

Clinical Case Reports

Video game addiction: Impact on teenagers' lifestyle

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ABSTRACT

Use of video games as a leisure-time activity has increased among teenagers. Excessive use of video games is associated with psychosocial dysfunctions in the user's life. Two teenagers came for consultation to our Service for Healthy Use of Technology (SHUT) clinic for management of addiction due to video games. They were assessed using a clinical interview as well as the General Health Questionnaire and Griffith criteria for video games. The cases emphasize the addictive potential of video games and their association with lifestyle changes. Addiction to video games has implications for screening and intervention among teenagers.

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INTRODUCTION

Teenagers often get hooked on video games as a leisure-time activity. The partial reinforcement effect of games plays an important role in the excessive time spent on them.¹ Teenagers keep playing in the belief that another reward is just around the corner. The magnitude of the reward also plays a key role in developing addiction to video games. Large and instant reinforcements lead to faster responses and greater resistance to closing the session. Success in video games also relies on intrinsic factors (such as getting a higher score for self as well as for the team, ranking in terms of best player or ruminations related to loss or psychological problems) as well as extrinsic factors (recognition by others). The playing of a video game is positively related to the presence or absence of a goal, the availability of automatic computer scores, random quality of games and the degree to which rapid reaction times enhance the scores of the games.² Adolescents may use online games as a way of coping with stressors or to manage anger and frustration.³ Online gaming addiction leads to depressive symptoms, anxiety and somatization.⁴

Despite the known harmful effects of addiction to video games, research in this area is scarce. Internet addiction began to arouse the interest of mental health researchers and clinicians in the mid to late 1990s soon after access to the internet became widely available in many countries. Internet addiction has since come to be labelled, defined in several ways,^{5,6} and promoted for inclusion in the Diagnostic and Statistical Manual (DSM) of the American Psychiatric Association.⁷ This development is indicative

of its rapid emergence as a problem for individuals, families and the community. The initial conceptualization of internet addiction was based around the DSM IV criteria for substance abuse, pathological behaviours such as gambling⁶ or obsessive-compulsive disorder because there was no category for addiction disorders within the DSM. Internet use disorder (primarily related to excessive use of the internet for online gaming) has now been included in the DSM 5 appendix as a condition that requires further research to establish its worthiness for inclusion in the DSM as an empirically verified, valid behavioural addiction.

The patients described below had sought help at the Service for Healthy Use of Technology (SHUT) clinic. It is India's first clinic to manage technology addiction.

THE CASES

Case 1

A 15-year-old, academically bright and creative teenager started spending 10–12 hours a day playing video games. He said the excessive use of games gave him a feeling of well-being, and helped him manage his boredom, academic decline and interpersonal problems. He started losing interest in his studies. He developed an erratic sleep pattern and used to go to bed at 4 or 5 a.m., sleep till 1 p.m., and after waking up he preferred again to play games. His eating habits were not regular and he did not bathe for days. He experienced problems in starting and completing routine activities in a timely manner. He started avoiding social interactions, i.e. did not reciprocate a social gesture. He used to get irritated whenever his parents asked him to stop playing games. He scored 84 on a 20-item internet-addiction test,⁸ e.g. 'How often do you find that you stay on-line longer than you intended?'; 'How often do you lose sleep due to late-night log-in?'; 'How often do you try to hide how long you've been on-line?', etc., indicating problems due to the internet use and met the 8-items Griffith criteria of video game addiction⁹ (e.g. 'Do you frequently play most days?'; 'Do you play to beat your personal high score?'). The 12-item General Health Questionnaire¹⁰ revealed psychiatric distress.

We used motivation enhancement therapy to minimize the dysfunction due to excessive use of games and psychoeducated him to reduce the dysfunctions (sleep disturbance, irregular eating habits and losing academic grades) due to excessive use of technology. He was explained sleep hygiene and time management techniques. He was advised to practise these as a home assignment. Family sessions were held to reduce their concern about the use of technology and methods to improve their interaction with the user as well as rewarding the teenager for non-technology-related activities. The family was encouraged to participate in family group sessions. Improvement was seen in the form of the teenager taking frequent breaks, doing stretching exercises to relax his body as well as increased interaction with family members.

Case 2

A 17-year-old boy, who was among the top three students till class VIII, got a computer and started playing online video games in class IX. Subsequently, he started spending 10–14 hours a day on the computer, started skipping his classes and did not clear his examination. He stopped going to school and did not interact with

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anyone. He preferred to take all his meals at his computer table. He did not watch television or talk to any friends. His behaviour was rough; he would break things and tear clothes if he was asked to stay away from the computer. He beat his mother on several occasions. Because of his excessive online activities, he developed neck pain, fatigue and eye strain. Despite these problems, he continued to play online games. He scored 81 on the internet-addiction test (e.g. 'How often do you lose sleep due to late-night log-in?'; 'How often do you try to cut down the amount of time you spend online?'), indicating problems due to the internet. He also met the Griffith criteria of video game addiction (e.g. 'Do you make repeated efforts to stop or decrease playing?', 'Do you play instead of attending to school-related activities?'). The General Health Questionnaire (12 items) revealed the presence of psychiatric distress.

Motivation enhancement therapy was used to motivate him to minimize the dysfunction due to excessive use of games. He was also counselled to reduce the dysfunctions (sleep disturbance, pain, eating habit and academic) due to excessive use of technology. Relaxation, stretching exercise, time management and exercises to improve attention/concentration were explained. Family sessions were held to reduce the concern of family members about the use of technology as well as enhancing communication on non-technology-related issues. His family members were also encouraged to participate in family group sessions. He improved and was seen to take frequent breaks, do stretching exercises to relax his body; he also started outdoor activities.

Both families participated in family group sessions. These sessions helped the families to learn from other families as well as extend support to others.

DISCUSSION

These cases show the addictive potential of video games and their impact on a young person's life. Despite its common use, the term internet addiction is still disputed. There are diverse approaches to defining and measuring the construct, and there is no consensus as to whether internet addiction exists.¹¹ For example, adolescent over-users and heavy users of the internet should not be labelled as internet-addicted because today the internet is used for many daily activities.¹² However, South Korea considers internet addiction one of its most serious public health issues and in China, there were estimated to be 10 million internet-addicted teenagers. There are now laws that discourage more than 3 hours of playing games on the internet every day.⁷

Regardless of whether internet addiction exists as a specific disorder, most cases have one or other comorbid DSMIV diagnosis. It is for the comorbid condition that the internet-addicted individual (psychological problems such as depression, chronic fatigue syndrome, psychosis, obsessive-compulsive disorder) presents for treatment; therefore, unless the therapist is specifically aware of the condition and looking for it, internet addiction is unlikely to be detected.⁷

Internet addiction also has an effect on social performance and lifestyle.¹³ Addictive use of internet has an adverse effect in the form of irregular dietary habits and physical problems due to excessive use of internet and decrease in the duration of sleep^{14,15} and increased use of alcohol and tobacco.^{15,16} Internet addiction has an association with insomnia, apnoea and nightmares.¹⁶ Among

adults, it leads one to disregard crucial daily responsibilities such as work, academic, family or social obligations.¹⁷

Other studies corroborate that dependency manifests in the form of truancy from school to play games, losing academic grades at school, decreased social activities; irritability if unable to play for long periods of time; an increase in expression of aggression; and wrist and neck pain.¹⁸⁻²⁰ Excessive use of video games is associated with decreased participation in educational, sports and outdoor activities.²¹ An inverse relationship has been seen between physical activities and playing video games.²²

Conclusions

Since our clinic gets teenage users, there is a need to explore the addictive use of video games among adults and by longitudinally studying the initiation, development, maintenance, neural correlates of video game addiction, consequences of video game addiction for developing interventions and the clinical importance of associated variables.

Conflict of interest: None

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