Internet-Related Psychosis – A Sign of the Times?

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ABSTRACT

Background: The psychopathological implications of the Internet are slowly being revealed as its use becomes increasingly common. This paper’s aim is to call attention to computer-mediated communication (CMC), such as Facebook or chats, and alert to its possible relation to psychosis.

Data: We describe three individuals, with no prior major psychiatric disorder, who presented for psychiatric treatment, due to psychotic symptoms which appeared de novo while they were immersed in CMC. All three patients pointed to the contribution of specific CMC features to the gradual emergence of their psychotic symptoms. They described a “hyperpersonal” relationship with a stranger, mistrust of the aims and identity of the other party, blurred self boundaries, misinterpretation of information, and undesirable personal exposure in cyberspace. The patients had little prior experience with computers or the Internet, and their vulnerability was intensified due to difficulties in deciphering the meaning of various elements of CMC and in managing its technical aspects.

Conclusions: The cases we present support the assumption that unique features of CMC might contribute to the formation of psychotic experiences. The use of the Internet is vast, and, as such, we propose that medical staff members might consider routinely questioning patients about their use of it, especially CMC.

INTRODUCTION

Since the 1980s, the personal computer (PC) has found its way into a large proportion of households in the western world. Cyberspace, where Internet-based interactions occur, has evolved into a kind of parallel universe in which people spend much of their time communicating with each other. Technological advances, such as the Internet with its tremendous cultural implications, have a direct effect on the psychopathology of the population in general and of psychiatric patients in particular (2, 3). Internet addiction is gradually being recognized as a novel form of impulse control disorder (4). Internet delusions have been well described in the literature (5-8), and are becoming increasingly common as Internet use expands (8). The hallmark of these delusions is the direct relation of their content to general computer use, and especially to the Internet. Delusions are traditionally characterized by form (subtypes, such as persecutory, grandiosity) and content (such as being persecuted by the CIA, having messianic powers) (9). Despite their distinct characteristics, Internet delusions do not seem to constitute a new form of delusions (5, 6), but they should be perceived as a novel content of the already well-known delusion forms - a new wine in an old bottle (7, 8). This approach is complementary to the notion that a specific delusional content is a derivative of the patient’s cultural environment and subjective life experience (7).

The focus of this observational paper is not the influence of Internet use on the nature of the psychotic experience, in terms of whether it is the delusional form or content. Rather, we are interested in the unique features of computer-mediated communication (CMC), the mental environment they create, and their possible contribution to the development of a psychotic experience among vulnerable subjects.

CMC refers to any communicative transactions that occur between two or more networked computers. This includes chat rooms, Facebook, and other similar modes of communication in which the user retreats from sub-

“That tree over there could be a cyberimage.
I don’t think so.
But you can’t say you know this for sure.
I have no problem saying I know it for sure.
A man with no doubt?
I didn’t say that.” (1)
statal interpersonal relationships to the virtual reality of cyberspace. Individuals engaged in CMC are “electronically linked together while physically separate in different locations” (10). There are several unique features of CMC, one of which is the distortion of spatial perception and geographical distance. A neighbor and a stranger overseas are simultaneously accessible and intangible, with the corporeal existence of the other gradually fading (11). In this situation, “one’s experience is of being dislocated and disembodied” (12). Another distinguishing feature of CMC is the detachment of human language from a face and the absence of non-verbal cues. The ability to decipher input is negatively affected by this phenomenon, increasing the potential for uncertainty and misinterpretation. CMC users are strangers and acquaintances at the same time. Over three decades ago, Simmel showed that this paradoxical experience enables a total stranger to become a special confidant who is privy to the most intimate confidences (13). Intense feelings are calmly formed in this relationship, dependency develops without a firm grip of reality, and disappointment or suspiciousness might follow. Walther defines this mode of communication as "hyperpersonal" (14). He claims that the absence of prior acquaintance enables Internet users to form an idealized perception of the receiver and/or a grandiose self-presentation of the sender, eventually forming a feedback loop that allows the intensity of the relationship to be magnified. Thus, people can become intimate with each other without ever looking into one another’s eyes, without knowing if the “other” is telling the truth or, at times, if he actually exists. The notion of “truth” is fluid in CMC, and one is entitled to believe words and images instead of facts.

Another feature of CMC is the fluidity of information that can lead, at times, to the blurring of the barrier between the public and the private (15). One cannot control the information one receives (e.g., the requests for friends on Facebook), and is sometimes unable to protect the most intimate secrets one is willing to disclose only to selected recipients from being revealed to others, thereby gradually developing a stressful sense of transparency. One’s sense of responsibility is weakened on the web and potential harmful consequences are ignored (16). The sense of transparency, as well as repetitive and humiliating CMC experiences can directly contribute to the sense of distress.

These essential features of CMC have been discussed to a greater and lesser extent in the scientific and psychoanalytic literature, as were some of their ramifications on the “nature of experience, the body, and the sense of self” (17). Our extensive search of the medical and psychological electronic databases failed to produce any published attempt to link CMC to the loosening of reality testing and to the development of psychosis.

Presented below is a case series of patients who sought psychiatric treatment, due to psychotic symptoms, for the first time in their lives, which appeared de novo while they were immersed in CMC. On the basis of this accumulated experience, we hypothesize that the unique features of CMC might play a role in the formation of psychotic experiences, among vulnerable individuals, which we labeled “Internet-related psychosis.” We will list the specific CMC features in relation to the gradual evolution of our patients’ anxiety and psychotic experience. We will also characterize these vulnerable patients, and propose some appropriate therapeutic approaches.

**DATA**

The patients described in the following case studies were treated by psychiatrists in the outpatient clinic of the Shalvata Mental Health Center, affiliated to the Sackler Faculty of Medicine at Tel Aviv University. They all met the DSM-IV-TR criteria for either “Brief Psychotic Episode” or “Schizophreniform Disorder,” and their psychotic symptoms appeared de novo while they were immersed in CMC. We have changed relevant personal information of these patients to protect their anonymity.

**CASE REPORTS**

**CASE 1**

A 45-year-old female sought psychiatric treatment while she was in the midst of an acute psychotic episode. She had no prior psychiatric history and denied any past alcohol or drug abuse. She described herself as the one who always took care of family members in distress. She reported never having had a long-lasting relationship with a man. During the years prior to the index episode, she had been working as a caregiver of an old man who had died two months before the episode. Having no one to take care of and experiencing a feeling of emptiness, she became involved in CMC for the first time in her life. Her intention was to make friends and eventually find someone with whom she could have an intimate relationship, but she felt confused and disoriented in cyberspace. “You don’t see a human being in front of you… I didn’t know who I was communicating with and who was communicating with me…” In addition,
she described a sense of anxiety resulting from her loss of control over the ability to keep her personal and intimate feeling for herself and not to reveal them to others. She described the consequences of her ignorance of using the technological apparatus as, “I sent my mail to someone and it was passed on to many others… I hadn’t known that other people could see what I’m writing…” She came by herself to the psychiatric emergency room, and was diagnosed as suffering from an acute psychotic state. In her psychiatric assessment she expressed ideas of reference regarding her correspondence with other CMC users. “I felt that he was sending me hidden messages… That he knows things about me that I never revealed…” She also described paranoid delusions towards people on the web who are “investigating my past and are after me…” and the paranoid delusions were generalized to the television, the radio, and to people in her immediate environment. She willingly consented to be hospitalized in an open ward and was diagnosed as having suffered a “Brief Psychotic Episode.” She continued psychiatric follow-up in our out-patient clinic, remaining in full remission and with no further hospital admissions.

**CASE 2**

A 30-year-old female sought psychiatric treatment while she was in the midst of an acute psychotic episode. She denied any past alcohol or drug abuse. Ten years earlier she had been treated with a combination of Prozac and psychoanalytic psychotherapy, after experiencing anxiety related to taking examinations at the university. She had undergone psychotherapy for four years, and describes an ongoing ambivalence about her relationship with the man who later became her husband. Three years after ending psychotherapy, she and her husband separated, and she then started communicating with a married man who lived abroad via Facebook, a technological tool with which she was almost entirely unfamiliar. The man routinely posted video-clips on his Facebook page, and she erroneously thought he was sending them only to her. She gradually started giving important meanings to the colors, words, and music of the clips, convinced that intimate messages were hidden behind these details, and that these messages were intended for her alone. As she later recalled: “I was totally drawn into a relationship that was nice in the beginning, and then I began fantasizing about that man and developing hopes…I reached a point where correspondence with him occupied most of my day.” She replied with private messages, only to realize later, with dread, that because of her ignorance of technology, her messages might well have been accessible to other recipients. She eventually began to mistrust the man and his motivations, and became suspicious as to whether he was actually sending the messages, or perhaps it was his wife or some other member of his family. When the man rejected her in their virtual relationship her mental condition continued to deteriorate. During her initial psychiatric evaluation in our outpatient clinic, she was found to be in an acute psychotic state. Her mental status examination was noted for ideas of reference regarding the man she was communicated with via CMC, including additional hints about their relationship beyond cyberspace, such as on the radio and in advertisements. She also suffered from paranoid delusions and became increasingly anxious, suspecting that the man or his family might harm her. She was prescribed olanzapine (15 mg/d) and after three months only a partial remission was achieved. In addition, the patient suffered from weight gain and was therefore switched to perphenazine (28mg/d). Several weeks later she was re-assessed and considered as having a complete remission with no residual symptoms. She was diagnosed as having suffered from a “Schizophreniform” disorder.

**CASE 3**

A 30-year-old female sought psychiatric treatment due to a psychotic episode. She had no prior contact with mental health services and denied past drug or alcohol abuse. She was currently in a relationship with a man and worked as a nurse in a small community clinic. She had been fired from her job a few months earlier, because of financial constraints, and was now encountering difficulties in finding a new one. She received little emotional support from her boyfriend, and other close friends were unaware of the distress she was suffering from being unemployed. She had little experience with the Internet when she began to enter blogs and chat rooms looking for both employment and social contacts. Shortly thereafter, she began communicating with a man and developed intimate feelings towards him. She felt supported and understood by the “intimate stranger” and was emotionally drawn into their CMC. At a certain point, while interacting with the man, she reported, “I actually felt his hand touching me… on my stomach.” This hallucinatory experience
reoccurred a number of times, and was accompanied by enormous anxiety and restlessness. In the initial psychiatric evaluation she was excited and anxious, clinging, and perplexed about her experience. She was certain that the man she contacted through the web was really touching her, claimed she felt his hand touching her back, and could not explain the improbability and the impossibility of the event. She was found to be in an acute psychotic state, and was started on risperidone (2 mg/d). Within a few days she achieved full remission with no residual symptoms. Her final diagnosis was “Brief Psychotic Episode.”

**DISCUSSION**

The three patients presented here sought treatment for psychotic symptoms which appeared during an ongoing, continuously escalating involvement in CMC. These cases exemplify how specific features of CMC might contribute to a gradual break with reality and the development of psychotic phenomena among vulnerable individuals.

None of our patients had any history of Axis 1 or Axis 2 psychopathology, nor did they report a history of substance abuse. All three patients had 15 years of education, including a bachelor’s degree in their professional field. They arrived willingly to our facilities for psychiatric treatment and were diagnosed as suffering from an acute psychotic state for which they were started on antipsychotic medications.

It is essential to delineate specific characteristics of our patients in order to identify what could have made them especially vulnerable to the pathological effects of CMC. First and foremost, all three turned to CMC as a refuge from emotional distress and loneliness. Their attempt to generate intimacy by means of CMC was successful at first, with all three having become intensely involved with a total stranger and developing a dependency on an intangible object. This connection was followed by feelings of confusion and anxiety, and breaking of the “relationship” led to the experience of bitter disappointment and betrayal. All three of them had minimal prior experience with computers or the Internet, and encountered considerable difficulties in understanding the symbols by which people communicate in cyberspace. Their misinterpretation of the nature of the messages they were receiving led two of them to question the true identity and intentions of the “man” with whom they were “having a relationship.” Indeed, two of the patients felt that they had exposed themselves more than they intended, and were appalled that the information they had given about their private lives could now be freely accessed over the web. One of the patients experienced tactile hallucinations (“I felt that he touched my stomach”), and the blurring of the boundaries of the self.

Among certain vulnerable populations, such as those suffering from “Borderline Personality Disorder” (18, 19), a strong transferenceal interaction can sometimes lead to short psychotic episodes. This does not apply to our patients, since they had turned acutely psychotic from a state of normalcy. We also considered the possibility that these women suffered from an “Erotomanic Delusional Disorder,” but none of them met the DSM-IV criteria for this disorder. Likewise, they did not meet the DSM-IV criteria for schizophrenia or schizoaffective disorder. Psychotic episodes usually develop in specific circumstances, and are accompanied by emotional turmoil, anxiety, and interpersonal difficulties (20, 21). Our patients described their psychotic experience as related to their involvement in CMC. Each was capable of understanding the contribution of specific CMC features to the eventual development of her psychotic experience. In addition, the gradual development of the psychotic symptoms of each of our patients coincided with the intensifying involvement in CMC.

This case series led us to further our interest in those phenomena. Based on our personal experience, and from sporadic questioning of colleagues, it is our impression that CMC is capable of generating a very broad spectrum of psychopathological phenomena, ranging from brief dissociative experiences to true psychotic phenomena. We assume that the majority of these conditions are self-limiting and that they become contained sooner or later by the affected persons and their families without professional intervention. We are now in the process of a systematic study of patients and controls regarding Internet usage habits and their experiences while involved in CMC.

**CONCLUSIONS**

The spiraling use of the Internet and its potential involvement in psychopathology are new consequences of our times. We wish to raise the level of awareness of medical staff members to the development of Internet-related psychotic phenomena. These professionals might consider routinely querying patients who pres-
ent to the psychiatric Emergency Department about a possible link to the Internet, and be alert to signs of vulnerability to a negative influence of CMC in certain populations. Further research is warranted to validate our hypothesis and to enhance our understanding of these phenomena.

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The authors have no interests to disclose.

References