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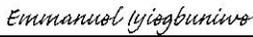PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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CHINA AND SOUTH KOREA'S HEALTH COMMUNICATION AMID THE 2003 SARS
AND 2015 MERS OUTBREAKS

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Abstract

Today, the health communication played a significant role during the coronavirus outbreaks. China and South Korea were first respondents to take an action against the COVID-19 pandemic, effectively succeeding with low number of cases compared to other countries. Their success was a result of their history with coronavirus outbreaks that equipped them to take an advantage of technology in the health communication: social media. Social media is a robust tool that had been provided to the public where information is easily accessible at its fingertip. The study was interested to understand how China and South Korea's health communication could be effective today compared to their communication during the 2003 SARS and the 2015 MERS outbreaks. The review of articles would discuss on the development of media dependency that delineated the relationship between individuals and media against the government. It also provided the insights on the differences between the 2003 SARS, 2015 MERS, and 2019 COVID-19 outbreaks based on the evaluation of health communication.

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CHAPTER ONE: INTRODUCTION

Coronavirus disease 2019 (COVID-19) is an ongoing pandemic that has a large impact on health communication. The origins of COVID-19 began in the marketplace of Wuhan, China, which led to the fast-paced spread of airborne disease with a cough or sneeze (CDC, n.d.). While the spread prevailed internationally, China and South Korea took an immediate response to contain the COVID-19 outbreak quickly through the health communication. What could have prompted two countries to take action quickly may have been due to their experience with similar coronavirus diseases such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). Health communication is an important part of the public health response system to keep the public well-informed of emerging diseases, non-communicable diseases, environmental diseases, and more diseases. China's health communication was unique compared to South Korea's for keeping COVID-19 contained to Wuhan province and indicated that it learned its lessons about a communication dispute during the SARS outbreak. On the contrary, South Korea utilized its MERS lessons to combat against the arrival of COVID-19, which kept the number of cases low (Choi et al., 2015). These countries' preparedness displayed their motivation in developing better techniques to communicate with the public because the cases for SARS and MERS outbreaks were contrasted to see the consequences of inadequate communication.

LITERATURE REVIEW

COVID-19 pandemic is the current predicament facing China and South Korea. Its incidence and prevalence depend on the health communication where the public relies on the social media to access information. The influence of social media is robust in response to the changing situations that are presented to two eastern countries. Media landscape history serves as

the reference to examine two countries' health communications in response to the coronavirus (CoV) outbreaks. To fully understand the impact of social media on the CoV infections, the population health in China and South Korea is explored based on the globalization framework that will lead to shed some lights on this study's specific aims.

Examination of Media Landscape in China, SARS 2003 and South Korea, MERS 2015

A 2003 SARS epidemic began in Guangdong province, China (Tai & Sun, 2007). During the period of changing the leaderships in China, SARS created a ripple effect on multiple levels of globalization that led to economic instability and public distrust. To understand how SARS affected China's population health, it began with the government's initial response to SARS cases. China's social infrastructure in 2003 was undergoing new changes and its public health system was fragmented where the provinces' local hospitals were not managed by the central government. The Ministry of Health was severely underfunded to handle the public health response and most funds were spent on economic stability (Tai & Sun., 2007; Tai & Sun, 2011). These factors affected how the health communication was shared with the public, which resulted in the delay of taking preventive measures. Furthermore, China's intranet networking was localized to its country to give the public limited access to information. Selected information is readily available to the public and an information exchange between the users is monitored to ensure that there is no harm brought to people (Tai & Sun, 2007; Ma, 2008). Tai & Sun (2007) discussed how SMS became the foundation to prompt the increase in media dependency after the China government made its decision not to disclose the SARS information publicly. Short messaging service (SMS) was recently developed and popularized to drive the market value in China's economic development because of the cellphone's simple design that transmits a short message less than 150-character limits (Haiqing, 2004). According to Tai & Sun's article in

2007, the mobile phone popularity rose since it was first implemented in 2000, which made SMS more accessible to learn more about SARS.

South Korea's media platform developed over time that led to the introduction of smartphones in late 2010s. While the smartphone was a popular device among the younger generations, the timing of the MERS outbreak changed how health communication is delivered to the public. Jang and Baek (2019) noted that the onset of MERS outbreak began in the hospital and there was no prior knowledge about the preparedness against the type of emerging disease. Because of the experience, the government lacked the means to act upon the emergency response against MERS, which led to a delay in taking preventive measures. The journalists were first to inform the public about MERS through the publication of news and social media postings. Their delivery techniques effectively created a "social fear" to motivate South Koreans in avoiding the close contact to each other and spreading more awareness to their family members and friends (Song et al., 2017; S.H. Oh et al., 2020). Social fear was the phenomenon that affected people to react toward those who had been infected with MERS - for example, they grew anxious each time a single information about its infection had been released. Numerous articles indicated that social fear effectively influenced the public's risk perception of MERS outbreak. Their risk perception, in turn, created a new mode of health communication to reach out to other people through a word of mouth or a social posting (Choi et al, 2017). Consequently, their behavioral response to the MERS outbreak appeared positive to indicate that the public became well-prepared to take preventative measures on their own, which led to the low prevalence of MERS (Yoo et al, 2016).

China and South Korea's communication strategies were unique to experience the information exchange among people that they were able to spread the facts, which might not be

reliable or accurate. The 2003 SARS outbreak had a large impact on China more than the 2015

MERS outbreak had on South Korea because of several political changes happening that had the

government's full attention over the outbreak. South Korea's response to the outbreak and its

relationship with media enhanced South Korean people's crisis experience, which made it

distinguished from China. Song et al. (2017) explained that the 2015 MERS outbreak served as a

great lesson for South Korea to improve its communication system, which would be evident in

the COVID-19 pandemic. The study would be interested to see what kind of impact the

coronavirus outbreaks could give China and Korea to adapt in respect to the development of

technology, providing that the evaluation of good health communications and the media

dependency theory might help to bring some insights on this research.

Evaluation of Health Communication

Public Health communication is a communication method that delivers important

messages to help the public become aware of what is happening around them ("Health

Communication Course", n.d.; Finset et al., 2020; "WHO", 2011). Public service

announcements, press releases, social media, and media companies are examples of

communication. In the coronavirus (CoV)-related events, China and South Korea used different

methods of communication to provide instructions or to provide the public with the

comprehensive disease-related information. China utilized the press releases and media

companies to control the flow of information and prevent the public disorder pertaining to SARS

in 2003 (Tai & Sun, 2007). South Korea actively handled the information through media

companies and social media to reach out to the public during the MERS outbreak of 2015 (Kim

et al., 2016; Hui et al., 2015).

There are nine different characteristics of good health communication. Each characteristic described how the message was constructed effectively to help people become more receptive of the target information such as a CoV outbreak ("Chapter 6. Communications to Promote Interest", 2019). Reliability and accuracy were selected specifically to identify the type of content and message that were commonly changed from a person to another person. Media censorship in China was established prior to the 2003 SARS outbreak (Tai & Sun, 2007; Tai & Sun, 2011) that was responsible for the modification of message formats to ensure that information would not create the economy instability and unforeseen consequences on people. In this instance, the reliable information was tailored for Chinese people to recognize it as the fact while the accurate information depended on people's perspective of the facts. South Korea opened the interconnectivity to the world with the arrival of smartphones that provide people access to navigate through information whether it is accurate and reliable. Media companies were one of popular sources South Korean people relied to retrieve the information that emphasized on the reliability and accuracy of information (Song et al., 2017; Lee & Choi, 2018; Oh, 2020).

Reliability and accuracy, one of the characteristics, provided little information to identify how China and South Korea's communication strategies work well publicly. Using Finest's (2019) recommendation for the COVID-19 pandemic, the evaluation of health communications listed the six items to assess the research studies that were published in between 2003 and 2020. For each item, the selected research studies are interpolated in a summary format to interpret what China and South Korea demonstrated through the usage of media.

1. **Identification of health behavior or outcome** determines the type of impact China and South Korea have on the public through different channels of communication.

2. **Clear communication objectives** and the **type of audience** represent how the research studies are identified based on selected communication to examine and assess the health communication.

3. **Evaluation of the messages and communication messages** identify how the information is used to be delivered through different channels provided by public and private agencies and the contents of information are important to consider how each individual receives information. The background and methodology of studies are mainly focused to be identified pertaining to this factor.

4. The **review of communication strategies** examines different theories, methods, or frameworks in evaluating the mode of communication used in the public service announcement, press releases, social media, or media companies.

5. **Reliability** and **Accuracy** are two important elements of the good health communication, which is seen as a common denominator to assess the content of messages and understand the communication strategies.

6. **Types of content and information delivery** describe how the public and private agencies provide and deliver messages to the public effectively. The target content is being assessed by the studies to dissemble how the information is delivered and received through the channels of communication as shown on the studies.

Media Dependency Theory

China and South Korea's communication strategies demonstrated a hint of difference in responding to the disease crisis. Their strategies explored how people accessed the information in absence of the government's official announcement. Technology was gradually introduced to the public where the cell phones were first available in 2003 as shown on Tai and Sun's (2007)

article. The access to information led people to rely on different devices based on what they were provided. Cell phones in China were the example of media dependency. Media dependency was introduced and discussed how the media affects an individual's behavior (Ball-Rokeach and DeFleur, 1975; Jung, 2007). The theory endeavors the connection between the society, the media, and the individual to recognize that the individual grows dependent of the media while technology makes information readily available. At the global level of media dependency, the media effect was targeted at the public as a whole group that relies on the existing devices to access information. China's unique experience of media evolution may demonstrate on the evaluation of health communications and this would be like South Korea's case to determine if the media dependency theory applies to it.

China's media relationship shaped the cultural aspect that elevated China's economy because it had recognized the prowess of media that helped people to gain information about the 2003 SARS outbreak. Tai & Sun (2007), Tai & Sun (2011), and Qiu et al. (2018) explained that Chinese government was focused on precisely managing the flow of information to prevent the major economic loss and the public distrust. If an aspect of information were to be shared with other countries, the Chinese government would respond with the mitigation strategy to delay the full disclosure of information and maintain its economy stability because the stability relied on the public's emotional response level. South Korea's prospect in the technology of smartphone appeared to be opposite of China in preserving its economy because Kim et al. (2017) and Lee & Choi (2018) indicated that South Korea recognized the social media as an opportunity to advance its prosperity of technology. This led to the promotion of the expanded social networking with the world. This study used the theory to understand the impact of media dependency on the

health communication, which can be broken down into three components of the media's effects: cognitive, affective, and behavior.

- **Cognitive** effect of media occurs when people are more receptive to the stress of social change such as the outbreak, which led them to rely on the media for more answers. Social media was commonly used to find out more about the COVID-19 information after China and South Korea learned of its severity of the COVID-19 spread.

- **Affective** effect of media demonstrates how the impact of outbreaks changed peoples' reaction toward the sharing of contents or information. South Korean people could react by becoming very anxious about the risks of getting infected with MERS.

- **Behavioral** effect of media changes people's actions after they receive information from the media. They could choose not to follow the public service announcement once they learned about the 2003 SARS outbreak from their friends or families.

Combined with the evaluation of public health communication, the theory will be able to integrate the common denominators in both countries from three different CoV events. Three aspects of the theory interconnect the key changes in the health communication that had been observed in Tables 1a-2c. For the overall quality of the research articles, the effect of media would be focused and interpreted based on the results from the evaluation of health communications in China and South Korea.

STUDY OBJECTIVES

This study is to evaluate the effectiveness of health communications in China and South Korea in response to the coronavirus (CoV) outbreaks.

The specific aims of this study are as follows below:

1. Examine the media landscape in China, SARS 2003 and South Korea, MERS 2015.

2. Evaluate and compare the health communication demonstrated in China and South Korea during the coronavirus events.

3. Identify the changes in public health communication in China and South Korea between the past outbreaks and COVID-19.

CHAPTER TWO: METHODOLOGY

Study Design

This study used a systematic literature review to answer the study objective. It was to identify the articles that conducted their studies on the communication methods, strategies, and characteristics. The date range began in between 2003 and 2020 to precede three different outbreaks. The 2003 SARS and 2015 MERS outbreaks were the target that needed to be extrapolated from the collection of literature and categorized.

Search Strategy

California State University, San Marcos (CSUSM) Library provided the list of databases where the study accessed the multipurposed search engines to find the articles. The theme of the search query was communication that retrieved several databases. Search queries provided the sources, which were PubMed, Science Direct, EBSCOhost, and Wiley. In addition to the search queries, Google Scholars supplemented the article results.

The keywords were inputted in the search filter with the date range of 2003 and 2020: "china", "sars", "2003", "south korea", "mers", "2015", "communication", "media dependencies", "rumors", "social media", "smartphone", "sms", "covid 19", and "2019". They were mixed and combined to get the pool of search results. Some keywords originated from the articles that have something in common to feature the components of health communications. The search results included the title, abstract, and study methods.

Inclusion and Exclusion Criteria

The inclusion criteria for this study began with the study objective that narrows down on the characteristics of health communication and media dependency. The study was interested to

see there were different communication frameworks, theories, and models that were

demonstrated in the article selection. It also focused on the discussion about China and South

Korea's health communication that brought some insights on their effectiveness. The summary

of data analyses on the health communication was considered for this inclusion criteria to

identify the characteristics of health communication.

The exclusion criteria distinguished the mental health and health behaviors from the

communication features. In three different timeframes for the outbreaks, the effect of outbreaks

on mental health and natural disasters were not involved with this study. In-depth research on the

epidemiological studies of coronavirus outbreaks were part of the exclusion process. The

psychological distress or similar issues were on the exclusion criteria, which are not required by

this study.

Inclusion and Exclusion Process: China
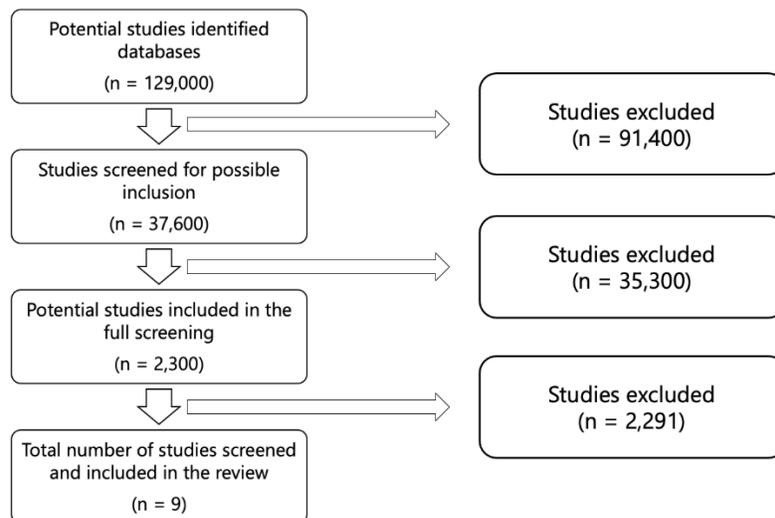
Figure 1. The inclusion and exclusion process for China. In the beginning of the process, there were 129,000 results for the potential studies. Undergoing the criteria of inclusion and exclusion, 37,600 studies were included in the first phase of the process. Then 2,300 potential studies under the full screening were included after excluding 35,300 studies. Lastly, the final phase of inclusion and exclusion narrated down to 9 selected studies to be eligible for China.

Inclusion and Exclusion Process: South Korea

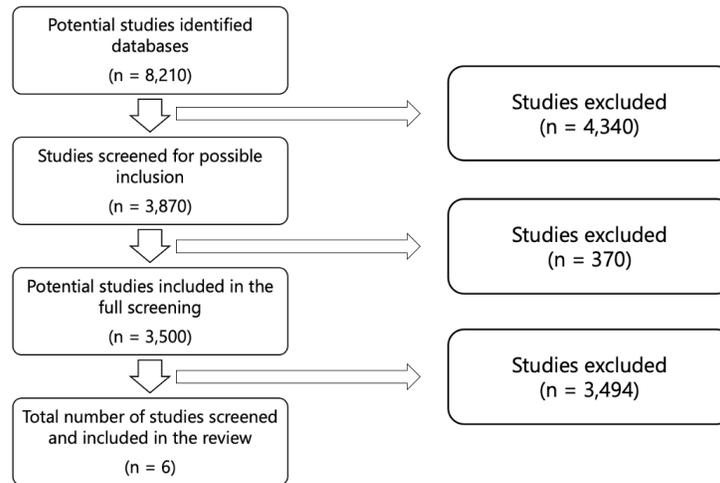*Figure 2.* The inclusion and exclusion process for South Korea. The inclusion and exclusion process for South Korea. In the beginning of the process, 8,210 results for the potential studies had been found and filtered. Then undergoing two phases of inclusion and exclusion proved difficult when 3,870 studies were selected after the search results were in. Then 370 studies were excluded to leave 3,500 potential studies that require full rigorous screening. 6 articles were selected to meet the criteria for South Korea at the end of inclusion and exclusion process.

Selection process

The study began selecting articles from the larger pool of search queries. The selection process was divided into two categories for China and South Korea. These categories relied on the search engines: Google Scholars, PubMed, EBSCOhost, Wiley, and ScienceDirect. Starting with China, the study processed the selected keywords as mentioned on the "Search Strategy" section (pg. 12). China and South Korea provided two different sizes of the search pool of results. China provided 129,000 results from search engines that were named in the Search Strategy section. "China sars 2003" keywords were inputted in the search query that resulted in the long list of possible articles. To increase the specificity, the study added another "media dependency" that resulted in 5,160 to see if the search filter had been refined. If the keyword "communication" were included, the number of results provided the similar result. Substituting the keyword "rumors" in, the study found there were about 3,730 results. Two separate search

results indicated that they had something in common, leading the study to include both keywords in that gives about 2,300 results. On the other hand, South Korea provided 8,210 results from the same search engines with the "south korea mers 2015" keywords inputted. Adding "media" would result in 3,870 while substituting with the keyword "social media" narrowed down to 3,500. The alternative keywords included "communication", "rumors", and "media dependency" that indicated the number of search results expanded over 3,500 with the date range of 2015 and 2020.

To meet the study objective, the inclusion and exclusion criteria were applied to select nine articles from China and six articles from South Korea. Each article provided a pdf format that requires an in-depth review to ensure that they meet the eligibility criteria. Title, abstract, and study methods were examined and considered in the selection process. Exclusion of the articles required the independent review to discern the difference between the health communication and health behavior, including the article similarities. Finally, the total of fifteen articles had been selected for this study.

Data Analysis

For fifteen selected articles, the data table was required to categorize each article by author, publication year, and six items from the "Evaluation of Health Communication" section (pg. 7). Tables 1 and 2 were created to distinguish the articles in two categories: China and South Korea. Each article contained the important keywords that were categorized and summarized based on its study design and discussion. The publication year began from oldest to latest year, which started from the bottom to the top of the data table. The authors' last name had been in alphabetical order, corresponding to the publication year. Tables 3 was designed to highlight the key points from fifteen articles and to reorganize the summary of the findings that met the

inclusion criteria. Tables 4 and 5 were added to identify the key features of all articles pertaining

to media dependency. These features pinpointed the articles' data analysis that discussed the

effect of health communications influencing people's health behavior. The data analysis

consisted of five tables that were constituted from fifteen selected articles to fulfill the study's

objectives.

CHAPTER THREE: RESULTS

	SARS	MERS	COVID-19
China	• Cellphones, Television, Short messaging service • Traditional media • Less reliability, less accuracy • High frequency of rumors	• The introduction of Sina Weibo • The expansion of intranet networking • The introduction of web blogging	• The expansion of social media networking, more mobile phones are accessible, public service announcement on the social media • High reliability, unclear accuracy • Focused on emotional responses
South Korea	• Not applicable	• The introduction of smartphone, Social media • Increased reliability, unclear accuracy • Media companies access the social media as their platform • Government – traditional media	• Full utilization of smartphone technology, Public Service Announcement on social media, The expansion of web blogging technology • Higher reliability, unclear accuracy • More social media platforms

Table 3. This table is a summary of common factors that had been identified in China and South Korea. For three different CoV events, China and South Korea's health communication had been cross-referenced to demonstrate the significant changes.

China	SARS	MERS	COVID-19
Cognitive	Lack of government announcement led people to turn to the word of mouth for information and SMS.	Not applicable	People reacted positively to the government announcement through Sina Weibo, a social media platform.

China	SARS	MERS	COVID-19
Affective	Anxiety and doubts toward government increased.	Not applicable	People's trust in government seemed amicable despite the spread of misinformation about COVID-19.
Behavioral	Public distrust toward the government after few more cases of SARS-related deaths became apparent.	Not applicable	People promptly followed the instructions to take preventive measurements against the COVID-19.

Table 4. This table depicts the simplified version of the media dependency theory to recognize whether China had grown accustomed to the technology and utilized it for the sphere of information.

South Korea	SARS	MERS	COVID-19
Cognitive	Not applicable	The delay in government announcement increased people's worries toward the MERS outbreak.	The government's swift action helped South Korea be well-prepared against COVID-19. They appeared receptive to the announcement through different social media platforms.
Affective	Not applicable	Distrust in the government and increased anxiety put South Korea on the high alert.	South Korea responded well to the COVID-19 after utilizing what it learned from the 2015 MERS outbreak.
Behavioral	Not applicable	South Korean people took the immediate preventive measurements against MERS after learning the facts from the media companies.	South Korea's risk perception of COVID-19 remained high as they took the preventive measurements very seriously against the outbreak.

Table 5. This table illustrates how the simplified version of the media dependency theory reveals South Korea's media management after the introduction of smartphones in 2015.

The study furnished fifteen selected articles to assess the health communication and media dependency. Tables 1 and 2 were on the "Appendix" section (pg. 44). Tables 1a-1c covered China, totaling up to nine articles to compare and evaluate the selected articles. Six articles on Tables 2a-2c covered South Korea's health communication. Table 3 provided the condensed information on China and South Korea's utilization of information delivery to communicate how the public acquired information through different modes of communication. Tables 4 and 5 depicted the summary of media dependency components that had been identified in the evaluation of health communications from Tables 1 and 2.

In Table 1a, Li et al. (2020), Tai & Sun (2007), and Zhang (2006)'s studies did not provide the clear communication objectives when the study reviewed the Chinese government's communication strategies. Those with the clear communication objectives provided an in-depth analysis that they identified there were different communication devices used in three different coronavirus occasions. The information delivery using traditional media such as word of mouth, newspaper, and television were common in the published articles dated between 2004 and 2011 (Tai & Sun, 2011; Mai, 2008; Tai &Sun, 2007; Zhang, 2006; Zhang & Fleming, 2005; Haiqing, 2004). Li et al. (2020), Liao et al. (2020), and Zhao et al. (2020) utilized social media to make information accessible to the public. This listing also corresponded to the type of audience when the target groups were chosen for each research study to examine how the messages got across them successfully. Along this line of finding, the type of content explored different research studies that analyzed how the format of content is presented to an individual or a group. At most, the articles with traditional media (Tai & Sun, 2011; Mai, 2008; Tai &Sun, 2007; Zhang, 2006; Zhang & Fleming, 2005; Haiqing, 2004) highlighted the characters or words that appeared

frequently compared to the dissemination of information through social media, which was evident in Li et al. (2020), Liao et al. (2020), and Zhao et al.'s (2020) articles.

Table 1b is consistent with Table 1a's interpretation of the selected articles. When nine articles identified the health outcome during their studies, Tai & Sun, (2011), Mai (2008), Tai &Sun (2007), Zhang (2006), Zhang & Fleming (2005), and Haiqing (2004) drew the common factor in having a problem with the news outlets. These studies recognized that different methods in formatting the messages were intentional to change the Chinese people's behavior toward the 2003 SARS outbreak. At that time there was the 2003 SARS outbreak, each evaluated message was specifically designed to delineate news headlines, messaging keywords, and news keyword by portraying how the traditional news were made believable to misinform people. The communication messages were focused on the effect of information content affecting people who had accessed and interpreted the information. These mentioned articles heavily relied on the media coverage where there were different channels to get the idea across about the 2003 SARS outbreak. The frequency of SMS was most notable feature that emerged as the turning point of China's health communication, which was strongly emphasized by Tai & Sun (2007 and 2011). On the contrary to the traditional media, new media like social media shifted the focus on the emotional response elicited from the government when Sina Weibo, the social media platform, was first introduced (Epstein, 2011; Li et al., 2020; Liao et al., 2020; Zhao et al, 2020). Those articles published in 2020 explained that the relationship between government and the public had been affected by social media where media censorship provided some benefits to improve the communication between two parties. However Li's (2020) research did not show how it evaluated the message format, but rather, it focused on the communication message that

discussed how the medical patients received the government aid through the social media during COVID-19 pandemic.

Li et al. (2020) demonstrated the similar problem as mentioned previously that its study did not evaluate the message. The lack of specific evaluation also did not provide the highlight of reliability and accuracy to identify how the message is designed as shown on Table 1c. Unlike Tables 1a and 1b, this article was interested to examine the communication strategy particularly in the collaboration between government and the social media platform company instead of utilizing the existing media theories, which were observed in other seven articles except Liao's (2020). Tai & Sun's article (2007) lacked the discussion about the reliability and accuracy of the communication because they were interested to understand how the mass media could have an impact on people during the critical period of political campaign - presidential election. Haqing's (2004) findings did not have the communication strategy established to identify the characteristics of communication, but it made a discovery that the reliable information was the key to the users' usage of short messaging system (SMS). The credible information provided in SMS could be shaped by the user's interpretation of what they learned from another person or the government. Tai & Sun (2011), Mai (2008), Zhang (2006), and Zhang & Fleming (2005) shared the common communication strategies to establish the findings of each message that may seem reliable or accurate. These findings showed that communicating messages had been challenged by the individual's perception of the quality of messages. Liao's (2020) article was distinguished for its study on the social media, which relied on the emotional response between the government and the public. This article narrowed down on how the social media postings could affect the users' behavior toward the COVID-19 outbreak compared to the rest of articles.

Tables 1a-1c illuminated various methods to analyze China at the interpersonal level of health communication related to the media. The evaluation of South Korea's health communication as shown on Tables 2a-2c contributed to the analysis of broader communication methods. Table 2a provided little information about the type of contents except Park's (2020) article. Park et al. discussed how the social media platform, Twitter provided news coverage, which would be analyzed for their contents - Twitter posts. Though six articles had the clear communication objectives to study the health communication, they also used the social media users to identify the information delivery, social media, which was very common to reach out to the users with information (Park et al., 2020; Jang & Baek, 2018; Jang & Park, 2018; Kim & Jung, 2018; Lee & Choi, 2018; Kim et al., 2017). This common feature was due to the rapid development of smartphone that joined in the web interconnectivity of users for more accessible information. Table 2b appeared to concentrate on the effectiveness of information delivery through social media because of the 2015 MERS outbreak that resulted in the delay of the government announcement. In addition, the evaluation of communication messages delineated how the effectiveness of communication methods could help people to recognize MERS and COVID-19 as a problem to take the preventive measurements. The study identified that these messages were not being evaluated, but instead, they were being recognized for their success with the social media. Park's (2020) findings were exempted from the evaluation of message because they did not focus on the format of message and they chose to compare for the credibility of information instead. Table 2c confirmed that specific articles studied how credible or reliable information was presented to South Korea during the 2015 MERS and 2019 COVID-19 outbreaks. For this instance, Kim & Jung (2018) and Kim et al. (2017) put their research focuses on the communication institutions to understand the collective information that were

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conveyed to the larger group instead of the individual. Park et al. (2020) was interested to study the information outbreak or known as infodemics, which was introduced after the booming start of social media. Reliability of the health communication was important to Park and his team that the contents of information became difficult to ascertain whether they are considered the facts or recognized as false information. Jang & Baek (2018), Jang & Park (2018), and Lee & Choi (2018) provided the communication strategies to identify the linkage between the design of messages and people through the social media, which led to evaluate the reliability and accuracy of messages. These articles seemed to reinforce the concept of media dependency being exhibited in the 2015 MERS and 2019 COVID-19 outbreaks.

Health Communication Table

Table 3 described three different time frames on the row: SARS, MERS, and COVID-19. China and South Korea were on the column to determine the timepoints. On the China row, the study recategorized its data analyses on Tables 1a-1c to narrow down the highlight of the evaluation of health communications. Traditional media, cellphones, and short messaging services were on the SARS column. The study selected "less reliability, less accuracy" and "high frequency of rumors" to indicate that nine articles had something in common based on their study methods. These features in the SARS column demonstrated the difference in the health communication, compared to the MERS column. The MERS column listed fewer items: "the introduction of Sina Weibo", "the expansion of intranet", and "the introduction of web blogging" as indicated on the selected nine articles. These three items appeared or had been briefly mentioned in the articles. There was little or no mention of the MERS effect directly on China's health communication when the study sifted through the journals. On the COVID-19 column, the study summarized the results from Table 1 that there is an expansion of social media networking

and more mobile phones are accessible. Public service announcement was mentioned in one of the articles along with "high reliability, unclear accuracy" and "focused on emotional response" to showcase the changes in the Chinese government's action.

On the South Korea row, the SARS column was not applicable due to the lack of discussion on the communication. The MERS column listed "the introduction of smartphone" and "social media" that emerged as the common trait from six selected articles. "Increased reliability, unclear accuracy" was the summarized point shown on Table 2 while illustrating the implication of "Media companies access the social media as their platform." "Government - traditional media" was the recurring theme of the research studies identified in six articles. The study linked the itemized factors together to demonstrate the result of South Korea's effective communication during the 2015 MERS outbreak. On the COVID-19 column, the study recognized some elements of six selected articles that were geared toward the COVID-19 discussion, resulting in "full utilization of smartphone technology, public service announcement on social media, the expansion of web blogging technology." "Higher reliability, unclear accuracy" was showcased and mentioned frequently from Table 2 along with "more social media platforms."

Media Dependency Tables

As Tables 1-3 indicated, the study further determined that the quality of research studies extrapolated some illuminating results to relate to the relationship between media dependency and health communication. The study started with China as depicted on Table 4 to identify that the media effect had changed from 2003 to 2019. Cognitive effect of media began with the lack of government when SARS became known that prompted people to turn to the rumors and newspaper. This negative influence from the government's inadequate response led to the

affective effect where people grew anxious and distrustful of the government, which shows that the Chines government's communication capability was flawed. Rumors and newspaper were considered "reliable" sources for people to follow because they were readily available and easily accessed compared to the timing of government's press release about SARS, which was part of behavioral effect of media. Compared to the SARS outbreak, China's media dependency increased as the government took a swift action against COVID-19, which gained the public trust as part of cognitive effect of media. Because of the severity of COVID-19, the government's capability in the health communication became effective to selectively choose the keywords in avoiding the misinformation that would affect people's perception of the credible information. This affective effect of media led to the public health promotion of preventive measurements against COVID-19, which was part of the government's goal to ensure the public safety. People's behavior as a result of media effect appeared positive in response to the media because they now have an intranet to access information online. These media effects reinforced China's media dependency further that there is a benefit in keeping mobile phones closer to it instead of traditional media like newspaper.

South Korea's media dependency was well-established with the arrival of smartphones prior to the MERS outbreak. When people first learned of the MERS outbreak through social media and the word of mouth method, people strongly responded to the cognitive media effect that they perceived MERS as a severe disease. Their enhanced risk perception was the result of affective media effect when people took an immediate action against MERS with appropriate preventive measurements. In turn, their behavior was enforced by the media effect to constantly check for MERS-related updates, which contributed to their media dependency. COVID-19 occasion did not change how South Korea responded accordingly, but it continued improving its

emergency response, part of the health communication. South Korea's media dependency grew

stronger with its stronger response against COVID-19 as indicated on Tables 2a-2c.

CHAPTER FOUR: DISCUSSION

The overall result provided some insights on the health communication from China and South Korea. Tables 1 and 4 illuminated that China was highly regarded for its media censorship because of its impact on China's culture. This suggested that China's media censorship had benefited it in the long run with its technology because of its intensive networking that allows it to oversee the information exchange between the individuals. Integrating the media dependency into China's culture would indicate that the government has more control over the flow of information while the users gradually grew accustomed to using the mobile phones for accessible information. On Table 1, China's effective communication provided the clear communication objective and health outcome to affect the user's media dependency because of the media censorship and its cultural integration with media technology. China's cultural integration with the media was the beginning of improved health communication when the word of mouth and rumors proved ineffective to make the contents of the messages more reliable and accurate. These types of information delivery were the communication tools that were available to the public without a cellphone, which indicated that they limited people's access to information or ability to recognize the credible source of information. This evaluation further suggested that the 2003 SARS outbreak made the media censorship less beneficial for China when there was no media connection among people regardless of their socioeconomic status.

Nine selected articles for China evaluated the messages and communication messages to show that China's word of mouth method prevailed enough to obtain the SARS information because traditional media like newspapers and television constantly kept the public's attention focused on the political campaign that was under the media censorship. Table 4 helped the study to identify the relationship between China and its dependency on media, which in this case, the

arrival of cellphone promoted the users to use it without the supervision of media censorship during the spread of SARS. This means the government's communication strategies did not consider the cellphones to keep the attention away from the disease that could harm the public's trust. Also, the government's health communication was not as effective as it would be based on the preceding factors. The COVID-19 pandemic demonstrated China's improved health communication that people were able to respond accordingly because Table 4 further showed that new mobile phones made the reliability and accuracy of the messages improve significantly through the intensive social networking. Sina Weibo, the social media platform, got involved with the media censorship that gives the government an ability to fine-tune the flow of information better. Because of the better control of information, the media censorship in conjunction with the media improved significantly to benefit China and highlight China's media dependency well. The COVID-19 did bring China closer to the media technology that encouraged the government to realize that media censorship worked better with media technology to make the communication more effective.

Tables 2 and 5 determined that South Korea's health communication was dependent on social media for constant access to information. The dependency implied that there were no differences between the 2015 MERS and 2019 COVID-19 outbreak because regardless of the government's unpreparedness to handle the diseases (Jang & Baek, 2018), the media technology was integrated into South Korea's cultural identity to give people the freedom of information accessibility. The only difference was people's attitude toward the disease that got affected by the media by making COVID-19 more important than MERS outside of the six selected articles (Chang et al., 2020; Kim & An et al., 2020). Table 5 depicted South Korea's relationship with the media to indicate that people are ready to accept information as the facts rather than

reviewing for their reliability and accuracy. Because of this behavior, South Korea did not pay attention to the possibility of misinformation after reviewing the communication strategies as shown on Table 2. It also implied that there is no problem with its choices in the type of audience, content, and information delivery because its communication objective and health outcome were directed at people's emotional response to MERS and COVID-19 through social media (Kim, 2009; Hyeryoung, 2011). This suggested that South Korea's openness with social networking produced the smartphones to give people access to information to make an impact on the users' health behavior. Choi et al. (2018) explained that media effect did affect the users' perception toward the disease, which would seem like the disease is deadlier than what it appeared to be. Furthermore, South Korea's media dependency made the communication effective due to the social media being part of South Korea's cultural identity. This effectiveness stemmed from South Korea's evaluation of messages and communication messages, which briefed the discussion about the posting of social media that raised the awareness about MERS and COVID-19. It worked because of the phenomenon "social fear" that changed South Korea's experience toward the outbreaks. Compared to the 2015 MERS outbreak, South Korea seemed to be well-equipped in handling the COVID-19 pandemic because the government demonstrated that it learned its lessons in disseminating the information in a timely manner. Social media influenced how South Korea responded to the public service announcement during the COVID-19 pandemic, making reliable information seem trustable. This finding seemed to suggest that there was a profound effect on the behavior due to South Korea's dependence on the media to prove that its health communication was effective in the 2015 MERS and 2019 COVID-19 events (Kim, 2009; Hyeryoung, 2011).

Articles from the inclusion and exclusion process did indicate there was a possibility of misinformation in different media. Rumors in China were a good example of misinformation that might give inaccurate information to Chinese people without cellphones (Tai & Sun 2007, Tai & Sun, 2011). The arrival of cellphones implied that misinformation got reduced with the increase in media dependency when more users started utilizing the SMS. The COVID-19 pandemic supported this notion because China's media censorship improved concurrently with the development of media technology (Hyeryoung, 2011). South Korea's media landscape from the articles appeared not to indicate that misinformation would have been considered because Kim & An et al. (2020), Kim & Cho et al. (2020), Lee & Jung (2019) continued supporting the belief that South Korea's risk perception was responsible for its effective health communication. In addition, the COVID-19-related articles from South Korea appeared to avoid discussing the misinformation and their research studies analyzed the social media platforms' sharing of the contents (Park et al., 2020; Jang & Baek, 2018).

China's media censorship provided a good example where social media became the biggest factor in health communication. It also required a strong leadership to set a role model for other countries like the United States. When the COVID-19 pandemic began, the United States should have taken action against SARS-CoV-2, a virus for the coronavirus disease 2019 by starting with the public service announcement. Constant updates about SARS-CoV-2 were important to be implemented in social media where there were over 1 million users using different platforms with the sharing of contents (Chen et al., 2020). Enforcing the integrity of information would be strongly emphasized because the sharing of contents invited the possibility of misinformation that is similar to the word of mouth. China's involvement with social media effectively fine-tuned information to promote the preventive measures and to initiate the

emergency lockdown in enhancing a six feet social distancing rule. This would be a recommended strategy for the United States to follow closely (Hua et al., 2020; Kim & Andrew et al., 2017; Kim et al., 2018; Zhang et al., 2020). On the other hand, South Korea's dependency of social media was identical to the United States' media dependency because of the extensive social networking that gives the user a freedom of acquiring information. The striking difference between South Korea and the United States was the risk perception that had been affected by public health communication. South Korea's communication strategy depended on the public's risk perception to recognize the severity of SARS-CoV-2, which the United States should be encouraged to utilize the same strategy in making a positive effect on the public (Choi et al., 2017; Chen et al., 2018; Chang et al., 2020). In addition, the United States should have followed the same principle in equipping with all available communication resources like social media and televised announcements to maximize the reachability and to uphold the stay-in home rule.

The United States should be cautious about releasing the unconfirmed contents of messages related to the COVID-19 pandemic. The study cautioned that South Korea may not discuss the possibility of misinformation, but information on social media could be prone to being replaced with different information. This would make it less reliable and inaccurate to inform the public about the coronavirus disease (Haiqing, 2004; Choi et al., 2017; Hua et al., 2020). China's communication strategy from the 2003 SARS outbreak could be a good example not to follow when the attention should be focused on SARS over the political campaign. Above all, the United States should pay attention carefully to avoid mixing the scientific facts with political implications about SARS-CoV-2 because this type of communication method could have a large impact on people's risk perception of the COVID-19 by making the disease look less severe than it seems (Choi et al., 2017; Kim & Cho et al., 2020).

CHAPTER FIVE: CONCLUSION

Based on this study's findings, the past coronavirus (CoV) outbreaks certainly changed China and South Korea's media landscape in delivering the proper health communication. Finest's (2020) recommendation did elevate the evaluation of the aspects of the communication, which were displayed on the study's findings. The summary of discussion illuminated that there might be possibility of misinformation which would be expected to emerge in countries' media landscape. The reason was the social media and media dependency being demonstrated in three CoV events, which prompted the study to recommend that China and South Korea needed to be cautious of the benefits of media technology in preparing for better health communications (Lau et al., 2020; Lu et al., 2016; Shim et al., 2020; Song et al., 2020). Furthermore, China and South Korea's communication models provide a better understanding of the media landscape that opens new possibilities of media technology for other countries to learn.

While China's progress with its health communication might benefit from the media censorship during the COVID-19 pandemic, it would be encouraged to use the media technology wisely in maintaining the public trust though the growth of media technology could advance its socioeconomic standing. In addition, China's improvements in its health communication should be emphasized heavily in conjunction to the media censorship in avoiding the spread of misinformation that could hurt the public's trust, part of China's cultural identity. On the contrary, South Korea's interaction with media technology might indicate there was no change in between the 2015 MERS outbreak and COVID-19 outbreak, but it would be continuously reminded of the misinformation that might emerge in the online communication (Shim et al., 2020; Song et al., 2020). South Korean people's media dependency could be stronger today with the expanded social networking that the South Korean government might find it difficult to

maintain the reliability and accuracy of given information. Park et al. (2020) implied that South Korea encountered the misinformation through the social media platform, Twitter, which was part of the reason for this recommendation (Park et al., 2020). The constant improvements in the communication strategies would be highly recommended to keep up with the evolution of media landscape, which was demonstrated in China.

Overall, the conclusion of this study provided an insight that China and South Korea's media technology did contribute to the changes in their health communications to establish the dynamic relationship with the public. This dynamic relationship with the public can described as the progress to become better health communicator regardless of the type of technology provided before China and South Korea.

Study Limitation

The study revealed several limitations in regard to the selected articles. China's findings did not discuss the health communication problem about the MERS outbreak. It was a similar case for South Korea where the articles related to the 2003 SARS outbreak were not found during the search process. The excluded articles from South Korea were highly focused on people's health behavior that was affected by the effect of outbreaks instead of the health communication. The study found it difficult to distinguish the health communication from the health behavior or the risk perception, which was a recurring keyword shown in the articles. The reason was the health communication, and the risk perception shared the common features in identifying the health outcome, which had been affected by the media environment. Media environment involved the constant updating of information, which was demonstrated on television, newspapers and smartphones to make an impact on the individual's perception of the severity of the emerging disease. There was not enough discussion about the health

communication in South Korea because most research was invested in understanding the emotional response to the outbreak. The numerical data analyses in articles were difficult to categorize and produce the data table that could have demonstrated the striking differences between China and South Korea.

Recommendations

Today, COVID-19 pandemic continued, and the number of cases steadily rose. China and South Korea's communication strategies had been a role model for other countries. This role model served as the guideline to improve the health communication while avoiding the spread of misinformation. Misinformation was the recent problem that emerged throughout social media and two role model countries had not taken the measures against it. Word of mouth in China was a good example of the beginning of misinformation that diminished the trust between people and the government. South Korea's extensive social media platforms might have provided the

Media censorship demonstrated that it was effective on the social media because of the Chinese government's improved communication after the 2003 SARS outbreak, which was evident on the article (Xu, 2004). Misinformation in the media censorship was something China should consider paying attention because technology can provide the users tools to retrieve the foreign information. Like the word of mouth, the information can be manipulated based on the user's positing and the credible sources for information would be difficult to be determined. This study encouraged China to communicate with the public while utilizing the media censorship to filter misinformation out. Utilizing the media censorship should be focused on preventing the unreputable source to keep the integrity of messages in the social networking.

South Korea's communication remained strong and prevailed in educating South Korean people about the severity of the emerging outbreaks. The COVID-19 pandemic demonstrated

how South Korea handled the communication well. The study would encourage South Korea to keep up with what it had accomplished with its communication, but it should be cautioned to take the misinformation seriously. The study recommended South Korea to research more about the communication strategies and to devise better methods in preventing misinformation from leaking into the social networking.

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APPENDIX

Articles	Published Year	Clear Communication Objective	Type of audience	Type of content	Type of information delivery
1. Li et al.	2020	No - more focused on the role of communication that is used to deliver.	Social media users	Sina Weibo is the foremost device used to disseminate information in describing COVID-19.	Sina Weibo, social media
2. Liao et al.	2020	Yes	Social media users	Keywords like "novel coronavirus" are utilized to inform the public during COVID-19 outbreak	Social Media
3. Zhao et al.	2020	Yes	Sina Microblog Users	The public opinion based on what they heard from friends and shared online through Sina Microblog	Sina Microblog from intranet
4. Tai & Sun	2011	Yes	SMS (Short messaging services) users	Usage of typology, media channels, and dates being compared with facts about SARS	Rumors, word of mouth
5. Ma	2008	Yes	The public	Explicit contents were shown to identify different forms of message while retaining the same meaning behind the delivered information.	Rumors, word of mouth
6. Tai & Sun	2007	No	Individuals who relied on media heavily	The wording of the intended message was designed to distract the public from the SARS outbreak during presidential campaign	Mobile phone, traditional (newspaper & television)
7. Zhang	2006	No	The public	Controlled information that is shared through headlines catches the public's eyes rather than contents itself	Press
8. Zhang & Fleming	2005	Yes	The public	Information were more focused on the political parties, non-diseases-related events, and contents that do not mention SARS	Newspaper
9. Haiqing	2004	Yes	Mobile phone users	SMS - few character words to send the information	SMS - text messaging

Table 1a. Evaluation of published articles complied in relation to China. Clear communication objectives, type of audience, type of content, and type of information delivery are the focus of articles that present their research analysis.

	Articles	Published Year	Identification of health behavior or outcome	Evaluate messages	Evaluate the communication messages
1.	Li et al.	2020	The utilization of Sina Weibo provides some benefits for the government to deliver information	N/A	The evaluation of communication messages is particularly focused on the number of medical requests from the patients who rely on Sina Weibo and government officials listen.
2.	Liao et al.	2020	Number of posts seem to have impact on the public when the government makes an announcement.	Using the number of posts, the messages are evaluated based on the keywords that had been discussed.	The effect of message affects the emotional response when the contents of government announcement were posted online. The number of posts showed a change in the emotional response.
3.	Zhao et al.	2020	Health outcome - how the public responds to the online blogging more than the government's announcement	Relied on the metadata from Sina Microblog that give the amount of frequency.	A list of keywords that show up in a search engine during COVID-19
4.	Tai & Sun	2011	Lack of reassurance from the government led some individuals to pass info on through rumors or word by mouth to gain some insights about SARS	Certain keywords like "rumor" and "atypical pneumonia" were examined and evaluated on how individuals send a short message.	Through different channels of spreading rumors, the stories and contents were collected systematically
5.	Ma	2008	Multiple health outcomes focused on the evaluation of messages that is used to deliver information to the public - Created the government distrust	Rumors were being examined and compared with the media environment that provides people to get ahold of rumors.	Examination of media environment and rumors
6.	Tai & Sun	2007	Inaccessible information led the public to seek out alternative media in gaining more information about SARS	The collection of messages and resources were being examined using the chosen theory to identify the costs and benefits of media dependency	The frequency of mobile users started using the SMS compared to traditional media in a short span of months
7.	Zhang	2006	Misinformation by the newspaper headlines that provide more "click-bait" than actual	News headlines to catch the public's attention	The frequency of headlines shared for the headlines more than contents

		contents to create the distraction effectively		
8. Zhang & Fleming	2005	News Media provided contents that are incomplete or missing under the censorship	Media coverage on the contents	Comparing media coverages with several theories of the press/media
9. Haiqing	2004	Analysis of SMS functionability during SARS outbreak that provide a newer channel for people to utilize and relay information, akin to rumors	Collected the number of mobile phone users that use SMS for text messaging	Provided different perspectives of SMS utility that can be used politically during the SARS outbreak.

Table 1b. Evaluation of published articles complied in relation to China. Identification of health outcome or behavior, evaluation of the message, and evaluation of the communication messages demonstrate the background and the methodology of the research studies.

Articles	Published Year	Review communication strategies	Reliability	Accuracy
1. Li et al.	2020	Collaboration between government and Weibo management company	N/A	N/A
2. Liao et al.	2020	N/A	Reliability of the message depends on the credible sources. Government posts are often considered reliable compared to the social media users' posts.	Accuracy of the message is not widely discussed since the emotional response is strongly linked to the reliability of the messages.
3. Zhao et al.	2020	Data analysis of social media, word frequency, and trending posts	As months pass by, the reliability drops its quality as more information is added to Sina Microblog	As months pass by, the accuracy of COVID information decreases
4. Tai & Sun	2011	Theory of rumor communication	Rumoring of information appeared to be reliable for those who did not have a mobile phone and were anxious about SARS information, but the research revealed that	The accuracy of rumoring wavered from the person to other person though there was a consistent info about SARS being dangerous.

			some information was difficult to ascertain.	
5. Ma	2008	Conceptualization the Literature review of SARS and war-related rumors	Reliable information between two individuals are less reliable compared to the official government announcement.	Accuracy of information is less accurate as it is passed down from person to person with incorrect information through rumors.
6. Tai & Sun	2007	Mass media theory and media system dependency theory	N/A	N/A
7. Zhang	2006	News media and coverages at an in-depth analysis of the headlines being used on television	Difficult to determine that headlines are reliable information to indicate the severity of SARS	Some headlines do not reflect the accurate information to redirect the attention.
8. Zhang & Fleming	2005	Propaganda - an in-depth discussion how the contents are used	Reliability of the media contents was questionable since government failed to regard the main task in covering SARS	Controlled information, mixing facts with personal commentaries and unclear accuracy of SARS cases
9. Haiqing	2004	N/A	Credible information depends on the users' ability to send the message via SMS, which leads to question the reliability of information.	N/A

Table 1c. Evaluation of published articles complied in relation to China. The review of communication strategies, and reliability and accuracy of the message examine the results and discussion that were brought by the research studies to identify the quality of messages.

Articles	Published Year	Clear Communication Objective	Type of audience	Type of content	Type of information delivery
1. Park et al.	2020	Yes	Twitter users	Twitter posts are being analyzed and compared with news coverage.	Twitter, News Channel
2. Jang & Baek	2018	Yes	The public	N/A	Online news, Traditional news media, interpersonal networks

3.	Jang & Park	2018	Yes	The public	N/A	N/A
4.	Kim & Jung	2018	Yes	Government officials	N/A	Social media
5.	Lee & Choi	2018	Yes	Social media users	N/A	Social media
6.	Kim et al.	2017	Yes	Social media users	N/A	Social media

Table 2a. Evaluation of published articles complied in relation to South Korea. Clear communication objectives, type of audience, type of content, and type of information delivery are the focus of articles that present their research analysis.

	Articles	Published Year	Identification of health behavior or outcome	Evaluate messages	Evaluate the communication messages
1.	Park et al.	2020	COVID-19 discussion was frequently mentioned in Twitter that affects the reliability of online information.	N/A	The comparison of social networking structures helps to evaluate online information against Twitter posts for credibility.
2.	Jang & Baek	2018	Public Health Officials faced the challenge of fostering the effective communications with the public during MERS	No, but the modes of communication were evaluated to determine the effectiveness of information delivery in reaching out to the individual.	Poor information delivery and timing
3.	Jang & Park	2018	The effectiveness of repetitive information through multiple channels to ensure that public follows as instructed.	No, but the repetitive message was evaluated based on the number of respondents following the severity of susceptibility	Common messages like "MERS is a serious health problem" are delivered through various media to enhance the public's risk perception of MERS severity repeatedly
4.	Kim & Jung	2018	The effectiveness of government agencies' communication techniques during the 2015 MERS outbreak	No, but it examines the communication network patterns to determine how the communication is transmitted among the agencies.	Network patterns provide some insights to how information is shared among the users during the 2015 MERS outbreak.
5.	Lee & Choi	2018	The false rumors about MERS that led people to check on social media for reliable information	Perceived credibility of rumors - to determine how credible and accurate the message is from person to person.	Determining Social network services (SNS) dependency and accurate information sources to learn about the health behavior

	Articles	Published Year	Review communication strategies	Reliability	Accuracy
6.	Kim et al.	2017	The effectiveness of collaborative communication through the large networking to deliver the information about MERS	No, but the collaboration effectiveness evaluates how fast the message reaches from the individual to individual, which indicates that the evaluation is not on the message, but instead, it is about the network efficiency.	Fully utilizing the social networking over social media to connect the dot of messages together and gaining better understanding of MERS

Table 2b. Evaluation of published articles complied in relation to South Korea. Identification of health outcome or behavior, evaluation of the message, and evaluation of the communication messages demonstrate the background and the methodology of the research studies.

	Articles	Published Year	Review communication strategies	Reliability	Accuracy
1.	Park et al.	2020	Infodemiology to assess different modes of online communication	Reliability score was used to rate each news channel for its quality and popularity. The keywords related to COVID-19 were identified for the frequency of discussion.	N/A
2.	Jang & Baek	2018	Media dependency theory to examine different modes of communication public health officials reached out to the public	Public Health Officials were the figures with big responsibilities in delivering information and their message delay created a public distrust, making messages appear "unreliable"	Not mentioned how accurate the messages are, but it is particularly focused on the trustworthiness
3.	Jang & Park	2018	Extended Parallel Process Model (EPPM) to review the communication strategy in repeating the same info and delivering it to the public efficiently	The repeated messages showed how effective they were to help the public remember how to avoid MERS completely	Accuracy of messages were strengthened by the repeated messages to promote the positive health outcome

4. Kim & Jung	2018	Mixed-Method Approach with a network survey and semistructured interviews	N/A	N/A
5. Lee & Choi	2018	Media system dependency theory	Reliability depends on the credible information provided by the sources.	Rumors appear not to distort the information when public chooses to rely on SNS for accurate information.
6. Kim et al.	2017	Institutional Collective Action Framework	N/A	N/A

Table 2c. Evaluation of published articles complied in relation to South Korea. The review of communication strategies, and reliability and accuracy of the message examine the results and discussion that were brought by the research studies to identify the quality of messages.