

Cognitive Behaviour Therapy in treatment of Internet Addiction: Case Studies

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ABSTRACT

Background; Increasing use of the internet and easy availability, accessibility and affordability of internet on a computer, laptop and smartphones affected individual's lifestyle, abilities and way of getting satisfaction. The way of satisfaction attracting attracts individuals for using the internet more and more which leads them to addiction. Several studies in various countries have been done regarding the use and misuse of the internet, the prevalence rate of internet addiction, and effects of internet addiction on individuals' life, however, research on the treatment of internet addiction seems to be limited in India

Aim: To assess the effectiveness of cognitive-behavioural therapy for the treatment of internet addiction in India.

Method: Case study method has been used.

Procedure: Twelve sessions of cognitive behaviour therapy were conducted with two cases diagnosed with internet addiction. **Tools;** The effectiveness of the therapy session was monitored with Internet Addiction Symptoms Score by comparing pre-test and post-test results and parent's verbal feedback.

Result: Internet Addiction Symptoms Score and the verbal feedback showed a significant reduction in the level of dependency and also change in way of coping strategies and behaviours in both cases. After intervention both the cases are using the internet in a healthy manner, improving their academic performance and interpersonal relationships with family members and friends.

Conclusion: Findings of the case studies, confirmed that cognitive behaviour therapy is an effective treatment method for Internet Addiction Behaviour.

Keywords: Internet, Addiction, Cognitive, Behaviour, Therapy

BACKGROUND

Internet Addiction behaviour is a new challenge for individuals, family and society. Easy accessibility, affordability and availability of facilities, services, needful content materials and attractive content attract and facilitate everyone to use the internet. During the use of the internet, individuals' level of satisfaction and pleasure is compelling them to spend more and more time on the internet, gradually everyone is becoming dependent knowingly or unknowingly. The constant over dependency and unconditional satisfaction develop addiction in an individual. The term internet addiction was first used by Goldberg in 1995. Young (1996) defines internet addiction as "Excessive time spent on internet activities and online relationship than other activities of offline"

According to DSM – 5 (2013) as: I) excessive use, often associated with a loss of sense of time or a neglect of basic drives; II) withdrawal, with feelings of anger, tension, and/or depression when the computer is inaccessible; III) tolerance, with the need for better computer equipment, more software, or more hours of use; and IV) negative repercussions, with arguments, lying, poor achievement, social isolation, and fatigue (American Journal of Psychiatry, 2008). As per the definition of internet addiction disorder prevalence rate varies from country to country from 2.3% to 20.3% in adolescents (Ha et al., 2006) while 47% of high school students are using the internet at the level of internet abuse in South Korea. All about 462 million Indians were using the internet in the year 2016 in comparison to 100 million in 2010, so 36.5% of the

population are using the internet in India. The internet is used for research work, to seek knowledge and information, for communication, for business, money transactions, travelling and for entertainment while on the other hand, the internet is also used for watching pornography, excessive gaming, chatting for long hours, online shopping and even gambling. The prevalence of internet addiction was found to be 0.8%, 19.5% and 58.2% respectively as severe to moderate to mild levels (Sushma, et al 2018). Another study reported that 57.7% of professional college students met internet addiction criteria and out of the 38.7% was to be found depressed (Subhashini & Praveen, 2018). Prevalence rates of Internet addiction ranged approximately from 1.0% to 18.7% worldwide (Pontes, Kuss & Griffiths, 2015). Many other studies reported co-morbid psychiatric disorders and emotional problems are associated with internet addiction disorder such as anxiety, depression, eating disorder, attention deficit hyperactivity disorder, and aggression (Chih-Hung, et al. 2009; Sapda, 2014; Lee, et. al. 2014; Lam, 2014 and Kuss & Lopez-Fernandez, 2016). Such co-morbid conditions impaired an individual's day to day functioning. Studies depicted that Internet Addiction is causing damage in personal, social, physical and mental aspects of life, such as job loss, marital dissatisfaction, divorce, family disagreements, social isolation, academic failure, absenteeism or exclusion from school and classrooms, sleep disturbances, musculoskeletal pain, tension headache, eating problem, fatigue, vision problems, and cognitive abilities like verbal communication, calculation and memory (White, 2011, Cheung & Wong, 2011 and Maurya et. al. 2018).

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In India, internet addiction disorder is rarely reported by patients or informants. Mostly they came for treatment of the co-morbid condition. However, research studies suggested that internet addiction can be treated by psychotherapies. Young (1996) was the first one who considers internet addiction as a disorder and she treated a number of patients by cognitive behaviour therapy (CBT) in her clinic [2]. Young and Davis's Cognitive behaviour therapy models of internet addiction treatment are the most comprehensive and functional models. Cognitive behaviour therapy is a therapeutic approach that develops a therapeutic relationship between patient and therapist and teaches patients to recognize and understand their thoughts, feelings and behaviours and their relationship with each other. They are trained to identify their thoughts and feelings that trigger addictive behaviours. CBT also teaches different coping strategies and promote treatment adherence and relapse prevention. Young's cognitive behaviour therapy for internet addiction is limited to time and takes 12 sessions; the initial stage of therapy is focused on the assessment of specific behaviours related to internet activities such as time, purposes and situations in which the impulse control problem causes the greatest difficulty. After detailed assessment behavioural strategies are to be planned to train the client for time management, daily activity schedule monitoring and involvement in the development of alternative activities. The self-monitoring activity helps a client in the identification of the usual pattern of internet using behaviours, and to develop alternative activities. Along with these strategies exploring causes leading to isolation, limited social life on the internet than real life, and how can one move in real-life situations. As therapy starts more focus is on the cognitive assumptions, core beliefs and cognitive distortions which have developed and affects an individual's feeling and behaviour. Researches emphasized the positive effect of cognitive behaviour therapy for the treatment of internet addiction disorder (Young, 1999, 2000, 2007, 2011; Davis, 2001; Erden & Hatun 2015; Du, Y., Jiang, W., Vance, A., 2010; Kuss, 2016).

In the view of studies which were conducted in other countries on internet addiction disorder, it was planned to use cognitive behaviour therapy for the treatment of patients suffering from internet addiction. **Aim:** This study focused on the effectiveness of cognitive behaviour therapy in India. **Method:** Research Design; Individual Case Study Design was used. **Sample Size and Sampling Techniques;** Case study method was used for obtaining the objective of the study. Total two cases were taken, **Tools;** Internet Addiction Symptoms (eight internet addiction symptoms given by young) were monitored by using 0 to 10 point self-made visual analog scale. **Procedure;** The therapy sessions were designed for twelve sessions by trained and registered Clinical Psychologist, each session lasting approximately 45 minutes. The patient's necessary consent and permission were obtained before starting the therapy session for the study within the framework of ethics.

DESCRIPTION OF CASE

Case 1

Mr. H. 16 years old boy suffering from internet addiction was brought by a parent to "Vikalp" a non-Pharmacotherapy Center, Ghaziabad for psychotherapy.

According to his parents he has significantly declined his study performance, living alone, irritable by nature that makes him socially isolated. His compulsive video watching and online gaming had increased and it poorly affected his interpersonal relationships and declines his motivation for study. He began watching videos and playing games from starting but last one year he has started playing an online game with his school friends. Initially, he played for an hour daily and up to 4-5 hours on the weekends, with strict time limitations as set by his parents. For the last year, he is not able to control himself. Sometimes he is trying to hide and if anyone asked, he becomes irritable and aggressive. He is the single child of his parents. His parents were working but his mother has resigned from her job because of his problem. According to the patient "he was neglected by parents from the beginning. He had no friends, no one likes me but now he started making friends and enjoying with them, his parents are controlling him that makes him irritable" he also reported that he has college friends group on WhatsApp and sometimes they are discussing important topics, knowledge and information." The severity of internet behaviour was monitored by self-made visual analog scale on the basis of young's Internet Addiction Symptoms (IAS); before the intervention, he got a total score of 58 and after the 10 CBT sessions (11th session) he got a total score only 26 which indicates significant improvement. The patient and his parents were also reported significant changes in his lifestyle and way of problem-solving approach and he has total control over online activity.

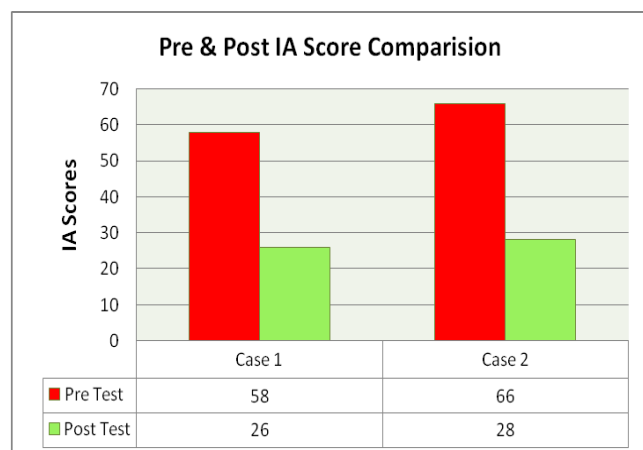
Description of cognitive behaviour therapy (CBT) Sessions

Phase	Description
1 (Session 1 & 2)	Assessment of internet addiction behaviour and associated problems. Psychoeducation about internet addiction behaviour, identified triggers and maintaining factors that increased internet addiction and associated problems.
2 (Session 3 - 6)	Behavioural strategies: Training of activity scheduling for breaking the routine of internet use, self-monitoring, time management and developing alternative activity of internet and homework assignments.
3 (Session 7 - 10)	Cognitive restructuring: "Just a few more minutes on Internet won't harm me." "I have to answer my friends immediately; otherwise, they will not forgive me." "If my friends don't give "likes" on my posts or my photos, it is a signal that they don't like me or that I did something wrong." "If I disconnect from the Internet, I will miss important things." "Internet is necessary for me, without internet I can't do anything."
4 (Session 11)	Review of therapy sessions; progress monitored and reinforcement was given for continued recovery with feedback
5 (Session 12)	Prepared for relapse prevention through new real-life experiences, beliefs and behaviours, social skills, way of coping with problems, verbal communication and termination of sessions.
Follow-ups	In follow-up sessions, the patient stated that he is using the internet for a limited period as a pattern was developed during the sessions. He did not feel any deprivation when he was offline and did not experience any problems in relationships with family and friends because of the internet.

Case 2

Mr. R. 19 years old male suffering from internet addiction was brought by parents in OPD. According to his parents, he has significantly declined his academic performance, is irritable by nature that makes him socially isolated and increased smoking behaviour. His compulsive pornography watching and online gaming had increased and it poorly affected his interpersonal relationships with family members as well as his friends and stopped going for classes last one month. He was watching videos and playing games online but last six months he has started watching pornography and online chatting with girls at midnight. He is sleeping in day time instead of at night. Initially, he played video games for an hour daily with strict time limits but last six months he is unable to control it. According to the patient "I have no problem with the internet. Instead of the internet, they are creating problems in my life because they do not like me and do not want to see my happiness. I am using the internet for getting knowledge, information and entertainment. The severity of internet addiction and pornography consumption behaviour were monitored by self-made visual analog scale on the basis of young's Internet Addiction Symptoms (IAS) and Pornography consumption Inventory (PCI) before the intervention he got a total score of 66 on IAT and 55 on PCI. After the 10 CBT sessions (11th session) he got a total score of 29 on IAT while 16 on PCI which indicates significant positive change. The patient and his parents also reported significant changes in his behaviour, lifestyle and way of coping with stressful situations. He has better control over online activity.

RESULTS



DISCUSSION

These case studies were planned to assess the effectiveness of the cognitive-behavioural therapy, which is expected to help individuals to cope with internet addiction disorder and develop healthy internet using skills for a better life.

The, both cases were diagnosed with internet addiction disorder and their pre-test score on internet addiction severity score also suggested that they were suffering from moderate to severe level of internet addiction disorder. Before starting intervention, cases were conceptualized and psychological case formulations were made to use Davis's (2001) Cognitive Behaviour Therapy Model. The treatment strategy was implemented in a structured way as planned

with patients by a trained therapist. The intensive therapeutic intervention started with behavioural strategies such as activity scheduling and self-monitoring activity that helps the patient to manage his behaviour and facilitate a level of insight about his problems that further became helpful in the restructuring of cognitive errors by using the Socratic questioning technique and progress of the therapeutic intervention. In the last phase of intensive therapeutic intervention relapse prevention techniques were also thought to help the patients to maintain progress and prevent relapse. The post-test was conducted to assess the impact of therapy sessions on the patient. The patient's post-test scores on IAT were 26 and 28 in comparison to pre test scores. These scores depicted no symptoms of internet addiction. Also, the patient's improving interpersonal relationships family and friends, academic performance and their feedback on the time spends on online activities indicate the success of the therapeutic sessions of cognitive behaviour therapy which is similar to other research studies in various countries (Young, 1999, 2000, 2007, 2011; Davis, 2001; Erden & Hatun 2015; Du, Y., Jiang, W., Vance, A., 2010; Kuss, 2016) .

CONCLUSION

The pre-test and post-test scores of the patient, feedback of the parents and the researchers' (therapists') observations strongly indicate that the objectives of the study were obtained. On the basis of this finding, it can be concluded that Cognitive behaviour therapy is an important technique for the treatment of internet addiction disorder. This study suggests to researchers, clinicians and therapists to focus on the intervention and treatment of internet addiction instead of only assessment and exploration by using young's cognitive behaviour therapy model.

Challenges: The Internet has become necessary for an individual's life. In this condition, complete abstinence is not possible so that, maintenance of the motivation level of the patient for controlling their behaviour on the internet is a big challenge associated with needs, pleasure and satisfaction.

Application of The Study; The study will become useful for clinicians and therapists to make a plan for the treatment of internet addiction.

REFERENCES

- American Journal of Psychiatry. (2008). Issues for DSM-V: Internet addiction. *American Journal of Psychiatry*, 165(3), 306–307.
- Cheung, L. M. & Wong, W. S. (2011) 'The effects of insomnia and internet addiction on depression in Hong Kong Chinese adolescents: an exploratory cross- sectional analysis.' *J. Sleep Res*, 20 (2), 311-7. DOI: 10.1111/j.1365-2869.2010.00883.x
- Davis, R. A. (2001) 'A Cognitive-behavioural model of pathological internet use.' *Computer Human Behaviour*, 17, pp.187-195.
- Du, Y., Jiang, W. & Vance, A. (2010) 'Longer Term Effect of Randomized, Controlled Group Cognitive Behavioural Therapy for Internet Addiction in Adolescent Students in Shanghai.' *Australian and New Zealand Journal of Psychiatry*, 44, pp.129–134.
- Erden, S. & Hatun, O. (2015) 'The Use of Cognitive-Behavioural Therapy in Coping with Internet Addiction: A Case Study.' *Addicta: The Turkish Journal on Addictions*, Spring, 2(1), pp.70-83.
- Goel, D., Subramanyam, A. & Kamath, R. (2013) 'A study on the prevalence of internet addiction and its association with

- psychopathology in Indian adolescents.' *Indian J Psychiatr*, 55 (2), pp.140-2.
- Ha, J. H., Yoo, H. J., Cho, I. H., Chin, B., Shin, D., & Kim, J. H. (2006) 'Psychiatric comorbidity assessed in Korean children and adolescents who screen positive for Internet addiction.' *Journal of Clinical Psychiatry*, 67(5), pp.821–826.
- Ko, C. H., Yen, J. Y., Chen, C. S., Chen, C. C. & Yen, C. F. (2008) 'Psychiatric comorbidity of Internet addiction in college students: An interview study.' *CNS Spectrums*. 13 (2), pp.147–153.
- Kuss, D. J. & Lopez-Fernandez, O. (2016) 'Internet addiction and problematic internet use: a systematic review of clinical research.' *World J Psychiatry*. 6, pp.143-176.
- Kuss, D. J. (2016) 'Internet addiction: The problem and treatment.' *Addicta: The Turkish Journal on Addictions*, 3, pp.185–192. <http://dx.doi.org/10.15805/addicta.2016.3.0106>.
- Lam, L. T. (2014) 'Risk factors of internet addiction and the health effect of internet addiction on adolescents: a systematic review of longitudinal and prospective studies.' *Curr Psychiatry Rep*, 16, 508.
- Lee, J. Y., Shin, K. M., Cho, S. M. & Shin, Y. M. (2014) 'Psychosocial risk factors associated with internet addiction in Korea.' *Psychiatry Investig*. 11, pp.380-386
- Maurya, V. P., Jameel, S. & Patel A. K. (2018) 'Impact of information & communication technology on numerical, verbal and writing ability among students.' *International Journal of Humanities and Social Science Research*, 4 (1), pp.21-23
- New Yorker Magazine. Just Click No. Talk Story about Dr. Ivan K. Goldberg and the Internet Addiction Disorder. <http://www.newyorker.com/magazine/1997/01/13/just-click-no>
- Pontes, H., Kuss, D. & Griffiths, M. D. (2015) 'Clinical psychology of Internet addiction: a review of its conceptualization, prevalence, neuronal processes, and implications for treatment.' *Neuroscience and Neuroeconomics*, 4 (1), pp.1-13. DOI: 10.2147/NAN.S60982.
- Smita, G. & Azhar, F. A. (2018) 'Prevalence and Characteristics of Internet Addiction among University Students in Mauritius.' *SM J Case Rep*, 4 (1), 1077.
- Spada, M. M. (2014) 'An overview of problematic Internet use.' *Addict Behav*, 39, pp. 3-6.
- Subhashini, K. J. & Praveen, G. (2018) 'An era of digital slavery: a study on internet addiction among professional college students of Hassan, Karnataka.' *International Journal of Community Medicine and Public Health*, 5, (7), pp.2977-2983
- Sushma, J., Ahmed, M., & Amrutha, A. M. (2018) 'A study to assess internet addiction among undergraduate medical students of MMC&RI, Mysore.' *Int J Community Med Public Health*, 5, pp.2984-8.
- White, M. B. (2011) 'Internet addiction: A review of associated health hazards.' *Usana Health Sciences* <http://www.myhealthyhome.com/wp-content/uploads/2011/02/Tech-Invasion-Internet-Addiction.pdf>
- Young, K. (1996) 'Pathological internet use: the emergence of a new clinical disorder'. *Cyber Psychology and Behaviour*, 1 (3), pp. 237–244
- Young, K. S. (1999) 'Internet addiction: Symptoms, evaluation and treatment. Retrieved from <http://netaddiction.com/articles/symptoms.pdf>
- Young, K. S. (2000) 'Cyber-disorders: The mental health concern for the new millennium.' *Cyber Psychology and Behaviour*, 3(5), pp.475-479.
- Young, K. S. (2007) 'Cognitive behaviour therapy with Internet addicts: Treatment outcomes and implications.' *Cyber-Psychology and Behaviour*, 10(5), pp.671–679.