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Social media psychology and mental health

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Abstract

Social networks have become a part of individual lives nowadays, and most of the world's population participates and has accounts on different social networks. This is a new phenomenon specific to the twenty-first century, as a subject entirely related to the human mind in terms of psychology and psychiatry is at the beginning of research. This study aims to provide a psychological interpretation of social networking issues.

The motives for using social networks are summarized within five main motivations: affinity, human needs, self-expression, information acquisition, and personal utility. Individuals use these networks as a source to hide their true personalities and show imaginary and desirable personalities. Despite the enjoyment of networks, individuals face two major risks: revenge porn and online bullying. Online social networks have many effects and dangers on individual mental health, so excessive use causes depression, anxiety, violence, addiction, and body image distortions in individuals. Although researchers focus on the negative effects of social networks, they still have several benefits for individual health.

Keywords Social media psychology, Depression, Cyberbullying, Body image, Addiction

Introduction

Over the past decade, the media has changed dramatically, from television and radio, which transmit information in a one-way manner and from which the information disseminated by companies and producers must be received by passive viewers, to a new media called social media or interactive media, which provides unprecedented opportunities for users to act as creators and users of media [1]. Social media is a visual communication method in which topics are created, shared, and exchanged by users, allowing them to interact with each other through text messages, images, videos, and private messages, to which other users can respond and participate [2]. From a psychosocial perspective, social networks are defined as "digital spaces" that allow users to organize both their social relationships on the network (organization, appearance, and comparison) and the individual's social identity (identification and definition) [1].

Globally, the number of Internet users has increased from 361 million in 2000 to about 3.6 billion in 2016. The most widely used network for communication and social interaction is Facebook, which had 1.71 billion monthly active users in 2016 [3]. Social network Internet sites have become an integral part of adult life. In March 2018, 68% of adults in the USA had a Facebook account, and 75% of them used Facebook daily. Furthermore, 78% of young adults (aged 18 to 24) use Snapchat, and 71% use Instagram [4]. Twitter is the second most widely used social network after Facebook, with more than 500 million users worldwide. Half of Twitter users log in and tweet daily, resulting in more than 500 million tweets per day [2].

Technology generally has good and bad consequences. The Internet is a perfect example of this idea. In addition to improving communication with the world and democratizing information, the Internet has also allowed individuals to hide behind masks of anonymity [5]. From another perspective, consumer behavior through social media can have several unintended consequences for the user [3]. In this short article on scientific principles within the framework of the use of information, statistics,

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and scientific research, we will discuss the psychology of social networks and their mental health consequences. So that it can become a source to change attitudes and guide individuals, educators, and academics.

Motivations for social media engagement

Questions like, why do we use online social networks? It is not a simple question and is difficult to answer directly. Psychologists Prochaska and DiClemente, authors of the stages of change, say: "People change if they are under pressure or if the change gives them an important opportunity." The existence of opportunity is the resource that the environment "gives" to a person who can acquire it [1]. However, our attraction to online social networks cannot be explained by opportunity alone [1]. Recent research on social media suggests that users participate in social networks for the following main reasons:

First affiliation

The main motivation for using social media is the individual's desire to socialize and connect with others; people have a great need to connect, and social relationships are necessary for our well-being. Through the affinity impulse, social networks allow participants to express their affiliation, desire, or relationship with people, products, causes, and groups [2].

Second meeting human needs

One of the motivations for posting articles on social networks is based on Maslow's hierarchy of needs theory, which believes that participation in networks is to meet human needs, and the relations of consuming social media to these needs, according to the five main levels of the pyramid, are listed below [6]:

- Physiological needs: Individuals sometimes post to benefit the health and well-being of their family and friends.
- Safety requirements: Physical, mental, and economic security are essential for people when they select to post some material on their social media.
- Love/belonging: Users generally post to feel socially approved by a group or by a particular person.
- Esteem: People would like to quell the rewards-oriented portions of their brains, which helps explain why people post "mecentric" content frequently.
- Self-actualization: As the most central aspect of the human need's hierarchy, this aspect of social media posting exhibits when people post their successes in getting a new job, finishing a difficult project, or graduating from college, to name a few examples.

Third self-expression and identity representation

These social networks allow people to express themselves and reproduce their identities. Online networks allow individuals to share personal information, interests, beliefs, thoughts, and images with others, providing a place to express themselves on these social networks [2]. In other words, social networks are used to keep in touch with friends, make plans, get to know people better, and show off to others [6].

One of the most important motivations in a person's life is the drive to create psychological ownership. The sense of psychological ownership, whether for tangible products (such as mobile devices or cars) or spiritual services (a sports team or social networking accounts), is easily recognized. One of the motivations for using social networks is the embodiment of this feeling that is created through activity and influence, self-identity, the presence of place, and excitement, which are available in social networks [3].

Fourth information retrieval and dissemination

Fast and cost-effective access, collection, and spreading of information through social networks are another motivation. Through it, users can learn about the lives of others and find out about their friends' marriages, graduations, and upcoming events. One study found that 54% of communication between two friends who infrequently communicate with each other occurs through Facebook birthday reminders. This impulse is sometimes called the curiosity impulse, which is to be consciously satisfied with others by following them or viewing their activities online [2].

Fifth reward and personal utility impulse
Personal utility impulse

People are looking for answers to the question "What's in it for me?" and looking for benefits in the form of information, incentives, pleasure, and comfort [2]. Instead, several studies indicate that the object must be capable of providing intrinsic stimulation to its users. Also defined as "the existence of the ability to experience reward without the existence of causes, it is an effective motivator; the pleasure of doing it becomes the main reward that encourages the person to repeat it" [1].

Researchers have found that "social and fluctuating incentives play an important role in media participation behavior." Special studies have shown that the use of online social networks affects several parts of the brain. For example, increased likes on Facebook, Twitter, and Instagram cause "brain activation in the reward-related pathway." A study of the brains of adolescents while using social networks found that "seeing a photo with a lot of

likes caused more activity in parts of the nerves involved in the process of motivation and social thinking" [6]. It is generally possible for an individual to have multiple motives for participating in social networking by posting, commenting, and liking at the same time.

Social media consumer behavior

Consumer behavior means interpreting the behavior of people on social networks, who they are, and how they behave [3]. In this regard, the following aspects are related to social media consumer behavior:

Personality changes

There are several unintended consequences for social network users. First, we know that the personalities people portray on Facebook are not the person's true personality in many ways; instead, they do not reflect their true personality. Users try to reflect the personality they want to have [3]. In a study of Facebook users' personality changes to answer the question, "How much do users change their identity and personality?"; the results show that, in general, everyone changes their identity to some extent by presenting the desired personality and their beliefs as "safe" or "appropriate." There are three ways to demonstrate their identity [3]:

- Authenticity: They show the same personality in and out of online social networks.
- Facet management: Depending on aspects of their lives, users change their displayed identity on Facebook.
- Impression management: Users are trying to be sure that their identity on Facebook is the way they want to be perceived.

Extroverted personalities

Personality is a set of individual traits characterized by the universality and diversity of people's behaviors such as thoughts, feelings, and activities. Everyone has a unique personality through their thoughts and activities [7]. The Big Five personality model is the most used theory of personality. It consists of five main factors: extraversion, openness, neuroticism, agreeableness, and conscientiousness [7]. According to research, extraversion traits affect continuity on social media networks [1]. There are many positive social and economic consequences for consumers and businesses; for example, social networks help to connect with old friends, help to gain information, and give individuals a sense of human connection when they are alone [3].

Especially young people

Young people are increasingly using social networks such as Facebook and Twitter as an escape from external pressures that pose a threat to their mental health [5]. In most countries, online social networks have become an integral part of the education, culture, and social lives of young people. Data indicates that approximately 97% of adolescents use social networks [8]. Social networks allow users to share their thoughts and feelings, often without regard to their respect and values in the relationship [3]. And this is leading to many problems that are now part of individuals' lives, such as immoral revenge [1] and online bullying [5].

Revenge porn

Due to the convergence of both the power of expression and the visual and auditory material, it has created a new online threat: posting "revenge porn" or posting nude or sexually explicit images of others with the intent to hurt them in this way [3]. This is new behavior and causes harm to users, disruption of educational plans, and sometimes suicide attempts [1]. Types of revenge porn posting behavior vary depending on the source, status, and purpose of the post. For example, if someone posts about others, we are not sure about the status of the post or the purpose of the post. Table 1 shows the types of revenge porn posting behaviors [3].

Online bullying

Traditional bullying is "a psychosocial problem of intentionally and repeatedly harming others and creating an imbalance of power between the victim and the perpetrator, with negative consequences for both parties" [3]. Traditional bullying mostly involved physical threats by a stronger person or group expressing their power over weaker people, but cyberbullying is often synonymous and generally involves an imbalance of social and psychological abilities [3]. Online bullying is defined as "Bullying over the Internet or by text message." Chat rooms, social networks, mobile applications, and electronic games are some examples of online bullying [5]. According to

Table 1 Types of revenge porn online behaviors

Content source	Consent status	Poster intent	Identifying content
Self	Granted	Praise subject	Known identifiers
Other	Not granted	Harm subject	Unknown identifiers
Online	Uncertain	Other intentions	No possible identifier

surveys, the rate of bullying has increased annually, even though most parents reported that children are often bullied at school; 19.2% of children were bullied through social networks and online programs, and 7.9% of children were bullied through electronic video games [5].

Uses and gratifications theory

According to this theory, people actively strive to obtain a particular media subject for a particular desired purpose. This theory provides insight into when and how a media user becomes active or inactive and what the consequences of participation are. This theory also applies to users of social media. The theory has five main assumptions [1]:

1. The listener is active and purposeful in using media.
2. Media is used for enjoyment.
3. The media competes with other factors to meet needs.
4. People understand their uses, motivations, and preferences and even communicate with researchers about their options.
5. Listeners are the individuals who can judge the value of the material in the media.

Mental health consequences

There is an ongoing debate about the impact of online social networks on mental health. Studies have had mixed results, and several studies indicate that using social networks as an inactive person or using information without direct social contact hurts individual well-being [9]. In a study with adolescents, participants generally believed that social networks had a negative impact on an individual's mental health, but the study also reported some positive effects. The authors found that social networks are generally harmful to adolescents' mental health [8].

Depression and suicidal thoughts

A study has found that social networks are a threat to individual mental health. Participants felt poor self-confidence, depression, and suicidal thoughts were negative consequences of social networks [8]. For people under the age of 25 who are victims of online bullying, their risk of suicide attempts is doubled [5].

Accumulation of information

One of the characteristics of the news of this century is the large amount of information that consumers are exposed to. The news information published in the past 30 years is more than all the information published in the past 5000 years [3]. The research found that social networks affect the buildup of information in the following ways [3]:

- Increased amount of news information
- It is very difficult to avoid exposure to the news.
- Uncertainty about the veracity of the news
- Uncertainty about the intentionality of the news
- Presentation of irrelevant material

A study of 143 university students at the University of Pennsylvania found that the group that used social networks (Facebook, Instagram, and Snapchat) for 10 min less a day than the other group had lower levels of loneliness and depression. The study concluded that "Limiting the use of social networks to 30 min a day improves an individual's sense of well-being" [4].

Anxiety and stress

Several studies have shown the negative effect of social networking on stress and anxiety [9]. One of the problems of social media is the spread of false information, known as fake news, which is a major source of anxiety [10]. Similarly, excessive use of social media platforms has hidden and invisible harms for the individual, such as decreased sleep, reduced personal happiness, lower academic performance, and undesirable psychological consequences such as anxiety and depression [11].

Spouses' jealousy

Providing a lot of information about individuals' social aspects, emotional relationships, and current activities on social media may cause feelings of jealousy in spouses. Research suggests that excessive use of Facebook or excessive participation in Facebook can lead to jealousy and a lack of marital satisfaction [1].

Violence

Social networking and self-comparison can make people feel inferior to others, jealous, and angry [9]. A large amount of research has been done on the effect of exposure to violent media on violent behavior, especially in online modes such as gaming sites, Facebook, and chat rooms. Researchers found that exposure to violent media causes individuals to become aggressive and engage in violent behavior [2].

Social networking addiction

There is ample evidence that excessive use of social networking sites may lead to symptoms of drug addiction, such as the importance of the behavior to the individual, mood changes, tolerance, withdrawal symptoms, relapse, and problems due to addictive behavior [12]. In a study of adolescents, despite being the main users of social networks, most of them reported that social networks are somewhat addictive [8]. Since the use of social networks is related to the reward system in the human brain, which

is a source of abuse such as drug use and gambling, users of social networks should be aware of this risk [6]. Facebook addiction is one example; an individual is likely to become addicted to using any other social network [12]. A study of university students in China using a private survey found that 14.8% of respondents were addicted to using social networks. Evidence suggests that the rush to use technology, which is at the heart of technology addiction, including social networking, has an impact on feelings of burnout and emotional boredom caused by social media networking [11].

Body image distortion

Several studies indicate that traditional media (television, programs, and advertising) influence women's decisions to undergo cosmetic surgery. This effect is more pronounced on social networks, according to a study of 118 women aged 18–29 about the effect of seeing women who had undergone cosmetic surgery on their self-esteem and desire to undergo cosmetic surgery. The study found that seeing pictures of people who have had cosmetic surgery on social networks affected women's desire to undergo cosmetic surgery [13].

As mentioned, in the past, traditional media has influenced changes in an individual's perception of his or her body image through advertising. Social networks have several differences from traditional media in terms of their impact on body image [14]:

- In social networks, the users are themselves, unlike traditional media, which was dominated by artists and advertisers.
- People show their desired imaginary style on social networks. They only post their attractive photos (including beauty), removing unwanted and ugly photos.
- Social networks contain pictures of many different people (such as friends, family, strangers, and celebrities), and research suggests that comparing yourself to friends has a big impact on body image.
- In addition to posting photos, people often post or comment on social networks related to the person's appearance, which affects the user's attitude toward their body.

Research suggests that searching for positive posts by others on social networks affects an individual's well-being and self-comparison. They compare themselves to people who are higher and lower than themselves. Therefore, the use of social networks easily encourages social comparison [9]. Social networks such as Instagram, Pinterest, and Twitter contain visual and verbal posts about an imaginary body image and encouragement to build a

"thin body encourager" culture [3]. Research has shown that thin advertisers negatively affect an individual's perception of physical appearance and self-assessment of attractiveness [3].

Related studies have shown that social networking use (especially Facebook) is associated with body image distortion among young women and men [14]. Self-comparison of individual appearance also plays a role in the relationship between social networks and body image [14]. Similarly, frequent use of Instagram is associated with views of body image [4].

Psychological benefits

Although researchers are focusing on the negative effects of social networks, there are still several benefits for individual mental health. For example, they provide many opportunities for individuals to build friendships and happiness; especially, young people can easily build friendships and strong bonds because of easy access to information and the interests of their friends. They also feel more independent and develop their decision-making and critical thinking skills. Studies have also mentioned the following benefits [6]:

- Social engagement with a group that shares the same interests
- Encourage and motivate a positive lifestyle in terms of health and the body
- Having support groups on social networks
- Keep and build new relationships
- Familiarity with new ways of thinking

Conclusion

Online social networks have a great impact on the mind and mental health of individuals; nowadays, most people have accounts on social networks and use them daily and constantly. It is important to understand this issue scientifically and know how to deal with it.

If social networks are used by adults with a sense of responsibility, it is a good opportunity to discuss, improve social relationships, and do business. Conversely, when used irresponsibly by very young people, it can cause problems and discomfort that may not be erased [1]. Research has been conducted on several psychological aspects of these networks, all of which point to the dangers to the mental health of individuals, especially young people and adolescents, who are the most involved and easily influenced by these networks and large companies and institutions.

There are ways and measures to use social networks worldwide, and researchers and educators are constantly trying to interpret this phenomenon.

References
1. Riva G, Wiederhold BK, Cipresso P. The psychology of social networking personal experience in online communities.
2. Dimofte C V., Haugtvedt CP, Yalch RF. Consumer psychology in a social media world. 2017.
3. Scheinbaum AC. The dark side of social media. 2018.
4. Hunt MG, Marx R, Lipson C, Young J (2018) No more FOMO: limiting social media decreases loneliness and depression. J Soc Clin Psychol 37(10):751–768
5. COOK S. Cyberbullying facts and statistics for 2018 – 2023. 2023. Available from: https://www.comparitech.com/internet-providers/cyberbullying-statistics/. [cited 2023 Jun 19].
6. King University Online. The psychology of social media. Available from: https://online.king.edu/news/psychology-of-social-media/. [cited 2023 Jun 19].
7. Azucar D, Marengo D, Settanni M (2018) Predicting the Big 5 personality traits from digital footprints on social media: a meta-analysis. Pers Individ Dif 1(124):150–159
8. O'Reilly M, Dogra N, Whiteman N, Hughes J, Eruyar S, Reilly P (2018) Is social media bad for mental health and wellbeing? Exploring the perspectives of adolescents. Clin Child Psychol Psychiatry 23(4):601–613
9. Yue Z, Zhang R, Xiao J (2022) Passive social media use and psychological well-being during the COVID-19 pandemic: the role of social comparison and emotion regulation. Comput Human Behav 1:127
10. Di DG, Sit J, Ishizaka A, Nunan D (2021) Fake news, social media and marketing: a systematic review. J Bus Res 1(124):329–341
11. Liu C, Ma J (2020) Social media addiction and burnout: the mediating roles of envy and social media use anxiety. Curr Psychol 39(6):1883–1891
12. Kuss DJ, Griffiths MD. Social networking sites and addiction: ten lessons learned. Int J Environ Res Public Health. 2017 Mar 17;14(3).
13. Walker CE, Krumhuber EG, Dayan S, Furnham A (2021) Effects of social media use on desire for cosmetic surgery among young women. Curr Psychol 40(7):3355–3364
14. Fardouly J, Vartanian LR (2016) Social media and body image concerns: current research and future directions. Curr Opin Psychol 1(9):1–5

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