

THE IMPACT OF SOCIAL NETWORK CONTENT ON AUTO-AGGRESSION AND SELF-HARMING BEHAVIOUR IN ADOLESCENTS

Tetiana Zinchenko¹, & Kristina Ivancivova²

¹International Association for the Study of Game Addictions (IASGA), Collombey (Switzerland & UK)

²International Association for the Study of Game Addictions (IASGA), London (UK)

Abstract

Numerous research have shown the rate of non-suicidal self-harm among young people ranges from 14% to 21%. Those who self-harm have a risk of suicide that is thirty times higher than the general population. Teens who self-harm and have suicidal tendencies look to social media for support, escape, or even inspiration. However, social media is full of disruptive content and risks of dangerous interactions.

The objective of the research was to identify the prevalence and accessibility of destructive content on different social media platforms for adolescents, and how this content can lead to auto-aggression and self-harming behaviour. We first reviewed 25 studies on the impact of destructive content on social media on the escalation of self-harming and suicidal behaviour in adolescents. We then conducted a content analysis of various social media for self-destructive content. In addition, we surveyed 236 adolescents between the ages of 12 and 19 to find out how often they encounter such content and how it affects them.

According to a review of research and content analyses, there is a wide use of different ways of showing self-harm on social media - a combination of self-harm photos, videos, text images, etc. Moreover, images of more serious self-harm attracted more attention and comments. Viewing self-harm-related images online may increase the risk of self-harm. Social networks do host harmful content: up to 71.2% of survey participants said they had encountered such content without being specifically asked to do so. It is alarming that 22% of the teenagers surveyed thought about doing something risky, hurting themselves, hurting someone, or even committing suicide.

From the results of previous and current studies, it is more than obvious that the destructive content of social networking sites affects the behaviour of adolescents, namely provoking auto-aggression and self-harm, normalises and popularises such behaviour. The results of the questionnaire survey and analysis of the content of social networking sites indicate the need to strengthen content censorship and tighten age restrictions. Of course, we need to hold classes and training on media education for children, parents and teachers to help form the right attitude to destructive content among teenagers.

Keywords: *Self-harming, auto-aggression, suicidal behaviour, destructive content, social media.*

1. Introduction

Rates of mental health problems as well as self-destructive behaviours such as self-harm, suicidal thoughts and behaviour among adolescents have increased over the last two decades (Joseph et al., 2022; Wiens et al., 2020; Walrave et al., 2022). This has justifiably led to fears that the deterioration of adolescent mental health is linked to their increased use of social media (Ivie et al., 2020; Keles et al., 2019).

As of October 2024, there were 5.52 billion internet users worldwide, which amounted to 67.5% of the global population. Of this total, 5.22 billion, or 63.8% of the world's population, were social media users. The most active and engaged users are teenagers and young adults.

A 2017-2019 survey conducted by Masaryk University in Brno as part of the EU Kids online 2020 study showed that Czech children aged 9 to 11 spent around two hours a day online, while children aged 15 to 16 spent more than four hours a day online. At this age (10-15 years), half of young people are online almost constantly. The remaining half go online several times a day. Social media have become an integral part of our lives. They simplify and expand opportunities for communication, development and self-realisation. Social sites are filled with informative, creative, educational and entertaining content. Users can easily maintain relationships, find new friends and business partners, share content, and create communities of interest. Social networks have also become a source of support and inspiration, useful

information and safe, anonymous communication for users facing mental health problems, neurodevelopmental disorders or disabilities (Frison & Eggermont, 2016). However, internet surfing has a dark side.

Numerous studies have confirmed the link between anxiety, depression, bipolar disorder, suicidal behaviour and self-injury in adolescents with their persistent, particularly problematic use of social media (Twenge et al., 2022; Ivie et al., 2020; Keles et al., 2019). A large-scale nationwide cross-sectional study of 11,356 adolescent students in schools from eleven EU countries found multiple increases in the prevalence of anxiety, depression, self-injurious and suicidal behaviour among adolescents with problematic and pathological (addictive) internet use (Kaess et al., 2014). In the maladaptive internet-users group, 17.1% were identified with moderate to severe depression and 16.4 % with moderate to severe anxiety and in the pathological internet-users group, 33.5 % reported moderate to severe depression and 27.6 % reported moderate to severe anxiety compare with only 5% in the adaptive internet-users group. These results indicate that the prevalence of self-harm behavior was almost three times higher among maladaptive users (12.2 %) and almost five times higher among pathological users (22.2 %) compared to adaptive users (4.5 %). The proportion of suicidal ideas was two and a half times higher among maladaptive users (31.9%) and three times higher among pathological users (42.3%) compared to adaptive users (12.7%), while suicide attempts were almost four times higher among maladaptive users (1.1%) and ten times higher among pathological users (3.1%) compared to adaptive users (0.3%).

The rate of non-suicidal self-harm among young people ranges from 14% to 21% compared to just 6% of adults, and onset typically occurs around age 13 or 14. (Memon et al., 2018; Klonsky et al., 2014). Teenage self-mutilation is a symptom of serious underlying distress that increases the long-term risk of suicide. Those who self-harm have a risk of suicide that is thirty times higher than the general population. The Internet is full of dangers and harmful content. Teens who self-harm and have suicidal tendencies look to social media for support, solution, escape, or even inspiration. Destructive content on social media normalizes self-harm while encouraging teens to initiate this behaviour and wound themselves with increasing severity over time. It can escalate and lead to the end of a young person's life.

2. Objectives

The objective of the research was to identify the prevalence and accessibility of destructive content on different social media platforms for adolescents, and how this content can lead to auto-aggression and self-harming behaviour.

3. Methods

First, we reviewed 25 research on the impact of destructive content on social media on the emergence and growth of self-harming and suicidal behaviour among adolescents. We then conducted content analyses on various social media platforms using different search terms to determine the extent to which content related to self-harm, auto-aggression. In addition, we surveyed 236 teenagers aged 12 to 19 (132 boys and 104 girls) to find out how often they were exposed to content showing various forms of self-destructive behaviour. The questionnaire also contained questions to determine the extent of social media engagement and adolescents' control over this behaviour. This part of the survey was aimed at identifying signs of problematic social media use.

4. Main results

4.1. Research and content analysis

The research analysis helped to identify factors associated with social media threats that can be a source of distress and affect the mental well-being of adolescents and lead them to self-harm or other self-destructive and risky behaviours such as suicidal behaviour, anorexia, or alcohol or drug use. These include: 1) cyberbullying, 2) sexual harassment, 3) discrimination on racial, national, religious or other grounds, 4) unauthorized sharing of sensitive material (e.g., sexually explicit images), 5) phishing attempts, 6) misinformation, 7) sale or distribution of drugs, 8) harmful or dangerous content that demonstrates violence, self-harm or suicidal behaviour, 9) content that negatively affects body image (Lahti et al., 2024).

According to the review of studies and content analysis, social networking sites are widely used to display self-harm in a variety of ways - a combination of photos of direct self-harm, video recordings, text images, etc. Memon et al. (2018) further write that, "Of these 100 YouTube videos, 80% had

unrestricted access, meaning that users under the age of 18 could watch the videos, 57% lacked trigger warnings, and 7% were pro-suicide. 51/100 videos had a melancholic tone, while 23/100 videos had an encouraging tone. The most common method of self-harm was cutting, which appeared in 64 videos, and the most common area of injury was hands and wrists, which appeared in 68 videos." According to this research, it is clear that such content can trigger, promote, perpetuate or exacerbate self-harm and suicidal behaviour. Shanahan et al. (2019) state that, "The results of our study show that social networking sites are widely used to display self-harm in a variety of ways - a combination of photos of direct self-harm, text images, photos of people, photos of objects, selfies, collages, archival photos, and creations such as drawings or cartoons." Viewing images related to self-harming behaviour on the internet may increase the risk of self-harm. 32.5% of participants in one of the research performed the same or similar type of self-harm which they saw on Instagram. Images depicting more severe self-harm elicited more comments or attention than images of less severe injuries. In the comments, self-harm was often normalized as an effective coping strategy for negative emotions. Users also reinforced image sharing by showing admiration, praising or encouraging other users to create and/or upload similar images, and showing empathy and offering help (Susi et al., 2023).

Memon et al. (2018) state that, "A recent study analyzed 1115 public posts found using the search term "#cutting" on Twitter, Tumblr, and Instagram. Approximately 60% of these posts displayed graphic content in the form of blood, cuts/scars, injuries, self-harm equipment, or active self-harm. "I feel depressed," "depression" was the most common mental health mention associated with 75% of these #cutting posts. In addition, 40% posts referenced eating disorders with an expressed desire of the unhealthy "thin ideal," and 20% posts referenced anxiety."

The analysis of the results of studies of destructive content in various social networks as well as our content analysis revealed different types of content related to self-destructive behaviour such as self-harm, suicidal behaviour and pathological weight loss up to anorexia. This content is in the form of videos, photographs, graphic and animated images and text messages. Online communities have also been found on social networks, whose members practice and promote these behaviours. To circumvent censorship and bans on self-harm and suicidal content, it is hidden behind ambiguous hashtags, as described for example in one research of content on Instagram. They identified 10 ambiguous nonsuicidal self-injury (NSSI) hashtags in a sample of 201 posts. NSSI terms included #blithe, #cat, and #selfinjuryy. We discovered a popular image that described the broader community of NSSI and mental illness, called "#MySecretFamily." Only one-third of the relevant hashtags generated Content Advisory warnings (Moreno et al., 2016).

4.2. Questionnaire results

The first 10 questions of the questionnaire were aimed at identifying the degree of participants' involvement in using social networks. According to the results of the questionnaire, no signs of problematic use or addiction were found. Positive responses were only prevalent in the gratuitous use of social networking sites and feeling connected to others.

Social networking sites do indeed depict harmful content, with up to 71.2% (Figure 1) of respondents answering that they had encountered such content, and they did not search for it themselves, but they came across it by chance. Instagram (45.2%) and TikTok (42.8%) were the leaders in the frequency of detection of destructive content (Figure 2). Videos (88%) and pictures (59.5%) got the highest percentages. 14.2% chose "Online communities" and 19% chose "Other". It is alarming that 22% of the teenagers surveyed thought about doing something risky, hurting themselves, hurting someone, or even committing suicide.

Figure 1. Have you seen content on the Internet that showed self-harmful behaviour?

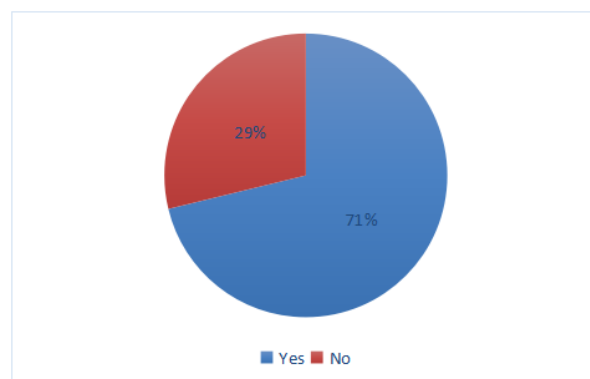
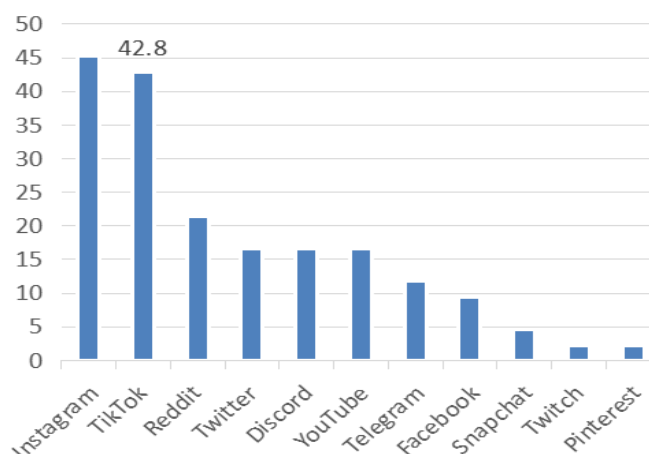


Figure 2. If you came across content that showed self-harmful behaviour, on which social network was it posted?



In response to the appearance of destructive content, participants most often experienced the following emotions: was 'disgust' (40.4%), followed by 'no reaction' (33.3%), 'fear' (19%), 'curiosity' (16.6%) and 'other' (28.5%). Some people wrote for the 'other' option that such content evoked negative reactions in them - mostly sadness. Some even wrote that when they first encountered such content they were afraid and curious. The more they saw such content, the more they got used to it and now it does not provoke any reaction.

5. Discussion

Growing evidence from various research consistently reveals both positive and negative effects of social media. On the one hand, social media can provide support, strengthen bonds, and promote positive interactions (Frison & Eggermont, 2016). On the other hand, their excessive use and exposure to negative content is associated with increased anxiety, depression, feelings of loneliness and self-destructive behaviour (Twenge et al., 2022; Keles et al., 2019). Systematic reviews and meta-analyses have shown that the relationship between social media use and mental health is complex and depends on various factors, including the type of platform used, individual differences of users, type of content and context of social interactions (Smahel et al., 2020; Arendt et al., 2019; Lahti et al., 2024). The findings suggest that while social media can be a source of distress for some, it can also serve as a valuable tool for others, demonstrating the low informativeness of research on the associations with mental health of general categories such as adolescents' social media use or screen time. In future research, it is important for us to focus more on exploring which specific content and type of social media interactions contribute to deteriorating mental health and provoke disruptive behaviour in adolescents.

6. Conclusions

From the results of previous and current studies, it is more than obvious that the destructive content of social networking sites affects the behaviour of adolescents, namely provoking auto-aggression and self-harm, normalises and popularises such behaviour. Another finding that confirmed the above studies in the theoretical part was that indeed social networking sites are visited by children under 15. For example, as reported by the interviewees, 21.4% had encountered self-harm content on Reddit. According to the questionnaires, these were children between 12 and 15 years old. Reddit has an age limit of 17+. Clearly, this restriction is not a barrier to a minor signing up for this network.

The results of the questionnaire survey and analysis of the content of social networking sites indicate the need to strengthen content censorship and tighten age restrictions. It cannot and should not be the case that 71.2% of respondents encountered destructive content without intentionally searching for it. The content must be of high quality and have a positive and motivating character.

Effective prevention is to conduct media education classes and training for teenagers, teachers and parents to raise awareness of social media threats and develop skills for safe online behaviour. We should explain to children that we are particularly vulnerable when we are nervous, depressed, tired, sad, bored, stressed or have experienced trauma. In such a state we are particularly sensitive and need to be

extremely vigilant, as harmful content can have a very negative effect on us at such times. Also, our prevention efforts should focus on improving mental health and the quality of relationships in the family and school.

The limitation of this study is a small sample of survey participants. To change this dangerous situation at the interstate level, we must provide the necessary evidence and conduct research in different countries with numerous participants.

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