

The Research on the Social Media Addiction and Mental Disorders

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Abstract. Along with the rapid development of media technology, social media has become an indispensable part of human life. Social media enables the spread of information that exceeds the restriction of physical and temporal boundaries. While enhancing the convenience and connectedness of human beings, social media, to some extent, grievously affects people's internal well-being. The widespread use of media platforms leads to social media addiction, especially among the young generation. This article takes teenagers as the research object, and uses the literature reading method to explore the causes and consequences of social media addiction. According to the research results, the reason about social media additions includes biological reasons, psychological reasons and social reasons. Consequences of social media addition among young generations include the shape of toxic beauty standards, body shaming, beauty and eating disorders. Social media has created a platform where people share only the positive part of themselves; peer pressure has formed under these circumstances. Adolescents are predominantly the victims of mainstream beauty standards. Body shaming and eating disorders are the representative psychological impacts due to the dissatisfaction with one's physical characteristics and the desire to be more "beautiful".

Keywords: *social media; social media addiction; body shaming; eating disorder.*

1. Introduction

There will be approximately 330 million people getting addicted to social media by 2022. This data has significantly increased over the last five years [1]. Due to the consistent development of social media technology, electronic devices have become an external organ of human beings. While extracting the benefits, humans, especially adolescents, to some degree, suffer the disadvantages brought by social media more severely compared to other demographic ages. First and foremost, these populations are more vulnerable to social media addiction in terms of having lower self-control and discipline. Social media addiction negatively affects young adults' general life by affecting their productivity in schoolwork, general educational performance, and interpersonal relations. In order to provide a solid solution, in this paper, the first chapter will analyze the causes of social media addiction from three perspectives. First is the biological factor of why people's brain becomes addicted by analyzing the movement of neurotransmitters in brain anatomy. In the second chapter, there will be another physiological issue of social media usage: some mental illnesses evoked by social media addiction. For instance, young adults constantly check their social media accounts; the negative effect of these additions includes peer pressure and body shaming. Peer pressure is the feeling of disconnectedness between a certain social group or the sense of losing personal identity, which influences adolescents' confidence and internal well-being. It cultivates a mental disorder -- eating disorder, eating disorder is one of the most prevalent psychological illnesses from body shaming. It has become the most considerable mental disorder due to the development of mass media. The modern perception of beauty has been twisted because of the rapid spread of messages on social media. Models, branding, actors, and even social groups have followed the toxic beauty standard, thereby shaping adolescents' acknowledgment of beauty. When teenagers make unfavorable comparisons with media images, they are less satisfied with how they look. Therefore, develop low self-esteem and body dissatisfaction. On the other hand, unlike traditional media, social media offers an online environment filled with e-magazines and TV programs. The ideal thinness is advocated in a brain-washing method instead of simply hiding behind a settled picture. For instance, celebrities or

bloggers share their body thinness and dieting recipes, which turn dieting or weight loss into a culturally prevailing thing. People tried everything to lose weight: portion control, fasting, liquid diets, and eating nothing for days. These often lead to psychological illnesses, which are eating disorders, and at the end of chapter 3, the author will address the prevention of body shaming and eating disorders and ways of finding social support through social media platforms.

2. The Basic Concept and Cause-effect of Social Media Addiction

2.1 The Definition of Social Media Addiction

Social media addiction is a behavioral addiction characterized by cultivating uncontrollable urges and behaviors in social media, causing impairment and dysfunction in one's daily life. Social media addiction can be considered a form of Social Networking Site (SNS) addiction, characterized by an individual's maladaptive psychological state of dependency on the use of SNS and the manifestation through an obsessive pattern of seeking electronic devices. People with social media addiction are likely to infringe on normal daily functioning and produce a wide range of symptoms, including salience, withdrawal, relapse, tolerance, conflict, and mood shifting [2].

2.2 Analyzing Social Media Addiction under Biopsychosocial Approach

2.2.1. Biological Reasons

Neuropsychological investigations have pointed out that certain prefrontal and executive control functions are related to symptoms of social media addiction. The prefrontal cortex controls executive functions such as decision-making, goal planning, and abstract thinking. The part connecting the prefrontal cortex with basal ganglia is called frontal-striatal loops, which activate when cognitive neurotransmitters pass. By the influence of classical and instrumental conditioning processes, people's prefrontal cortex adapts the ability to react to drugs-like cues, thus losing its capacity to regulate cognitive behaviors [3]. Therefore, people losing control of social media use.

Dopamine plays a vital role in the regulation of daily functions, and it gets released when people take a bite of delicious food, after exercise, and, significantly, when people have successful social interactions. The human brain has four major dopamine pathways; three are considered "reward pathways". They are neocortical, mesolimbic, and nigrostriatal, respectively, each has been shown to be dysfunctional during cases of addiction. Because of these neurotransmitters, dopamine makes people's brain highly addicted to immediate pleasure and motivates people to repeat them. When suddenly, there is a message showing up, there will be a 400% increase in dopamine, which is almost the same amount of dopamine that a person gets from cocaine [4]. Besides, dopamine is released and active in people's brain when one focus on himself rather than others. According to the research, during face-to-face communication, 20%-30% of the time is when people are talking about personal stories. Whereas, when using social media, 80% of the time is when people are self-involved. Therefore, the usage of social media has the potential to be a positive cue that stimulates dopamine influx, which reinforces the addiction to media technologies [4]. In conclusion, social media provides immediate reward with little effort required, and people's brain begins rewiring themselves, making us desire more and more re-edited behaviors.

2.2.2. Psychological Reasons

Sigmund Freud once proposed the idea of the pleasure principle in which human beings are inherently seeking immediate gratification. As mentioned in the biological analysis of SNS, social media sulfuring generates an incredible amount of dopamine that satisfies us. Human innate psychologies are designed to prioritize internal urges and desires. Hence the behaviors of social media addiction tend to be directed towards immediate satisfaction of instinctual drives and an immediate relief from pain or discomfort. In addition, the conditioning learning process plays a remarkable role in the relationship between internet-related stimuli and positive reinforcement [3]. Positive reinforcement refers to the strengthening of a tendency to respond by virtue of the presentation of a

pleasant event. In comparison, negative reinforcement is the strengthening of behavior via the removal of an aversive event. Social media use expectancies are positive reinforcers. When browsing on social media, audiences receive pleasure and satisfaction, which are positive reinforcements. Consequently, internet users' cognitive control becomes more effortful [3].

2.2.3. Social Reasons

Three social factors contribute to social media addiction. First and foremost, gender differences lead to various tendencies and the extent of addiction. Males have more potential to be addicted to online gaming and online gambling, while females are more likely to emerge in media platforms and online shopping [5]. Secondly, people who lack social belonging, in reality, are more vulnerable to cultivating an addiction to social media since they tend to form close relationships with virtual communities. By interacting with others in the virtual community and reading their own preferred information, people who lack a sense of social belonging will feel the security of their surroundings and the feelings of being accepted. Dailey also proposed that, based on social comparison theory, young generations have more significant tendencies to compare with each other [5]. Comparing with others generates a sense of self-worth and satisfaction, which leads to consistent comparison with other media users, reinforcing the degree of addiction [5].

In addition to the above three points, there are other factors related to social media addiction. Overexposure to social media SM addiction has been shown to have both intrusive and emotional consequences for young adults, including loss of sleep, lack of exercise, decreased community involvement, decreased academic performance, and conflicts in relationships [1]. Ferris have deeply analyzed the individual differences in the influence of social media addiction by using a framework named Uses and Gratification (U&G) [1]. However, U&G research indicates a variation in the severity of media addiction symptoms, in which this individual difference is derived from demographics and social and psychological factors. Under the influence of various social factors, different groups will have different psychological mechanisms for social media addiction.

3. Consequences of Social Media Addiction among Young Generations

3.1 The Shape of Toxic Beauty Standards

In the recent era, social media has provided an integrated spreading of messages, including videos, podcasting, texting, news, and picture sharing. People receive messages in a remote place, sometimes requiring a single platform, like Instagram. However, every coin has two sides. The younger generations have been experiencing body image issues. With social media being a part of their lives, they tend to desire extreme beauty, such as the melon-seed face, tiny waist, and long legs, for boys' muscular bodies. They experience the images and other posts which reflect social media's ideal "beauty". Hence, there is a link between social media activities and body shaming with eating disorders.

The book *Media and History* reveals that mediatization, a central idea in the 21-century, suggests that media has become an active agent of social change in different social and cultural spheres [6]. Social media is also a type of media that reconstructs people's perception of ideal beauty along with the spreading message. On the one hand, images posted on social media have played a role in formulating and reinforcing society's view of idealized physical appearance. The over presence of slim models and actresses has already created a new reality for media users where they equate thinness with beauty, power, femininity, and happiness [7]. For example, celebrities and model Kendall Jenner symbolize mainstream aesthetics in which women need to chase the ideal beauty and body weight. Even a healthy weight is considered overweight. The image of extreme thinness conveyed that slimness is much more attractive and desirable than an average body shape. Hence, this leads to body image. Adolescent girls are more likely to cite specific celebrities as having their ideal body image, although young women acknowledge they possess different bodies than their beautiful role models

[8]. Teenage girls make unfavorable comparisons with media images and are less satisfied with how they look. Therefore, develop low self-esteem and body dissatisfaction.

On the other hand, unlike traditional media, social media offers an online environment filled with e-magazines and TV programs. The ideal thinness is advocated in a brain-washing method instead of simply hiding behind a settled picture. For instance, celebrities or bloggers share their body thinness and dieting recipes, which turn dieting or weight loss into a culturally prevailing thing. People tried everything to lose weight: portion control, fasting, liquid diets, and even eating nothing for days.

3.2 Body Shaming

When people think about social media affecting one's self-esteem, they start to think about girls being the majority of those impacted [6]. However, today boys can have just the same impact as girls, in which they consider the ideal "perfection" to become more muscular and, overall, physically fit. Thus, boys start taking supplements and pills to achieve masculinity. The more often young men browse white masculine pictures, the more dissatisfied they become with their bodies. Although mainstream media presents unrealistic beauty standards in photoshopped celebrities or stick-thin fashion models, people still misunderstand the truth of beauty and overlook themselves by comparing it with the "outstanding" of man's masculinity. Research shows that school-age people are more likely to be the victims of body image since they perceive it even though it is common to feel body dissatisfaction or body shaming in modern days. These problems are still obligatory to manage because they can trigger physical and mental health problems such as eating disorders. Social media provides an eating disorder community, propagandizing the positivity of eating disorders and encouraging people to take an approach. Christopher and his mates conducted a survey examining the potential impact of social media exposure specifically for pre-Anorexia platforms. The vast majority of these websites facilitate Anorexia nervosa, a life-threatening disorder in which people refuse to intake standard food resources. Anorexia is a mental health problem that drives the fear of gaining weight, causing body disturbances and temporary cessation of menstruation. Another symptom of eating disorders is bulimia nervosa, which involves eating large quantities of food in discrete time intervals and eliminating the excessive calories by tensional vomiting [9]. The initial evidence of the experiment suggests that younger young adults are more likely to be the victims of this type of pre-eating disorder platform.

Most of these websites particularly appeal to over-diet in achieving extreme thinness. One common aspect those sites share is that they are primarily managed by adolescents and serve as a safe place where people with eating disorders can receive support by offering engagement and successful stories. Followers of eating disorders believe these pseudo-scientific unhealthy eating patterns are beneficial since they feel a sense of engagement [10]. The ideal-thin-perception via both the school community and the cyber-environment they live in. These shaped their sociocultural attitudes toward body shape. A remarkable proportion of high school to college students desired to become more attractive in presenting 'femininity and masculinity.'

3.3 Beauty and Eating Disorders

Even though it is common to feel body dissatisfaction or body shaming in modern days, these problems are still obligatory to be aware of because they can trigger physical and mental health problems such as eating disorders. In particular, social media functions as an-eating disorder community that propagandize the positive of eating disorders and encourage people to take an approach. Christopher and his mates conducted a survey examining the potential impact of social media exposure specifically for pre-Anorexia platforms. The vast majority of these websites facilitate Anorexia nervosa, a life-threatening disorder in which people refuse to intake enough food resources to maintain their lives. Anorexia is a mental health problem that drives the fear of gaining weight, causing body disturbances and temporary cessation of menstruation. Another symptom of eating disorders is bulimia nervosa, which involves eating large quantities of food in discrete intervals and eliminating excessive calories by tensional vomiting [9]. The initial evidence of the experiment

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Authorities have been studying the impact of social media (pre-ana web) on body shaming and eating disorders for decades, with several results on its severe consequences. Since then, media conglomerates have finally realized how dangerous social media could be. In 2001, Yahoo was the first Internet Service Provider to shut down a series of pro-anorexia websites. Under pressure from health providers and experimental data, many other social media websites began to follow Yahoo's action [7]. Moreover, supporting teams are created by authorities on Instagram to help those victims conquer their difficulties. With the gained reputation, increasing members were willing to join to form tide friendships and bonded to overcome their struggle with disordered eating and loneliness.

3.4 Help States on Social Media and Others

Granted that media platform reinforces the formation of beauty ideologies and mental illness. Fortunately, these issues have been noticed by media scholars and the authorities. Many supporting organizations have been set up to help those in difficulties. Meanwhile, increasing numbers of celebrities have participated in fighting against body shaming by encouraging their fans. However, since the idea of white, young, and thinness were ingrained in the cultural mindset, many people still feel anxious and dissatisfied with their appearance, so in addition to helping people through social media, some other measures should also be taken. First of all, schools can strengthen the education of social media awareness and inform young students of the dangers of social media addiction, such as the impact on learning and future planning. Secondly, family education should also be paid attention to. For example, parents can pay more attention to their children's behaviors and abnormalities in their daily life, understand young people's demands and anxiety through family education, and solve corresponding problems through harmonious family relations. Finally, media platforms, including social media, can actively publicize the benefits of appropriate use of the social media, and when reasonably proposing that young people use the social media, more publicity should be given to the awareness of diversified aesthetics, so that young people can get rid of social media addiction and mental disorders related to body shame.

4. Conclusion

In conclusion, the rapid cultivation of social media enables the growth of social media addiction which leads to several negative consequences on human well-beings. Social media reconstruct toxic beauty aesthetics in which boney and slimness are the recognition of beauty, success, charming, and completely privileged. Therefore, it cultivates body shaming among teenagers and young adults. Even more, form an unhealthy perception of dieting methods and mental illness with the help of the pre-eating disorder community that hides behind social media platforms. Fortunately, these issues have already been noticed by authorities. Many supporting organizations have been set up to help those who are in difficulties. Meanwhile, increasing numbers of celebrities had participated in fighting against body shaming by encouraging their fans. However, since the idea of white, young and thin were ingrained in the cultural mindset, many people still feel anxious and dissatisfied with the way they look. If future scholars want to do research in this field, they can use more in-depth interviews and other qualitative methods to obtain people's understanding of this point of view and ways to improve the problem.

References

- [1] Ferris, A. L., Hollenbaugh, E. E., & Sommer, P. A., Applying the uses and gratifications model to examine consequences of social media addiction, *Social Media+ Society*, 7(2), 2021 , 20563051211019003.
- [2] He, Qinghua, Ofir Turel, and Antoine Bechara, Brain anatomy alterations associated with Social Networking Site (SNS) addiction, *Scientific reports*, 1-8(2017). <https://sitn.hms.harvard.edu/flash/2018/dopamine-smartphones-battle-time/>
- [3] Brand M, Young KS, Laier C, Prefrontal control and internet addiction: a theoretical model and review of neuropsychological and neuroimaging findings, *Front Hum Neurosci*, 2014 May 27;8:375. doi: 10.3389/fnhum.2014.00375. PMID: 24904393; PMCID: PMC4034340.
- [4] Haynes, T., Dopamine, smartphones & you: A battle for your time, *Science in the News*, February 4, 2021, retrieved October 3, 2022, from <https://sitn.hms.harvard.edu/flash/2018/dopamine-smartphones-battle-time/>
- [5] Dailey, S. L., Howard, K., Roming, S. M., Ceballos, N., & Grimes, T., A biopsychosocial approach to understanding social media addiction, *Human Behavior and Emerging Technologies*, 2(2), 158-167(2020).
- [6] Kortti, J., *Media in history: An introduction to the meanings and transformations of communication over time*, London: Red Globe Press, 2019.
- [7] O'Brien, K., *The cultivation of eating disorders through Instagram*, 2015.
- [8] Grogan, Sarah, *Body image: Understanding body dissatisfaction in men, women and children*, Taylor & Francis, 2016.
- [9] Harrison, K., & Cantor, J, The relationship between media consumption and eating disorders. *Journal of communication*, 47(1), 1997, pp.40-67.
- [10] Yeshua-Katz, D., & Martins, N., Communicating stigma: The pro-ana paradox, *Health communication*, 28(5), 2013, pp.499-508.