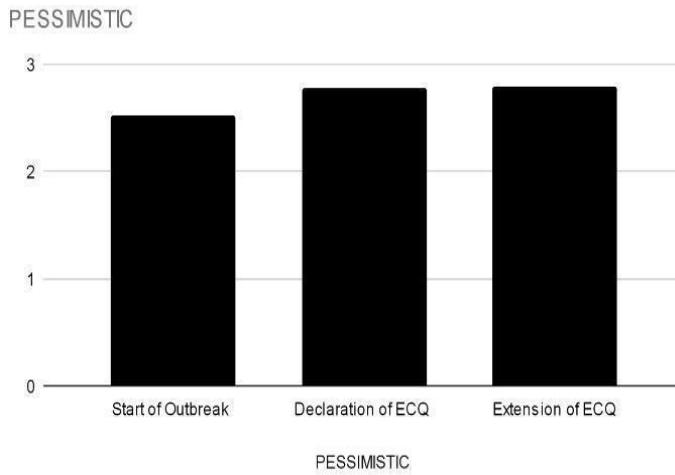
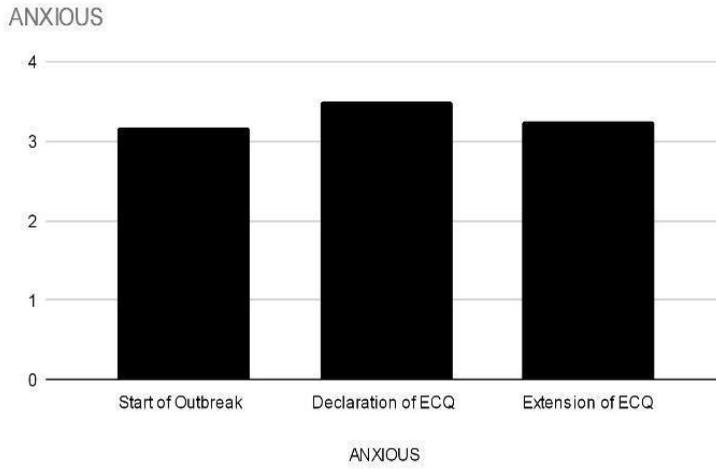
Perceptions of one's personal risk of getting COVID were middling ($M=2.95$, $SD=.97$) although the perception of survival odds was on the optimistic side ($M=3.54$, $SD=.83$). However, confidence in the Philippines medical system is fairly low ($M=2.72$, $SD=1.1$), perhaps compounding one's perception of threat from the COVID-19 pandemic.

Feelings about the Pandemic and Behavioral Responses

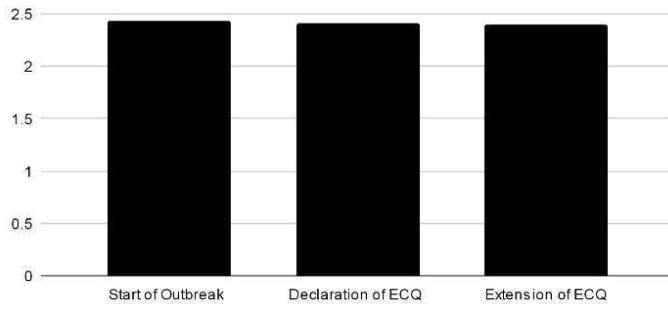
Following the findings of the sentiment analysis, this survey intended to look more closely into the individual's emotions during the beginning stages of the pandemic, outside social media which is often viewed as an echo chamber and not necessarily an accurate portrayal of a person's feelings and explore possible cognitions and behavioral outcomes of such emotions. Respondents were asked how often they experienced 10 top emotions identified in previous crisis studies and also indicated in the sentiment analysis, eight of which were negative (worried, afraid, stressed, anxious, pessimistic, helpless, angry, depressed) and two of which were positive (hopeful, relaxed). Judgments were made for each of three selected events that could be categorized with the beginning, second, and third phases at the onset of the pandemic identified in the phase 1 study. A point was given when the outbreak started, 2 points was given when the enhanced community quarantine (ECQ) was declared, and 3 points were given when the ECQ was declared extended.

Figure 5
Fluctuations of emotions across time (n = 288)



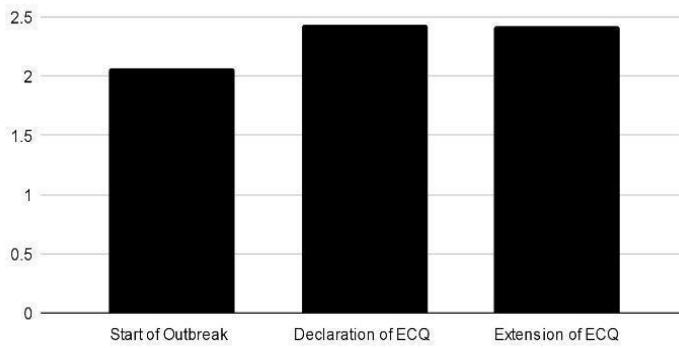


ANGRY



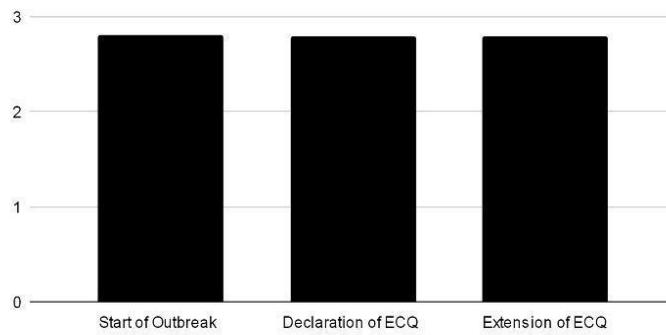
ANGRY

DEPRESSED

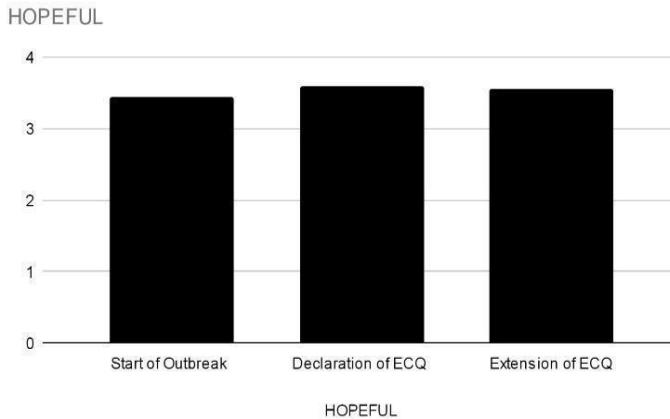


DEPRESSED

RELAXED



RELAXED



Feelings of being afraid, worried, anxious, and stressed were already experienced every now and then (ratings around 3 on a 1 to 5 scale, with 5 = all the time) when the outbreak first made the news, which increased with the declaration of the ECQ and went down slightly or stayed the same with the extension of the ECQ. Pessimism, helplessness, and being depressed were only rarely experienced (below 3) even with the declaration of the outbreak but increased slightly, although still below the midpoint, with the declaration of the ECQ and its extension. Anger was rarely experienced by the respondents during the beginning stages of the pandemic. This emotion stayed stable throughout the three identified periods being examined. Being hopeful and being relaxed was also fairly stable throughout the three periods with hopeful slightly above the midpoint and relaxed slightly below the midpoint, meaning they were both possibly being experienced every now and then by the respondents (see Figure 1 for a graphic representation of the fluctuations in emotions across the three events). Seventy percent (70%) of the respondents claimed to be in good mental health (i.e., all those who rated themselves as feeling okay to being in tiptop shape) and 30% felt less positive about their mental health status, with 4.5% claiming they needed professional help.

Table 1
Sources of Worry and Concern

	Mean	(Standard Deviation)
Elderly	4.64	(.68)
Family	4.25	(.97)
Young people	3.90	(1.1)

Feelings are typically influenced by events around us. In fact, during the onset of the pandemic, many sources of worry arose. Based on Table 1, our respondents expressed worry and concern for the elderly, their families, and young people. They were also experiencing threats from the COVID-19 virus and a lack of confidence in the Philippine medical system to handle this new threat, as noted above. However, these negative feelings may be counteracted by certain positive attitudes and experiences.

Table 2 shows that overall attitude during the beginning stages of the pandemic. The respondents had a positive attitude towards being quarantined (overall mean of 4.42, SD=.80). They strongly agreed that COVID-19 is a disease in which exposed people need to be quarantined. They would agree to be isolated for three to four weeks if they were positive for the virus. They would even agree to quarantine if exposed to it; and would even agree to quarantine even if healthy and knowing no one with COVID-19 among their contacts.

Table 2

Attitudes toward Quarantine

	Mean	(Standard Deviation)
General attitude on being quarantined	4.42	(.80)
Those exposed should be quarantined	4.57	(.94)
Quarantine should be 3-4 weeks if COVID-19 positive	4.63	(.84)
Would agree to be quarantined if exposed	4.62	(.84)
Would agree to be quarantined even if healthy and not having been exposed	3.89	(.12)

Table 3 presents similar results to the ADB findings (Ronquillo, 2020). The respondents were also highly compliant with the conditionalities of quarantine – wearing facemasks whenever they go out, staying home and going out only for necessities, physical distancing, more online interactions, work/study at home, having stored food and money at home, handwashing, frequent use of alcohol and sanitizer, taking nutrients and medications to prevent getting sick, taking one’s temperature several times a day. The overall compliance rate is high (M=4.16, SD=0.42) with the respondents often performing preventive behaviors, except for the frequent taking of one’s temperature.

Table 3

Reportage on Protocol Compliance and Actions Taken to Boost Health

	Mean	(Standard Deviation)
Overall compliance rate	4.16	(0.42)
Wearing facemasks	4.83	(0.47)
Staying home and going out only for necessities	4.74	(0.71)
Physical distancing	4.47	(0.70)
More online interactions	4.46	(0.79)
Work/Study at home	4.42	(1.11)
Stored food and money at home	4.39	(0.88)
Handwashing	4.36	(0.85)
Frequent use of alcohol and sanitizer	4.29	(0.87)
Taking nutrients and medications to prevent sickness	3.92	(1.16)
Taking one’s temperature several times a day	1.76	(0.99)

Initial experiences with quarantine were also generally positive for the respondents as most agreed to have experienced relatively few difficulties. As gleaned from Table 4, the greatest difficulties were with working or studying from home (M=3.48, SD=1.30), where adverse effects on income from missing work days, restlessness from staying in the house for more than two weeks, and difficulties in getting regular medical care and prescription were the unidentified culprits. But these difficulties were middling or moderate. There was little difficulty with talking to family members not physically present or getting food and water. Perhaps, these relative ease with quarantine strictures may be attributed to the fact that the majority of the respondents were fairly comfortable in their economic status (i.e., the majority reported belonging to the middle-income levels) and were living with family and friends and had the possibility of easy access to basic material resources like food and water and communication to significant social others (Wachtler et al., 2020).

Table 4
Difficulties during Quarantine

	Mean	(Standard Deviation)
Working/Studying at home	3.38	(1.30)
Adverse effect on income due to missing workdays	3.13	(1.43)
Restlessness from staying in the house for more than 2 weeks	3.04	(1.34)
Getting regular medical care and prescription	3.02	(1.26)
Talking to family members not physically present	2.80	(1.25)
Getting food and water	2.31	(1.10)

Sources of Information and their Assessment

Closely connected to our emotions are our cognitions and thoughts which are often fueled by the information we obtain from various sources. In times of uncertainty, the tendency is to seek out information. We asked the respondents how much information they obtained, especially about the pandemic, where they source their information, and how valid and useful they found the information from various sources.

Figure 6

Respondents' first and main sources of Information (in percent)

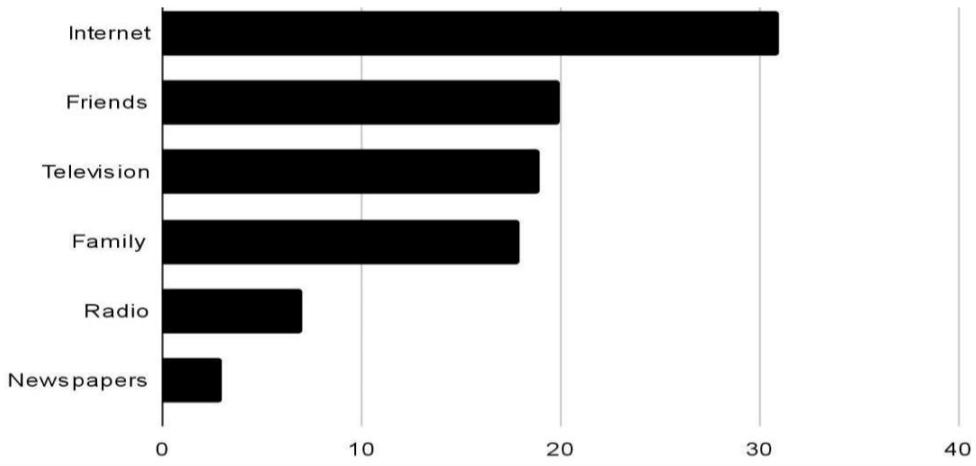


Table 5

Satisfaction and Usefulness with the Amount of Information retrieved from Various Sources

	Mean	(Standard Deviation)
Satisfaction with the amount of information		
Newspapers	4.40	(1.59)
Radio	4.25	(1.60)
Television	3.81	(1.33)
Internet	3.80	(1.02)
Family	3.57	(1.31)
Friends	3.66	(1.07)
Perceived utility of information		
Newspapers	4.73	(1.54)
Radio	4.60	(1.48)
Television	4.41	(1.17)
Internet	4.38	(0.85)
Family	3.81	(1.30)
Friends	3.90	(1.12)

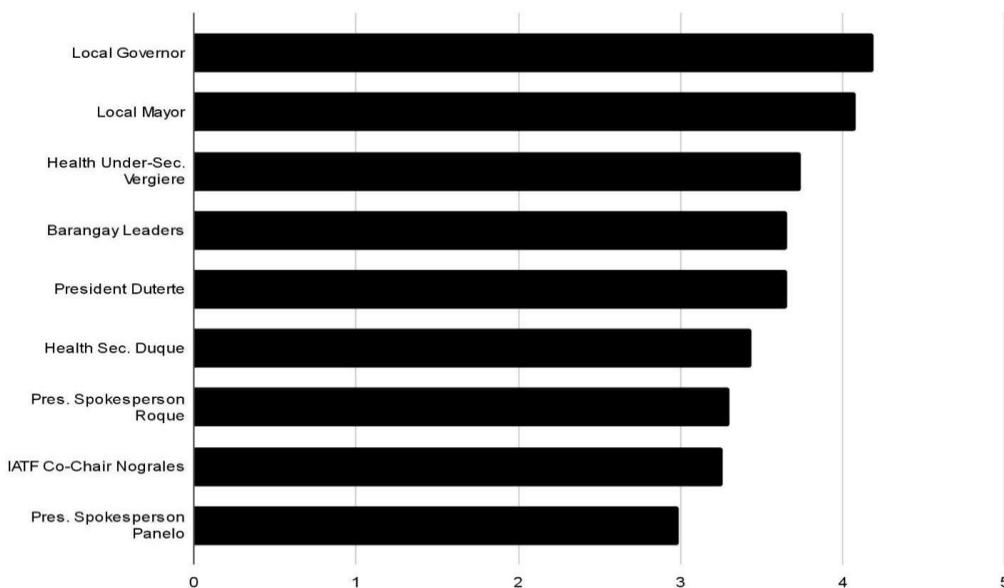
Based on Table 5, the respondents' first and main sources of information were the internet, followed by friends, television, and family. Only 7% used the radio and 3% cited newspapers as their first sources. Satisfaction with each specific source did not, however, match what they sourced first or mainly. Ratings of satisfaction with the overall amount of information obtained were highest for newspapers, followed by radio, television, the internet, friends, and family. Perceived information utility ratings matched satisfaction with amount ratings – newspapers first, followed by radio, television, internet, friends, and family.

The pattern of responses would appear to indicate that people normally access information from the closest and most accessible sources, the internet, which has become ubiquitous these days and is easily accessible through our smartphones, and our friends and family. Unfortunately, although these are their first “go-to” sources, respondents appeared aware of their inadequacies in terms of the amount and utility of the information obtained and traditional media still ranked higher in terms of satisfaction and utility. Nevertheless, if people continue to rely on the internet, friends, and family sources mainly then problems are sure to arise. Limited information or even fake news is easily shared this way and is associated with the amplification of distress and negative feelings (Liu & Huang, 2020). Furthermore, wrong information can lead to incorrect behavior such as non-compliance with health protocols (Bridgman et al., 2020), and exacerbate the problem.

Feelings about Government Pronouncements and Response

Aside from the aforementioned sources, the government is another major source of information. They provide regular statistics to update the population on the situation, educational information, and various pronouncements for handling the pandemic. How is the government and its response to the pandemic perceived and how are its various spokespersons evaluated especially during the onset of a crisis like the pandemic? Trust is particularly significant and various studies have found that political trust is associated with law compliance (Marien & Hooghe, 2011). Trust is an important factor in compliance or non-compliance to public health policies in times of COVID-19 (Bargain & Aminjonov, 2022; Fancourt et al., 2020).

Figure 7
Trust for Various Government Officials



For the respondents of this study, levels of trust for various government officials during the onset of the pandemic were middling to fairly high. The most trusted official was the local governor ($M=4.19$, $SD=1.3$) followed by the local mayor ($M=4.08$, $SD=1.2$), Health Undersecretary Vergiere ($M=3.74$, $SD=1.5$), barangay leaders ($M=3.66$, $SD=1.3$), President Duterte ($M=3.66$, $SD=1.5$), DOH Secretary Duque ($M=3.44$, $SD=1.2$), Presidential Spokesperson Roque ($M=3.30$, $SD=1.3$), IATF co-chair Nograles ($M=3.26$, $SD=1.5$), and least trusted, Presidential Spokesperson Panelo ($M=2.99$, $SD=1.2$). It appears from this ranking that local government officials are viewed with more trust than those in the national government, except for the president and DOH Undersecretary Vergiere. When freely asked which government official respondents perceived to be most effective, the name of Mayor Vico Sotto was mentioned in 33% of the responses, followed by Vice President Robredo (13%), President Duterte (11%), and Governor Garcia (10%). The other names mentioned were mostly local government officials (Mayors Chan, Teodoro, Moreno, Gomez, and Labella) except for DOH Undersecretary Vergiere.

Figure 8

Amount of Information from Government and Medical Experts

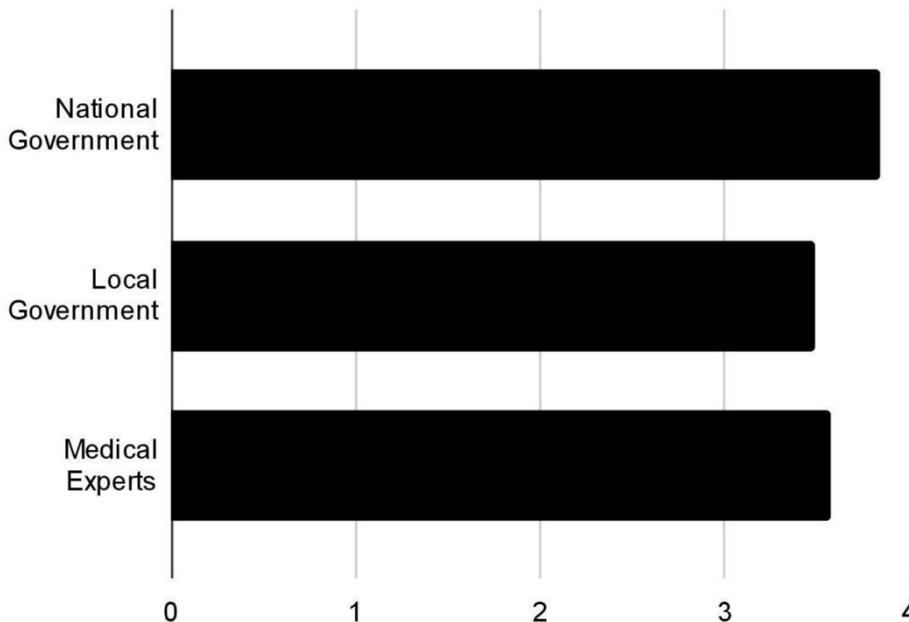
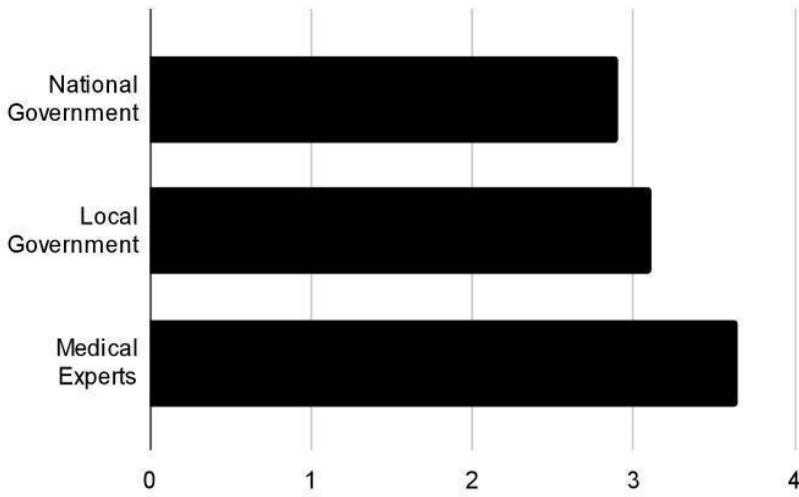


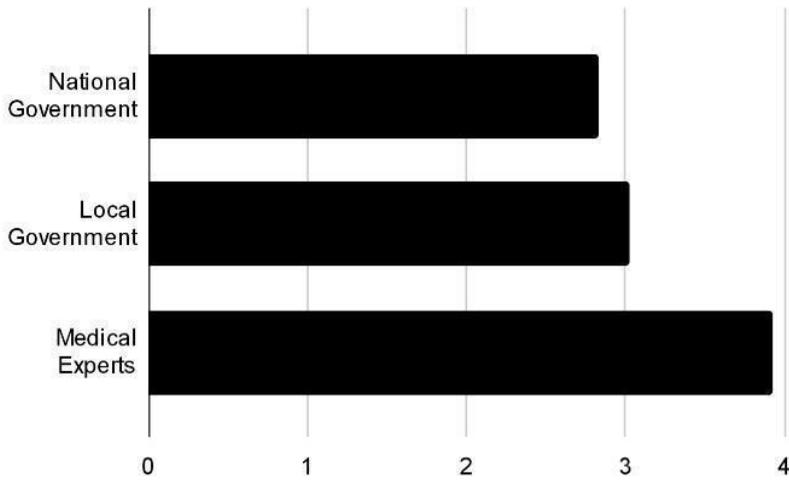
Figure 9

Perceived Sufficiency and Reliability of Information from Government and Medical Experts

Perceived Sufficiency



Perceived Reliability



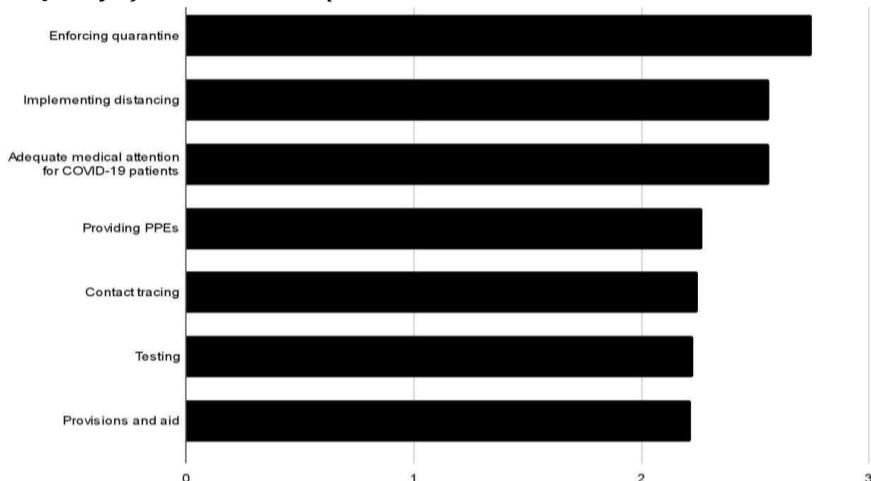
Respondents were also asked about information obtained from the national government, local government (LGU), and medical experts. The assessment of the amount of information received during the onset of the pandemic was moderate to high – national government (M=3.84, SD=0.87), local government (M=3.49, SD=1.05), medical experts (M=3.57, SD=1.00). When queried about the sufficiency of information received during the same period, the ranking reverses – medical experts (M=3.64, SD=0.98), LGU (M=3.11, SD=1.07), national government (M=2.90, SD=1.12). Perceptions of information reliability follow the pattern for information sufficiency assessments – medical experts (M=3.92, SD=0.88), LGU (M=3.02, SD=1.03), national government (M=2.83, SD=1.07). Based on this data, information from the national government during the onset of the pandemic was apparently viewed as lagging behind that provided by medical experts and local government officials in terms of sufficiency and reliability.

The performance of the national government in terms of information provision on specific areas related to COVID-19 during the onset of the pandemic is perceived as even more insufficient. Figure 10 include information on vaccines and cures (M=2.51, SD=1.19), how to deal with COVID-19 cases in quarantine at home (M=2.84, SD=1.14), and treatment of COVID-19 infection (M=2.80, SD= 1.14). Other topics were rated as handled as moderately satisfactory.

It was not only information provided by the government that was perceived as unsatisfactory. Respondents also felt that the quality of government response during the onset of the pandemic was below par on all the points noted – testing (M=2.23, SD=1.11), contact tracing (M=2.25, SD=1.07), enforcing quarantine (M=2.75, SD=1.20), implementing distancing (M=2.56, SD=1.15), provisions and aid (M=2.22, SD=1.12), providing PPEs (M=2.27, SD=1.14), and ensuring adequate medical attention for COVID 19 patients (M=2.56, SD=1.11).

Figure 10

Perceived Quality of Government Response in Various Areas



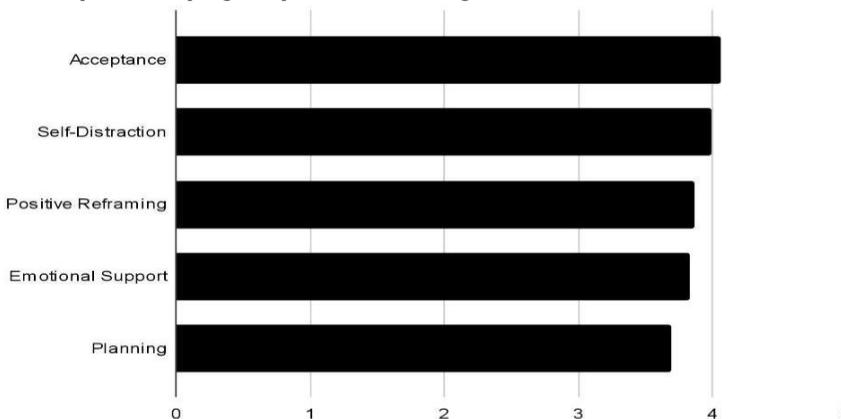
Coping Behaviors and their Outcomes

The emergence of the COVID-19 pandemic has been seen to have severe mental health effects on individuals as they experience isolation due to social distancing and lockdowns (Galea et al., 2020). They also receive distressing news regarding the rising number of cases and deaths (Sani et al., 2020). With these stressors, Lazarus and Folkman’s theory (1984) on stress and coping would indicate that individuals would likely employ strategies that can help reduce the stress they are experiencing. These strategies, in previous disease outbreak contexts, include avoidance, emotion-focused coping or regulating one’s feelings (e.g., relaxation techniques), problem-focused coping (i.e., finding solutions to the issue), utilizing humor, or turning to religion (Sim et al., 2010; Yeung & Fund, 2007). In the current study’s context, it is important to recognize what coping strategies individuals commonly turn to during the beginning stages of the pandemic in order to assist in the development of targeted psychological interventions promoting resilience and support.

Given the emerging context as well as their thoughts and feelings and dissatisfaction with government performance, how did respondents cope? A variety of coping mechanisms are available and were used by the respondents for dealing with the current situation. Overall, as seen in Figure 11, the top five coping responses were acceptance (M=4.06, SD=0.87), self-distraction (M=3.99, SD=1.06), positive reframing (M=3.87, SD=1.00), emotional support (M=3.83, SD=1.05), and planning (M=3.69, SD=0.94). This meant that respondents have been learning to live with the reality of the emerging pandemic as well as to accept its occurrence. Furthermore, they employed ways to distract themselves and find something positive in what was unfolding. Concurrently, they also were finding support from their family and friends while developing plans and strategies to deal with the unfolding pandemic and its effects.

Figure 11

Respondents’ reported Coping Responses in Dealing with the Pandemic



In line with respondents' reported coping through the development of plans and strategies to deal with the emerging pandemic, when asked what they thought the future would be like, respondents appeared fairly optimistic. Qualitative responses provided were reviewed and categorized (by two coders with a 95.8% inter-coder agreement) with 63% of the responses (N=174) classified as positive and 36% as negative (N=100). Examples of positive responses reported included a "Future with a renewed sense of the things that matter in life, (P015)" while reporting more adaptive attitudes like, "Conditioning oneself to retrofit and adapt to the new normal (P081)" and "People realized how important it is to have savings and good shelter, so i think people will find ways to earn more and save not depending the help from the government. (P262)" Positive responses also report an appreciation towards health and the medical sector (e.g., "better appreciation, adequate funding, and proper attention given to medical facilities and personnel; national budget for health and medicine be given utmost importance," P278).

On the other hand, negative views of the future reported anxiety about the new normal and how that might be difficult for some people (e.g., "The new normal will be a challenging journey for some individuals," P036). There is a concern about how the emerging pandemic may have detrimental effects on issues related to social inequalities (e.g., "Unfortunately, the poor will still end up dying even if this pandemic ends. Only those who are privileged are likely to survive." P002), mental health (e.g., "A lot of people suffering from mental health issues," P060), and citizen-to-government trust (e.g., "Great mistrust against the government from the people," P161). Moreover, there is the concern that future outbreaks or case surges might occur (i.e., "People will never change, another wave or outbreak leading to another pandemic." P255).

Finally, with these reported perceptions, emotions, and behaviors tied to the emerging pandemic, the research attempted to further explore how these factors might influence peoples' subsequent mental health (i.e., overall negative affect and self-ratings of mental health status) and compliance with prescribed health protocols through three hierarchical regressions.

Having an understanding of how these factors might impact important outcomes during the early stages of a crisis situation can contribute to the formulation of better management strategies for future similar events (Pearson & Mitroff, 1993).

Factors Contributory to the Overall Negative Affect

The order by which causal factors examined and entered by blocks in a hierarchical regression were based on internality and externality in relation to the individual. Age and sex (first block) came first as they were characteristics of the individual. Followed by attitude towards quarantine, experience of (difficulties in) quarantine, and perception of threat (added in the second block), which were self-reports about the respondents’ internal states in relation to the emerging pandemic. The last set of factors, coping mechanisms: planning, positive reframing, acceptance, emotional support, self-distraction (added in the third and final block), were mainly external behaviors performed by the respondents to deal with what they were experiencing. The final equation, explaining 30% of the variance on overall negative affect, showed that age negatively contributed to overall negative affect (i.e., the older one is, the lower overall negative affect); high negative experience of quarantine contributed to higher overall negative affect; a higher perception of threat contributed to higher overall negative affect. The more one uses planning as a coping mechanism, the higher overall negative affect but the higher one’s acceptance of the situation, the lower overall negative affect is (refer to Table 6).

Table 6
Hierarchical Regression on Factors contributing to Overall Negative Affect (n=288)

	Block		
	1	2	3
Age	-.23**	-.16**	-.17**
Sex	-.08	-.11*	-.10
Attitude toward quarantine		-.11	-.11
Experience of quarantine		.42**	.36**
Perception of threat		.18**	.15**
Planning			.17**
Positive reframing			-.04
Acceptance			-.15**
Emotional support			-.02
Self-distraction			.06
Adjusted R ²	.06	.27	.30
F	9.56**	22.50**	13.34**

*p<.05; **p<.01

Factors Contributory to the Subjective Assessments of Mental Health

The first and second blocks included the same variables as in the previous analysis, this time examining the effect on subjective assessments of mental health. The third block had overall negative affect (i.e., the average score for all previously measured negative emotions) and the fourth block included overall positive affect (i.e., the average score for all previously measured positive emotions) to check for a possible buffering effect of positive affect on the impact of negative affect on mental health. The fifth and last block included the five coping mechanisms included in the previous analysis. The final equation explains 30% of the variance on subjective assessments of one's mental health.

Once again, age is positively related to mental health (i.e., the older, the better mental health); the greater overall negative affect, the poorer one's assessment of one's own mental health; but the more emotional support one has, the better one's mental health. Positive affect did indeed provide a buffering effect by tamping down the effect of negative affect on mental health. Positive affect has a positive impact on subjective assessments of mental health, the greater overall positive affect, the better one's assessment of one's own mental health (refer to Table 7). These findings are consistent with the current mental health literature associating mental health with age, affect, and emotional-social supports (Bruine de Bruin, 2021; Zhao & Zhou, 2020; Shattuck et al., 2022).

Table 7

Hierarchical Regression on Factors Contributing to Mental Health (n = 288)

	Block				
	1	2	3	4	5
Age	.23**	.17**	.11*	.09	.10
Sex	.10	.12*	.07	.08	.09
Attitude toward quarantine		.02	-.03	-.03	-.01
Experience of quarantine		-.28	-.10	-.06	-.03
Perception of threat		-.08	-.01	-.00	-.01
Overall negative affect			-.42**	-.36**	-.35**
Overall positive affect				.19**	.16*
Planning					-.07
Positive reframing					.09
Acceptance					.03
Emotional support					.15**
Self-distraction					-.03
Adjusted R ²	.06	.14	.27	.29	.31
F	10.39**	10.44**	18.45**	18.01**	11.77**

*p<.05; **p<.01

Table 8

Hierarchical Regression on Factors Contributing to Preventive Behaviors (n = 288)

	Block			
	1	2	3	4
Age	.18**	.18**	.17**	.18**
Sex	-.19**	-.19**	-.17**	-.17**
Sufficiency of information from government		.03	.03	.02
Quality of government response		.00	.01	.02
Experience of quarantine		.01	-.03	-.05
Perception of threat			.18**	.17**
Attitude towards quarantine			-.05	-.04
Overall negative affect				.03
Mental health				.08
Adjusted R ²	.05	.05	.07	.06
F	9.41**	3.78**	3.94**	3.18**

*p<.05; **p<.01

Factors Contributing to Engaging in Preventive Behaviors

The study sought to explore some factors that could possibly affect compliance with precautionary preventative behaviors, using as a dependent variable the overall mean compliance with the 10 prescribed preventive behaviors previously measured. The first block of factors included age and sex; the second block included perceptions of sufficiency of information from government; quality of government response and experience of (difficulties during) quarantine; the third block included perception of threat and overall attitude towards quarantine; the fourth and last block included overall negative affect and subjective mental health assessment. The third equation explains more of the variance (6.7%) compared to the fourth equation (6.4%), meaning the addition of negative affect and mental health did not contribute further to explaining compliance with preventive behaviors and hence may be left out. Nevertheless, although the F is significant, only 6.7% of the variance is explained by the third equation. Age is a significant factor (the older one is, the more preventive behavior one engages in); females are more likely to engage in these preventive behaviors than males; and the higher one’s perception of threat, the more likely one will engage in these behaviors (Refer to Table 8).

DISCUSSION AND CONCLUSION

The emerging pandemic, which has been the primary focus and context of the study, has generated significant reaction from both citizens and the government. As the study aimed to generally provide a descriptive view of peoples' internal states and behaviors during the initial stages of a crisis as well as provide possible policy implications, data has shown that the pandemic's onset has elicited significant negative emotions from people. Worry, anger, concern, and frustration have been the top emotional responses to news from various sources uploaded to YouTube and FB. And while the salience of various emotions appeared to fluctuate across the pandemic timeline, the top emotions remained worry and anger. The only positive emotion to surface was hopefulness, but it was not one of the top sentiments to surface.

The findings of the qualitative sentiment analysis on emotionality were also reflected in the survey although many mitigating factors served to tamp down their intensity. Negative emotions were elicited by the first news of an outbreak and intensified with the government declaration of ECQ, which possibly signaled the confirmation of some of the fears that this was a serious matter. Some of these negative emotions were calmed somewhat by the continuation of ECQ or maintained at the same level. No negative emotion returned to a level below that of when this was first stirred up at the start of the outbreak. The overall perception of threat was high and there was low confidence in the Philippine medical system to handle the COVID-19 situation.

Emotions directly figure into decision-making processes. Particularly in a crisis situation, how one behaves may depend on the emotions one may be experiencing. Previous work on emotion and decision-making in crisis contexts (Dionne et al., 2018), for example, has shown that emotions such as anger, regret, and guilt may motivate people to engage with others disappointment and shame may lead to disengagement or avoidance. While fear can motivate people to affiliate or go and be with others. In the current study, the top emotional responses reported such as worry, anger, concern, and frustration (González-Gómez et al., 2021) have been associated in past research with consolidation-type of behaviors. That is, paying attention and recognizing that one needs to put an effort to address (González-Gómez, Hudson & Rychalski, 2021; Tallis & Eysenck, 1994) and understand (Zahn-Waxler et al., 1992) whatever it is that they are experiencing. These prior studies indicate that respondents during the beginning of the pandemic were trying to make sense and find ways to address the unfolding event. In a crisis situation, this particular context presents government and allied organizations with an opportunity to critically assist their citizens. However, as reported by respondents, there was low confidence among them in the Philippine medical system's ability to handle what was emerging. This has the potential to create a tenuous situation which can make it difficult for the government and citizens to coordinate in order to lessen the effects of the emerging pandemic.

Aside from peoples' emotional reactions, information access also plays an important role in assessing the risks from COVID-19. The internet, friends, family, and television were the first main sources of information although perceived as providing less sufficient or less useful information compared to newspapers and radio. However, considering how major news agencies have uploaded their material on the net, the internet has the greatest capacity for information dissemination from many various sources. The only problem was sorting fake from genuine news, given that the internet is so huge and "wild." Information overload, particularly from the internet, can also have a deleterious effect on one's mental health (Misra & Stokols, 2012).

Government and government officials play a large role in times of crisis. Particularly when an emerging crisis like the pandemic is recognized, people look to their government for guidance and assistance. Political trust can play a large role in managing people's fears and encouraging them to follow public health policies and guidelines (Weinberg, 2020). Trust in government was moderate to high, with local governments more trusted compared to national government spokespersons. Although the national government and its offices were seen as providing the most information, information from medical sources were still seen as most reliable and sufficient. Government information about vaccines and cures, treatment, and guidelines for people with COVID quarantining at home, were seen as inadequate.

Government response in terms of testing, contact tracing, enforcing quarantine, implementing distancing, providing assistance and aid, providing PPEs for frontliners, ensuring medical attention for COVID patients were all seen as needing improvement.

Past work has indicated that trust in local versus national government is dependent on where citizens feel that they can voice their concerns and frustrations (Fitzgerald et al., 2016). The current study's data indicate that as the pandemic was emerging, more trust was reported for local government; which may be indicative of citizens feeling that they are "heard" more by local authorities. This particular situation in the context of an emerging crisis may present difficulties if national directives are not as strongly trusted as those given by local authorities. Hence, it is important for the national government to coordinate and utilize local authorities and especially the medical sector for information dissemination and the implementation of health directives to ensure greater knowledge and compliance among citizens (Gaskell & Stoker, 2020).

Aside from their emotionality and perceptions on various governmental actors, the study also tried to ascertain the respondents' coping styles and factors predictive of their mental health and compliance in the context of the emerging pandemic. In general, our respondents appeared to be coping, assessed their mental health conditions as fine, and had a fairly positive view of the future.

The main contributors to mental health were age and emotional support. Overall negative affect, on the other hand, was a negative factor in mental health self-assessments. Whether individuals chose to engage in risk protective behaviors was influenced by age, sex, and the perception of threat. Older participants, females and those who perceived higher levels of threat were more likely to engage in greater efforts to protect themselves from the risk of COVID.

These results were in line with past local research also done during the early stages of the pandemic. Only low to moderate proportions of people were experiencing moderate to severe negative mental health effects (Marzo et al., 2020; Tee et al., 2022). Although there was a significant amount of worry and concern (Baloran, 2020).

However, as the pandemic continues, these numbers may increase. The current study suggests that emotional support from family, friends, and colleagues can serve as support for one's mental health. In addition, experiencing positive emotions has also been seen as a positive predictor. Therefore, as the pandemic continues, it would be important for government and allied organizations to develop emotional support interventions as well as events that can elicit positive emotions - while keeping to health protocols. These can help lessen the deleterious mental health effects of the pandemic and help citizens as we continue to adapt to this new normal.

It should be noted that since the data for this study was collected almost two years ago, government and various non-governmental organizations, seeing an increase in mental health issues among Filipinos particularly adolescents, in the time of COVID-19, have taken measures to address the need for mental health information and services (Dela Peña, 2021; Lacsamana, 2021; Mendoza & Dizon, 2022).

Study Implications and Policy Recommendations

Based on the findings of this early pandemic study, two clusters of recommendations may be made. These are related to two important issues uncovered by the study – communication and communication-related concerns and mental health needs.

- **Communication and coordination.** The constant bombardment of COVID-19 information from both traditional and social media should be toned down and checked first for veracity and factuality before publication or dissemination. The irresponsible distribution of fake (or unverified) news which only serves to incite negative affect further is counterproductive and can only exacerbate precarious mental health conditions in the population. Media should be responsible and present news that is factual and informative. Media coverage should avoid sensationalism and disturbing images to help prevent distress in the consumers of media.

- Sufficient and reliable information about different aspects of the COVID-19 pandemic should be channeled through reliable and credible sources (i.e., medical experts). Government spokespersons should consult and collaborate with these medical experts to provide clear, reliable and actionable information. Stronger collaboration between government, the scientific and medical community, and media practitioners is highly recommended for better information provision and dissemination.
- Government information provision (and compliance to its public health policies) could be improved by having trusted, credible and knowledgeable spokespersons. Furthermore, government communicators should be consistent in their information provision, else it only confuses, frustrates and increases the anxiety of the message recipient, as well as increases the distrust in government.
- Government service provision should be improved in the areas of testing, contact tracing, quarantine regulation and safety protocol enforcement (without resorting to extreme force or violence), aid provision, provision of protective gear for health workers, and providing adequate medical attention for COVID-19 patients. There is also a need to improve the overall state and quality of the Philippine medical system.
- Design an easily accessible set of FAQs on the various services provided by the government and the procedures and processes to access them, an integrated COVID health services primer. This could be distributed both online and in print and widely disseminated through various media outlets.
- Local government units, as they are closer to their constituents, should be available and accessible and provide clear information and guidelines for accessing fair and sufficient services.
- To help capacitate LGU workers, they should be given adequate training and information about the COVID-19 pandemic, the proper safety measures and protocols, and government services available to their constituents.
- The national government should coordinate better information provision and service delivery with the local government units down to the barangay level.
- Addressing the increasing mental health concerns: As the COVID pandemic continues, more people's mental health is being adversely affected. The uncertainty, plus the continued isolation and restriction of movement negatively affects one's mental health. It also affects one's work and economic situation, further increasing the challenges and stresses the individual has to contend with. If professional help is needed for handling these, one should know where to go and who to consult.

- Information should be provided to the public on resources that can be accessed and how to access these resources, should one feel overwhelmed. The LGU can take the lead in this campaign and work in tandem with media and mental health professionals, organizations and institutions in their communities.
- Natural support groups (e.g., families and friends) should be provided more information on how to help each other and how to identify and assist group members who might need professional help. A referral list or directory of mental health professionals, organizations and institutions should be available at the barangay or the barangay health center.
- Public information on self-care should be made more available. Virtual exercise, meditation, and hobby groups are welcome developments to mitigate negative effects.
- While physical distancing is part of the safety protocol, this is not to be (mis)construed as social distancing. People should be encouraged to maintain their social interconnectivity, using online channels, if need be, to stay in touch with family and friends. We are social beings and isolation can be detrimental for one's mental health.
- Unfortunately, the internet and social media have become both boon and bane. Addiction to the medium, the proliferation of fake news, and diminished empathy are just some of the issues. Information should be provided on how to discriminate fake news from what is real or true. And information on viable alternatives to being glued to the internet and social media should be made available.

FUTURE DIRECTIONS

Because of the urgency of the problem and the need to conduct this study post-haste, there were several limitations that should be addressed by future studies. First, future work should gravely consider accessing larger and more representative samples. Past work has indicated that online surveys may underrepresent certain sections of the population depending on factors such as gender, age, online presence, and education (Payne & Barnfather, 2012). More targeted and direct face-to-face methods may address this limitation. However, with the ongoing pandemic, the feasibility and safety of utilizing these methods are still in question.

Second, future researchers may look into more longitudinal approaches to studying the effects of the pandemic and how people are coping with it. Longitudinal approaches will allow for monitoring changes in respondents over the course of the pandemic experience. Such an approach allows researchers and policymakers to view the pandemic as a whole and see consistencies as well as see marked differences in psycho-emotional factors affecting outcomes of interest such as wellbeing, coping, and compliance.

Finally, researchers may explore how current interventions addressing various pandemic-related issues spearheaded by the government and allied organizations have impacted the Filipino population. Researchers may look at the current study's insights which were gathered from the context of the emerging pandemic as a referent comparison point for assessing changes and providing insights for improvement.

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APPENDIX 1

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