

Social Media Usage and Anxiety: An Overview of Intermediary Factors

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Abstract: Social media makes it more convenient for people to communicate with each other and provides many benefits for people's life. However, social media use can also cause anxiety. The mechanism by which social media use affects anxiety levels is still unclear. Therefore, this paper analyzes how the usage of social media affects college students' anxiety levels through three intermediary variables: social comparison, psychological capital, and fear of negative evaluation (FNE). The result shows that the upward comparison leads people to feel that some aspects of their lives are not as good as their peers, thus deepening people's levels of physical anxiety and state anxiety. Problematic using social media can lead to a reduction in psychological capital. Therefore, if social media users have lower levels of self-efficacy, optimism, hope, and resilience, their anxiety level will be higher, as these are the four aspects of psychological capital. The usage of passive social networking sites activates people's non-adaptive self-view, thus increasing people's FNE. FNE are indicated to impact anxiety. Therefore, FNE is also an influential mediator. This study focused on three mediators of social media's influence on anxiety. Based on the findings, this study concluded that in order to reduce the negative effects of social media, intervention in mediators between social media and anxiety could be further studied.

Keywords: social media, anxiety, upward social comparison, psychological capital, fear of negative evaluation, mediating role

1. Introduction

Social media is a network platform for people to create, share and communicate. In 2008, Mayfield first proposed the concept of social media. He defined social media as an online cyberspace where users can communicate with others actively [1]. Social media is widely used in China and around the world. Commonly used social media in China are QQ, WeChat, Weibo and Tiktok; Some of the popular media in western countries are Facebook, Twitter and Google in Western countries. Based on the 51st Statistical Report on China's Internet Development, dating up to December 2022, 1.051 billion Chinese used Internet, and the percentage reached 74.4%. The percentage of instant messaging users was 97.7% among Internet users. And the percentage of short video users rose to

91.5%. Social media breaks the boundaries of time and space, makes interpersonal communication more convenient, and makes people know everything without face-to-face contact.

However, while social media brings convenience to people, it also leads to a series of problems such as anxiety. Anxiety is a negative emotional experience characterized by physical tension symptoms and worries about the future [2]. Excessive anxiety will also have bad influences on people's cognition and behavior. Many studies confirmed that social media usage, especially harmful social media use behavior is positively related to anxiety. In 2017, Qiu's study showed that high intensity of social media usage could cause anxiety [3]. Previous studies have reached a consistent conclusion that social media usage is related to anxiety level, but the reason why social media usage affects anxiety level is not clear. Therefore, the goal of this research is to explore the reason why social media usage affects anxiety level from multiple aspects.

2. The Mediating Role of Social Comparison

2.1. Definition

Social comparison theory holds that people will compare with others to evaluate themselves when they cannot make objective judgments about their status and personal abilities [4].

Upward social comparison is one kind of social comparison that refers to the comparison people make with others who have higher status and ability [5]. The results of upward social comparison were affected by expectation. When the comparison results met the person's expectations, it would bring positive results to him. But if the comparison results cannot meet the person's expectations, the person will make a negative evaluation of himself [6]. Social comparisons and upward social comparisons often occur in our lives, and inappropriate social comparisons can cause problems in our lives.

2.2. The Mediating Impact of Upward Social Comparison Between Social Media Usage and Anxiety

Social comparison can occur not only in real life but also on social media. Social media enables people to cross the boundaries of time and space, people can make social comparisons anytime and anywhere. A study showed that the greater the intensity of usage of social media, the more they tended to make social comparison [7]. In addition, people tended to show perfect images, exceptional abilities and wonderful life on social media, and people would avoid the negative aspects of themselves at the same time, resulting in a positive deviation, which made it easier for individuals to make upward comparisons [8]. A meta-analysis study confirmed that anxiety state was significantly related to upward social comparison [9]. In conclusion, people tend to conduct upward social comparison when they use social media, and upward social comparison positively predicts anxiety.

Many researchers confirmed that social media usage would affect anxiety through upward social comparison. Yang's research showed that upward social comparison in social networks reduced college students' self-esteem or increased the level of social network burnout, thus positively predicting anxiety level [8]. Qiu's research showed that the more college students used social media, the more anxious they were. Upward social comparison is an intermediary variable, and upward social comparison had an independent mediating effect [3]. One prior study showed that the higher frequency with that a person use Instagram (highly visible social media), the more likely he was caught by high-anxiety body parts [10]. Physical appearance comparison, and physical satisfaction possessed a chain mediating effect in this relationship. Amelia also proposed that Instagram usage would induce upward social comparison, thus making people pay more attention to the body parts with high anxiety [10].

In conclusion, social media use can affect people's anxiety level through upward social comparison, and this mediating effect is stable.

2.3. The Practical Significance and Future Research Direction

Based on the intermediary role of upward social comparison, people can make objective social comparisons to alleviate anxiety in social media. Cao's research proved that improving the clarity of self-concept could promote people to make objective social comparison [11], thus reducing the anxiety level of individuals in social media usage. Therefore, group counseling can help people objectively evaluate themselves and help people to make objective social comparison to reduce anxiety level.

Previous relevant research has mostly focused on exploring the reasons why social media usage influences anxiety, and the effect of upward social comparison has been widely confirmed. However, few intervention studies tried to reduce the influence of social media usage on anxiety by intervening in upward social comparison. Therefore, in the future, researchers are suggested to conduct intervention research and explore ways from the perspective of upward social comparison to reduce anxiety caused by social media usage.

3. The Mediating Role of Psychological Capital

3.1. Definition

Psychological capital(PsyCap) was considered as a person's positive psychological condition of development by Luthans [12]. From the viewpoint of positive psychology, Luthans proposed the idea of PsyCap based on previous studies. He points out that positive psychological capital can improve employee performance. In addition, the four components that compose psychological resources were generally considered to be: self-efficacy, optimism, hope, and resilience. Luthans gives a basic explanation of each of the four concepts in his article. In general, self-efficacy refers to the cognitive and motivational ability of an individual to complete a specific task. Optimism and hope refer to a positive motivational state, but there is also conceptual independence between these two concepts. Resilience is expressed as the ability to resist stress.

3.2. The Mediating Impact of Psychological Capital Between Social Media Usage and Anxiety

Qiu's study concentrated on the psychological capital's mediating role [3]. The subjects in this study were 800 college and junior college students in Fuzhou, China. In this study, the Social Media Use Intensity Scale, which Ellison et al. developed for American college students' Facebook use intensity, was used to measure the participants' social media use; The study used Self-Rating Anxiety Scale (SAS) to estimate each individual's degree of anxiety. The psychological capital scale of adolescent students to measure the psychological capital of the subjects. The researchers analyzed the data using SPSS and examined psychological capital's mediating effects. The results show that social media use intensity can affect psychological capital by affecting upward social comparison, and finally affect anxiety levels. The intensity of social media use can also directly affect psychological capital and then affect anxiety levels. This research implies that the downward social comparison generated by the usage of social media can further increase anxiety by lowering psychological capital like hope, confidence, and optimism. Research shows that questionable use of social media can influence college students' anxiety levels through psychological capital's mediating effects [13]. The study focused on the college student population during the pandemic, with 3,123 college undergraduates in Shanghai participating in the online survey. Variables were

measured through questionnaires with high reliability and validity. The researchers analyzed the data through SPSS 25.0 and tested psychological capital's mediating effects through the PROCESS macro. The findings demonstrated a positive association between problematic social media use and anxiety, as well as a strong indirect impact that psychological capital exerted on that relationship. This result proved psychological capital's mediating effects in the relationship between questionable use of social media and anxiety. It can be speculated that the intensity of social media use cannot simply predict the college student's anxiety. The individual's internal cognition and evaluation are the key factors determining their anxiety.

3.3. Practical Significance and Future Research Direction

In a nutshell, problematic social media use can negatively affect anxiety through the psychological capital's mediating effects. Pintrich defined interventions to improve self-efficacy as learners first set learning goals, then control their behaviors, and be constrained by the environment [14]. Randolph et al. investigated two pathways of hope activation by statistical methods. They point out that the drive to activate hope may help reduce symptoms of anxiety and depression [15].

Therefore, by improving their psychological capital, people can reduce their anxiety when using social media. Most of the previous studies focused on the intervention of one dimension of psychological capital to reduce the anxiety level of subjects. At the same time, there are few studies exploring the extent to which anxiety caused by social media use changes after interventions for all dimensions of psychological capital. Future research can explore the changes in the anxiety level of social media users after simultaneous interventions on the psychological capital's four dimensions.

4. The Mediating Role of FNE

4.1. Definition

The FNE refers to a kind of worry and fear caused by the negative or negative evaluation of other [16]. Everyone has different degrees of FNE. People who lack social skills were found to have a higher FNE [16].

There are currently two theoretical explanations for negative evaluation fear, psycho-evolutionary mechanism and cognitive-behavioral mechanism of social anxiety [17].

4.2. The Mediating Impact of FNE Between Social Media Usage and Anxiety

FNE is one of the core characteristics of social anxiety disorder, which means that people will continue to be in FNE [18]. A group test was conducted on 376 college students using the Negative Evaluation Fear Scale and the Communication Anxiety Scale. The results showed that university students' social anxiety and FNE were common, and they are positively correlated [19].

Similarly, high social anxiety can also make individuals have a higher FNE. Research has shown that socially anxious individuals experience more unpleasant negative social evaluations and experience fewer positive evaluations [18]. Both socially anxious and non-anxious college students have implicit negative evaluation fear, but socially anxious individuals will experience more worry and fear [20].

Social anxiety could increase compulsive social media use, directly or indirectly, through FNE [16]. Meanwhile, according to the cognitive behavior model of social anxiety, people selectively display the positive side they want others to see on social networking sites. While individuals passively browse the idealized information, and the non-adaptive self-view will be activated, which increases the fear about the negative evaluation of others, thus enhancing social anxiety [21]. You's research found that passive use of social networking sites does not necessarily lead to individual

social anxiety, and the key factor is the irrational belief that individuals have after experiencing passive use of social networking sites—the FNE [17]. That study adopted the Interaction Anxiety Scale (IAS), and all the participants were college students in mainland China. Finally, the clear quantitative data results were obtained, that is, social networking site usage mainly affects social anxiety through the mediation of the FNE.

4.3. Practical Significance and Future Research Direction

FNE and social anxiety are positively correlated, so reducing the FNE is conducive to alleviating social anxiety [19]. Providing social skills training to students can improve their social skills, thereby reducing their FNEs when socializing [22]. This in turn can reduce social anxiety to some extent.

If people have low self concept clarity, FNE can affect the level of social anxiety. If people have high self concept clarity, there is no such impact [19]. High self-concept clarity can alleviate the impact of FNE on social anxiety, which provides a scientific basis for the intervention of college students' social anxiety based on self-concept [19].

At present, relatively few studies have explored the impact of social media usage on FNE. Therefore, more research should be conducted to further explore the impact of passive social networking site use on FNE. In addition, future research can also explore which type of negative evaluation has greater impact on college students with social anxiety, so as to better intervene in college students' social anxiety.

5. Discussion

Based on the severity and urgency of anxiety issues in social media, this study explored mediating variables that influence the use of social networking sites on anxiety levels. Upward social comparison, psychological capital, and the FNE are all mediating variables that affect social networking sites use and anxiety levels. Firstly, people display positive personal status on social networking sites, which triggers people who browse social media to make an upward comparison. However, the upward comparison leads people to feel that some aspects of their lives are not as good as their peers, thus deepening people's level of physical anxiety and state anxiety. In addition, prior studies indicated that psychological capital and anxiety were negatively correlated. Therefore, if social media users have lower levels of self-efficacy, optimism, hope, and resilience, their anxiety level will be higher, as these are the four aspects of psychological capital. Finally, the usage of passive social networking sites activates people's non-adaptive self-view, thus increasing people's FNE, which as the core feature of social anxiety could affect anxiety. The relation between social media use and anxiety might be mediated by FNE.

This article partly explains the psychological mechanism in more details through a study of intermediary variables. The usage of social media is related to the intermediary variables in this paper, and these intermediary variables are also related to anxiety, which links social media with anxiety and strengthens the correlation between the two. The three mediators studied in this paper have contributed to the unclear influence mechanism between social media and anxiety, and also provided direction for relevant research. However, the reasons for the related effects are relatively complex, and factors such as personality traits, social support, and body image may also play a role. Future research can explore more intermediary factors, find other possible influencing factors, and test the stability of relevant variables through data. In addition, current research is limited to partial research on the impact mechanism and has not formed a complete theoretical framework. Therefore, researchers need to conduct deeper exploration and more systematic collation to provide guidance for anxiety intervention in the digital era. In the future, researchers can use qualitative research

methods or meta-analysis research methods to conduct research in order to achieve the purpose of multifaceted intervention. Besides, current research is mostly focused on mechanism exploration, and future research can directly explore ways to alleviate the impact through intervention research based on the impact mechanism.

In order to reduce the anxiety caused by social media anxiety, intervention can be carried out from multiple levels. At the individual level, individuals need to actively improve their psychological capital and improve their ability to resist setbacks. Individuals also need to make reasonable use of social media. In addition, people should learn social skills to alleviate the FNE in social media. Finally, they need to conduct objective social comparisons to avoid excessive upward social comparisons. At the school level, schools should actively carry out mental health education courses to teach students to make rational use of social media and deal with anxiety caused by social media. Schools should also strengthen the supervision of students' mental health and increase the development of group support activities. From the perspective of psychotherapists, they should consider the diversity of sources of anxiety caused by social media, and provide targeted treatment based on personal conditions to fundamentally solve the problem. Finally, community mental health workers can use this impact mechanism to guide residents to appropriately use social media, reducing the impact of negative factors such as upward social comparison and the FNE.

6. Conclusions

This article examines the mediating variables between social media use and anxiety in previous studies through a literature review. The results show that upward social comparison, psychological capital, and FNEs are mediating variables between social networking site use and anxiety levels. Excessive social networking site use leads to upward social comparisons among individuals, which can positively predict anxiety levels. Problem social media use can reduce people's psychological capital, and insufficient psychological capital positively predicts anxiety levels. The more people use social networking sites, the more fear they feel about negative reviews. At the same time, a high level of FNEs can cause a higher level of anxiety. Interventions based on intermediary variables may reduce the level of impact between the two. Individuals, schools, communities, and mental health workers must strengthen their attention to anxiety issues caused by social media use.

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