

Impact of Social Media Use on Depression

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Abstract: This paper tries to examine the influence test social media use(SMU) and teenagers depression. First, this paper looks into the direct relation between SMU and depression, finding a strong positive correlation that is backed by previous studies on different types of samples. Second, the paper explores mediating roles such as self-esteem, feelings of self-worth, and experiences of social support, revealing how these influencing factors impact the mechanism between SMU and depression. Finally, the present study discusses the duplicity of the impact of SMU. This expands the study's understanding of SMU and emphasises the stress-relieving effects of social media use to some extent. This study proposes to conduct more in-depth studies on the influence mechanism of social media in future studies. Longitudinal studies and laboratory studies can be used to try to detect the causal relationship between SMU and psychological well-being.

Keywords: Social media use, depression, mediating effect

1. Introduction

Social media, social networking services (SNS) seems already taken up a important part in teenager's life from a global perspective, at the same time, the rate of depression occur among teenagers is also constantly rising. According to the previous, most of the U.S. teens report frequent SMU. Moreover, the percentage of using Snapchat and Instagram separately increase from 41 and 52at 2014-15 to 59 and 62 at 2022 [1]. Between these two independents and increasing variable, are there any link existed? In recent years, more and more researches conduct on researches about the interaction between the depression and SMU among teenagers emerge. Among these research, some of them consider the relation in positive correlation. Yet, some studies found no significant associations utilizing longitudinal method, which will not be further explained in this essay. This review will be focused on the reasons that form the above three perspectives.

2. Concept Introduction

By definition, social media (SM) are websites and software applications that let users interact and share content over the internet via a computer or smartphone. According to clinical definitions, depression is a mental illness that results in depressive and hopeless feelings, irregular eating and sleeping patterns, a loss of interest in daily activities, and occasionally even physical discomfort. This review's objects are on teenagers, who are not yet mentally mature, are more easily to be disrupted and manipulated and also tend to be affected by social media, with emotional fluctuation which may cause depression.

Moving to the introduction of influencing factors and dependent variables, the focus is on investigating potential mediator in the association between SMU and depression among teenagers. These variables may include the perceived influence of social media (SM) on psychological variables and interpersonal relationships. In the following part, this study will explore the direct relationship among these two variables, where the SMU as influencing factor

3. Direct effect of Social Media Usage on Depression

The impact of SMU on psychological well-being, particularly its association with depression, has become a subject of growing concern. To delve into this issue, a study provides valuable insights into the interaction between SMU and depression among young adults [2].

The study employed a comprehensive methodology to test the link between SMU and depression. The participants, totaling 1,787 young adults, were surveyed using random digit dialing and address-based sampling methods.

The findings revealed a relation between SMU and increased depression even after controlling for various covariates. Importantly, these associations demonstrated strong, linear, dose–response trends, emphasizing the potential impact of the frequency and intensity of social media engagement on depressive symptoms.

The study's findings underscore the need to examine the mechanisms and direction of the relation between SMU and depression. As social media continues to proliferate, these insights are crucial for informing interventions that address the complex interplay between SM use and mental health, particularly depression. However, it is essential to acknowledge potential limitations and gaps in the research to guide future investigations and interventions effectively.

4. Mediating Factors of the Relation between SMU and Depression

Understanding the nuanced relationship between SMU and depression involves investigating potential mediating factors. Two critical aspects, namely self-esteem/self-worth and social support experiences, play a crucial role in elucidating the intricate connection between social media use and the development of depressive symptoms.

The investigation into how SMU affects teenagers' self-esteem and self-worth, subsequently influencing depressive symptoms, is essential. One prior study explores the intricate dynamics of this relationship. The findings suggest that social networking may function as a mediator in the development of depression by influencing self-esteem and self-worth. As adolescents navigate the digital landscape, the impact on their perception of self becomes a crucial factor contributing to mental well-being. Another mediating factor involves examining how SMU impacts teenagers' experiences of social support, acting as a potential mediator for the development of depression. Prior study provides insights into changes in social support experiences due to SMU, indicating a potential mediator in influencing depressive symptoms. As adolescents engage with social media platforms, alterations in their social support dynamics can significantly contribute to the manifestation of depressive symptoms. To supplement these perspectives, two pertinent studies shed light on the larger picture of how social media affects mental health. . The first study investigates the association between SMU and sleep quality among adolescents. The results show a link between increased use of social media, especially at night, and emotional investment in the platform and worse sleep, as well as elevated levels of anxiety and depression. Another study, conducted with adult psychiatric inpatients, explores the relation between SMU, perceived social support, and depression. Although SMU did not act as a moderator on the association between depression and perceived social support,, it underscores the importance of further assessing the relationship between the time of SMU and depression. In conclusion, understanding the mediator in the relationship between SMU and

depression is crucial for developing targeted interventions. The exploration of self-esteem, self-worth, and social support experiences adds depth to the comprehension of how social media influences mental health outcomes. These insights pave the way for nuanced interventions and strategies aimed at mitigating the potential negative impact of SM on mental health. However, researchers still need to admit potential limitations and gaps in the existing research to guide future investigations and interventions effectively. This includes addressing any methodological constraints, sample size considerations, and the generalizability of findings across diverse populations. By identifying these limitations, researchers will be able to improve their researches conduct in the future and have a better understanding towards this relationship.

5. Reciprocal Effect of Social Media Use

5.1. Social Media Use as a Stressors to Stress

Social media can act as stressors due to various factors [2]. Firstly, they can trigger approval anxiety by offering idealized self-presentation options and creating uncertainty about others' reactions. As there's various kind of ways to help present the 'perfect' figure of an individual that's been posting on social media, e.g. photoshopping and video editing [3,4]. The pressure to appear attractive and popular can lead to stress, especially for adolescents. Additionally, fear of missing out (FoMO) is amplified on social media, as users may feel others are having more rewarding experiences, leading to stress [5]. Exposure to information about events such as COVID-19 can also serve as another stressor. Availability stress, online vigilance and other factors, often provoked by social media and other push notifications are other stressors [6]. These stressors can shift the balance towards stress and increase overall stress levels. Nonetheless, it's important to note that social media can also serve as resources for coping with stress.

5.2. Social Media as a Cushion of Stress

According to a review by Wolfers and Utz, there's theory called 'social-media-use-buffers-stress-hypothesis' which suggests that social media can help mitigate stress by providing access to social capital and resources. This concept, which suggests that the availability of resources might affect the first assessment phase and change the balance between stressors and coping strategies, is consistent with the larger framework of stress appraisal theory.

Secondly, building on the concept of social capital, it's essential to explore how social media facilitates the creation and maintenance of these networks. Social capital, analogous to financial assets, becomes a valuable resource that individuals can draw upon in times of need. The mere awareness of possessing social capital, fostered through social media connections, may function as a psychological buffer against stress, aligning with the findings of studies on the stress-buffering effect [7].

Additionally, it allows stigmatized individuals to connect with similar others and role models, providing support and guidance, which can be recalled in stressful situations. Experimental evidence supports this hypothesis, showing that using social media before a stress-inducing situation can lead to lower stress levels.

5.3. Anxiety and Depression

According to the study by Xie etc., it reveals a manifest negative correlation between anxiety and depression($r=-0.245$). The study aims to construct a statistical model focusing on depression and anxiety among pain patients, utilizing data derived from the Hospital Anxiety and Depression Scale (HADS). The primary objectives are to capture the positive correlation between depression and

anxiety through a general factor and to demonstrate a latent negative correlation between the specific factors contributing to depression and anxiety [8].

Methods: The investigation involved evaluating anxiety and depression symptoms in pain patients, measured by HADS, alongside assessing pain severity using the visual analogue scale. The authors employed bifactor analysis, a type of Item Response Theory (IRT), to develop a hierarchical model of the data.

In the bidimensional model, there was a positive connection between anxiety and depression, with both variables correlating with pain severity significantly [9]. Following the bifactor analysis, a general factor of distress was extracted, revealing weak but significant negative correlations ($r=-0.245$) between the specific factors underlying anxiety and depression. Only the general factor exhibited a significant correlation with pain severity. The bifactor hierarchical model demonstrated superior model fit compared to unidimensional, bidimensional, and tridimensional models. The study's findings indicate that apart from a shared distress factor, depression and anxiety have an inverse relationship. This novel insight challenges previous research and adds valuable evidence to the understanding of the complex relationships between pain, anxiety, and depression [10].

5.4. The Negative Correlation of Social Media and Depression

Despite the studies shown the positive correlation, there are also researches show correlation, for example, the study by Farpour in 2017 [11]. This study aimed to investigate the prevalence of depression among cancer patients using social networks and explore the potential of social media in alleviating stress and depression, significant emotional challenges for both patients and their families. **Methods:** The research involved the evaluation of 316 cancer patients affiliated with the Association of Cancer Patients and cancer-related centers in Tehran in 2015. The Beck Depression Inventory was employed to measure depression levels.

Results: A substantial 61% of cancer patients were identified as depressed. Notably, there was a notable variation in the prevalence of depression between social network users and non-users. ($p=0.001$), with 33.9% of users and 66.1% of non-users being affected.

Conclusion: The results verified that cancer patients had a high rate of depression. but highlighted a positive impact of social network use. The study suggests the promotion of access to social networks as a preventive and ameliorative measure for depression in cancer patients. Furthermore, the importance of considering patient demographics emphasized when referring to intervention and psychological training [11].

6. Conclusion

This study discusses the influencing mechanism of social media use on depression. In addition to the majority of research consensus on the positive effects of social media on depression, there is also research demonstrating that SMU can alleviate depressive symptoms in critically ill patients. This paper argues that this suggests that further research is needed into the mechanisms by which social media affects depression, and that the mediating and moderating variables involved remain to be clarified.

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