

Cyberchondria, cyberbullying, cybersuicide, cybersex: “new” psychopathologies for the 21st century?

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The Internet and related technologies permeate our everyday functioning to the extent that it has become difficult to imagine life without them. As their penetrance increases, so does discussion of, and research into, new problematic behaviours and psychopathologies, especially “Internet addiction” and “online gaming addiction”.

However, cybertechnology is also reshaping “established” psychiatric disorders and phenomena, leading to symptoms and manifestations that are both familiar and novel, old and new. Of those, this paper will focus on health-related anxiety, bullying or stalking, suicide, and compulsive sexual behaviour. While far from unique, they illustrate the range of psychological functions that have been reconfigured by the digital revolution – and how simplistic a “big umbrella” approach that reduces the discussion to “technology addiction” is.

CYBERCHONDRIA

Cyberchondria has been defined as an excessive or repeated online searching for health-related information, which is driven by a need to alleviate distress or anxiety surrounding health, but results, instead, in their worsening (1). It is a form of reassurance-seeking behaviour. Rather than obtaining support via online interactions with similarly worried individuals, those with cyberchondria find their anxiety amplified, often because of new pathologies that they discover online and that trigger new worries.

Compared with interpersonal reassurance seeking, performing online health searches can be less predictable, as the Internet is not designed to always provide relevant, accurate, non-conflicting and reassuring information (1). Therefore, information obtained online can increase uncertainty about health, perhaps ultimately leading to cyberchondria in individuals who have greater difficulty tolerating uncertainty (2). Moreover, cyberchondria may be related to a difficulty in distinguishing between credible and non-credible sources of online information. This, in turn, may relate to the individual’s level of education, information-processing abilities and technological savviness.

Cyberchondria has been considered a distinct mental disorder and a multidimensional concept with mistrust of medical professionals as one of its key features (3). But the term has also been used to merely denote seeking health-related

information online. The prevailing view is that cyberchondria is part of hypochondriasis/health anxiety (1), but conceptual consensus is still lacking. One reason is the uncertainty about the direction of causality: do high levels of health anxiety lead to excessive online health searches (the more plausible possibility and the one that is closer to hypochondriasis/health anxiety) or does “compulsive” seeking of health information online result in heightened health anxiety? Further research is expected to shed more light on this issue.

CYBERBULLYING AND CYBERSTALKING

Cyberbullying has been defined as repeated hostile or aggressive behaviour against others, performed by an individual or a group using electronic or digital media and aiming to inflict harm or discomfort (4). This activity can take many different forms, including email, blogs, chat rooms, and text messaging. The various other terms proposed for this behaviour (e.g., “cyber harassment”, “cyber victimization” and “electronic aggression”) attest to its frequency. Cyberstalking, a related phenomenon, involves the repeated use of the Internet, email or other electronic communication medium to stalk another person (5), and it may be accompanied by physical stalking.

Cyberbullying diverges in important ways from “traditional” bullying (6). For example, cyberbullying is not based on physical strength, but on technological proficiency or skill, which creates a new dynamic between perpetrator and victim. Also, protection against cyberbullying can be more difficult, because the perpetrator is very often anonymous. Further, the victim is no longer only reachable in the schoolyard or on the school bus, as perpetrators can now strike anywhere and anytime due to the ubiquitous nature of the Internet. Yet another difference is that the harm inflicted and the consequences such as humiliation may be known to a lot more people, because of the ease with which embarrassing information, pictures or other content can be disseminated online.

Cyberbullying and cyberstalking may be a manifestation of conduct disorder, antisocial personality disorder, or various other forms of psychopathology. In addition, cyberbullying victims, perpetrators and “bully-victims” (those who

“switch” from being a victim to acting as a bully) are all more prone to developing a range of psychiatric disorders and behavioural disturbances, including depression, suicidal thinking and suicide attempts (7-9).

CYBERSUICIDE

“Cybersuicide” has been used to describe a range of different behaviours and phenomena. A common aspect appears to be online searching for information on suicide methods. Such searches often begin by typing “best suicide methods” or “how to kill yourself” into online search engines (10). This can lead desperate individuals to pro-suicide websites, forums or bulletin boards that promote suicide as a personal choice. There, they can communicate with like-minded individuals about suicide-related issues. Such interactions may “resolve” the ambivalence inherent to suicidal thinking and persuade some that suicide is the “right” option.

One potential, and particularly tragic, outcome is a “suicide pact”: an Internet-arranged agreement between two or more persons to commit suicide together at a certain place and time (11). It may be related to a power differential between its participants or to the romanticising of suicide, akin to a pact between lovers who “have” to escape an intolerable reality and an unaccepting society (12). Online suicide pacts are thought to involve socially isolated individuals with strong ambivalence about life (13). While they do not appear to be common, their prevalence seems higher in Japan (12).

Another novel manifestation of the age-old suicide problem uses the Internet’s video-streaming abilities to deliver “webcam suicides”, or the live broadcasting of one’s death using an online video service. In some instances, this involves low-lethality self-harm behaviours which may represent cries for help (12). Perhaps unsurprisingly, webcam suicides have been associated with pro-suicide online platforms but also with cyberbullying (14).

CYBERSEX

Cybersex is a loose term that encompasses a variety of Internet-mediated sexual activities, some of which have been regarded as pathological. Numerous definitions of cybersex have been proposed, including a suggestion that it is a variant of “Internet addiction” (15). Although the purpose of cybersex activities is to experience sexual pleasure, such activities can have an aggressive or illegal component (e.g., when children are involved). Accordingly, cybersex behaviours range from solitary acts to consensual interactions and coercive contacts (16). They can be limited to excessive viewing of pornographic material, typically accompanied by masturbation, or they can involve compulsive cruising of specialized online bulletins with the purpose of arranging offline sexual encounters.

“Compulsive cybersex” or “cybersex addiction” has been described as repeated failure to control an urge to engage in sexual activities via the Internet and related technologies. This difficulty is presumed to exist because of an irresistible appeal of short-term sexual pleasure, despite the long-term negative consequences. The latter include relationship breakdown, financial problems if sex workers are involved or costly content is viewed, sexually transmitted diseases, and legal problems due to sexual harassment or sexual exploitation of minors. Whether mediated by cybertechnology or not, “hypersexuality” is a controversial entity that was not included even among the conditions for further study in the DSM-5; in contrast, the architects of the ICD-11 have already announced that there is sufficient evidence to introduce “compulsive sexual behaviour disorder” as a new diagnosis (17).

OTHER CYBER-PSYCHOPATHOLOGIES?

The aberrant behaviours and psychopathologies discussed above are not the only ones being reshaped online – they have only received the most attention in the literature. For example, pro-eating disorders websites (“pro-ana” and “pro-mia” sites promoting anorexia nervosa and bulimia nervosa, respectively) have well-documented negative effects on individuals with eating disorders (18), and there is even a case report of a Twitter-induced psychotic episode (19). The Internet has also been seen to encourage the emergence or magnification of certain personality traits, including narcissism, regression and impulsivity (20). Indeed, the range of psychological trouble that can result from, or be exacerbated by, our interaction with digital technology appears as vast as the Internet itself. Further research is clearly needed to better delineate those undesirable effects and to identify individuals who may be particularly vulnerable.

DISCUSSION

It is well known that psychopathology is influenced by social and cultural factors. Therefore, it is not surprising that modern technology, which has radically transformed the sociocultural landscape, has influenced various forms of psychopathology and related behaviours. Several unique features of this influence deserve highlighting.

First, the mass media have played an immense role in bringing attention to aberrant cyber-behaviours and cyber-psychopathologies. This is understandable, given their insatiable appetite for everything that is novel and makes for a “good story”. That is especially true if the outcome is dramatic or tragic. Yet, despite the heavy dose of sensationalism that frequently accompanies these stories, there is no evidence of “evil” media intent, and instead of bemoaning the negative coverage, we would do better to enlist media’s support. For example, acquainting media outlets with research

advances can better explain how modern technology and mental health interact and can lead to advocacy by media and audiences alike for funds to support further studies. Also, an evidence-based stance and the usage of correct terminology by clinicians and researchers in media interviews can limit the confusing multitude of terms, definitions and meanings, thereby promoting conceptual rigor in the field.

Second, there have been attempts to regard some aberrant cyber-behaviours, such as cyberchondria and compulsive cybersex, as distinct disorders. Several tendencies contribute to that: blaming the Internet and related technologies for the woes of modern life; psychiatry's proneness towards diagnostic splitting and the consequent creation of "new" diagnoses; attraction to what is "trendy" (which often becomes someone's "pet project"); and societal pressure to conceptualize these behaviours and phenomena as illnesses so that something can be done about them. It is crucial not to join the chorus and not to quickly suggest that the Internet is the cause of "modern" psychiatric disorders. Indeed, research has yet to prove, for example, that "cyberchondriacs" and cybersex "addicts" did not already manifest excessive health anxiety or problematic sexual behaviours before they gained unfettered access to relevant websites via speedy Internet connections. The Internet and related technologies might have facilitated the expression of psychopathology in vulnerable individuals, and it would be premature to attribute causality. Instead of succumbing to simplistic notions of "new" disorders, then, we should communicate that aberrant behaviours and psychopathological phenomena do not have to be conceptualized as disorders in order for them to be addressed optimally (e.g., through prevention or minimization of their negative consequences).

The Internet has changed contemporary society primarily because it has facilitated communication and allowed quick access to information, at little or no cost. These same characteristics have played a role in the emergence of some aberrant cyber-behaviours and cyber-psychopathologies discussed in this paper. In addition, the fact that the Internet can be used anonymously to satisfy strong, but strongly frowned upon if not outright illegal, sexual or aggressive urges has been instrumental in the development of other behaviours and phenomena. This underscores that the Internet and related technologies are not inherently "good" or "bad", but that they are rather like a tool that can be used for a variety of purposes, with a variety of consequences.

There is no doubt that the Internet and related technologies are posing new challenges to mental health. These include managing an abundance of accessible information ("information overload") and the accompanying uncertainty; curbing the urge to engage in risky behaviours, including sexual and parasuicidal or suicidal acts, which are made to look "easy" or even "attractive" online; and resisting the temptation to hide behind the anonymity mask to launch opportunistic attacks on others. Large differences seem to exist between individuals in terms of their vulnerability to

these challenges and both the specific challenges and vulnerabilities need to be understood better.

Mental health professionals have several tasks here. The first entails what may be called "Internet use education". This would enable Internet users, especially those who may be more psychologically vulnerable, to be aware of the risks and potential harm, and learn how to circumvent the dangers and seek help. Another task is collaboration with experts from other disciplines, such as information technology specialists, to help make the online experience safer (e.g., via blocking "high-risk" websites that may have caused harm in the past). Further, any primary psychopathology that is present (e.g., a "parent condition" such as hypochondriasis in the case of cyberchondria) needs to be targeted using established treatment guidelines. Some modifications of the treatment approaches taking into account the specific aspects and impacts of cybertechnology might need to be made.

All along, the triggers and consequences of the detrimental cyber-behaviours and cyber-psychopathologies need to be addressed directly. Exactly how this is to be accomplished deserves our research efforts and a commitment to explore the whole range of potential negative psychological consequences of the digital revolution – well beyond "Internet addiction" and "online gaming addiction".

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DOI 10.1002/wps.20195