

# The Influence of Social Media on Depression

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## ABSTRACT

This review paper explored the relationship between social media addictions and depression to clarify further the link between overuse of social media and depression and enables individuals to know about the harmfulness of overuse in social media and raise the consciousness of cautiously using social media. This paper integrated different opinions to review the influence of social media addiction, including the symptoms and effects of low self-esteem and loneliness on humans. Also, this review paper discussed the mechanism of social media addiction and depression, including individual differences, intermediate agents, and cognitive mechanisms. Based on the evidence suggests, social media addiction is positively correlated with social media addiction. As more people get addicted to social media, they are more likely to have depression mood or lead to disease. As a result, the importance and feasibility of social media addiction precautions are discussed in this article. This paper discovered a trend of social media overusing, and society is becoming less communication in real life. We hope that the public can use social media correctly and moderately. The paper covers the definition of social media addiction and depression to enable readers to have a preliminary understanding so that readers can follow in our footsteps to seek the influence of social media addiction on depression.

**Keywords:** Social media addiction, depression, self-esteem.

## 1. INTRODUCTION

Internet is an indispensable component in our life, and it has penetrated our daily communication, information access, and entertainment. As our dependence on online technology increases, the problematic use of the Internet objectively exists, known as pathological Internet use (PIU) [1]. This study also indicates the positive relationship between Internet use and depression. Notably, the interactive abilities of the Internet make it most attractive and obsessive to depressives. This is because the anonymous nature of online communications is like a protective cover to render them comfortable talk to others. Therefore, as a sub-type of Internet addiction, social media addiction deserves to be paid more attention [2].

It is inevitable to understand social media, while there are similar terms called social networking sites (SNSs). To be clear, it is necessary to introduce these two vague concepts firstly: SNSs refer to a virtual channel enabling people to share the latest status online with others [3].

Social media are defined as any media that can promote individuals' interactions on the Internet [4]. Social media is more general, and it includes SNSs.

Many research papers have researched the problematic use of social media. SNS addiction would trigger emotions, relationships, health (lack of sleep), and performance problems [5]. As we have concluded that SNSs are a kind of social media, we know that social media addiction would negatively influence students' academic performance and mental health [6].

In this paper, we mainly focus on the influence of social media addiction on depression, a mental disease. Depression is an increasingly prevalent disease. The first typical symptom is anhedonia, which means people no longer feel joyful from the things that usually make fun of them [7]. About half of patients with depression have experienced pain [8]. Previous studies also present that depression may also be a factor in catching social media addiction [9]. However, we do not want to emphasize the mutual relation between social media addiction and depression because it was estimated that more than 210

million people would suffer from the Internet and social media addiction [2]. If social media addiction causes depression, mental health worldwide would be an extremely serious problem, but we can thus realize such a reality and take some precautions. By contrast, even though depression causes social media addiction, we need to improve some particular clinical treatments. Therefore, the former may be more of emergency and importance.

In this study, we firstly introduce and define social media addiction. Secondly, we review the effect of social media on depression. Then we analyze some mechanisms of this influence ranging from individual difference, intermediary agents to inheritance. Finally, we suggest some precautionary measures such as limiting the use of social media and increasing satisfaction in life.

## **2. THE INFLUENCE OF SOCIAL MEDIA ADDICTION ON DEPRESSION AND ITS MECHANISM**

### ***2.1. What is social media addiction***

Griffiths regards that addiction should satisfy core features of addiction [10]. SNS addiction is found to share these components, including mood modification, withdrawal, tolerance, conflict, relapse, and salience [5, 11]. Therefore, we can define and understand social media addiction as a kind of addiction. In addition, addictions should refer to activities causing negative consequences, which cannot be distinguished according to using the time [12].

For why people like to use social media, a study finds that decreasing life satisfaction is positively associated with social media addiction [2]. Furthermore, Chen & Kim present that people use SNSs to please themselves through using experience (diversion), present their advantages (self-presentation), and making new friends (relationship building) [13].

### ***2.2. Social media and depression***

Nevertheless, some research papers talk about Facebook, a typical and prevalent social media, and depression. Blachnio et al. discover that Facebook intrusion is positively related to depression [14]. Facebook addiction and intrusion always co-occur, and these two terms can be used interchangeably sometimes, while the latter underlines more fierce stress in social relations. People who experience Facebook intrusion spend too much time on Facebook and find their everyday activities and interpersonal relationships in disorder. Due to the significant similarity between Facebook addiction and Facebook intrusion, we can deduce that those addicted to Facebook are more likely to catch depression. More directly, Haand & Zhao found that those who suffer from social media addiction may also catch depression, and a higher social media addiction degree would indicate

a higher depression degree [15]. Then we introduce the mechanisms of this influence, including individual differences, intermediary agents, cognitive mechanism and inheritance.

## **2.3. Mechanisms**

### ***2.3.1. Individual difference***

The mechanism that affects the relationship between social media addiction and depression is individual differences. Three studies can explain this.

The first individual difference is the difference between different regions. Haand and Zhao explored the relationship between social media addiction and depression among students in the coastal state of Afghanistan [15]. The results showed that social media addiction can make students more prone to depression, and depression significantly predicted social media addiction, which means if you suffer from depression, there is a good chance it is due to social media addiction. In terms of insecurity and political stability, the country witnessed many casualties in the conflicts between the government, the Taliban, the Islamic State of Iraq and Syria and foreign troops (see UNAMA, 2019). From the last 25 years of the 20th century to the beginning of the 21st century, Afghanistan experienced a civil war. However, since the Taliban regime collapsed in late 2001, the political system has been relatively stable. The research results confirm that social media addiction can explain mental health problems, low literacy level, economic weakness, political stability and conflict. In other words, social media addiction has a similar relationship with depression in developed countries and least developed countries.

The second individual difference we have found in the previous studies is the difference in self-esteem. Hu et al. examined the relationship between social media addiction and mental health and academic achievement in college students, investigated the mediating role of self-esteem in this relationship, and further tested the effectiveness of interventions in reducing social media addiction and its potential adverse outcomes [16]. In the study, 232 college students were investigated using the survey method. It was found that social media addiction was negatively correlated with college student's mental health and academic performance, and the relationship between social media addiction and mental health was moderated by self-esteem. The result shows that mental health and academic performance affect social media addiction, and self-esteem moderates the relationship between social media addiction and mental health. Self-esteem plays a mediating role in the relationship between social media addiction and mental health. These findings suggest that the negative link between social media addiction and mental health is partly due to lower self-esteem.

The third individual difference is a different age. Rachubinska and Cybulska studied the relationship between loneliness, depression, Internet and social media addiction among young Polish women [17]. The result shows that age, depressive symptoms, and loneliness contributed to the Internet and Facebook addiction among the studied. Depression symptoms and dependence on the Internet and Facebook are more common among single women. Among the employed women, we only observed a high level of Internet and Facebook addiction. Young women are more dependent on the Internet and Facebook. Loneliness is related to the Internet, and Facebook addiction and more severe depression symptoms are accompanied by higher-level Internet and Facebook advertisements.

### *2.3.2. Intermediary agents*

There are some intermediary agents between the relationship of social media addiction and depression. The first is self-esteem. The results showed that self-esteem harmed teenagers' daily Internet use [18]. The finding is consistent with some studies but contradicts some others. This result may be explained by the fact that individuals with low self-esteem avoid real interactions and escape into virtual worlds where they can act anonymously and do whatever they want. In the structured model, the most significant predictor of depression was self-esteem. Accordingly, as self-esteem declines, so does the likelihood of depressive symptoms. However, there is plenty of research to support this finding. Besides, the time of social media use contributes to social media addiction. Like daily Internet use, social media addiction was positively associated with depression, and the analysis showed that levels of depression in adolescents were indirectly related to social media addiction. This means that as time spent on social media increases, so does the risk of depression. The findings of the study suggest that social media addiction leads to the increased time spent online. As a result, a higher likelihood of depressive symptoms will disappear [18]. Sampasa-Kanyinga and Lewis in Canada found that daily social media use of over two hours was associated with psychological distress [19].

Furthermore, loneliness contributes to the relationship between social media addiction and depression. Loneliness is a psychological variable associated with Internet and Facebook addiction. The more severe the depressive symptoms, the higher the Internet addiction and Facebook addiction [17].

### *2.3.3. Cognitive Mechanism*

The result from Cao shows that social media addiction is determined by an individual's emotional and functional attachment to the platform [20]. These attachments are, in turn, influenced by motivational (perceived enjoyment

and social interaction) and technical (information support, system quality, and personalization) factors.

Also, this paper suggests that social networking addiction may be associated with a more efficient impulsive brain system, with reduced gray matter volume in the bilateral amygdala (but no structural differences in the nucleus accumbens). In this respect, the structural changes in the brain of social network addiction are similar to those of other addictions (substances, gambling, etc.). At the same time, compared with other addictions, the ANTERIOR cingulate cortex was impaired in mid-stage and failed to support the required inhibition, which was reflected in a decrease in gray matter volume, which was considered healthy in our sample and its gray matter volume was positively correlated with the degree of a social media addiction [21].

## **3. PRECAUTION**

In the documentation of the Social Dilemma, Vincent Kartheiser said, addiction operates just like the slot machine in Vegas. It is not enough that you use the product consciously and implant, inside of you, an unconscious habit so that you have been programmed at a deeper level. You do not even realize it."

Globally, the power of social media like Facebook and WeChat has developed into an uncontrollable situation known as social media addiction. It is causing serious damages to people, especially their mental health. After realizing this serious problem, people decided to take a series of measures to prevent addiction from happening or worsening.

### *3.1. preventive measures*

#### *3.1.1. Limiting social media use*

Although there is evidence that overuse of social media is common among young people and has a potential negative impact on the well-being of users, few studies have investigated the factors that encourage individuals to restrict social media use [22].

A study held at the University of Pennsylvania demonstrated that limiting social media use to approximately 30 minutes per day may significantly improve well-being. The researchers [23] hypothesized that controlling the time spent on social media can effectively improve people's mental health. In the three-week experiment, the time spent using social media on each mobile platform was limited to less than ten minutes a day, which significantly impacted well-being in depression. People with a high level of depression at the beginning of the study and those who initially had moderate or severe depressive symptoms reduce depression to moderate levels by reducing the use of

social media. Over the last three weeks, even among those with low levels of depression, statistics have improved significantly due to low use of social media, Although the manager's ratio has decreased moderately. It may not be of clinical significance.

A study conducted at Carleton University also proves the result. They replicated and expanded upon the work of Hunt et al. The three-week study found that participants' psychological status improved slightly after voluntarily reducing the time spent on social media [23, 24].

One subject in the study [23] mentioned, "Not comparing my life to the lives of others had a much stronger impact than I expected, and I felt a lot more positive about myself during those weeks." Further, "I feel overall that social media is less important, and I value it less than I did before the study." Research [23] has proved that gradually reducing the use time of social media can effectively prevent or even alleviate mental diseases such as depression.

### *3.1.2 The feasibility of precaution*

Researchers suggested that in the scope of education, it is impossible to focus only on potential dangers. Instead, people should strive to use the Internet to support young people's ability and maintain a good proportion between online and offline. Existence. Therefore, they [25] advocated that people can utilize some educational means to limit teenagers' social media using:

- help to develop mindfulness and critical thinking and teach the way of communication by facing different attitudes, values, and behavioral patterns;

Help develop many useful abilities such as linguistic and literary ones – reflected in the shortness of speech or reasoning through the virtual world. Social online games help with coordination and motor activities, but also, they teach cooperation and team relations;

- support the development of social and civil competencies by broadening friends' groups and by participation in forums, charity, social and political actions, and activities;

- are also inspirational by enabling to create new music and film items, write blogs, and many others.

Prophylaxis in practice on the example of the proactive program, implemented due to the executive public duties "Teenagers and children – safe in the Web since today" ("Młodzież i dzieci – od dziś bezpieczni w sieci") being carried out by the Training and Therapeutic Centre SELF [25].

### *3.2 Increasing life satisfaction*

Life satisfaction has been defined as "a person's cognitive and affective evaluations of his or her life" [26].

Based on the "social compensation" hypothesis or "the poor get richer" [27], people with low self-esteem, low life satisfaction, and who have few offline contacts compensate by using Facebook to gain more friends and more popularity [28, 29].

[35] stated in the article (Life satisfaction: A key to managing Internet & social media addiction), although the dangers of addiction and pathological use have been known for centuries, the public has tended to downplay the dangers associated with pathological dependence on the Internet and, subsequently, on social media. However, the study results show that this willful ignorance of the risks led many users to experience these negative consequences firsthand. The results showed that, as assumed, higher levels of happiness were associated with higher life satisfaction [35]. Also, as expected, the level of stress was negatively correlated with life satisfaction [35].

In a recent study of 381 Polish Facebook users, Facebook addicts had lower self-esteem and life satisfaction than non-addicts [30]. This finding was supported by a study of 311 Turkish undergraduates, in which life satisfaction was negatively correlated with problematic Facebook use [31]. Consistent with this finding, a German study of 583 Facebook users showed that people who passively pay attention to online users experience social comparison and jealousy, which will reduce their satisfaction with life [32]. Another study found that people who use Facebook for a long time and view Facebook more frequently think that others are happier than them, others have a better life, and life is unfair [33].

Life satisfaction itself was negatively correlated with Internet addiction and social media addiction [35]. These results suggest that when users find happy things in their lives, their life satisfaction increases, and their corresponding level of addiction (social media) decreases. Similarly, when a user's life becomes more stressful, their life satisfaction decreases, leading to an increase in social media and Internet addiction [35]. This is consistent with PIU, as the theory suggests that people engage in pathological behaviors related to Internet use to avoid the negative effects associated with deprivation. It is important to note that this does not imply causation, as reduced or increased life satisfaction cannot be shown to cause changes in addiction levels. Instead, these results suggest that there is an association between these factors [35].

## **4. CONCLUSION**

This paper explores the relationship between social media addiction and depression and its precaution methods. With the continuous growth of smartphone and tablet ownership, the progress of new technologies, and the significant enhancement of applications, the distance

between people is getting farther and farther, and social media addiction will continue to be a major problem. However, its complication, depression, has become a large user group of social media. Our review paper talked that the prevalence of depression is closely related to social media addiction. It can be concluded that social media addiction has a big influence on depression. Even though there are differences in addiction degree among individuals due to regional age and self-esteem factors, social media addiction is still a trigger or aggravating depression. We also found that some questions remain about the heritability of no matter social media addiction or depression. We explored the mechanisms by analyzing the individual differences as well. As the psychological problems behind social media addiction keep making it more and more serious, future research needs to continue to investigate associations between the two factors, not only to monitor the above associations but also to investigate precaution and treatment strategies.

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