

The Factors and Influence of Social Media Epidemic Information on Public

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Abstract: During the COVID-19 epidemic, social networks were one of the channels for the public to learn information about the epidemic, and the information has had many effects on the public's cognition and behavior. The information related to the epidemic on social media was mainly composed of two official and private parts, among which the private information was published by we-media and netizens. And previous studies have studied the causes of rumors during the COVID-19 pandemic. This paper summarized the factors and influences of epidemic-related information on social media during the COVID-19 epidemic on their cognition and behavior. Based on studying the impact of epidemic related information on social media on the public, the public would be guided to rationally view epidemic related information, do not believe in rumors, and understand authoritative information through correct channels.

Keywords: social media, epidemic information, individual factors, environmental factors.

1 Introduction

On January 30, 2020, the World Health Organization identified the novel coronavirus pneumonia outbreak as a "public health emergency of international concern". Some researchers in China defined it as "major epidemics", that was, infectious diseases that caused or might cause major losses to public health and mass diseases of unknown causes [1]. Novel corona virus, which caused the epidemic in Chinese Wuhan, could cause great harm to the human body, and could even lead to sequelae after the cure [2]. When COVID-19 arose in China at the beginning of 2020, the government quickly implemented home quarantine policies in response to the terrible infectious disease of unknown origin, and home-based epidemic prevention became the norm. At that time, no clear data or research were supporting COVID-19 particular therapy in the early days of the pandemic [3]. And, as the number of verified medical cases rose and the sickness spread, an increasing number of people were experiencing panic and even mental problems. Consequently,

social media had become an important and necessary way to entertain at home as well as the major resource of epidemic information. However, some people deliberately published misleading claims to realize economic benefits in terms of getting followers. As a result, numerous types of misleading news circulated on social media. It has triggered all kinds of public reactions and emotions, including the public's rational cognition, but also including the public's panic emotions and corresponding behaviors. As the right information spread on social media, a huge number of Chinese people had stopped believing and spreading misleading news. In addition, due to the active cooperation of Chinese residents, such as long-term family isolation, independent monitoring of physical conditions, and regular nucleic acid testing, the epidemic has been effectively controlled. Therefore, during this period, social media had played a significant impact on the public's cognition, and the information related to the epidemic even directly determined the public's cognition and behavior. And based on the phenomenon that happened during the epidemic period, it can be found that only a piece of information could have a huge impact on human actual actions and attitudes, even the trend of the entire society. So, this essay focused on how the epidemic-related information on social media guided shifts in public attention, cognition, and behavior, these can help us to limit the impact of rumors and improve the efficiency of healthy communication across society. In addition, the article also analyzed the influence results of the information related to the epidemic on social media on the public and the source of this impact, to provide some methods of public opinion guidance and prove the importance of public opinion guidance on the social media. Now that humans are in the post-pandemic age, local outbreaks in China could occur at any time. Even though people in China have been living with COVID-19 for more than two years, whenever there is a local epidemic, it was still accompanied by the public panic mood and panic buying behavior. This phenomenon could be attributed to many people in China being aware of the severe symptoms that might occur after a novel coronavirus infection [4]. Furthermore, even today, some persons would use COVID-19 to propagate misinformation via "We Media" to gain attention, resulting in the production, and spread of negative public attitudes. Thus, it was desirable to identify strategies to prevent the generation of public unpleasant emotions and unreasonable cluster activity by the influence of epidemic-related material on social media on public cognition and behavior. These methods may also bring light on how to deal with such public situations in the future. In this article, the social cognition theory would be used to analyze the public impact process of epidemic-related information on social media.

Social cognitive theory (SCT) also commonly known as the "cognitive social learning theory", originated from the social learning theory, was a theory proposed by the American psychologist Albert Bandura in the mid-1980s. In 1997, Bandura's book, *The Social Foundation of Thought and Action: The Theory of Social Learning*, established the theory in the field of psychology, which was fully consolidated in the late 1990s [5].

According to Bandura, individual cognition, environment, and behavior constantly interact, forming a "ternary interaction"[5]. This theory had also been used repeatedly in its later studies, the "tripartite reciprocal determinism"[6]. The core view of social cognition theory was ternary interaction determinism, that was, individual cognition, environment, and behavior were mutually determined and interactive. Among them, individual cognition and environment work together on behavior, and they also interacted with each other, and environmental factors also had an impact on individual cognition. Individual cognition included the two core variables: self-efficacy and outcome expectation. Self-efficacy referred to the subjective perception of an individual's belief and ability to complete a certain activity, which was the judgment of a person's ability and confidence to achieve a certain goal; result expectation referred to the individual predicting the possible results and feedback of a certain behavior, such as possible material rewards, sensory experience, spiritual return and so on.

Bandura pointed out that social cognition theory had a very important role in individual cognition, self-reflection, self-regulation, and other processes, and it was an innovative theory that combined modeling and social network influence. Social cognitive theory had developed into one of the classic theories in the field of social psychology and had been widely used by scholars in psychology, education, sociology, communication, management, and other fields. Therefore, this paper summarized the individual and environmental factors, and the relevant influences.

2 Factors

2.1. Individual Factors

Self-efficacy was an important concept of self-cognition that refers to the belief that people can achieve predetermined goals and successfully do something well, and was regarded as a strong motivation for human-specific behavior [7]. According to Bandura's point of view, self-cognition mainly came from the evaluation of self-efficacy. In the previous article, we also mentioned that self-cognition was the subjective judgment of their ability and confidence to achieve a goal. So on this basis, we could think that self-cognition was a very subjective factor.

The assessment of self-efficacy was both positive and negative. In the context of this paper, it was reflected in the confidence to complete the screening and judgment of information related to the epidemic and the opposite. However, people's assessment of self-efficacy came from the influence of the environment on individuals. Personal subjective factors were easily changed in the large public opinion environment, and the influence of the environmental level was more objective. Therefore, the analysis of the environmental level would be above the analysis of personal psychology.

2.2. Environmental Factors

Social cognition theory contained the idea that one's behavior and cognition are always influenced by others [5]. Many scholars at home and abroad had empirically proved that the Policy environment and media environment were important factors affecting the audience's perception environment (such as the research of Xiang Yong and Guo Yuehua).

So first, starting from the policy environment, Here we mainly learned from Liu Xiaojia, Han Wei, Chen An in the article Quantitative Research on Policy Response of Public Health Emergencies based on 3 D Analysis Framework —— Taking COVID-19 as an example: From the perspective of policy release subject, The coordination degree of China's epidemic response policymakers was strengthening, The cooperative density between the subjects was also relatively considerable; From the policy tool dimension, At present, China's epidemic response policy tools were mainly supply-based, Environmental policy tools were gradually being attention; From the perspective of the policy effectiveness dimension, The policy to be evaluated performed well. It showed that the central government and various ministries and commissions attach great importance to providing policy support for epidemic prevention and control [8]. That meant that in the policy environment of epidemic-related information release, the release of epidemic-related information has been subjectively paid attention to by relevant departments. Objectively, relevant departments were also taking various channels to release information and ensure the details and detail of the information.

In addition to the personal experience of risk perception, the public also formed a perception of risk due to the information conveyed by various media [9]. This showed that the media environment created by the media was also an important part of the epidemic-related information environment. In this epidemic, the major media had taken the initiative to speak out, face up to the problems, and actively responded to the information imbalance and the network aggregation effect. At the same

time, it had also changed the previous linear transmission mode, greatly removing the "aphasia" problem of the media and the problem of backward follow-up of epidemic-related information[10]. And the major mainstream media also occupied an important position in the release of information related to the epidemic, thus greatly enhancing the credibility of information.

3 Influence

From the perspective of the influence, first, the personal cognition of the audience comes subjectively from the personal moral standards of the audience, and objectively, from the cognition of specific events formed by the audience's daily life and learning. The two together constituted the personal cognition of the audience. When this cognition was put into a specific event, namely in the event studied here, its factors were concreted. In the context of the epidemic era, the audience's cognition mainly points to the events and information related to the epidemic, that is, the audience's judgment of the events and information related to the epidemic.

The second is about the social environment, the social environment in the previous article we have outlined the source, under the background of outbreak-related information transmission, the social environment mainly focused on social media, namely more users of social media, such as Weibo, douban, etc., and focus on a single audience WeChat Public, WeChat Moment, and official and folk news information release channels, all kinds of news application software, etc. This was the source of the environmental level of the spread of outbreak-related information.

As for the acceptance behavior of the audience, it was formed under the joint action of the individual audience and the environment. At the same time, there was also a mutual influence relationship between the audience's behavior and the environment. In this information environment of the audience, they constantly received information and constantly corrected their cognition in this process, which finally had an impact on the accepted behavior.

A series of behaviors of the audience after receiving the information constitute the results of the audiences after receiving all kinds of information on social media during the epidemic.

This result could be divided into three levels, the first level being the audience reception at the sensory level. Under the influence of the epidemic environment, the audience was more inclined to receive information on the Internet, this also and our research background, our research was mainly on social media user acceptance behavior, so based on this realistic factor, was the social network information transmission, graphic trend, we can judge the users when receiving the information pay more attention to video information, or picture information.

In terms of emotional audience, outbreak-related information mainly affected the audience's emotional, or emotions, the influence was also related to the audience to accept information social media platform type, on the interactive social media platform, the user was under the influence of public opinion, the platform was false and deliberately created panic information, such as during the outbreak "lotus Qingwen capsule cure COVID-19", the spread of false news, greatly increased the information audience panic, harms the audience's behavior. On another type of platform, namely the news social media platform, the mood of the audience was calmer. Generally, there was information about the official epidemic, which had the role of refuting rumors and stabilizing public emotions. These two different types of social media platforms had completely different emotional effects on the audience, and they also competed with and restrict each other in the process of information transmission.

Finally, after receiving information into sensory understanding and emotional understanding, the audience eventually formed a rational understanding of the epidemic, that was, the final acceptance result, which will also affect the audience's future life and judgment of information.

4 Conclusions

To sum it all up, this paper had presented the entire process from start to finish of how COVID-19 pandemic-related information from social media platforms influences people's cognition and behavior in terms of the COVID-19 era by investigating, expanding, and applying social cognitive theory, which was proposed by the American psychologist Albert Bandura in detail. In addition, this paper studied individual cognition and behavior based on the study of the social media environment, and identifies and evaluates the process and outcomes of effects.

There were three main aspects of the process. It consisted of individual cognition, environments, and influenced behaviors. As for individual cognition, a part of the process, it was a very subjective factor. The assessment of both negative and positive self-efficacy be considered as one significant concept and origin that affected people's beliefs, in terms of the ability to accomplish the predicted targets. The epidemic background of this research paper concentrated on the confidence of completing the screening and judgment of epidemic information from social media platforms. However, the assessment of self-efficacy can be affected by the environment. Hence, personal subjective factors were changed easily by different environments and atmospheres. There were two main categories of the environment in the epidemic era, which are the policy environment and the media environment. First, starting from the policy environments, we found that the level of coordination among policymakers in my country's epidemic response was increasing, and the density of cooperation between the main institutions was also increasing. The central government and various ministries placed a priority on policy support for epidemic prevention and control. Concerns were raised by the Department. Objectively, relevant departments were also disseminating information via multiple channels to ensure the accuracy and completeness of the information. Secondly, the media environment that the media creates was also an important component of the epidemic information environment. Major mainstream media outlets also played an important role in the dissemination of epidemic-related information, which greatly increases the credibility of the information.

The influences could be divided into origin source, environments, and accepted behavior. Individual cognition was influenced by daily living and moral ideals. Personal cognition in this sense referred to the audience's assessment of epidemic-related information. The social environment was the second. The mainstream media of social media has become a source of information diffusion in the Internet era. The final factor to consider was the audience's acceptable behavior. There was also a connection between conduct and environment. People continued to acquire information in this media environment, which continually changes their cognition and, as a result, their behavior.

The result of audiences accepting the information could be divided into three aspects, which are sensory perception, emotional perception, and rational understanding. Based on current Internet growth characteristics. We could predict whether people will pay more attention to video or picture information while obtaining information according to sensory acceptance. In terms of emotional audience, outbreak-related material primarily influences the audience's emotions, and various publishing platforms had varying effects. In the majority of cases, authoritative news and social media providers played a role in calming public opinion. After the audience translates the information into sensory and emotional comprehension via the information transmission process, they eventually acquired logical cognition.

In a nutshell, personal cognition is formed from daily life norms and ethical judgment standards, with the specific environmental effects and processed behaviors and cognition, Then, accepted information was transferred into sensory understanding and emotional understanding, which affected the judgment of information in daily life.

However, there were a limitation in this study that should be addressed in future research. In this study, we merely looked at many of the crucial attributes and processes that influence how epidemic information from social networking sites affected personal cognition and behavioral patterns. In the future, it could be emphasized that how much attention and what type of information might trigger distinct individual actions, to aid the monitored department in mitigating and reducing hazards, panic, and even societal unrest.

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