



THE DIGITAL DIET: IS SOCIAL NETWORKING MENTALLY HEALTHY OR NOT?

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Insights

In the last decade, the use of social networking sites (SNS) has grown exponentially worldwide [1]. In the United States of America, there has been a nearly tenfold increase in the usage of SNS platforms in the past ten years [1]. We went from a time where it was rare to have an internet connection at all to finding it weird when people do not have a smartphone or engage in social media. In a healthy 'digital diet', the use of SNS can have many positive outcomes, for instance increased perceived social support [1]. However, keeping the digital diet healthy has been proven to be a challenge to many people, speaking of terms such as 'digital detox', 'fear of missing out' and being 'alone together' [2, 3]. Also, a mounting body of evidence is suggesting associations between the use of SNS and mental health problems in adolescents [4]. Adolescence is a vulnerable period for the development of mental health problems such as depression and SNS addiction, because in this phase of life the development of identity, autonomy and social relationships is important, as are social support and fear of missing out. Mental health problems in this period indicate a higher risk of poor mental health for the rest of someone's life [4]. This editorial will give a brief overview of SNS usage on addiction and depression specifically, based on the latest scientific literature.

Introduction

Social networking sites (SNS) and social media are not the same [3]. However, the terms are often used interchangeably [3]. Social media refers to the web capabilities of producing, sharing and collaborating on content online [3]. SNS is described as web-based virtual communities in which it is possible to build a (semi-)public individual profile and articulate a list of other users to share a connection and to communicate with, for example Facebook and Instagram [1, 2]. In short, SNS are a type of social media. Other social media include collaborative projects like Wikipedia, weblogs like Youtube and virtual game worlds [3]. In this editorial, we will be focusing on the use of social networking sites in adolescence specifically. These online forums for communication are increasingly present in daily life, especially among teenagers and young adults [2]. As most readers know, Facebook is one of the most frequently used SNS, with around two billion users worldwide in 2016 [2]. This is the reason why present research on SNS is conducted mainly with Facebook.

Why do people use SNS?

Use of SNS is driven by a number of motivations. For instance, it could be the case that social networking meets the basic human needs like described in the hierarchy of needs by psychologist Maslow [5]. According to Maslow's theory, social networking meets the needs of safety, association, estimation and self-realisation [5]. The need of safety is met by the possibility of SNS to allow users to control whom they share information with [3]. The associative needs are accomplished by the connecting function of SNS with like-minded individuals [3]. The need of esteem is met through the gathering of friends and likes and comparing this to others [3]. Self-realisation can be reached by presenting oneself in the way one wants to present oneself [3].

In addition, a systematic review from 2012 proposed a dual-factor model of the use of Facebook [6]. According to this model, the use of Facebook is motivated by two basic social needs: the need to belong and the need for self-presentation [6]. The need to belong refers to the need to gain social acceptance and the need for self-presentation refers to the management of the impression you make on other people [6]. Humans are dependent on the social support of others and banishment from a social group has a negative impact on one's self-esteem, emotional well-being, one's sense of belonging and self-worth [6]. It has been

proposed that a drop in self-esteem is a warning signal of potential social exclusion [6]. Some studies suggested that the use of Facebook is to some degree determined by cultural and sociodemographic factors, motivated by the fact that females and ethnic minorities tend to use Facebook more often than males and Caucasians [6]. In 2010, Gonzales *et al.* designed a study to examine if exposure to information presented on one's Facebook profile enhances self-esteem, especially when that person selectively presents or edits the information [7]. This suggests that digital self-presentation can alter self-assessment (the way one sees himself) [7]. Research showed that SNS are attractive to adolescents specifically because these websites enable them to construct a social identity through online profiles [8]. These profiles can be controlled, and thus teenagers are able to express their desired self-presentation [2, 6]. Adolescents can interact with others via these 'virtual selves' through a medium that is often unsupervised from adults [2]. Other positive effects of social networking are enlargement and management of social capital, connection with others and satisfaction of their need to belong in a technologically dominated society [6, 7, 9].



Figure 1: Key components of addiction.

SNS addiction

Besides the positive effects of SNS use, there is growing scientific evidence of an association between SNS use and poor mental health, ranging from binge drinking, phubbing (checking the smartphone in the middle of a face-to-face communicative situation), depression, social anxiety and addiction-like symptoms [1, 2, 4, 10]. Addiction to social networking sites is not officially recognised as a mental health disorder. However, it could be considered addictive behaviour, as it reflects key components from other addictive disorders (Figure 1) [1]. The global prevalence rate of people who feel such symptoms and meet addiction classification criteria is around six percent, which ranges from roughly eleven percent in the Middle East to around three percent in Northern and Western Europe [10]. Specific components of addiction are cognitive and behavioural salience, mood modification, tolerance, withdrawal, conflict and relapse [1, 3]. The process of getting addicted to SNS could be as follows: use of SNS dominates the thoughts and behaviour of the user (salience) [3]. The use of SNS then induces mood alterations, such as pleasurable or numbing feelings (mood modification) [3]. In order to achieve the same feelings that occurred in the initial phase of usage, increased amounts of time and energy are required in the SNS use (tolerance) [3]. When SNS use is discontinued, the user will experience negative emotions (withdrawal), which often lead to resuming the problematic behaviour (relapse) [3]. In terms of Facebook addiction, use of Facebook rewards the adolescent with positive reactions and feelings because it gives the sense of belonging they are so sensitive to. Because of the frequent Facebook use and the frequent rewards of the use, it becomes an automatic process that is stored in the brain as a reflex. Discontinuing this reflex requires suppression of this automatic process, which is only possible with conscious alternative behaviour that is also rewarding and positive.

Habit and reflection

Addiction symptoms develop when SNS use takes place compulsively in situations where it is better to not use SNS [10]. Compulsive use of SNS is automatic, irrational and temporary [10]. A model that explains the simultaneous rational and irrational processes is the dual-system theory of behaviour [10]. This theory describes that human behaviour is guided by both reflective and reflexive processes [10]. In the case of SNS use, the reflexive system is the manifestation of habit. In other words, the extent to which people tend to automatically use SNS [10]. This system is fast and automatically activated in response to cues like a message notification or a cell phone beep [10]. The reflective system, on the other hand, enables a person to perform reasoned actions that may override an automatic action already taking place [10]. This system is relatively slow [10]. When the impulsive system (habit) wins from the reflective system, addiction symptoms can emerge [10]. Research has shown that individuals that are able to reflect on their SNS use are also able to regulate their use [10]. Furthermore, they report less SNS addiction symptoms [10].

Fear of missing out

A concept that may contribute to SNS addiction is fear of missing out (FOMO) [3]. FOMO is defined as "a pervasive apprehension that others might be having rewarding experiences from which one is absent" and as "a desire to stay continually connected with what others are doing" [2]. Individuals worrying about not being able to connect to their networks may develop impulsive checking habits [3]. Furthermore, in adolescents with psychological problems like anxiety and depression, FOMO has a mediating role in the development of negative consequences of SNS use, as seen in Figure 2 [2]. Depression itself also has a direct effect on the negative consequences of SNS use [2]. Interestingly, the intensity of

SNS use, the time spent on social networking sites, does not mediate the relationship between psychopathological symptoms and negative consequences of SNS use. The intensity of social networking is thus not the main risk factor for negative consequences, but it does mediate the effect of FOMO on the negative consequences [2]. Higher levels of FOMO are associated with more engagement with for example Facebook, lower general mood and wellbeing, lower life satisfaction, mixed feelings while using social media and inappropriate and dangerous SNS use such as checking Facebook while driving [2]. FOMO might be a component of potential SNS addiction [3]. Further research is needed to explore the origins of FOMO and into why some SNS users are prone to FOMO and addiction compared to users who are not [3].



Figure 2: Risk factors for negative consequences of SNS use.

Fear of missing out and depression have a direct effect on negative consequences. Depression also has an indirect effect on negative consequences, just like anxiety and social network intensity. Fear of missing out itself directly influences anxiety and social network intensity.

Nomophobia

Related to the fear of not being able to engage in social connections, and a preference for online social interaction is the phenomenon of nomophobia [3]. Nomophobia is derived from no mobile phone phobia, in other words, the fear of being without one's mobile phone [3, 11]. It can lead to using the mobile phone in an impulsive way and this may contribute to repeated use of SNS, which in turn can be a contributing factor to SNS addiction [3, 11].

SNS and mental health

It could be argued that the addictive-like symptoms in problematic users could be linked to psychological distress and also have a negative impact on general well-being [12]. For example, the mood modification and compulsive symptoms that emerge in SNS addiction might enhance the mechanisms involved in development of anxiety and depression [12].

It is well known that there is an increase in prevalence of depression in females during adolescence [2]. In 2011, the phenomenon of Facebook depression was first proposed, describing adolescents developing symptoms of depression after spending large amounts of time on SNS or high checking frequency of SNS [13, 14]. The term has gained popularity, but there is no consensus within the scientific community about it because the results of several systematic reviews attaining the topic are inconsistent [13]. A possible contributing factor to the Facebook depression is that SNS use might lead to wrong impressions of other users. People generally only share positive aspects about themselves on Facebook, resulting in comparing oneself with other users in a negative way [13]. From a psychological evolutionary perspective, people have a natural bias to individuals with higher levels of attractiveness and

status, because they can learn skills from them [13]. This bias towards the success of others increases the risk of negative self-talk and depression [13]. The results from a 2019 meta-analysis on SNS usage and depression supported that greater time spent on SNS and the SNS checking frequency were both associated with higher levels of depression. However, it seems that in some of the studies included in the analysis the relation between SNS usage and depression is stronger in some specific populations and contexts [13]. Further research is needed to establish the exact relationship [13]. A proposed mechanism of this relationship is the level of making social comparisons and consequently drawing false conclusions about other users' lives, resulting in a negative judgement of oneself and consequently depressed feelings [13]. However, more research into the exact mechanisms is needed.

Conclusion

SNS are the modern platforms for socialising, self-presentation and the sense of belonging, all important parts of development in adolescent life. However, adolescents are vulnerable to getting addicted and the increased use of SNS in adolescents raises questions about its effect on mental health. Addiction to social networking sites is not officially recognised as a mental health disorder, but addiction symptoms are prevalent globally. Parents commonly believe that the intensity of social networking is the sole risk factor for negative consequences for adolescents, but FOMO and nomophobia are possibly even more important factors. In conclusion, the digital diet of social networking seems to be mentally unhealthier than presumed by most people.

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EXAM QUESTIONS

As RAMS aims to enlighten both students and professionals, we would like to present you two exam questions. Find out if you can remember what you have learned during your bachelor's!

We challenge you!

Question 1

Some retroperitoneal organs still have a narrow relation with the peritoneum. Which organ does not cross the peritoneum at any point?

- A. Sigmoid colon
- B. Kidneys
- C. Pancreas

(Topic from Q9 KVS, 2018)

Question 2

Some men have a higher than average risk of developing prostate cancer. The men with the highest risk are men with ...

- A. A first-degree family member who has prostate cancer
- B. Professional asbestos exposure in the past
- C. A low cervical cross section

(Topic from Q10 KVS, 2018)

The answers to these questions can be found on page 13 in this journal.