

## Facebook Role Play Addiction – A Comorbidity with Multiple Compulsive–Impulsive Spectrum Disorders

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*Background:* Problematic Internet use (PIU) is an emerging entity with varied contents. Behavioral addictions have high comorbidity of attention deficit hyperactivity disorder and obsessive–compulsive spectrum disorders. Social networking site (SNS) addiction and role playing game (RPG) addiction are traditionally studied as separate entities. We present a case with excessive Internet use, with a particular focus on phenomenology and psychiatric comorbidities. *Case presentation:* Fifteen-year-old girl with childhood onset attention deficit disorder, obsessive–compulsive disorder, adolescent onset trichotillomania, and disturbed family environment presented with excessive Facebook use. Main online activity was creating profiles in names of mainstream fictional characters and assuming their identity (background, linguistic attributes, etc.). This was a group activity with significant socialization in the virtual world. Craving, salience, withdrawal, mood modification, and conflict were clearly elucidated and significant social and occupational dysfunction was evident. *Discussion:* This case highlights various vulnerability and sociofamilial factors contributing to behavioral addiction. It also highlights the presence of untreated comorbidities in such cases. The difference from contemporary RPGs and uniqueness of role playing on SNS is discussed. SNS role playing as a separate genre of PIU and its potential to reach epidemic proportions are discussed. *Conclusions:* Individuals with temperamental vulnerability are likely to develop behavioral addictions. Identification and management of comorbid conditions are important. The content of PIU continues to evolve and needs further study.

**Keywords:** Facebook addiction, role playing, social networking site addiction, Internet addiction, Facebook role play

### BACKGROUND

Increasing Internet use has been accompanied by concerns regarding problematic Internet use (PIU). Excessive Internet use leading to psychological, social, and occupational problems is varyingly termed as PIU, Internet addiction disorder, and Internet dependence (Spada, 2014; Young, 1998). Multiple cross-sectional studies show that subjects who have so-called “Internet addiction” also frequently have disorders like attention deficit hyperactivity disorder (ADHD) and obsessive–compulsive disorder (OCD), social anxiety disorder, major depressive disorder and bipolar disorder (Ha et al., 2006; Ko, Yen, Chen, Chen, & Yen, 2008; Wolfling, Beutel, Dreier, & Muller, 2015). Furthermore, systematic reviews and meta-analyses have confirmed these findings, showing a strong association between ADHD, depression, and PIU (Carli et al., 2013; Ko, Yen, Yen, Chen, & Chen, 2012). This poses special challenges for a diagnostic category that is not well established for two reasons (Klein & Riso, 1993). First, it questions the specificity of a diagnostic category (is it separate from another disorder?) (Miller, 2007). Second, it casts a shadow on “atheoretical and confirmatory” approaches used to identify a new diagnostic category (Pincus, Tew, & First, 2004). An instructive finding to this end is a recent study that shows significant improvement in PIU with the treatment of comorbid OCD (Bipeta, Yerramilli, Karredla, & Gopinath, 2015).

There are competing views about the importance of content in PIU. One school of thought proposes that the Internet per se has potential to cause addictive phenomenology (Block, 2008; Yau, Crowley, Mayes, & Potenza, 2012), whereas another gives more importance to the particular activity a person engages in, Internet acting as a medium (Griffiths, 2000; Widyanto & Griffiths, 2006). The latter conceptualization leads to subtypes of PIU such as excessive online gaming, cybersex addiction, and social networking site (SNS) addiction/cyber-relationship addiction (Weinstein, Curtiss Feder, Rosenberg, & Dannon, 2014). Excessive SNS use has been reported from various parts of world and “Facebook addiction” is reported more commonly in the younger population (Kuss & Griffiths, 2011). Excessive Facebook use has been traditionally viewed as a type of cyber-relationship activity. Massive multiplayer online role playing games (MMO-RPG) are a type of MMO games where individuals create a virtual game-self and engage in complex interactions, fulfilling different tasks (Nagygyörgy et al., 2013). Internet gaming disorder is included in Diagnostic and Statistical Manual of Mental Disorders (DSM 5) in “an appendix of disorders for further

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study” while SNS addiction is not an official diagnosis currently (American Psychiatric Association, 2013). SNS like Facebook prohibit role-playing (except in third party applications like Farmville) (Facebook, 2015), also it is worth noting that role playing in Facebook can only be text based. Keeping these differences in mind, we present a case of excessive Facebook use, with a particular focus on phenomenology and psychiatric comorbidities.

## CASE PRESENTATION

A 15-year-old class 10 student from an urban background presented to psychiatry services, she sought residential treatment for “excessive Facebook use.” The perinatal period was uneventful and developmental milestones were attained at par with other children. Client’s father had heavy alcohol use suggestive of dependence and there was severe discord among parents. The client had witnessed frequent physical violence since an early age; however, she was not directly abused. She reported being psychologically detached from her parents. Client and her mother reported four main clusters of symptoms:

*Inattention and hyperactivity.* Client and her mother reported a history of hyperactivity, inattention in class and home, easy distractibility, impulsive motor acts, which were noted since an age of 5–6 years. This interfered with school performance and engagement in collective play as a child. Hyperactivity was not reported as a problem for last 5 years, but inattention was persisting and causing dysfunction.

*Excessive Facebook usage,* which will be elaborated in this report.

*Ritualistic and repetitive behaviors.* Since an age of 8–10 years, patient had an excessive need for symmetry and arrangement. She did not report any egodystonic thoughts but experienced anxiety when her surroundings (like chairs in a classroom, books in a shelf, etc.) were not properly aligned. This was accompanied by arranging and checking behavior, which client felt was excessive. These behaviors caused dysfunction as she found it difficult to finish various tasks in time. This also led to embarrassment in school as patient frequently tried to arrange seats in her classroom.

*Hair picking.* Client reported urges to pluck hair from the scalp for last 2 years. She described mounting tension prior to plucking and relief after it. She was controlling these urges after she developed a bald patch and underwent a brief period of counseling to stop this behavior. At the time of presentation, she had good control over these impulses.

*Excessive Facebook use:* Client reported the first use of Facebook at an age of 10 years. For next 1 year, she used it once or twice a week. Over the next 2 years, it increased to almost an hour per day. Primary motivation during this period was reported as recreation, enhancement of offline social circle and exploration. She was introduced to the idea of role-playing by a friend; this was by creating a profile in the name of a fictional character from popular culture. She found this novel exciting. This form of Facebook use involved membership of virtual communities centered on

characters of a given novel/movie/television series. Members emulate these characters in language, attitude, and so forth. The client reported that complex relationships develop among these characters. These relationships are initially based on the plot (of the source on which characters are based) but can go beyond it with time. This gave the whole process a perpetual, parallel, and interactional nature. Participants received praise or were trolled based on how they fare in the community and how well they emulate their character.

Client enjoyed this “virtual world” and saw it as an escape from reality. However, this consumed increasing amounts of time. Over last 1 year, she was spending 8–10 hr in a day logged in Facebook. She reported that while she was not online, she was continuously preoccupied with making plans and plots, researching new characters and felt an irresistible urge to use Facebook. As her mother started restricting the use of a computer, she accessed the Internet stealthily over her father’s phone at night. She reported inability to sleep, irritability, lack of concentration if she abstained from Facebook. There was a significant elevation of mood with role-playing and client’s offline interactions decreased significantly. There was also the loss of interest in studies and she failed in her exams. The client was ambiguous about the desirability of this behavior but wanted to limit the time spent in it.

Physical examination and blood investigations did not reveal any secondary causes for her symptoms. The psychological assessment revealed high extroversion, high Ergic tension, and low concern for societal rules. She scored 49 out of 100 on Wender-Utah rating scale (Ward, Wender, & Reimherr, 1993) for adults (cut-off = 46). She scored herself “very often” in five out of six questions of Bergen’s Facebook addiction scale (Andreassen, Torsheim, Brunborg, & Pallesen, 2012). The client was evaluated as an inpatient. History was collected from her and her mother. During her evaluation, no history of mood or anxiety disorder was elicited. Case history, observation during inpatient stay, and investigations were reviewed by two psychiatrists with experience in child and adolescent psychiatry as well as addiction medicine. Major depression was considered as a differential diagnosis as patient reported irritability and sleep disturbance for last 1 year. However, these symptoms are better understood in light of increasing Facebook use and related preoccupations. Also, mental status examination did not reveal depressed affect, depressive cognitions, or psychomotor retardation. During her stay at the hospital, she experienced a rapid improvement in irritability and sleep disturbance. Specific enquiry to rule out social anxiety disorder revealed no fear of negative evaluation, autonomic arousal, or avoidance of social encounters. She was diagnosed with OCD with poor insight, trichotillomania, and ADHD, predominantly inattentive presentation of moderate severity as per DSM 5 (American Psychiatric Association, 2013).

## DISCUSSION

This report presents a case of problematic Facebook use with features of behavioral addiction. The presence of

comorbid psychiatric disorders and the pattern of Facebook use requires further elaboration.

First, client suffered from ADHD, which is a well-reported comorbidity with PIU (Carli et al., 2013). Importantly, ADHD is a risk factor for substance use disorders irrespective of gender (Davis, Cohen, Davids, & Rabindranath, 2015). Since behavioral addictions have similarities with substance addictions (Potenza, 2006), it is possible that ADHD is a risk factor for PIU also. More importantly, although ADHD caused significant dysfunction since an early age, it was not diagnosed earlier. ADHD is frequently underdiagnosed and patients with ADHD are more likely to seek treatment for other mental disorders than ADHD itself (Ginsberg, Quintero, Anand, Casillas, & Upadhyaya, 2014). Cultural and gender-related factors are important contributors to underdiagnosis of ADHD (Asherson et al., 2012; Ginsberg et al., 2014; Quinn & Madhoo, 2014).

Second, the client had multiple obsessive compulsive spectrum symptoms. OCD is a commonly reported comorbidity in PIU (Carli et al., 2013). It is theorized that behavioral addictions represent a “nexus of impulsivity and compulsivity” (Cuzen & Stein, 2014). This new understanding challenges clear boundary between impulsivity and compulsivity (Hollander, 2014). In this light, it is notable that this client had OCD and trichotillomania along with PIU.

Third, psychosocial factors are important in this case. Personality factors of extraversion and disregard for societal rules are reported frequently in PIU (Motttram & Fleming, 2009). Studies from Asian countries have shown a relationship between family cohesion, parenting attitudes, family violence, and PIU (Park, Kim, & Cho, 2008; Wang et al., 2011).

The presence of these untreated comorbidities is important from a pragmatic and academic perspective. It is known that early identification and treatment of ADHD decreases the risk of developing substance use disorders in later life (Katusic et al., 2005). It is possible that early diagnosis and treatment of ADHD may have a protective effect for behavioral addictions also. It is also argued that overemphasis on “addiction model” for the treatment of behavioral addictions may be suboptimal and management strategy should be tailored considering individual comorbidities (Billieux, Schimmenti, Khazaal, Maurage, & Heeren, 2015). From an academic perspective, it raises the issues of “lumpers” versus “splitters.” It can be conceptualized that loss of control over a behavior (a hallmark of behavioral addiction) is a part of an externalizing diathesis (Krueger & South, 2009).

This case is atypical as it involves a combination of cyber-relationship and role playing. The Facebook environment does not support typical attributes of MMO, namely physicality, persistence, perpetuity and it is not avatar mediated (Chan & Vorderer, 2006). In fact, online games have evolved from text based and table top RPG; thus, text-based RPG is retrogressive in the current context (Barnett & Coulson, 2010). This suggests that role-playing in itself can be an engrossing and rewarding activity. Further, it is speculated that it fulfills unmet psychological needs (Allison, Wahlde, Shockley, & Gabbard, 2006). Importantly, role-playing on Facebook offers unique advantages, such as

larger peer groups, flexibility and multiplicity of content, and it does not require high-speed Internet. This type of role playing is not reported in the scientific literature, but it is an ongoing trend in popular culture (Kiberd, 2014). This is notwithstanding that Facebook prohibits role playing.

There are several limitations to this report. First, it is a single case report and thus, it cannot be considered as strong evidence. Second, assessment does not include structured clinical interview, which may have substantiated the diagnostic process.

In summary, this case highlights vulnerabilities, comorbidities associated with PIU, and variability of content to which Internet serves as a medium. It emphasizes the need for early detection and treatment of psychiatric illnesses. All patients presenting with PIU should be evaluated for comorbid disorders. As this field is growing, it is important to study these patterns and mental health professionals need to acquaint themselves with the “online culture.”

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