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Preface

The world is in chaos. The emergence of COVID-19 pandemic created the havoc that all parts of the globe had to deal with. In addition, there are still other personal and social crises that everyone endures.

Rebuilding Lessons after a Crisis attempts to present the whys, whats and hows of humanity’s risk perception across the world as we embark on this challenging journey and help define the most appropriate and most effective risk-related behaviors for survival.

The current pandemic has brought about the abrupt shift in all sectors of the society in different parts of the world. It has resulted to immediate adjustments and development of coping mechanisms to transcend beyond the challenges of this pandemic. Like any other crisis, the current situation taught us to reflect and manage its overwhelming effects.

This book compiles articles that reflect the different perspectives in varied concerns such as health, economy, education, and social transformations. Its impact to the physical, emotional, psychological and financial conditions of humanity across the world are also presented.

Part I as the opening chapter attempts to describe the situation in terms of how a crisis has been evaluated in different lenses as to the risk perception and the risk related behaviors as to how various sectors have adapted to the situation.

Part II describes the varied effects of the pandemic and the adjustments and coping responses manifested by the different sectors.

Part III offers the strategic actions and coping mechanisms that can help recover and sustain ways of life in these challenging times.
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# Table of Contents

## Part 1 – The Nature and Extent of Crisis

Classification of the Transition Patterns of the Number of COVID-19 Patients  
*Hiroko Kanoh* ................................................................. 2

Mental Health in Diverse Population  
*Surbhi Chandra, Vooturi Lasya, Megha Garg & Kavya Ahuja* ......................................................... 17

Resilience in community urbanization  
*Pauline B. Malabanan & Emilia S. Visco, PhD* ......................................................... 30

Mental health and the teaching profession  
*Marco R. Publico* ................................................................. 40

The social amplification of risk, risk perception, and risk-related behavior  
*Ged Xavier A. Fruto* ................................................................. 53

## Part 2 – The Varying Effects of Crisis

The Socialization and Self-acceptance of the Extrajudicial Killings’ Left behind Families  
*Jherwin P. Hermosa* ................................................................. 85

Cyber Bullying Tendency among Young Generation  
*Md. Alamgir Hossain* ................................................................. 100

Cognitive Vulnerabilities and Depression of Children with Single Parents  
*Portia R. Marasigan, Ph.D* ................................................................. 111

Elderly Parent Caring for an Adult with Down syndrome  
*Thessalonica M. Sinohin* ................................................................. 124
Part 3 – The Strategies to Overcome a Crisis

Theoretical Perspective on Covid-19 Related Social Problems
Farhana Yasmin..............................................................141

Personalities Characteristics and Entrepreneurial Success
Saifullahi Adam Bayero & Adams Adeiza.................................................156

Brief cognitive restructuring and cognitive defusion techniques
Portia R. Marasigan, Ph.D.............................................................174
The Social Amplification of Risk, Risk Perception and Risk-Related Behaviors on COVID-19 in the Workplace

Ged Xavier A. Fruto

Introduction

The change brought about by the pandemic has affected the workforce and the way employees have to deal with their colleagues. Since the government has implemented the lockdown, many companies and agencies re-directed its transactional communication towards telecommuting or also known as work-from-home (WFH) setup. This drastically changed the landscape of the work environment, however, due to exigency of service, some of our fellow Filipinos have to go to offices as an exception to the remote work transaction protocols. Aside from the medical professionals (i.e., doctors, nurses) who are automatically mandated to serve as frontline workers, government employees, particularly those who are in the transacting line, business processes, and administrative offices have to report for work since the need for these sectors to continue with its operations have become more significant especially during a pandemic.

The process of social amplification of risk has structural components that include social elements that get enacted in the process of translation of risk information (Strekalova et al, 2017). Studying the communication behaviors and sources that contribute to the social amplification of risk will show what the authorities can do for risk assessment, create an approach based on the result of changes in behavior, and mitigate the negative effects of undesirable behaviors based on amplifying the risk.
Since the implementation of lockdown throughout the Philippines, the Inter Agency Task Force (IATF) has implemented a work from home setting (Official Gazette, 2020). Despite the implementation of telecommuting, there are some government agencies that require their employees to report to the office for work. They are considered as frontline workers as they continue to work physically in the office for the continuity of its operations i.e. business transactions and medical purposes.

Among those considered as frontline workers, personnel in the academe, are vital in the operations of academic institutions. The researcher, being a student in tertiary level, has been interested to know how these employees act and behave in their workplace given the guidelines for “new normal” set by the authority. The need to know what kind of information they receive and what communication channels these employees employ as these influence their way of communicating and behaving during this time of the pandemic. Consequently, knowing this information can help describe, understand and examine the probable changes such as slower processes, longer durations of transactions among different offices and the way they communicate with each other.

Identifying the sources and channels of information about the pandemic is utilized to determine the influence of these factors in the risk perception of the employees and how these are translated on the risk-behavior manifestations of these employees. Understanding the risk of this pandemic and the way we act on that knowledge is vital in order to stay safe despite the need to report to work physically. Knowing the source of information, how they consume and share the risk information plays an important role in this study. In a survey conducted by Social Weather Stations in March 2019, Filipinos got their news and other information from various sources and outlets but traditional television networks and social networking sites such as Facebook emerged as the top information providers.
Risk is a social construction, and its understanding by people is shaped through interactions and engagements with messages, opinions, shared and learned experiences, and the way risks are characterized (Strekalova et al, 2017). Social actors and information provide cues to people which creates unique heuristics in individuals which leads to amplifying the risk, catches attention and eventually the probable influences on someone’s behavior. As one’s take on risk is being reflected through his actions and words, others interpret it in their own way of thinking, multiplying, amplifying the risk and creating a ripple of reactions among the community.

The same challenge is being posed by the pandemic to the employees of University of the Philippines Mindanao in Davao City, Philippines – how the social amplification of risk happens in the workplace that affects their perception of risk that will have a ripple effect on their behavior and communication related to these risks. The employees of UP Mindanao, being under a government institution, are mandated to comply with the alternative work arrangement scheme --- a combination of the work-from-home (WFH) arrangement and also be persons reporting for work (PRW) on a weekly basis. Hence, the employees are not spared from the risks posed by the pandemic. Their communication adjustments and the corresponding risk-related behavior is crucial in keeping everyone safe while observing minimum health protocols to avoid close contact with suspected or possible positive cases. One of the factors that could affect the way they communicate and behave is their consumption of risk-related messages from various media channels – television, radio, internet, and others. These risk messages from different communication media may have an effect on the employees and their individual perceptions may contribute in amplifying the risk. This is followed by the probable risk-related behaviors that could be evaluated for improving the work dynamics of the UP Mindanao employees.
The study aimed to identify the sources of risk perception about the COVID-19 pandemic and describe its effects i.e. coping mechanisms of UP Mindanao employees in the workplace.

**Literature Review**

The effect of a pandemic on people can arise not only from the fear of contracting the virus but also coping up with the daily routines they have to do. It is vital to understand the relationship between risk communication and public responses during the pandemic, with the possibility of drastic changes in behavior and practices among groups. The findings of the study showed that risk communication in the initial stage of the outbreak mitigated the susceptibility to emotional contagion, and that this interaction had a larger influence on the epidemic frontline (i.e., Wuhan). Furthermore, prevention activities were predicted by the quality of risk communication, suggesting that preventive behaviors taken were closely linked to the efficient and timely transmission of information related to the epidemic. While researchers have found that effective risk communication may reduce susceptibility to emotional contagion and is a significant means of alleviating public anxiety, it has shown some inconsistencies to previous findings in that there is a reciprocal correlation between anxiety and risk communication, which means that the emotional component may build resistance to risk communication.

Risk is the chance or probability that an individual may experience adverse health effects, be it physical or mental, if exposed to a specific threat or hazard (CCHOS, 2017). Placing the COVID-19 pandemic as a probable cause of risk for a community poses the need to study and understand how people perceive the risk brought about by COVID-19. The risks can be
expressed as a likelihood of manifesting the symptoms of COVID-19, acquiring the virus and worse, repercussions. Several factors influence the likelihood of risk such as the nature of exposure to the virus, how the person is exposed to the virus (i.e., acquired from a person with COVID coughing without mask, talking in public without adequate apparatus to avoid infection) and lastly, the severity of the effect. Risk also includes the subjective evaluation of that risk and a number of principles from the behavioral and social sciences guide how people make these evaluations. Risk is not something constant and same everywhere, some places are posed with greater risk than other places, because the “spatial variety of nature provides different types of environmental opportunity and hazard” (Wisner et al. 2003) and it is a result of processes, both natural and social ones. Risk perception refers to people's judgments and evaluations of hazards they (or their facilities, or environments) are or might be exposed to. Such perceptions steer decisions about the acceptability of risks and are a core influence on behaviors before, during and after a disaster. People's risk appraisals are a complex result of hazard features and personal philosophies (Rohrmann, 2008). Its dimensions include the cognitive level, which refers to how much people know and comprehend about them, as well as the emotional level, which refers to how they feel about them. As a result, experts rely increasingly on study findings and statistical evidence to assess risk (Paek & Hove, 2017). The public’s subjective perception to a risk, judgment and evaluation sometimes deviate from the objective risk judgment of experts (Oltedal et al, 2004).

Risk and risk perception, according to Scherer and Cho (2003), are embedded in the social context. Risk is felt, and risk perception is formed via interactions between people and groups. Furthermore, risk perceptions are based on prior risk exposure, which allows one to categorize hazards as positive or negative. Lack of risk knowledge and experiences might intensify
distortions and affect the cognitive ability to plan and think about feasible solutions. Wachinger and Renn (2010) stated that perception of risk involves the process of collecting, selecting and interpreting signals about uncertain impacts of events, activities or technologies. These signals can be based on personal experience or information obtained from others. As a result, perceptions may vary based on the type of danger, the risk environment, the individual's personality, and the social situation. Risk in the social context, thus, would refer to the possibility of an effect that would result in the implementation of plans from a decision-making process of people involved (Wang, et al., 2018; O’Neill, et al., 2016). Slovic (1987) defined risk as people’s decisions about whether or not to accept or disregard dangers based on personal experience, attitudes, and feelings of those who would be affected by the event. As a result, risk perception research examines people's decisions when asked to characterize and evaluate dangerous behaviors and technologies. As a result, this attempts to assist risk analysis and policy-making by anticipating public reactions to hazards and improving risk communication among laypeople, technical professionals, and decision makers.

Risk communication, on the other hand, refers to an exchange of information about the ‘health risks caused by environmental, industrial, or agricultural processes, policies, or products among individuals, groups and institutions’ (Glik, 2007). Sheppard, Janoske & Liu (2012) stated that risk communication definitions are often similar to Covello’s (1992) “the process of exchanging information among interested parties about the nature, magnitude, significance or control of risk.” However, they also highlighted other definitions that emphasized the importance of risk management (McComas, 2006), the need for dialogue between communicators and stakeholders (Palenchar, 2008) and necessity of ongoing risk monitoring (Coombs & Holladay, 2010). Risk communication is an established concept within the
risk analysis framework. It is a vital tool for conveying the meaning of scientific assessments and risk management, for sharing safety-related information and exchanging views and values amongst various stakeholder groups, or for triggering behavioral change and resolving conflicts. Its ultimate aim is to build trust through dialogue and social interaction (Rosa et al. 2014). More specifically, risk communication is the act of conveying information between parties about (a) levels of health and or environmental risk; (b) the significance of health or environmental risk; or (c) decisions, actions, or policies aimed at the managing or controlling health or environmental risks. Interested parties include government agencies, corporations and industry groups, unions, the media, scientists, professional organizations, public interest groups and most importantly, the individual citizens.

Despite the fact that researchers have been working for decades to improve risk communication practice and refine communication theories and theories, these authors stressed that no single theory or model can capture the complete spectrum of factors that influence risk communication efforts. Table 1 shows Covello and Slovic’s (1986) literature review regarding communicating information about health and environmental risks such as the controversies of over the risk of pesticide EDB, dioxin, AIDS, toxic wastes, smoking, driving without seatbelts, nuclear power plant accidents.
Table 1  
*Problems in Risk Communication*

<table>
<thead>
<tr>
<th>Origin of the Problem</th>
<th>Example</th>
<th>Nature of the Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Problems</td>
<td>Government or industry data on health risks</td>
<td>High level of scientific complexity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Large data uncertainties</td>
</tr>
<tr>
<td>Source Problems</td>
<td>Government or industry officials</td>
<td>Lack of institutional trust and credibility</td>
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<tr>
<td></td>
<td></td>
<td>Expert disagreements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use of technical, bureaucratic language</td>
</tr>
<tr>
<td>Channel Problems</td>
<td>Media</td>
<td>Selective and biased reporting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Focus on sensation or dramatic aspects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Premature disclosure of scientific information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inaccuracies and distortions</td>
</tr>
<tr>
<td>Receiver Problems</td>
<td>Individual citizens</td>
<td>Inaccurate perceptions of risk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of interest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overconfidence in ability to avoid harm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unrealistic demands for scientific certainty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reluctance to make trade offs</td>
</tr>
</tbody>
</table>

*Social Amplification of Risk --- the Theoretical Framework*

Kasperson and Slovic (1986) proposed a novel approach to study the social experience of risk. The concept of *Social Amplification*
of Risk is based on the thesis that events pertaining to hazards interact with psychological, social, institutional, and cultural processes in ways that can heighten or attenuate individual social perceptions of risk and shape risk behaviors (Renn, 1992). Figure 1 shows the social amplification of risk and its consequential process. It starts when a certain event that poses risks is being projected or represented by a different means and channels such as the media networks, social networking sites, and even word of mouth. This representation is vital in terms of the audiences’ perception about the risks imposed by the certain event. In the case of COVID-19 and the risk messages about it are being portrayed by the media in several ways. Once the target audience receives these risk messages, each of them will have their own interpretation and approach to the risk message they received. They are considered as “amplification stations” as they give their own responses to these messages. As an effect of this response, there is a rippling effect that is being spread to other groups of people.

Figure 1

The Social Amplification of Risk Framework
The social amplification of risk framework is a comprehensive tool available for the study of risk (Rosa, 1998). The SARF developed in the late 1980s in response to the emergence of multiple perspectives in the rapidly growing risk literature. The framework covers the psychological, social, institutional and cultural processes in ways that may amplify the response of the public to a certain risk or risk event. Amplification occurs at two stages: in the transfer of information about the risk, and in the response mechanisms of the society. Signals about the risk are processed by individuals and social amplification stations, including the scientists who communicate the risk assessment, the news media, cultural groups, interpersonal networks and others.

**Figure 2**

*Conceptual Framework of the study*

Adopting Kasperson’s SARF Model, the researcher will only be focusing on the risk event (Covid-19), portrayal of event and signals (Risk Communication System and Vulnerability Characteristics), Risk Related Behavior, and Spread of Impact (Assessment and Recommendations). In the case of UP Mindanao employees, the conceptual framework helped in shaping the survey and the flow towards formulating recommendations. The respondents are asked about their sources of information about COVID-19. The important points in this
part is to identify the medium of information, how often they receive or search for the risk-related messages about COVID-19, and if everyone in the household has access to the information. The vulnerability characteristics helped the respondents consider their past experiences with a health related phenomenon that could give them an insight about a probable risk they might acquire. The socio demographics showed vulnerability aspects such as having a companion in the house with a comorbidity – e.g., diabetes, heart disease.

Risk related behaviors are seen as the effect of the perception of risk from the risk messages. Self-assessment and an employee’s observation about the risk-related behaviors of his/her coworkers are gathered in this part. Ultimately, the recommendations based on the discussion of the results are created. These recommendations are expected to supplement the risk communication system that could eventually contribute to an improved risk perception and risk-related behavior.

Methodology

The research focused on the qualitative and descriptive techniques on the gathered data but with a minimal use of quantitative methods. The risks posed by the pandemic during the study has limited the researcher on the data gathering by remote method of data collection. The survey was conducted through online channels. The surveys were given out through Google Forms.
<table>
<thead>
<tr>
<th>Objectives</th>
<th>Sources of Data</th>
<th>Type of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the sources of the perception of risk on COVID-19</td>
<td>Online survey</td>
<td>Qualitative, Quantitative</td>
</tr>
<tr>
<td>Describe the effects of the communication messages on COVID-19 on the employees’ risk perception and risk-related behaviors.</td>
<td>Online survey</td>
<td>Qualitative, Quantitative</td>
</tr>
<tr>
<td>Discuss the implications of risk-related behavior of UP Mindanao employees in the workplace.</td>
<td>Online survey</td>
<td>Qualitative, Quantitative</td>
</tr>
<tr>
<td>Evaluate the possible changes in communication practices and workplace behaviors among the employees.</td>
<td>Online survey</td>
<td>Qualitative, Quantitative</td>
</tr>
</tbody>
</table>

The research involved one data collection method through an online survey. The documents are significant in describing the existing risk communication regarding the COVID pandemic. The questionnaire for the survey was based on the previous studies related to risk perceptions and social amplification of risk. The questions covered in the survey questionnaire included the socio-demographic and economic characteristics of the respondents and their households, respondents’ perception of the risk brought by the COVID-19. These documents were instrumental in describing the sources of risk messages and existing systems of communication in the workplace. The draft
questionnaire was initially assessed and from the original 70-item survey, it was narrowed down to a 50-item questionnaire, exhausting all the needed information about the sources of risk messages, how these risk messages are being perceived and interpreted by the employees, how the risk messages affect the way of communication and working behavior of the employees. Qualitative data were analyzed using thematic analysis and descriptive statistical analysis which include frequency distribution, graphs, and computation of mean, whenever applicable.

Results and Discussions

Employees’ Vulnerability Characteristics

Based on the results gathered from the demographics (Figure 3), 24.2% of the respondents say that 5 people are living in their household. Another 24.2% said 4 and 21% said 3. 3% responded that there are 9 and 13 members in their household. On the number of children living in the household (Figure 4), 48% of them answered none, 21% answered 1, 18% answered 2, 12% answered 3.

Figure 3
Number of people in the household
In terms of households having senior citizens (60 years or older), 72.8% responded they don’t have seniors in their residences, while 15% said they have at least 1 senior and 12% with 2 senior citizens in their household (Figure 5).

39.4% responded that they have immune-compromised members or those who have comorbidities in their households. Figures 6 and 7 show the data for those who have an immune-compromised member in their household and number of
immune-compromised members in their household respectively.

**Figure 6**
*Immune-compromised member in the household*

**Figure 7**
*Number of Immune-compromised member in the household*

The Risk Communication System in the workplace

In terms of the risk communication system, the respondents have
one to multiple devices that could be used to access information about COVID-19 (Figure 8). All of the respondents are connected to the internet, having their smartphones made this online information available at any moment. Despite the convenience of the internet, most of the respondents still have television and radio sets with 75.8% and 33.3% respectively. 3% of the respondents also selected newspapers as their available source of information.

**Figure 8**
*Available Sources of Information About COVID-19 at Home*

![Available Sources of Information About COVID-19 at Home](image)

Despite the data showing the availability of different gadgets, appliances, and medium of information, there are slight differences when it comes to the actual usage of these sources. When it comes to proactive searching for information about COVID 19, 27 out of 33 respondents intentionally search for news about COVID-19 (Figure 9). 96.29% of them use the internet, 65.4% for television, 30.8% for radio and 3.8% for newspapers. However, there is one factor that does not belong to the technological or digital factors which is word of mouth. 42.3% responded that they seek information from their peers and acquaintances which lies between the number of those who use the television and radio.
At a closer look on the internet usage among the respondents reveal that 96.2% answered that they visit the official Facebook pages of government agencies and departments followed by the news websites with 80.8%. 57.7% of people selected “Facebook posts and comments of friends”. YouTube videos and Government Twitter Accounts have an equal percentage of 30.8%. The political and politician's pages as well as Tik Tok videos also have an equal percentage of 7.7.

**Employees’ Risk-Related Behaviors**

On the effects of the messages on the employees’ risk perception and risk related behaviors, the following are the results of the study:

1. Frequency of face-to-face communication with their coworkers made 60.6% of the respondents say they always communicate with their colleagues, 21.2% said never, and 18.2% said sometimes. The most common reason for the face-to-face communication (Figure 12) is when they have to ask or clarify some task with their coworkers at 88.5%, followed by the need to borrow some office supplies at 42.3%, when a task requires two
or more employees 38.5%, and small group meetings at 26.9%.

Those who said they never communicate face-to-face, are those who are telecommuting or when their schedule to report to the office does not coincide with other employees, making them the lone employee working on a specific day. When employees cannot communicate face-to-face, the most prevalent means of communicating is through chatting with them via messaging apps such as Facebook Messenger, Viber, and Whatsapp with 97% of the respondents. The second most common means is by sending them emails at 84.8%. Setting up a virtual meeting at 81.8% and texting 63.6% came in as third and fourth respectively.

(2) In terms of observing the health protocols, i.e. wearing face masks, all but one respondent wears a face mask inside the office (Figure 14). 59.4% of them said they take off their masks sometimes (hourly), 25% said they never take it off, and 15.6% said always. 100% of the respondents said that the reason for taking off their masks is when they have to eat during snack and lunch breaks. 87.9% said drinking requires them to take the mask off. 72.7% said that they take off their masks when they are alone in their working space, and 15.2% when they consider that they socially distant from others.

(3) In terms of handwashing/sanitizing, 100% of the employees said they bring their own hand sanitizer or alcohol. In terms of the frequency of using hand disinfectants, 90.9% answered that they disinfect their hands before and after eating as well as before and after going to the bathroom. 84.4% answered after a transaction with someone else. 78.8% answered that they disinfect their hands after holding or touching a public facility and 75.8% responded that they sanitize after having a close contact with someone else.
(4) In terms of the protocols implemented by the university in accordance with IATF (Figure 17), everyone affirmed that everyone in their department follows it with 72.7% respondents saying they always follow and 27.3% saying sometimes.

On the implications of risk-related behavior of UP Mindanao employees in the workplace, there are some respondents who said that they have coworkers who are not wearing face masks within the university premises. 18% of the respondents gave this answer. This gives an impression of complacency towards the situation and could affect the level of communication between employees. In terms of taking off face masks, 15.15% of the respondents said they always take their masks off and 27% said they take it off because they feel uncomfortable wearing it inside the office. This could be considered as a violation to the protocols if they remove the mask without considering being socially distant.

There has been a trend that the implications of risk-related behaviors have limited the capacity and means of communicating in the workplace. Answers such as, “less verbal exchanges”, “delayed processing of documents” that could lead to “challenges such as getting immediate necessary feedback” were just some of the common themes in this area. There has been an emphasis on the feeling of impersonal communication in the workplace, because the employees are used to face to face communication. Those who are not used to virtual meetings have experienced difficulties in connecting both technically and socially. There has been a comment about “facing each other but significantly apart”.

Evaluating the possible changes in communication practices and workplace behaviors among the employees. There’s already
existing protocols that are being implemented by the University based on the IATF guidelines. According to the Likert scale data (Figure 10), in terms of employee’s satisfaction towards the University’s approach, most of the employees lean towards agreeing with the statement, “The University is doing a good job in keeping its employees safe.” However, in terms of having their own sentiments and opinions in the existing protocol, the result of Likert scale from Strongly Disagree to Strongly Agree is distributed fairly unlike the other items.

**Figure 10**
*Likert scale of employees feeling safe in the workplace*

![Likert scale](image)

Social Amplification of Risk in the workplace

Magnifying on the amplification of risk of an individual’s risk perception, 42% of the respondents said that they tend to get their risk-related messages from word of mouth or grapevine (refer to Figure 8). These sources are a combination of relaying educated opinions as well as the individual’s interpretation of the information. As risk perception is distinct in each person, amplification of these interpretations become vital in the greater picture of how a certain community or group of people behaves.

According to the results from those who answered “Word of mouth”, 92.3% said that they get the word of mouth information
from their families. 84.6% said that they get these messages from their co-workers, 76.9% from their friends, 30.8% from their neighbors, and 7.7% from their household helpers. However, when it comes to the initiative of sharing information, there has been a common theme among the employees on when to share their information – relevance, accuracy, and opportunity to share. Notable response on the relevance is when the employees read information about the rise in cases especially when the data highlights Davao City and its certain barangays. The employees feel the need to share this information because it is relevant particularly to the location and level of risk it imposes. Another theme is accuracy. Despite the oversaturation of available news and information from various media channels, employees tend to verify the accuracy. One respondent said, “I share the information after checking that the sources are credible so that I will not cause confusion to others”. This is a good measure that despite the tendency of people to listen and depend on words relayed to them, they filter the information based on the accuracy and validity before passing it on to others. Figure 11 shows the Likert scale regarding the word of mouth shows parallel results as to the persuasion of the employees when it comes to the information they hear from others.

**Figure 11**
Likert scale of employee’s persuasion on co-worker’s Information
On the other hand, in terms of social amplification based on the information respondents get from mass media including television, radio, and newspaper, there is a higher confidence among these channels of media compared to the results from the social media. The results show that the confidence of the employees on the information they get is based on the established credibility of the news outlets that air their information through TV and Radio, as well as print. Another factor for the high confidence from these channels is the fact that these channels communicate in one-way direction. Unlike social media where everyone can contribute to the discussion and make the conversation more confusing, people tend to rely on the news and information they get from television, radio and newspaper more.

**Social media as the main source of information**

The data gathered has shown that most of the respondents have access to the internet, and are proactively searching for information on COVID-19 and other risk messages related to it. One of the factors that makes Social Media as the most common information source is its accessibility via smartphones which most people bring wherever they are. The most visited places on the internet are social networking sites such as Facebook and Twitter. This is understandable since most of us are using Facebook in particular as a means of reaching out and connecting to our friends and acquaintances. When someone opens his/her account, they are directed to their feed which houses different posts shared and created by their peers or by the pages that they follow. This leads a Facebook user to read and follow a thread that might give him/her several pieces of information. This information is then processed and interpreted by the reader and will be amplified, either digitally – through social media, or tell it to his peers verbally. There is a significant
number of respondents who answered that they see their peers’ COVID-related Facebook posts and comments as information. Although it just came in as the third most common internet activity, being influenced by the posts and comments of peers is considered vital because social media makes it appear that large numbers of people believe in certain ideas because we assume that if a person shares a thought (or article) on social media they're implicitly giving their support to that idea. With so much 'embellishing' going on in the vast social media crowd, it is not surprising that feelings of isolation come out of prolonged usage of this form of interaction. Despite the data, people following the official Facebook and Twitter accounts of several government agencies are higher. While it appears that social media is filled with current events and information pertaining to a user’s life, the algorithms used to present articles to social media accounts actually distort facts and biases. These algorithms, which are lines of code that devise rules for when/how/where to do things, control which articles are presented to which media accounts based on the reactive behaviors of the account users (each time you click on an article, information is stored about what you react to). Attentional bias means that what we give our thoughts to (attention) will become more important to us. Thus, if we see only similar political articles in our social media and do not actively pursue other means of learning about the political climate of the world, we are inevitably going to be drawn to believe and hold the opinions put forth in the articles presented to us. This is one way in which users of social media are influenced politically. And, this can be an even bigger problem when the articles are peddling false or misleading information.

Challenges of Social Media and Online Communication during the pandemic
The communication aspect of working has been greatly affected
as the pandemic has limited the employees with their face to face communication and work. The Inter-Agency Task Force (IATF) has implemented a telecommuting or work-from-home setup which changes the dynamics of work. From simple communication to official business transactions, people’s means of communicating face to face were limited, thus online means were introduced. According to the data, 87.9% of the respondents think there are significant changes in the workplace in terms of communicating with their co-workers. Given this result, they said that their options of communicating are messaging applications such as Facebook Messenger, Viber, and WhatsApp. This became the most common means of communicating because most of them are connected to the internet and they don’t have to spend for an additional load for cellular texting and calling. In terms of webinars and group meetings, Zoom has been the emerging outlet for the employees. Despite the accessibility of mobile messaging applications, e-mails are still preferred for professional and official communicating particularly invitations and business letters. With this given information, the respondents were able to give their insights about the changes in their ways of communicating with each other. The prevailing theme is the challenge of digital communications such as the internet speed, availability of reliable internet in some areas, performance of their personal computers for work. Apart from the technical challenges, some of the respondents have not completely adapted to the new working environment that they find online communication difficult. Some of them have difficulties in setting up their zoom meetings, while others take time in learning the new methods of communicating. There are also some respondents who have preexisting health conditions that make online communication and work from home setup challenging. There was a respondent who said that sometimes he/she finds it difficult to hear someone over the internet despite having a clear and strong signal. Those
who have problems with their eyesight also answered that they find it difficult to see their peers in online meetings. Seeing their co-workers online is significant because despite the changes in communicating, the need to see their faces gives them a feeling of personal connection in a way. This leads us to the other challenge of online communication which is also a recurring theme among the respondents – the heightened feeling of impersonal communication. The respondents answered that despite the convenience of online communication, it has given them the impression that communication has been less personal and more transactional since the pandemic. Prior to the implementation of work-from-home setup, the employees were able to talk freely and exchanges of ideas were easier. This makes the workload lighter. Another factor that made online communication less personal is because of the physical distance of each other. Prior to the pandemic, the employees were able to take lunch breaks together and talk about other things, which create personal bonds. They are also able to do task together which gives them the sense of belongingness in the workplace. One respondent said that online communication has a “restraining effect” because not everyone has the same internet speed, or some have other things to attend to which forces them to leave online meetings. Another respondent said that online communication may enable you to “face each other” but being significantly apart prevails.

On the transaction aspect of online communication, the respondents find it challenging to process some documents because unlike the face to face and normal work setup, some transactions during the pandemic takes days to process because some documents need signatures from different offices and it is more taxing when these documents are being sent online, downloaded, signed digitally, and forwarded to another recipient. Asking for feedback is also more difficult because there are instances that emails are being piled up or some employees were
Employees’ coping mechanisms in the workplace

The respondents showed that most of them are following the protocols implemented by the Inter-Agency Task Force. However, there are some exceptions such as the frequency of taking the face masks off or even seeing some of their co-workers not wearing masks at all. When using the facilities provided by the University, the same result emerged – not everyone is completely using it particularly with the frequency. Facilities such as the wash area, floor markings and barriers were sometimes ignored by some employees. Given these behaviors and their awareness of risk messages from various media outlets, there seems to be an unparalleled pattern. Interestingly enough, despite this data, all of the respondents answered affirmatively when asked if they apply the knowledge they receive. This shows that even though some were not using the facilities provided, all of them are well-informed and doing their part. This is evident when all of them answered they bring hand sanitizers and alcohol everywhere, wear face masks and even face shields upon entering the workplace, and maintain distance with their co-workers. Despite this result, the respondents have the sense of needing to share the information they receive from multiple sources and the most common reason behind this sharing of information is to keep their co-workers aware and if the information they receive are even the same or reliable. The respondents seem to verify the information by sharing them and asking if they receive the same risk message and how these messages affect them and how they behave in the workplace.

Conclusion and Recommendations

The risk messages that are being consumed by the employees are not able to see it in their emails.
affecting them in different ways, but most of them were beneficial. It is also good to take note that despite the availability of information, the respondents take time to verify the validity and accuracy of such information before passing it on to others. In terms of reflecting the impact of risk messages, there is a good sign that the employees are taking the risk messages seriously as they are proactive in taking measures for their own safety as well as for their co-workers. In the communication aspect, the apparent challenge of digital and online communication has added to the load of the employees as they have to adjust with the new norm implemented by the authorities. There is still a need for improvement in terms of handling these technologies as the government is considering online communication and work-from-home setup as a long term dynamic for work. The personal and individual internet infrastructures in each home should also be reinforced in order to make the new setup more bearable for the employees.

Some practical and timely recommendations can help address the enhancement of the coping mechanisms in the workplace

A. Provide “News Bulletin” or the Centralized Source of Information. There should be a centralized source of information that serves as a “news bulletin” for the employees to check frequently. This will not only make the information accessible but also validated and verified by the University. The “news bulletin” will also serve as a fact-checking outlet for the employees whether the information they receive elsewhere are true.

B. Reinforcement of Safety Protocols via Visible Signs and Markers. The University can reinforce its safety protocols by creating unified and more visible signs for its provided facilities such as the Wash Area and Barriers. These signs will give the employees a deeper sense of need to use them in the workplace. This recommendation has been created due to the responses of some employees that some of their co-workers are not using the
provided facilities. Making it more visible and more imposing makes these facilities used more frequently.

C. Encourage Communication with Peers. In terms of making the work-from-home setup more connected to their workmates, a weekly online group gathering could be considered in order to give the employees a sense of belongingness just like what they used to feel even before the pandemic. This was recommended due to some responses of the employees that their means of communicating since the pandemic has changed and turned to less personal. With the mental and emotional challenges brought about by the pandemic, being connected with your peers makes the work more bearable.

D. Alleviate Employees’ Well-being and Mental Health. Another help that the University can dole out is by launching a counselling center that can accept employees who need professional help when it comes to handling their mental health. The University has started a program in line with the mental health of the students but extending this kind of service to the employees will be of greater help. The employees who are struggling with the pandemic could seek help and improve their working experiences. The university can allocate funds to hire mental health professionals who can render service. The dynamics are adapted from the UP PsycServ, a free psychological counseling program of the Department of Psychology of UP Diliman.

E. Develop an Online “Pigeon Hole”. This can be an avenue wherein employees could voice out their opinions and suggestions in creating a healthier working environment during the pandemic. For those who are not comfortable with opening up with their peers through online gatherings, the university could receive feedback and suggestions from its employees through a “pigeon hole” through physical drop box outlets in
their offices and even creating an online form that could be filled out by the employees anonymously. This way, employees can easily communicate and voice out their concerns with the current work setup without the fear of being identified that could sometimes bring anxiety.

**F. Provide Reliable Internet Infrastructure.** In technical aspects, the university should always follow up with its employees about the technical difficulties they face in order to assist them or give necessary help to lessen the burden of the new working set-up. The university should make sure that its employees have stable and fast internet connections should they stay at home for work.

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**References**


