

# The Causes, Effects, and Interventions of Social Media Addiction

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**Abstract.** Social media addiction (SMA) has become a more serious problem for people when they are engaging in their social life with parents, siblings, and friends. The goal of this review is to go over previous studies that focused on the potential factors that cause SMA and how these factors make people vulnerable to such addiction. The review also summarizes the effective treatments for SMA, comparing their advantages and disadvantages. Through the review, neuroticism is proved to contribute to the high level of SMA, and the level of well-being is also responsible for the negative correlation with SMA. Several effective therapies are effective in treating addiction, including two parts: self-intervention and therapeutic methods. Self-intervention uses apps and self-control, or self-restrictive plans, to cut people's addiction to certain software. Therapeutic methods, CBT (Cognitive Behavioral Therapy), and motivational therapy. Both therapies aim to change the mental state of the patient, which would lead to less addictive behavior. Role models are also found to be useful for curing addiction. Yet there is no clear evidence that one therapy is superior to the others, and the selection of therapy should depend on the actual circumstances.

**Keywords:** Social media addiction; Neuroticism; Well-being, Intervention.

## 1. Introduction

Social Media Addiction (SMA) is a behavioral addiction that hinders one's individual life and function due to an extreme level of dependence on social media platforms [1]. It could be characterized as one immersed in the virtual world at the cost of engaging in daily life and fulfilling social obligations. People's popular entertainment activities have shifted in recent years to be more focused on online life-sharing platforms (such as TikTok, YouTube, and Instagram). It has become a phenomenon that people are spending more time on screens than on real-world activities (i.e., physical sports), and both positive and negative effects are visible. More and more social media users are being diagnosed as addicted to life online. What caused this problem has not been identified, but several factors influencing people's trend of taking up over-average quantities of time for this kind of abnormal activity are proposed through different aspects, such as income levels, the trauma of former abuse, physiological illness, and relationship networks. The measure of Internet addiction was first established in 1998 by Dr. Kimberly Young, a well-known researcher working in the psychological field of Internet addiction, to indicate one's severity of Internet dependence. For the different levels of severity, symptoms range widely, including functional ability being disturbed, offline social activities steeply cut off, and negative feelings when interacting with social platforms being hindered [1]. Addiction to these platforms also exhibits a negative influence on both mental and physical aspects. Previous research found that people with moderate addiction are 1.5 times more likely to develop depressive symptoms later in life [2]. Various intervention methods were proposed, such as CBT (Cognitive Behavioral Therapy), DBT (Dialectical Behavioral Therapy), and inpatient treatment [3]. These classical treatments are still widely used as mainstream therapies against many

types of addiction, and their effects are enormous. Yet, the actual outcomes are highly dependent on the patient's motivation, and it requires the patient's high participation to make a better transition to a more favorable life.

Thus, research into the specific mechanism of social platform addiction, as well as interventions to treat the illness and its consequences, is critical. Inspired by a study that determined motivation differences in the United Kingdom and concluded the Big Five Trait as an explanatory factor, this review article focused on two potential addiction-leading factors, personality and well-being level, and their effects on either a positive or negative effect on social media addiction [4]. The article also reviewed previous essays and information and, therefore, concluded the possible and effective ways of intervening in this socially abnormal behavior.

## 2. Personality and SMA

### 2.1. Relationship between neuroticism and SMA

Personality is a set of behavioral, cognitive, and emotional patterns of an individual, and has persistence and stability across time and settings. One approach to the study of personality is the trait theory. It attempts to describe the differences in the personality of individuals through multiple personality traits [5]. The Big-5 Personality Trait Theory, an important trait theory in psychology, organizes personality into five basic dimensions, which are "extraversion, agreeableness, conscientiousness, neuroticism and openness" [5]. Many scholars have found a correlation between SMA and personality traits in their research [6,7]. This section will focus on the relationship between SMA and the dimension of neuroticism in the Big-5 Personality Trait Theory. This section will argue that high neuroticism is a risk factor for SMA and that people with high neuroticism may be negatively affected by their excessive use of social media.

Neuroticism is a risk factor for SMA, as higher levels of neuroticism are often associated with more severe SMA or excessive social media use in individuals. The ability to regulate one's emotions, the presence of unpleasant emotions and emotional instability are all indicators of neuroticism. [6]. People with high neuroticism are more susceptible to adverse emotions such as anxiety and depression and are less able to regulate their emotions. Individuals with low neuroticism are more emotionally stable [6]. Blackwell et al. administered a survey to 207 participants that showed that neuroticism is a predictor of social media use and SMA [8]. Specifically, higher neuroticism predicts excessive social media use as well as SMA. Andreassen et al.'s and Marengo et al.'s studies are in line with Blackwell et al.'s findings, which reveal that neuroticism is positively associated with Internet addiction or SMA [8]. In addition, when exploring the relationship between personality and other psychological factors and SMA, Blackwell et al. find that insecure attachment styles, such as avoidant attachment play a mediating role in the relationship between SMA and neuroticism [8]. Anxiety is also positively associated with SMA [8]. Blackwell et al. offer a brief explanation for their findings, suggesting that people with high neuroticism may be more likely to feel anxious in relationships, as well as have insecure attachment styles, while social media allows them to connect with others [8].

Studies on the relationship between neuroticism and SMA also yield inconsistent findings, but two meta-analyses further confirm the positive correlation between neuroticism and SMA. Inconsistent results emerge from a study by Tang et al., who find neuroticism to be negatively associated with Facebook addiction among university students in Taiwan [9]. To illustrate the contradictory results in different studies, Huang conduct a meta-analysis of 63 relevant studies and find that the correlation between SMA and neuroticism is  $r = .17$  [6]. A review of the above studies concludes that neuroticism is a risk factor for SMA. More seriously, Abbasi and Drouin claim that although people with high neuroticism may use social media to enhance their mood, they are more likely to experience further deterioration of their state of mind while using social media due to jealousy and social overload [10].

## **2.2. High neuroticism people of different genders are affected by SMA on well-being**

Compared to men, women high in neuroticism are more susceptible to the negative effects of the SMA on well-being. Turel et al. conduct a study on the relationship between SMA symptoms and well-being in 215 Israeli university students [7]. They find that SMA symptoms can negatively affect wellbeing, such as inducing a depressed state of mind, and that neuroticism has an augmenting effect on this relationship [7]. In particular, Turel et al. find that although men with different neuroticism levels also experience decreased well-being due to SMA, in the female population, high neuroticism can increase the damage of SMA on wellbeing to a greater extent [7]. Although it remains unclear how gender and neuroticism work together to influence individual well-being and SMA, this study does reveal that there are some gender differences in the relationship between neuroticism and SMA [7]. The study by Turel et al. also reveals that women who are high in neuroticism and overuse social media should pay more attention to their mental health and seek effective interventions when necessary [7].

## **2.3. Summary**

This section has reviewed some of the research on the relationship between personality traits, specifically neuroticism, and SMA and found that neuroticism is positively associated with SMA. Also, women high in neuroticism are more prone to be negatively affected by SMA on wellbeing than men. Therefore, this section reveals that people with high neuroticism, especially women, should pay special attention to their social media use and mental health status. Therapy can be employed if highly neurotic individuals experience impairment of state of mind. Abbasi and Drouin argue that therapists who work with clients with high neuroticism should educate their patients about the negative effects of excessive social media use [10]. Highly neurotic individuals should be aware that online socializing, while seemingly simpler and easier compared to offline socializing, is more likely to bring about a negative state of mind [10]. Therapists should encourage them to limit their social media use and seek alternative offline social activities [10]. Other personality traits, such as extraversion and agreeableness, have also been shown to correlate with SMA in studies on personality and SMA. Future research could focus on the relationship between other personality traits and SMA.

## **3. Well-being and SMA**

### **3.1. Relationship between well-being and SMA**

Social media such as Tiktok has become a significant part to be affected by our daily lives' well-being. The majority of previous research that sees media platforms use for common social habits that may have a positive or negative impact on well-being outcomes defines and quantify media platforms' utilization and their impacts by dose-effect connections. Recently, this review could see that teenagers and young people are progressively paying significant hours per day on the internet. Moreover, People of different age groups are using social media platforms to interact privately with relatives, as well as publicly with others who are familiar or unfamiliar with them. They can easily use social media to show their thoughts and feelings to others beneficially. In addition, research has focused on social media as a new network connection and the essential importance in developing one's sense of awareness, individuality, and reputation, assisting human communication, relationship formation, and maintenance [11]. In these moments, people's well-being level will always be at a very high level since everyone is actively engaged with social media. However, on the other hand, well-being levels also provide a negative effect on people. Although social media make individuals get closer to each other, the data still shows that social media using time and well-being are negatively correlated. Despite use the of high-technology products, their well-being is still at a low level. Moreover, social media addiction has been brought on by the quick advancement of communication and information technology in society, which refers to an individual's excessive use and inability to control his or her

behavior, which negatively affects his or her life. The excessive use of social media for conversation, as well as Tiktok (watching videos and listening to music), is the most common.

### **3.2. Well-being of employees**

The well-being of employees is greatly affected by social media. From the previous analysis, the effects of social media addiction on workers' productivity and general well-being were investigated by the researchers using scientific method to analysis. Data from the semi-structured interview of five categories indicates that it is possible to connect with others every day without interruption to the point of indulging in social media before bedtime and sleep time reduction. Despite being aware of the problem, they are still unable to control the time they use their phones, use social media for a long time before going to bed, and are too drowsy to fully concentrate on their work the next day. Long periods of social media use are indirectly linked to spinal disease and eye pain. However, due to the fear of missing out on new events on social media, it is still impossible not to use these social media. Moreover, some data show that seeing people you know on social media show their successful and happy lives also creates jealousy, and this jealousy cannot be avoided when compared with your own life which is not so good. Therefore, it is impossible to withdraw from the dislike of one's environment and accept one's situation and work hard in one's life. In addition, online comments can cause people to lose themselves. People are happy when they get positive comments, but if they get negative comments, they can easily doubt themselves and become depressed and anxious. Prolonged immersion in social media can also make their social circle relationships deteriorate, becoming less accustomed to face-to-face communication and getting along [12].

### **3.3. Well-being of adolescents**

Social media also affects adolescents. Studies show that 95% of 12–17-year-old teenagers are now online, and 80% of them are social media users [13]. Moreover, 22% of teenagers use their preferred social media sites more than 10 times per day [14]. Especially during the covid-19, a study observed that 765 Italian adolescents were more addicted to social media TikTok and Instagram than to YouTube and WhatsApp. Social media with visual effects attracts adolescents [15]. There are benefits to teenagers using social media, such as exercising thinking skills and creativity from social software, improving their friendship circle through the Internet, and accessing healthy information to help them understand learning. However, the disadvantages of social media for adolescents are more obvious than for adults. Such as cyberbullying and online harassment. In a previous investigation, 10% of adolescents between the ages of 11 and 15 admitted to cyberbullying others online, while 20% claimed to be the victim of it in general. Any young person online can experience cyberbullying, which has severe psychosocial repercussions like depression, social isolation, anxiety, and perhaps even suicide. The study analyzed 101,440 high school students from the 10th to 12th Korean Youth Risk Behavior Network Survey, and suicide accounted for a significant proportion [16]. Because of these factors, well-being declines substantially.

## **4. Intervention for SMA**

Currently, social media addictions are becoming a serious problem, which will provide unpredictable outfalls for individuals. Fortunately, many interventions are becoming popular and obtaining a huge amount of attention. Several pieces of research on those interventions have been proven to be effective in reducing social media addiction [17].

### **4.1. Self-help interventions**

This type of intervention enables users to control their addictive behavior individually. Today is the internet period, and using the app to intervene in human behavior on addictions are proved to be useful [17]. Apps could be used as a tool to help us cut time on social media. There are several apps (ColdTurkey, SelfControl, Freedom) that users could use to shut down the sites that they are addicted

to. Furthermore, people could also set up a self-restriction plan if they are highly addicted to the internet. For example, people could design a plan that they should put their phones in the living room while they are working on academic work. This would not allow them to use the smartphone while they are doing work and waste essential time. Another productivity type of APPs (e.g. Forest) utilizes the Pomodoro technique [18]. It installs a 25 minutes alarm for the user to focus on work, after which they can take a 5-minute break on viewing the online websites. Therefore, people will not be extremely avid about taking back their phones and causing the rebound.

#### **4.2. Therapeutic interventions**

For internet additions that severely interfere with normal social and occupational life, cognitive-behavioral therapy has also been recommended. The approach is focusing on tackling the issue by changing the human's mental process and addictive behavior. For example, when we are dealing with the problem of dysfunctional cognitions about the social network, people will create a series of strategies and analyze the direct problem of this individual and revise the thought in the human mind to solve this problem. Motivational behavior is a valid treatment for behavioral addictions. This is Ba's semi-directive client-centric approach, which explores and resolves internal customer ambivalence by developing differences between the current state and the desired state, using an intrinsic motivation to change behavior. Aiming to help the consumer discover the negative side and increase the opportunity of changing it. During the solving procedure, they will normally use developing discrepancy, communication skills, and ambivalence exploration, which could stimulate the change.

Existing programs of CBT together with motivational interview-based treatment originally treating substance dependence and pathological gambling have shown effectiveness in treating internet addiction [19]. Group CBT for adolescents not only reduced their internet use but also improved their emotional state and self-regulation ability [20].

#### **4.3. Other interventions**

In order to increase the motivation of students and employees to change their addictive behavior, the leader, teachers, and parents need to present specific role models to them. This would greatly benefit the relationship between their employees, students, and children on social media.

Studies have found that perceived school climate was negatively associated with internet addictive behaviors [21,22]. Creating norms, policies, and climates that encourage positive social networking is also suggested as a solution to social media addiction at the school and company level.

#### **4.4. Implementations**

However, as we are using those interventions, we need to be careful of some typical situations. For example, we admittedly have to prevent teenagers from getting social media addictions, but we also need to focus on their relationships at school and in the family. If people eliminate social media, then they would not be able to participate in any school event and might get bullied by school members.

### **5. Conclusion**

For personality, the article has found that a higher level of neuroticism is often associated with a higher level of SMA, for high neuroticism people are more mentally unstable and are more prone to negative emotions. For well-being, this paper discovered that better well-being promotes social media usage, but with longer time spent on social media, the well-being level significantly decreases. For the intervention part, multiple methods are proven to be effective, and in different cases, these therapies would show both positive and negative effects to some extent. For some special circumstances, therapy may not be suitable enough to provide an effective outcome.

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