



Pornography as a replacement for substance use: an emerging approach to understand addiction mechanism

Abstract

Substituting addiction, using one substance instead of another has been an important area of research in recovery and relapse prevention studies on substance dependence. Mostly studies have studied this phenomenon in relation to alcohol and drugs use substituting each other. However there is a dearth of research on emergence of pornography use as a substitute for substance dependence. The case was analyzed using clinical interview and tools were administered for evaluation and understanding the pattern of technology use. The case shows the emergence of pornography as a substitute for substance abuse. The case study highlights the replacement of substance use with pornography, a new and emerging field in the area of addiction research.

Keywords: Drug Substitution. Recovery. Relapse Prevention. Technology.

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INTRODUCTION

Amidst the increase of prescription opioids use and criminalisation of marijuana trade, a curious phenomenon on youth drug culture is emerging: decrease in the use of drugs, including alcohol. In an annual drug use survey in America, it was reported that the use of illicit drugs like cocaine, hallucinogens, traditional opioids, and alcohol has decreased steadily and reached an all-time low in 2015-2016 for eighth, tenth, and 12th graders.[1] The trend could be attributed to legalisation of marijuana and use, and public prevention campaigns. In India, substance use disorders (SUDs), including alcohol use disorder, moderate to severe use of tobacco, and use of other drugs (illicit and prescription drugs) was prevalent in 22.4% of the population above 18 years in 12 surveyed states.[2] There was a statistically significant decrease in the percentage of subjects presenting with alcohol dependence[3,4] in similar other studies in India[5] and the world.[6] Likewise, there is a changing trend observed in opioid dependence[3] as well as other illicit drugs. These changing trends could be attributed to various factors, viz. availability of substances, generational forgetting,[7] and changing laws. Studies have also indicated psychosocial factors for initiating, changing trends, viz. social/recreational

(to get high, enjoyment); coping with negative affect (to relax, to get away from problems, because of anger or frustration); compulsive use (to get through the day) drug effect, to decrease or to increase the effects of some other drugs.[8] With the advent of technology, behavioural addiction studies have reported that people sometimes substitute addictions to avoid dysphoric feelings. The substitute addictions may be gambling, eating disorders, spending, sex, excessive work, and even excess exercise.[9] There is clear lack of evidence suggesting substitute addiction of substances with pornography. The following case highlights the psychosocial factors underlying the substitute addiction and focuses on the trend of changing addictive substances over time. The case sought help from SHUT Clinic (Service for Healthy Use of Technology). It is India's first tech deaddiction clinic.

CASE REPORT

A 23-year-old male came with the presenting complaints of inability to control the urge of watching porn, video games/web-series, and playing games online for last two to three years. The initiation of substance use was with tobacco and occasional alcohol use during higher secondary due to peer pressure and sensation seeking. The minimum and

maximum amount of cigarettes and alcohol consumed was one to two per day and 30-60 ml respectively. He started consuming cannabis after he joined college for similar reason. The overall mood reported was feeling happy and confident during intoxication and feeling of worthlessness during abstinence. He continued occasional use of tobacco and alcohol; however, the minimum and maximum usage were reduced significantly. He further reported that the impact of cannabis was higher than tobacco or alcohol usage. There was harmful use and dependence of cannabis for three years of college. The minimum amount of cannabis use was one joint per day and maximum amount was seven joints per day. The cannabis dependence leads to difficulty in concentrating on studies and failure in examinations. He used cannabis for coping with negative self-beliefs and high need for belongingness. The continued harmful use was also attributed to ecstatic mood and increased self-esteem during intoxication. Subsequent to a road traffic accident, he experienced anxiety and panic symptoms for the first time. He attributed these symptoms to cannabis and decided to quit. Subsequently, he switched to watching pornography and increased technology use along with occasional tobacco and cannabis use. The reasons attributed to this switch was financial constraints, panic attacks post road traffic accident, vague physical symptoms unexplained by any physical cause, difficulty in concentration and some memory lapses, failure in examinations as well as inability to get job. With relation to technology use, he started experiencing loss of control; a need for spending increasing amount of time watching pornography for feeling of wellbeing; subjective urge to continue watching pornography even when he tried to stop or the subsequent irritability when restrained from watching; reduction in engagement in psychosocial activities (ignoring family or other activities of life) and indulgence in behaviours despite knowledge of having a persistent or recurrent physical or psychological problems. In order to cope with the anxiety, he preferred pornography use which resulted in reduction of cannabis use (earlier it was once per day, then once per week to once in a month). The reasons cited for this change were financially more convenient, easily available, probable less side effects, and being able to cope with stress and anxiety.

The minimum number of hours spend watching pornography and online activities were five to six hours and maximum was ten to 15 hours per day. He reported a pattern wherein he would start using one substance rigorously and after some time feels saturated and tends to quit and starts using another. Temperamentally, he reported to be anxious and slow to warm up since childhood. Childhood and family history revealed financial debt, molestation by elder brother. He reported feeling lonely in childhood and constant struggle to 'fit in' or belong created difficulties for him during childhood.

Assessment revealed the maintaining factors to be social anxiety (fear of negative evaluation, judgement from others), general ecstatic mood during intoxication and sad mood during abstinence, sense of belongingness. The four Cs of addiction revealed the loss of control and compulsive need was associated with tobacco and pornography addiction, the coping with stress was associated with cannabis, tobacco, and pornography addiction, and consequences faced were

the multiple failures in life. Assessment revealed on the Beck Depression Inventory (BDI)[10] and the Hamilton Anxiety Rating Scale (HAM-A)[11] to be 18 suggesting mild distress levels along with moderate technology use on the Internet Assessment Test (IAT).[12]

The development of addiction in the present case can be seen in three phases as per behavioural model. The first phase, phase A is known as the initiation and dependency phase. This phase was characterised by initiation to cannabis and alcohol due to peer pressure, curiosity, and personality traits (impulsivity, sensation seeking, and risk taking behaviours, poor self-concept and feelings of inadequacy). The drug use was associated with feelings of pleasure.

The next phase is phase B, known as abstinence phase. In this phase due to continued dependence drug use pattern, he attributed the negative life events and anxiety to drug use, leading to the decision of abstinence from all drugs except tobacco. However, the feelings of inadequacy and poor coping mechanisms ensued along with withdrawal symptoms (trembling and anxiety).

The next phase is phase C, known as substance substitution phase. The escape/avoidance mechanism conditions one person to substitute one drug with another. In the present case it was substituted with pornography use because of easy availability and less physical side effects. Due to stimulus generalisation, the feelings of pleasure were generalised to other methods (pornography) to relieve negative mood states and feeling good. The relief from negative affect negatively reinforced the stimulus substitution and dependence pattern of use of pornography. However, the internal feelings of inadequacy, poor coping mechanism persisted. But, the substitution happened from one form of addiction with another.

Goals for intervention were to work with a cognitive behavioural model framework and helped him to learn relaxation techniques, life style changes, and cognitive restructuring. Follow-up assessments at one month interval showed reduction in pornography as well as increased engagement in offline pleasurable activities. He maintained abstinence from substance use.

DISCUSSION

The case report represents addictive use of pornography which he attributed of having psychosocial wellbeing and reduced his desire to take substance. It is one of its kind documentation of use of behavioural addiction, especially pornography as a substitute for substance use. Use also meets the criteria of addiction which may include behaviours that may be intrinsically life-fulfilling, but have appeared to spiral out of control (increased amount of time spent on pornography; urge to continue the behaviour even when he tried to stop; longer period of use than intended; reduction in social and recreational activity; psychosocial problems due to its usage). Recent survey also shows decrease in alcohol and illicit substance uses.[1] The researchers have questioned the use of technology contributing to this decrease and have hypothesised that both could have similar effect of sensation seeking and feeling of being immersed.[13] Studies with

technology addiction showed dysfunction in set shifting and response inhibition which are also the functions in substance addiction.[14] But, there is dearth of knowledge whether users are substituting behavioural addiction for substance use. The present case report highlights the addictive potential of pornography and its implications in understanding the course of addiction.

Conclusion

The case findings suggest an emerging trend of excessive to addictive use of pornography as a substitute for substance use.

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