

Social Media Abuse and Depression among Teens; an Ivory Tower Syndrome

Research Article

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Abstract

Social network sites (SNS) are extensively being used worldwide. Among the various pros resulting from its usage, there is substantial evidence that mental illness like anxiety or depression may result and particularly the adolescents may be prone to it. Our hypothesis is to collect the research-based evidence to observe the impact of problematic SNS use on mental health.

Keywords: Social Media; Depression; Adolescents.

Objective

Problematic social media use might increase the depressive outcomes among adolescents.

Introduction

Since the last decade the use of social media has increased dramatically and recent epidemiological data reveal that more than 4.62 billion people worldwide use social networking sites (SNS) while about two-thirds (67.1 percent) of world population are mobile users [1].

Social networking sites platforms

Different SNS sites are used depending upon gender, race and culture and literacy level. The most frequently used tool is Facebook, followed by tik Tok, what is app and Instagram. About 84 percent of American use at least one social media network. Internet and u tube is also frequently used. Highest percentage (65%) of population in Indonesia use internet and worldwide mostly people use internet for work purposes [2].

Time duration holds importance. The average time consumed by face book and Tik Tok is 19 hours per month while for what's app it is 18 hours and time consumed by Instagram is 11 hours per month [1].

Advantages and Disadvantages of SNS

Certainly, different platforms of social media have revolutionized dissemination of information and attaining knowledge in academics. It has also resulted in great progress in economics, organizational growth corporate fields and academics.

However, there are large numbers of demerits as well. In a survey, it was revealed that 72.2% of respondents from European Union had internet addiction, followed by lack of security, information overload, and loss of social contacts and increased wastage of time [3]. However, people are not affected at uniform

level and age along with gender is important determinant. Adolescents are common sufferers.

The use of news' social media was significantly associated with more negative effects, depression, anxiety, and stress, rather than traditional media. Smartphone use can lead to a negative health impacts like brain activity alterations, response times, and sleeping habits. Additionally, children are at a higher risk than adults for progressing brain cancer and thus herbs along with healthy diet including fruits and vegetables, can supply the body with beneficial nutrients and antioxidants [4] including coenzyme Q10, alpha-tocopherol and estrogenic compounds which have a neuroprotective role [5,6].

Patients with depressive disorders are more vulnerable to worsening of infection disease conditions. It is contributed to several factors as impaired cognitive functions followed by poor awareness and non-compliance with infection control measures. Moreover, immunity system is altered by depression leading to an increase in blood pro-inflammatory cytokine levels like interleukin-6, TNF and resulting in higher mortality rates [7].

Studies concluded that social media use by adolescent particularly at night resulted in poor quality of sleep, anxiety along with depression and loss of self-esteem [8]. We reviewed the studies about impact of social media abuse and behavior outcomes particularly depression among adolescents.

Literature Review

Adolescents of any nation can develop remarkable creative and innovative academic achievement. By imparting quality intellectual skills and code of conduct, they can contribution

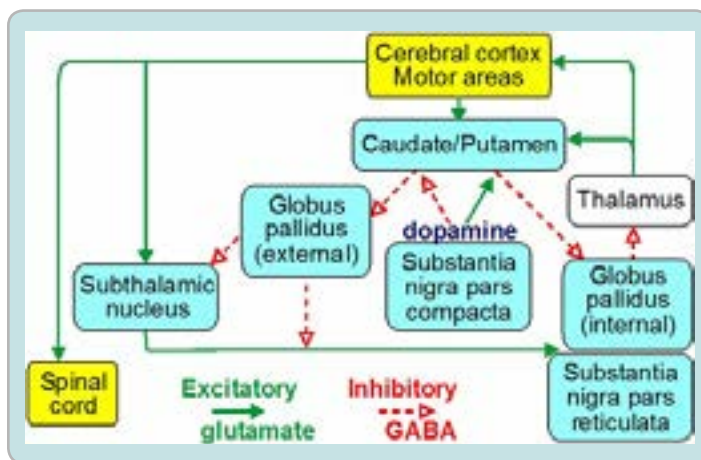
excellence to society. Unfortunately, SNS abuse has adversely affected these qualities and often the teens are reportedly depressive.

How screen use affects physical and mental health

Anything that a person perceives as rewarding will drive through dopamine pathway. If it happens time and time again, it's a powerful reinforce for behavior, and that behavior becomes even stronger and stronger until it reaches a point where it's the most important thing in your life.

Dopamine is main hormone regulating nigrostriatal pathway and is produced by substantia nigra. It produces stimulatory affect by acting on D1 receptors and inhibition by effect on D2 receptors. It significantly regulates movements, emotions, behavior and addictive habits [8]. It is called pleasure hormone.

Dopamine loop



Positive social stimuli similarly result in a release of dopamine. Smartphones have provided us with supply of social stimuli, both positive and negative. Every notification, whether it is a text message, a Facebook notification, or a “like” on Instagram has a positive social stimulus and dopamine influx [9]. 92% of teens report going online daily—including 24% who say they go online “almost constantly.” Nearly three-quarters of teens have or have access to a smartphone. Facebook is the most popularly used SNS platform among adolescents. Half of teens use Instagram, and nearly as many uses Snap Cha [10].

The neuronal pathways get stronger with ever-increasing surge of dopamine. Eventually, if that stimulus is decreased or if that stimulus is removed suddenly the brain responds by activating the areas concerned with grief and sorrow, hence a state of depression.

Signs of depression

- The patient suffers from extreme levels of fatigue due to over exhaustion of brain stress areas.
- Under secretion or over secretion of hormones leads to persistent sensations of sadness and least interest in surroundings.
- Increased or decreased appetite along with changes in body weight.

The patient is in a cycle of never-ending trauma. This leads to a state of fight between Patient’s consciousness and emotions. Both try to exert their dominance, which results in continuous

state of rage, anger and depression followed by intervals of emotional wellbeing. The most common mental health disorder among adolescent with social media abuse is depression [11].

Adverse consequences of depression and anxiety include impaired social relationships lower educational credentials, increased risk of substance abuse school dropout, mental health problems and suicide [12] [13]. Our review paper is aimed for seeking and to sort out the studies concerning the correlation of depression among problematic social media using adolescents.

Discussion

It is easy to become addicted, students who spend too much time on social media can suffer from poor sleep, eye fatigue, negative body image, anxiety and depression, cyberbullying, and more. We retrospectively collected the qualitative results of different met analysis and research studies.

In a met analysis, using the databases, a total of 18 studies and 9269 participants were identified. Results showed statistically significant correlations between problematic social media use and depression ($r=0.273$, $P<.001$), anxiety ($r=0.348$, $P<.001$), and stress ($r=0.313$) [14]. Another research also showed a bi-directional relationship between problematic Internet use and depression on adolescents and university students [15].

A meta-analysis (including 12 studies) found a small but significant positive correlation between adolescent social media use and depressive symptoms [16]. Unique feature of this trial was heterogeneity, and it was considered that other variables may be involved.

Time spent is important variable. Researchers in a longitudinal study concluded that increases in time spent on social media were associated with increases in symptoms of depression. There was also increased episodic drinking confounder among these participants [17].

There may also be prior depressive symptoms. Among adolescent girls, Raudsepp and Kais's 2-year study of revealed that prior social media use did not predict depressive symptoms whereas baseline levels of depressive symptoms predicted problematic social media use [18].

But sometimes the degerming the outcome is not so easy and reverse association can happen. Some theories also indicate that depressive symptoms may lead to social media use. It is called as the theory of compensatory internet use [19,20].

How can we reduce the depressive symptoms? Obviously, the answer is to reduce screen time. Authors of recent study concluded that stopping use of social media for just one week resulted in significant improvement in wellbeing, reduction in anxiety/depression and increase in overall academic performance [21].

Some contrary results were obtained as well. More prolonged studies spanning over 8 or 9 years have viewed that frequency of social media use does not longitudinally predict depressive symptoms in adolescents [22]. The rational explanation is that it may be due to important confounding factors as education level, gender, race and cultural heritage.

Another important factor is screen time, and it does matter.

Mahmood, R. S et al [23] concluded that the majority with screen time of one hour were not much affected. People with 2 hours and more than 3 hours screen time faced depression the most [23].

Types and pattern of social networking sites (SNS) usage and duration also matters. YouTube are most famous websites among young generation. Balouch MA and colleagues concluded that 24.4% of their participants were found to be mildly depressed whereas 44.6% were moderately depressed. Moderately severe depressed were found to be 26.3% and 4.7% were found to be severely depressed. Total time spent and the type of SNS used by the students were associated with depression [24].

According to stated research it is concluded that Facebook is imparting negative impact on mental and social life of the students which are spending maximum time. The study also reveals that in future prospective interaction may be occurring on the performance of the students in their academics. It was suggested by authors that some monitoring bodies must be implanted to monitor the issue [25].

Hunt et al. [26] demonstrated that limiting social media use to 30 min daily alleviated loneliness and depressive symptoms over a span of 3 weeks [26].

Collectively the above-mentioned research studies concluded that among teens depression was common negative impacts of social media abuse. Other problems were, no time for real world friends, cyberbullying, Lack of self-reflection and insomnias etc.

Directions

“Life is not over yet”

Social media work is habit forming. Habit is behavior that is performed regularly. Effects of your habits multiply. Making a choice that is 1 percent better or worse seems insignificant but over period it makes difference because “All big things come from small beginning”.

Following are outlines of updated recommendations to change habits and behavior linked to SNS:

- Set a timer to remind how long you've spent on a networking site. Be calculated
- Plan real-world activities to limit your time on social media.
- Make the time to enjoy life offline. Play any game, watch a movie or read a book.
- Do not bring your phone or tablet to bed
- If you have neglected face-to-face friendships, reach out to an old friend
- Join a club and exercise accordingly.
- Volunteer for social work or charity.
- Lastly, monitor and limit your child's social media use
- Facilitate and promote affection and generosity. “Remember kindness is always rewarded.”

Conclusion

The above-mentioned research review largely conclude that adolescents are more vulnerable to psycho-social disorders particularly depression due to problematic and excessive use of social media platforms. The public health workers, health care providers and social workers should have a constructive approach towards solving this critical issue by inculcating awareness and by educating preventative measures.

“One of the only ways to get out of a tight box is to invent your way out”

Limitations of research

Only the depressive effect of social media use was assessed and other predisposing factors that cause certain individuals to use social media problematically might be there. Together, the longitudinal evidence of reverse relationship has been overlooked.

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Conflict of interest

Authors declare that there is no Conflict of interest.

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