

# ***Investigating on the Relationship Between Social Media Use and Adolescent Loneliness***

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**Abstract:** In contemporary times, the utilization of social media by adolescents has raised significant concerns and apprehensions among both societal and familial circles. Extensive research has consistently shown that the usage of social media by teenagers is closely linked to the emergence of loneliness, thereby establishing a conclusive association between the two phenomena. However, these findings need to provide directional evidence to prove a decisive causal relationship between the two directly. This study examines the association between teenagers' use of social media and loneliness in terms of frequency of social media use, age, gender, usage patterns, motivation, and platform of use, as well as a summary of the roles of various contributing factors. This research claims that social media use and loneliness are bidirectional and dynamic. Among the population of adolescents, the motivation and manner in which they use social media can influence whether they benefit from social media use or whether it continues to deepen their feelings of isolation.

**Keywords:** social media, loneliness, adolescents, frequency, usage patterns

## **1. Introduction**

Because of the proliferation of smartphones and the widespread use of social media, the two are now almost inseparable in most people's daily lives. But people are beginning to accuse it of damaging the development of young people's mental health [1]. Youth involvement in social media has been a major source of public concern in recent years. Concerns have been raised by both families and the wider public over the potential for increased incidences of mental health problems among teenagers who use social media [2]. The majority of teenagers who have had issues with their mental health said that their primary symptoms were feelings of loneliness, despair, and anxiety [3]. According to the findings of a number of research, excessive usage of social media platforms is often both a cause and a result of feelings of isolation [3-4].

This study evaluates the research on social media and teenage loneliness and finds two opposing opinions. Some research has shown that teenage social media usage is a major factor in the development of loneliness [4]. Some studies, however, have failed to find a causal relationship between the two factors. One-third of the research that has been conducted so far has found a connection between social media use and feelings of loneliness [5]. In a cross-sectional study of US teenagers' face-to-face social time and loneliness, higher social media usage was associated with a reduction in face-to-face social time and increased loneliness [6]. The majority of teenagers think that having an altered self-image on social media or restricting their online activity because of peer

scrutiny, may also affect their mental health [7]. Some research, on the other hand, has concluded that the association between using social media and experiencing mental health issues is not definitively causative. A number of studies have demonstrated that young people who are experiencing psychological distress may benefit from using social media and that it can help build a feeling of belonging [8]. Nevertheless, a study that tracked the same people from early adolescence into early adulthood found no link between heavy social media use and psychological distress [1].

As most of the literature is based on quantitative research, there is a lack of qualitative research. At the same time, more of the existing studies are based on cross-sectional studies and are not representative due to the limitations of the sampling method, and therefore cannot be adapted to the situation in other countries. This study synthesizes prior studies to explore the relationship between teenage social media use and loneliness across a variety of parameters, including frequency of use., demographics (e.g., age, gender), use, motivation, and platform, and a summary of the impact of various influencing variables on the relationship between the results. This study adds to the comprehension of current trends in the area of research and the ostensibly complicated link between social media usage and teenage loneliness.

## **2. Definitions of Loneliness and Social Media**

### **2.1. Loneliness**

Many studies have defined loneliness, with a standard definition explaining it as a subjective psychological state in which a person feels lonely when social relationships are less desirable [3]; this suggests that loneliness occurs when there is a discrepancy between people's social relationships and the relationships they psychologically desire [7]. Therefore, loneliness is also considered a unique state in which a person who feels lonely, even amid a crowd, feels subjectively isolated and that existing social relationships do not meet his or her needs [9]. Loneliness is common at any age, and some studies have found that loneliness increases with age, but some studies suggest that loneliness is more common in younger people (e.g., adolescents) [9].

### **2.2. Social Media**

Social media have completely altered the way individuals talk to one another and organize their social lives in recent years. The "social media" is an online platform that facilitates communication and collaboration between users for the purpose of making new friends and keeping in touch with old ones. Teens and young adults, according to the available data, are the most active users of social media platforms (e.g., Facebook, Twitter, and Instagram), where they may communicate with others, share their ideas and opinions, and update their status. Studies on the effects of social media on adolescent well-being (e.g., loneliness) have been widely conducted because of the rising prevalence of adolescent use and the high propensity of this age group to develop addicted habits [9].

## **3. Impact of Age and Gender of Social Media Use on Feelings of Loneliness**

Social media usage may be linked to loneliness and may vary on the age of use, according to studies. [5]. Results from research on social media and loneliness, however, have varied widely across different age groups. Time spent on social media may act as a moderator of the age-loneliness relationship. Few studies have included children because of the restrictions on their access to social media [3]. Previous research has not shown a correlation between the usage of social media by youngsters and feelings of loneliness or isolation. [1,3].

### 3.1. Adolescence

According to the World Health Organization (WHO), puberty begins around age 10 and lasts until age 19. This study separates puberty into early age (10–14) and late age (15–19). In contrast to what was often thought, research shows that preteens and teenagers use social media not to replace but rather to strengthen their current relationships with their friends. The results of the research show that there is no connection between feeling lonely and using social media when one is less than 13 years old [5,10]. However, a poll of young people who felt lonely revealed that these individuals turned to online communities for the companionship and social support they lacked in their offline relationships [11].

Loneliness is common among late adolescent (15–19-year-olds). A growing number of people in this age group use social networking sites, which may be related to an increase in adolescent loneliness [7]. In late adolescence, early adolescents prefer online communication with strangers to late adolescence. Meanwhile, a study found that the younger the user is and the longer he or she uses social media, the lonelier he or she feels. A statistical analysis of 68 different empirical studies conducted between 2000 and 2017 revealed a significant association between teenage isolation and social media use; however, the researchers discovered that age played a moderating role in the relationship between the two results [3]. If teenagers use social media instead of offline, face-to-face social behavior, this is associated with high isolation at this age.

### 3.2. Adult

Most of the research involving this age range, which spans late adolescence to early adulthood, is conducted with college students. In contrast to early adolescence, most research has indicated a positive association between social media usage and loneliness in this cohort [5]. Research shows that this group in adulthood spends more time using social media than doing other activities and spends more time on the internet [10]. Numerous studies have shown that college students' feelings of loneliness are affected by both the kind and content of the social media they use; for instance, groups that use Facebook are connected with higher degrees of loneliness [11]. It was shown in another study that adult users prefer online to in-person social interactions and that those who used online social interaction to make up for the lack of social connections offline were associated with high levels of loneliness. Nevertheless, several studies have indicated that using social media just to maintain offline friendships increases the risk of feeling lonely. The user's online and offline friendship networks may overlap, and social media is just a tool to deepen these ties.

### 3.3. Late Adulthood

Some studies have suggested that young people who often use social media are more likely to experience feelings of loneliness, while others have found the opposite to be true for those of retirement age [10]. Some studies have shown that using social media in late adulthood helps to reduce loneliness in this group compared to younger groups [5]. When the elderly utilized social media to keep in touch with others, they had less sense of loneliness. However, when the group used it more for entertainment, such use was associated with high loneliness. Other studies have shown that using social media is a better way for older people to feel less lonely and that just using social media or learning social skills can be an effective way to help older people who are lonely [11].

### 3.4. Gender-specific Effects

Several studies that investigated the link between using social media and feelings of isolation found that female users reported much greater degrees of loneliness than their male counterparts did. In a global study of loneliness among 15-year-olds, the study measured higher levels among females than males as social media use increased, with about 51% of female adolescents reporting their loneliness [12]. Social media helps women cope with loneliness, according to Italian research [11]. However, when they do not use it properly, it increases their anxiety and loneliness [8]. In the study of the late adolescent and adult groups, male users felt less lonely than female users. In contrast, female users who used social media more frequently and intensely responded that they felt lonelier than men. Nevertheless, some studies demonstrate that gender does not affect loneliness or social media use [2] and that gender does not affect social media attitudes [7]. Other researchers have found that male social media users are more lonely than female users, which the study says may be connected to the fact that males use social media more than women [6]. This article argues that men's higher loneliness rates may be linked to their greater use of gaming platforms and internet addiction. However, due to other complicating factors, the data relating to higher levels of loneliness for male users than for female users is not representative.

## 4. The Link Between Social Media Use Platforms and Loneliness

Several research on social media usage and loneliness have found a substantial association between the use of different platforms and loneliness [10]. Varying degrees of loneliness have been linked to certain social media platforms, suggesting that platform choice is an important moderator of the overall social media–loneliness correlation.

### 4.1. Facebook

More studies have linked Facebook use with loneliness. Facebook use has been linked to increased feelings of isolation, according to some research [9]. but other variables can influence this correlation. Some research has connected excessive Facebook usage to greater loneliness among users [10], and users are more likely to be female and live alone [2]. In particular, excessive use of Facebook can exacerbate users' feelings of loneliness, with female users being more strongly associated with loneliness when women and men spend similar amounts of time on Facebook [9]. In addition, social relations and corresponding needs can also have an impact. A survey of college students' Facebook usage revealed that the social networking site contributed to an increase in users' feelings of loneliness. However, the extent of the increase varied from person to person, especially when the addictive use of Facebook was present [8]. Loneliness is reduced when users have the same number of Facebook friends as they do offline, and it increases when users have a greater need for social connections. However, many subsequent studies have reached the same conclusion: Facebook use and loneliness are not statistically related [10]. Social media platforms also play a role. When the access routes of Facebook users were investigated, it was discovered that loneliness was more prevalent for those who accessed for extended periods of time via the computer side. Those who accessed via the mobile side, on the other hand, felt less lonely [8]. A study of university students discovered no link between Facebook use and loneliness [2]. This might be because of the proliferation of several social media sites; for instance, some users may be gravitating away from Facebook and Twitter in favor of Tik Tok and Instagram.

## **4.2. Twitter**

Studies have found that users who have a high level of loneliness before using social media reduce their loneliness by using Twitter to seek emotional support [12]. Twitter users can more actively present themselves on the platform than Facebook users. Some researchers have argued that Twitter is text-sharing based and that using Twitter does not allow users to feel a sense of intimacy in their social relationships while using the platform. Therefore Twitter use does not reduce loneliness [11]. Meanwhile, a study comparing Twitter and Instagram users found that using Twitter was not better at reducing users' loneliness; instead, using Instagram was better at reducing users' loneliness [4].

## **4.3. Instagram**

Despite the fact that Instagram is an image-based sharing platform, some studies have concluded that it is more effective than other social media platforms in reducing users' feelings of loneliness [12]. Platforms such as Twitter and Facebook, on the other hand, are text-based; it has been suggested that not only does Instagram not make users feel lonely, but that because of the ability to share images on the platform, users feel a greater sense of intimacy and thus less lonely [5]. In a study of college students' social media platform usage preferences, Instagram was shown to be the most popular among the college student population (especially among female users), but the results of the study showed that Instagram users find it challenging to get the social connections they want on the platform, so using Instagram may instead lead to additional feelings of isolation [5].

## **5. The Effect of Frequency and Duration of Social Media Use on Loneliness among Adolescents**

In particular, the younger the user group (e.g. teenagers), the more lonely they feel during this use [12]. There is mounting evidence linking prolonged and intensive social media usage to an increase in loneliness [5]. At the same time, some studies suggest that the causal relationship between the two cannot be proven with evidence.

### **5.1. The Relationship Between High-frequency Users and Loneliness**

A recent research of Malaysian university students found that frequent social media use exacerbated young people's loneliness [6]. Similarly, another report on student-based social media use showed that students with feelings of loneliness use social media more frequently [10]. The study found that individuals who utilized social media more regularly experienced increased degrees of loneliness in both late adolescence (15-19) and adulthood. [5]. However, there was no evidence of how the two interacted; in other words, whether the frequent use of social media led to increased loneliness or whether groups with higher levels of loneliness used social media more frequently. In contrast, an eight-year study of teenagers (13-19) found that excessive social media use was not connected with greater loneliness [1]. As a result, there are conflicting findings about the link between heavy social media usage and loneliness.

### **5.2. The Relationship Between Addictive Users and Loneliness**

Researchers have reached varied conclusions on how much time teens spend on social media and their sense of loneliness. Several scholars have researched it from the standpoint of addicts. Longer social media use increases loneliness. Other findings support this view, suggesting a negative correlation between addictive users and their social interactions and that the factors influencing the development of their loneliness are the lack of human interaction in the lives of addictive users [10]. Relevant research disagrees that addictive social media users are lonely. An Israeli research

investigating whether or whether adolescent social media addicts also suffer from feelings of loneliness found no such correlation. [9].

## **6. The Link Between Young People's Motivation to Use Social Media and Feelings of Loneliness**

As research advances, more studies are looking at social media users' motivations and ways of using it. Some research has linked social media use and motivation to loneliness [3]. At the same time, the motivation to use social media can determine whether users increase or decrease their feelings of loneliness and whether they are lonely can also influence their motivation to use social media [5].

### **6.1. Satisfying the Sense of Belonging**

In Maslow's hierarchy of needs model, belonging is a fundamental emotional need, meaning that people need to feel accepted by others and be part of a group to satisfy the need to belong [8]. Social media can create a virtual space for young people to connect socially. The new space can help young people form new social relationships online and satisfy their sense of belonging [1]. However, whether or not the need to satisfy a sense of belonging is used as a motivation for users to use social media can influence the development of feelings of loneliness [8]. Research has shown that when adolescents do not receive the social support and friendships, they crave offline, their sense of belonging decreases and increases loneliness first while increasing their use of social media to meet the need to belong, reinforcing each other.

### **6.2. Enhancing Social Connections**

Teenagers have a place to go to keep in touch with their friends, as well as to establish and cultivate an online identity that will help them strengthen their social ties, thanks to the platform provided by social media [12]. It has been proposed that social media when utilized to strengthen existing social relationships, can be an effective strategy for reducing loneliness [5]. When young people use social media to make new friends and keep in touch with old ones, it not only doesn't make them more lonely, but it actually makes them less lonely [5]. Similarly, most studies have indicated that while social media is used to boost contact with offline friends, users may learn more about others through the Internet; this is more useful for teenagers to conduct conversations and connections with offline friends, so it is successful in reducing users' feelings of loneliness [2].

### **6.3. Forming New Friendships**

In contrast to improving social connections, research suggests that adolescents who use social media to make new friends or stay in touch with those they already know may experience less loneliness [5]. Using social media to expand one's social network and strengthen existing relationships has been linked to a decreased sense of isolation and loneliness. Other research has found that users who are lonely spend more time online making new friends, which can displace time spent on offline, face-to-face social interaction and may increase users' feelings of loneliness [1]. Accordingly, due to online peer surveillance, adolescents will show their better side by limiting their behavior on social media to maintain good online friendships. As a result, some adolescents present an edited personal image on social media, i.e. they cannot present a realistic image of themselves, which may affect the development of adolescent loneliness [2].



## 6.4. Replacing Offline Socializing

If adolescents (especially those in late adolescence) use social media to replace offline social connections, there is a link between social media use and high levels of loneliness [5]. The use of social media to compensate for a lack of social skills offline is likely to increase loneliness, but compensating for those missing social skills offline can help alleviate loneliness [3]. As a result, numerous studies have looked into this aspect, and they have revealed that lonely teens would try to use social media as an escape from their lack of offline social interaction and as a replacement for it. However, they will be more vulnerable to online harm when using social media, or online social interaction will not meet their needs, further increasing adolescents' loneliness [10]. Others, however, have shown that social support and social connections via social media do not alleviate users' feelings of loneliness [1], but rather exacerbate it owing to the absence of offline, face-to-face social engagement and continuous usage of social media [12].

## 7. Conclusions

This article focuses on how teens' usage of social media affects their sense of loneliness, combining and analyzing pertinent results from recent years in the area and discovering that there is a relationship between the findings but that the implications are varied. Adolescents' usage of social media is linked to an increase in loneliness, according to the most of research. However, none of these findings provide directional evidence to support a strong causal relationship between the findings. According to the research included in this review, there is a complicated relationship between adolescent loneliness and various aspects of social media usage, including the platforms used by teenagers, the reasons they use them, and the likelihood that they will become addicted. The findings of this study lend support to the notion that there is a dynamic and two-way relationship between loneliness and participation in online social networking sites such as Facebook and Twitter. Whether teenagers, in particular, benefit from social media use or continue to face increasing loneliness is determined by their motivation and how they use it. In addition, this paper found that most of the studies used quantitative research and lacked qualitative research. In contrast, some of the studies had gaps in research methodology, design, and sampling and thus could not be adapted to the situation in other countries or regions. These findings have implications for the future of mental health education for adolescents and the development of public social health. The influence of adolescents' tendency and usage of social media on loneliness should be further explored in the future study. In contrast, future research should reveal how the two interact regarding their bidirectionality and dynamics. This review will probably advance existing studies. This article will be used to better demonstrate whether teenage social media use is prompted by or exacerbates feelings of loneliness or not. Lonely individuals need greater help to utilize social media effectively to lessen loneliness, so it's important to study how social media affects lonely teens.

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