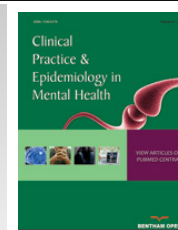




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RESEARCH ARTICLE

Internet Addiction and Excessive Social Networks Use: What About Facebook?

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Abstract: Facebook is notably the most widely known and used social network worldwide. It has been described as a valuable tool for leisure and communication between people all over the world. However, healthy and conscience Facebook use is contrasted by excessive use and lack of control, creating an addiction with severely impacts the everyday life of many users, mainly youths. If Facebook use seems to be related to the need to belong, affiliate with others and for self-presentation, the beginning of excessive Facebook use and addiction could be associated to reward and gratification mechanisms as well as some personality traits. Studies from several countries indicate different Facebook addiction prevalence rates, mainly due to the use of a wide-range of evaluation instruments and to the lack of a clear and valid definition of this construct. Further investigations are needed to establish if excessive Facebook use can be considered as a specific online addiction disorder or an Internet addiction subtype.

Keywords: Excessive Use, Facebook, Internet Addiction, Social Networks.

RATIONALE

In the last decade, the large availability of the internet and the embracing of new digital technologies like smartphones are changing people's way of life and introducing new social dynamics [1 - 7]. Social networks allow immediate communication with just one click, by searching, reaching and sending any kind of verbal messages, videos or images. Thus, the use of social networks facilitates virtual contacts and meetings with other people, replacing many personal relationships and commitments [1 - 5]. With its 1.4 billion active users, Facebook is now considered the most popular social network worldwide [8, 9] and, as a consequence, researchers have started to study some features of its use [10, 11], as well as its excessive use [12, 13]. Caplan developed an overall theory about the misuse of the internet, according to which an online communication type allows to avoid negative feelings, such as loneliness and anxiety [14, 15].

Griffiths stated that an addictive behavior is characterized by the six core components of addiction: salience, mood modification, tolerance, withdrawal symptoms, conflict, and relapse [16, 17]. He argued that any behavior that fulfills

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these six criteria can be considered as an addiction, including social networking. Furthermore, the addiction on social networks, as Facebook, has also been considered only when the excessive use damages personal, family and/or professional life [18, 19]. Some reports indicate that the excessive use of social networks increases isolation in real life, bringing harms to relationships [20]. It is worthily highlighted that a growing complaint in mental health services from patients or even parents worried about their children's is increased social isolation, levels of anxiety and worsening in school performance due to excessive social networks use [21].

Griffiths described the Social Network Sites (SNSs) addiction by 6 pillars: usage patterns, motivations, dependency and typical profiles, negative consequences, evidence of dependence and comorbidity [17, 22]. Furthermore, there is also a review evaluating SNSs addiction in 17 studies which shows a growing interest on this issue, although findings are limited because of the methodology used [23]. As a result, internet addiction and social networks addiction are not well-defined constructs yet, mainly because there is no gold standard measures of these conditions, nor is there any widely accepted theory [4, 12]. On the other hand, some authors [5, 24, 25] introduced specifically the "Facebook Addiction Disorder", or more generally "SNSs Addiction Disorder", on the basis of these six addiction criteria: (1) neglect of personal life; (2) mental preoccupation; (3) escapism (an entertainment that allows people to forget about the real problems of life); (4) mood modifying experiences; (5) tolerance and (6) concealing the addictive behavior.

Despite many researchers defending the hypothesis that the excessive use of the internet and social networks as Facebook can cause addiction, the concept is still controversial [5, 12, 17, 23, 26, 27] and the DSM-5 [21] did not include them as addiction disorders. Within this context, the aim of the present paper is to summarize the state of the art about the use and excessive use of Facebook and to explore how Facebook usage could become addictive.

FACEBOOK USE AND EXCESSIVE USE

Statistics provided by Facebook in 2015 [9] reveal that, worldwide, there are over 1.44 billion monthly active Facebook users and at least 936 million people log in every day. Among those daily users, 745 million check the site by their mobile devices. According to a recent review, there are cultural and socio-demographic differences in Facebook use: females and ethnic minorities seem to use Facebook more than males and Caucasians [10]. Furthermore, a cross-culture study examined differences in Facebook use among people from USA, UK, Italy, Greece and France, founding that, compared to USA users, the UK users classified "groups" as being more relevant, Italian users rated both "groups" and "games/applications" as most relevant, whereas Greek users considered "status updates" being less relevant [28].

A recent study on 100 Swedish students about the use of Facebook shows that 85% of them log in Facebook at least one time every day and 70% admitted that they logged in whenever they started their computer [29]. Furthermore, the participants spent an average of 75 minutes a day on Facebook, with men spending 64 minutes and women 81 minutes every day. In this study, the average user logs in on Facebook 6.1 times/day and almost half the participants mentioned that they feel it is hard to keep up socially without Facebook. Another survey conducted on a sample of 1605 US adults aged between 18 and 54 years old, shows that 34% of girls aged between 18-34 log in to Facebook before they go to the toilet every time they wake up in the morning, 21% wake up in the middle of the night to read their texts and 39% identify themselves as Facebook addicts [30]. Furthermore, Hofmann and colleagues [31], in a survey on 205 German Facebook and Twitter users aged between 18 and 85, showed that the desire for being daily on social networks reported by participants is superior to the desires for sleep and rest. They concluded that social networks addiction is more harmful than smoking and drug-addiction because social media are widely available and cheaper.

HOW FACEBOOK COULD BECOME ADDICTIVE?

Even with an increasing amount of evidence focusing on social network addiction [8] and a few studies indicating that the prevalence of Facebook addiction ranges from 8.6% to 41.9% [12, 32 - 34], limited research has examined how Facebook use could become addictive [17, 23]. The "biopsychosocial framework" for the etiology of addictions [16] and the "syndrome model of addiction" [35] state that people addicted to social networks have similar symptoms to those reported by people who suffer from substances addiction [36]. Xu and Tan [37] proposed that the shift from normal to social networking misuse arises when social networking is considered as an important (or even exclusive) instrument to cope with stress, loneliness and depression.

Regarding Internet addiction, Griffiths [23] argued that it is not well established if people become addicted to the platform or to the contents of the internet. Users addicted to the internet cannot give up several aspects of online use.

Thereby, the author postulates three subtypes of internet addicts, on the basis of the “object” of the addiction: on-line games, sex, and e-mail or text messages. Social networks are an online activity in which texting or e-mailing are predominant, in spite of being used for game playing and even sex-related purposes.

According to the model proposed by Nadkarni and Hofman [10], Facebook use is mainly driven by two basic social needs: (1) sense of belonging to, and (2) self-presentation. The “need to belong” arises from the basic drive to affiliate with others and obtain social acceptance, whereas the need for self-presentation is steadily required for the process of impression management. These motivational drives often co-exist and could explain the Facebook use. Several demographic and cultural factors are associated with the need to belong, whereas personality traits such as neuroticism, narcissism, shyness, self-esteem and self-worth are associated with the need for self-presentation.

Tamir and Michell [38] described an increased neural activation underlying the cognitive mechanisms associated with gratification upon talking about oneself. Using fMRI, the authors explored how brain activity while people talked about themselves was related to a pleasant experience, in comparison to other natural rewards such as sex or food. Authors argued that babies aged 9 months try to catch other's attention to the parts of the environment that they view as the most important, which could be considered the first form of self-exposure; adults, on the other hand, want to give forward information to others about themselves. Thus, human beings have an intrinsic drive for self-exposure, and this behavioral pattern is forced in social networks because of the brain's reward system: “People dedicate close to 40% of their time talking about themselves. This number reaches 80% in social networks with the possibility of feedback and immediate rewards” [38].

Similarly to many addictions, the activation of the reward system through self-exposure [39, 40] can increase the level of dopamine in the reward system [41], generating a dependence framework for social networks excessive use. Finally, some studies [17, 23] evaluated the tendency to develop a social network addiction based on personality traits such as: “extroversion”, “socialization”, “awareness”, “neuroticism” and “openness to experimentation”. Furthermore, the potential excessive use of social networks seems to be related to high narcissism, high neuroticism and low awareness [5, 42].

MEASURING INTERNET ADDICTION AND FACEBOOK ADDICTION

Several authors attempted to define Internet addiction as a syndrome with a set of symptoms that includes: a) preoccupation with the Internet activities; b) increasing tolerance; c) development of psychological dependency and withdrawal symptoms; d) inability to reduce Internet use; e) Internet use to cope with negative mood and reduce stress; f) replacing other activities and relationships with recurrent Internet use despite awareness of the bad consequences [43 - 45]. The Internet Addiction Scale [46], a 20 item self-report questionnaire, is a revised version of the earlier 8 item scale Young's Internet Addiction Diagnostic Questionnaire [43] and it was developed by adapting DSM-IV criteria for pathological gambling, a diagnosis classified as an impulse-control disorder.

Actually, this instrument is the most widely used alternative in the field of internet addiction [47] and it measures the degree to which all types of online activities disturbs aspects of one's daily life: daily routine, sleep pattern, productivity, social life, feelings. With regards to Facebook addiction, the systematic review of Ryan and colleagues [12] analyzed eight self-report questionnaires used to its evaluation in several studies [8, 48 - 53]. Authors concluded that research addressing this salient area is still in its infancy and highlighted the overall lack of construct validity surrounding these instruments, developed from existing measures of Internet addiction without in-depth exploratory research with Facebook addicted individuals [12].

CONCLUSION AND FUTURE PERSPECTIVES

Internet addiction and excessive social networks use are already important issues for treatment and research. Even if Facebook is the number one tool to promote entertainment, maintaining relationships and occupying time [40], some people could develop addictive behavior based on the sensation to feel better or more self-assured (increased level of excitement or escape) upon navigating social networks [54]. Facebook addiction could be related to brain reward and gratification mechanisms and it seems more prevalent in persons with some personality traits and mood states, such as anxiety, depression, narcissism, low self-esteem, seeking for an increased mood elevation.

Despite being a current topic, Internet addiction and excessive social networks use could be unnoticed and underestimated. However, specialized clinics and programs already target these kinds of addictions [55] although there is still a need for further research to determine if Facebook excessive use can be considered as a specific online

addiction disorder or an Internet addiction subtype.

CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

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