



# Stigmatization of Depression Caused by the Spread of Misinformation in Social Media—Taking China’s Douyin(TikTok) as an Example

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**Abstract.** Psychological medical institutions are spreading depression-related knowledge through contemporary social media to improve the vigilance of the broad masses to depression. Most of the popular science knowledge about depression is negative due to insufficient information, which leads to two major problems for patients with depression. The first one is that the public is unable to distinguish the difference between depressed mood and clinical depression, which leads to the public’s wrong self-diagnosis of clinical depression. The second one is that the wrong knowledge makes the public have a negative stereotype of depression. This study indicates that China’s TikTok video will be analyzed to find out the cause of stigma and propose solutions. Importantly, China’s TikTok video unintentionally spreads misinformation, indirectly shapes users’ moods, and results in sleep deprivation and depression. In the digital era, people have become less active but addicted to social media at all times because of FOMO, the fear of missing out. To reduce depression, people need to reduce the use of social media and make efforts to enhance face-to-face social interaction. Importantly, social media should monitor misinformation on social media, and make sure that online users will have access to authentic information instead of feeling depressed and isolated.

**Keywords:** Depression · Social Media · Stigmatization · Stereotype · TikTok

## 1 Introduction

In contemporary society, depression has become an important psychological disease [1]. At its worst, young adults are exposed to great pressure and receive explosive information in the digital era. According to the statistics of the World Health Organization in 2019, more than 350 million people worldwide suffer from depression, with a growth rate of about 18% in the past decade [2]. According to estimates, about 95 million people are suffering from depression in China so far, and it is estimated that as many as 1 million people die of depression every year [3]. Among them, a large number of patients with depression have not been diagnosed, and many patients with undiagnosed depression are unwilling to go to psychotherapy institutions such as psychological clinics for help.

A questionnaire survey shows that the total proportion of patients with depression diagnosed by self-rated depression and formal psychological clinics in China is 2% higher than that of the World Health Organization, and the proportion of patients with self-rated depression accounts for 13% of China's total population. These people with depression and those who did not suffer from depression after self-assessment.

One of the most important questions worth studying is whether social media leads to the stigmatization of depression, which makes people wrongly self-diagnosed depression. The main reason why depression is stigmatized is the wrong communication on social media. China's TikTok as China TikTok as a major industry in social media has a huge influence and dissemination power. As of 2019, China's voice downloads exceeded 173 million times. Since the birth of the TikTok, it has been the mainstream of the spread of scientific and technological information for two or three years.

The App that focuses on entertainment has also quickly become an encyclopedic knowledge base. "Doubts, trembling, and learning knowledge" have become the TikTok of the public. According to China's TikTok statistics, over 1 billion and 80 million video shows have been accumulated, and the total volume of playback exceeds 6 trillion and 600 billion. This shows that the knowledge video with the trembling voice has great influence in China. TikTok is half genuine and half shammed information, which is a large number of popular science videos, which are often used to raise public awareness of depression. However, it contains other videos with low reliability, which can not completely popularize depression, which makes the public have different concepts and stigmatization of real depression.

This study aims to explore the negative impacts caused by social media as the public easily has access to misinformation that is related to health via social media. However, previous studies pay little attention to the stigmatization caused by social media. TikTok, as a leading social media, has been widely accepted by online users and is full of relevant information related to depression.

The research paper will focus on the connection between social media and depression, further explore why Chinese people make mistakes, and investigate depression in China. The following parts of the research paper continue to analyze the behavior and inner thoughts of this pseudo-depression group. It helps to find the causes and effects of depression, and finally put forward effective solutions to prevent the negative impacts caused by misinformation on social media on mental health. Through the study, the public will have an in-depth understanding of how to utilize practical measures to deal with the stigmatization of depression because of the spread of misinformation on social media. Consequently, they will take action to reduce the negative impacts caused by misinformation on social media.

## **2 Literature Review**

### **2.1 Stigmatization of Mental Illnesses**

Studies on the stigmatization of mental illnesses have concluded that there are a phenomenon and impacts of stigmatization of mental illnesses such as depression, public stigma, and self-stigma [4]. There are three components of the impact of public stigma on mental illnesses, one of the stereotypes about mental illnesses, such as negative beliefs

about a group: incompetence, weakness, and danger of the individuals; the second is prejudice against mental illness: approval of beliefs and negative emotional reactions, such as anger or fear; the third is discrimination against mental illness: behavioral reactions to prejudice, such as: not offering jobs and rental opportunities, avoiding offering help [5].

The self-name is the stigma that people with mental illness have about themselves, and the impact components for mental illness are the same three reasons. Stereotypes are negative beliefs about themselves, such as incapable, weak personality, and dangerous. Prejudice is the approval of beliefs and negative emotional reactions, such as low self-esteem or low self-efficacy. Discrimination is a behavioral response to self-bias, e.g., not seeking job and housing opportunities, or not seeking help. This study's solution to the impact of stigma and stereotypes is to increase education about mental illness in China and reduce the triggers of stereotypes, although the program is practical, the efficiency is not good, and the program needs to be improved.

## **2.2 Public Stereotypes of Depressed People**

A study on public stereotypes of depressed people was conducted to examine the external and implicit stereotypes of depressed people by depressed people, the public, and psychiatric health care, professionals [6]. It was concluded that depressed patients and the public showed negative external stereotypes of depressed people; however, psychiatric staff showed positive external stereotypes of depressed people, such as depressed patients being incompetent and hopeless, and prejudice against depressed patients, resulting in internal shame for undiagnosed depressed patients. Both of these studies have shown that these stigmatizing and stereotypical labels create a sense of shame for depressed patients and trigger the assumption that people who are suffering from depression but are in a negative depressive mood period are psychologically suggestible and subjectively willing to affirm, leading to the occurrence of pseudo depression.

## **2.3 Misdiagnosis of Depressed Patients**

However, the study about the misdiagnosis of depressed patients in the outpatient internal medicine clinics of primary care hospitals pointed out that depression is often more difficult to detect, such as occult depression, and among the clinic outpatient diagnoses, there is a large number of misdiagnosis, which is attributed to occult depression, as atypical depression, is mainly manifested in the clinic by recurrent various somatic discomforts, such as headache, chest tightness, dizziness, palpitations, nausea, and tingling of limbs [7].

The various physical conditions can make the psychological problems hidden, and because the patient does not have a full understanding of depression, he or she believes that depression is a mental illness and develops a sense of stigma and hides his or her condition. The ultimate solution is to reduce the rate of misdiagnosis by observing not only the physical condition of the patient in the diagnosis but perhaps also observing the patient's psychological and emotional state for a comprehensive analysis [8].

This study points to the opposite of the pseudo depression research hypothesis, suggesting that more people suffer from depression than those who are now identified and

diagnosed. However, the combination of the above three studies shows that some public know little about depression, forming stereotypes and stigmatization of depression. In addition, it leads to clinical misdiagnosis, and stigmatization has an impact on patients with depression.

### 3 Methodology

#### 3.1 Research Methods

The research utilizes the quantitative method to assess public perception toward videos regarding mental health via social media. This method relies on the use of a questionnaire that consists of open and closed questions, covering demographic information, video contents, and public perception, emotional changes, and reflection. By doing so, the audience will better understand how the public understands the connection between depression and misinformation on social media.

#### 3.2 Survey

The study conducts a survey covering 69 residents aged 17–31 in Beijing as they are followers of social media and spend much time using digital devices. All of the participants use TikTok and are indulgent in the use of social media. The first step was to have participants watch a short depression video from China's TikTok, after which they were asked to qualitatively describe the symptoms that depressed people have and to self-assess whether they have depression. In the short video that participants watched, the symptoms of depression described included low mood, diminished interest, slowed thinking, loss of appetite, low self-esteem, and insomnia, with no additional science in the video other than the six symptoms described.

The second step of the questionnaire is to collect the participants' self-diagnosis of depression, which is related to the level of depression understanding in the first part, and the depression factors affecting their understanding. To facilitate the statistical analysis of the real depression level data in the third part of the SDS depression scale, the second part is divided into two questions.

The third part was the SDS(Self-rating Depression Scale), which required participants to take a standard 20-question SDS scale test, and the standard depression data were obtained and analyzed in comparison with the participants' depression understanding and the participants' self-depression diagnosis.

The SDS(Self-rating Depression Scale) scoring criteria are as follows: The scores for each of the 20 items were added together to obtain the total crude score. The normal upper reference value for the total crude score is 41 points, and the standard score is equal to the total crude score multiplied by 1.25. The smaller the score, the better. The normal upper reference value for the standard score is 53 points. A total standard score of 53–62 is considered mild depression, 63–72 is considered moderate depression, and 72 or more is considered severe depression.

## 4 Result and Discussion

As for the first question, do you think you have the symptoms of depression described in the short video? More than 97% of participants stated that they have experienced the symptoms described in the video. Then, most participants indicate that they have several symptoms of depression, especially when it comes to diminished interest and low mood. When it comes to the final result of SDS, people can learn that 3 had mild depression and 1 had moderate depression.

The final result of the study was that the public did not have a complete understanding of depression after watching the short depression science video on China's TikTok. From the data, it can be seen that 67 of the participants in the short depression science video from China's TikTok had the symptoms of depression described in the video, but only 4 people who tended to suffer from depression were eventually tested by SDS.

Contemporary China's TikTok short video on depression is correct in describing the symptoms of depression, but as it is a short video, it cannot provide a complete introduction to depression and science, but only a small amount of depression-related knowledge. As mentioned in the video, the symptoms of depressed patients include a depressed mood, where the depressed mood described does not give a detailed explanation, and the video does not provide any further explanation. In the real situation, participants may be suspected of suffering from depression only if the depressive mood lasts for more than three weeks, which is not mentioned in the video, thus making the public label the symptoms of depression after watching the short video, although the description is correct.

People's subjective perception of the phenomenon of depression misdiagnosis is spread through multiple channels, with the Internet being the most widely spread. Data from the second question in the first step of the questionnaire can show the trend of wrong self-diagnosis of depression. People's perception of negative stereotypes leads to the appearance of the stigma of wrong self-diagnosis of depression on depression and depressed people, leading to undiagnosed depression.

There is several reasons that knowledge about depression is weak in China, more attention should be paid to strengthening public psychological education, the public needs to take care of depressed people, not exclude them, and stigma and stereotypes are extremely serious, and close contact with depressed people can better understand, rather than blindly believe through untrustworthy information on the Internet [9].

## 5 Conclusion

IN conclusion, this research aims to explore how misinformation involved in social media like TikTok contributes to the stigmatization of depression and further how the public perception of depression is shaped by wrong or misguided information involved in social media as more adults engage in social media. After conducting the survey, the audience can learn that misinformation involved in social media has developed as a major contributor to the rapid rise in stigmatization of depression, especially when it comes to younger generations. As they receive misleading information via social media, their lives are negatively affected, and they become depressed. If they are exposed to a serious situation for a long time, their mental health will be destroyed and threatened.

Under such a circumstance, relevant parties, such as public institutions, social networking websites, and individuals, should monitor video content shared on social media and critically analyze the content involved in social media. The main findings of this study are the harm and existence of pseudo depression; the causes of pseudo depression can be studied as an ongoing developmental issue; the public stigma and self-stigma population in which the psychological state has not been studied; and the above points can be discussed as a follow-up study.

For this study, there is a bias about the accuracy of the SDS(Self Depression Scale). Due to the limited degree of resources, the study could not be more accurate to test the depression level of the participants, and the validation method needs to be improved. However, this study just focuses on a small group of online participants who use TikTok. To better solve relevant problems, further studies should be used to focus on online users of additional platforms, such as Facebook, Twitter, or Instagram.

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## References

1. World Health Organization. Depression and other common mental disorders: global health estimates (No. WHO/MSD/MER/2017.2). World Health Organization. 2017. <https://www.who.int/>
2. Wang, H., Tian, X., Wang, X., & Wang, Y. Evolution and emerging trends in depression research from 2004 to 2019: a literature visualization analysis. *Frontiers in Psychiatry*, (2021). 12. doi: <https://doi.org/10.3389/fpsy.2021.705749>
3. World. (2018, March 22). Depression. Who. int; World Health Organization: WHO. <http://www.who.int/news-room/fact-sheets/detail/depression>
4. Li, Q., & Gao, W. A Review and Prospect of Research on the Mental Illness Stigma. *Journal of Nankai University*, 4(123), (2009). 10. doi: <https://doi.org/10.3389/fpsy.2021.705749>
5. Corrigan, P. W., Druss, B. G., & Perlick, D. A. The Impact of Mental Illness Stigma on Seeking and Participating in Mental Health Care. *Psychological Science in the Public Interest*, 15(2), (2014). 37–70. <https://doi.org/10.1177/1529100614531398>
6. Cox, W. T. L., Abramson, L. Y., Devine, P. G., & Hollon, S. D. Stereotypes, Prejudice, and Depression. *Perspectives on Psychological Science*, 7(5), (2012). 427–449. <https://doi.org/10.1177/1745691612455204>
7. Wang, G. Occult depression be careful to be misdiagnosed. *Health Review*, 11(350), (2017). 1.

8. Balogh, E. P., Miller, B. T., Ball, J. R., & National Academies of Sciences, Engineering, and Medicine. Overview of diagnostic error in health care. In *Improving Diagnosis in Health Care*. National Academies Press (US). 2015.
9. Vos, M., & Zhang, B. How and Why Some Issues Spread Fast in Social Media. *Online Journal of Communication and Media Technologies*, 5(1). (2015). <https://doi.org/10.29333/ojcm/2497>

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