

Review

Behavioural Addiction - A Short Review

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ABSTRACT

In the past few years especially with the inception of COVID-19 and subsequent lockdown periods, there has been increasing diagnostic concern around the compulsive or excessive use of various activities especially the digital ones and their potential to induce mental health problems besides the use of psychoactive substances. However, problematic or excessive uses of some of these activities are still goes unnoticed due to the overlapping conceptualisations. The current classificatory systems on psychiatric disorders diagnose certain conditions characterized by repetitive reward seeking behaviours that mimic with the most of the criteria for substance addiction and hence called behavioural addictions. The present review addresses these issues on conceptualisations of the phenomena within the research literature. The concepts or the phenomenon were extracted from various existing literature and subsequently content analysis method was utilized to analyse the concept. Furthermore, the current review also addresses a number of conceptualization shortcomings resulting from existing phenomenology, recent updates in classificatory systems and use of psychotherapeutic approaches on behavioural addictions.

KEYWORDS: Behavioural addiction, Conceptualization, Mental health, Digital use

The excessive uses of various activities which induce short term relief or reward have historically been conceptualized as either an impulsive trait or compulsive spectrum conditions. Currently these conditions are known as non-substance or 'Behavioural Addictions' (BAs). In response to recent revisions to the diagnostic criteria for addictive

disorders within the DSM-5¹, there exists a pressing need for a comprehensive elucidation of behavioural addiction to chart a clear trajectory for future research and classification endeavours. Furthermore, a burgeoning body of scholarship has also substantially broadened the conceptual boundaries of behaviours and recreational pursuits

potentially characterized as behavioural addictions in the recent classificatory systems of mental disorders.

Conventionally, the term "addiction" has predominantly been conjoined with substance use disorders; however, a burgeoning interest has emerged in extending its purview to encompass BAs, characterized by compulsive engagement in gratifying activities yielding adverse consequences, sans psychoactive substance ingestion^{2,3,4}. Several rationales have been advanced, advocating for the diagnostic legitimacy and clinical utility of behavioural addiction. From neurocognitive perspective, several distinct cognitive domains have been identified in patients with BAs suggesting a likely neurobiological overlap between BAs and substance addictions^{5,6}. Neurocognitive deficits in response inhibition, performance monitoring and set shifting abilities are found to have trans-diagnostic markers of non substance addictive behaviours⁵. These neurocognitive findings suggest disrupted neural substrates and offer a new treatment paradigm to combat the symptoms of BAs⁷. More contemporarily, Robbins and Clark⁸ have accentuated the shared psychobiological substrates underpinning both substance use disorders and BAs, intimating the potential efficacy of analogous intervention modalities.

The conditions of BAs have resulted in potential public health matters during the COVID-19 pandemic and have drawn considerable attention of government healthcare authorities. During the lockdown periods of Covid-19 pandemic, high prevalence rates of BAs and their potential health consequences were reported in most of the studies⁹. Especially the digital addiction has taken the precedence over all other daily activities¹⁰. Furthermore, several studies have revealed the association between BAs and other co-morbid psychiatric disorders^{11,12}. The current scenario poses significant challenges in public health issues and hence necessitates the necessary adaptations in mental health service provision worldwide. However from global perspective, pathological gambling is most commonly encountered condition of behavioural addiction which had been included long back in the year 1980 in DSM-III. Since then the condition has seen several changes in its conceptualization with respect to its diagnostic classifications. Recently, the current version of DSM has introduced a dedicated chapter on 'Substance-Related and Addictive Disorders', spotlighting gambling disorder as the sole exemplar of an addictive disorder. Nevertheless, contention persists regarding the nosological status of other purported BAs.

Assessment Tools for BAs

Due to different conceptualisations and types of BAs, several psychological assessment tools in terms of structured clinical interviews and self rated inventories have been developed and used for assessing various types of BAs such as assessment of pathological gambling, computer/ internet addiction, workaholism, sexual addiction, compulsive buying and exercise¹³. However, there is lack of valid and reliable

assessment tools available to assess certain types of BAs according to the diagnostic criteria of specific BA. When it comes to specific type of BA, the most commonly utilized tool is known as 'South Oaks Gambling Screen' (SOGS) which is known as a detailed screening tool for pathological gambling¹⁴. However, detailed evaluation of these behavioural addictions is commonly assessed through the use of self-report measure of 'FDAV' which is also known as 'Differentiated Assessment of Excessive Behaviours'¹⁵. There are a number of screening tools on BAs which cannot be described here in detail for the purpose of short review. Furthermore apart from the assessment, several characteristics have also been proposed to make the probable diagnosis of BAs¹⁶.

Psychotherapeutic Approaches

With respect to the treatment of BAs, psychosocial interventions have also been found effective in reducing the symptoms besides pharmacological interventions¹⁷. Conventional therapeutic approaches to substance abuse, predicated upon the medical disease model, have historically marginalized psychological interventions, partly attributable to entrenched misconceptions surrounding psychotherapeutic modalities. From psychoanalytic point of view, Wurmser's classical 'Psychoanalytic Conflict Model of Substance Abuse' provides valuable insights into addiction etiology, framing substance abuse as symptomatic of underlying fundamental psychodynamic conflicts, notably pertaining to an excessively punitive superego¹⁸. Substance consumption is construed as a coping mechanism deployed to mitigate overwhelming affective disturbances, furnishing a transient illusion of potency and efficacy. This conceptual framework underscores the imperative of addressing deeply ingrained intrapsychic conflicts in all kind of addiction treatment, supplementing conventional therapeutic modalities.

However in recent years, cognitive behaviour therapy (CBT), mindfulness based interventions (MBIs), and the trans-theoretical model have gained ascendancy^{19,20,21}. With respect to the most utilized psychosocial management of BAs, cognitive-behavioural interventions have shown significant promising results in the treatment of BAs^{22,23}. Cognitive-behavioural interventions, underpinned by robust empirical support, encompass a gamut of strategies ranging from social skills enhancement to relapse prevention, offering tangible benefits to affected individuals which have been largely adapted from psychotherapeutic manuals used in SUDs. However, Various CBT models and extensions have been developed to target BA symptoms. In a study, the therapeutic effectiveness of 'Multimodal school-based group CBT' was evaluated and findings suggest that group CBT holds promise as an effective intervention for addressing Internet addiction in adolescents²⁴. In another study, a new CBT model for internet addiction known as 'cognitive behavioural therapy-Internet addiction (CBT-IA)' was developed for managing internet addiction, which incorporated harm reduction therapy along with CBT techniques²⁵. Recently in India, a high prevalence of mobile

phone addiction has been observed in adolescents and young adults raising a significant concern of potential psychological harm in these population^{26,27,28}. Several personality traits have also been identified in the population of BAs. Impulsivity, neuroticism and openness to experience traits were found to predispose an increased risk of Internet addiction^{29,30}. These findings have implications for clinical practice and intervention strategies aimed at addressing Internet addiction among adolescents. Group CBT offers a structured and evidence-based approach to treating Internet addiction, providing adolescents with the tools and skills needed to manage their Internet use more effectively and maintain healthier behavioural patterns. Another important therapeutic approach known as the trans-theoretical model of behaviour change has also been applied independently as a psychological management in the field of BAs^{31,32}, two major aspects i.e. the stages of and the mechanisms of change³³. The 'Transtheoretical Model of Change', elucidating the multifaceted journey toward addiction recovery, furnishes a cogent framework for understanding and guiding therapeutic interventions. Integration of psychoanalytic tenets into existing therapeutic modalities promises a more holistic and nuanced treatment approach, ameliorating the complex interplay of psychological factors endemic to substance abuse pathology.

Recently a surge in the use of MBIs has been observed for a variety of clinical conditions and considerable research evidence supports the efficacy of MBIs in BAs^{34,35}. MBIs inculcate the stance of being non-judgemental in the present moment facilitating gentle awareness, observation and engagement with mental urges, impulses, cognitions and emotions attached with the addiction behaviours. A variety of mindfulness based approaches has been utilized and has shown considerable clinical efficacy in various types of BAs. Some empirical evidence is also available which corroborates the efficacy of psychoanalytic and interpersonal psychotherapeutic modalities in ameliorating addictive behaviours and pathological personality traits^{36,37}.

CONCLUSION

The term 'addiction' has long been studied with respect to a variety of SUDs. However in the past few years because of the existence of parallel diagnostic characteristics, an increasing research interest has been noticed in the area of BAs in terms of construct, assessment and psychotherapeutic management. The current review highlights the various assessment tools and effective interventions for BAs. Especially with respect to high prevalence rate of internet addiction in adolescents, various modifications of CBT shows promise as a therapeutic approach, particularly in improving time management skills, emotional regulation, and cognitive functioning. Further research is needed to explore the long-term efficacy and mechanisms of action of group CBT in this population. Overall, research studies on the conceptualisations of the phenomena are still in progress through the development of

various measures of assessment, theoretical models, and methodologies. Furthermore, substantial future research is warranted to assess the extent of its clinical or diagnostic or clinical validity and efficacy of various psychotherapy models on BAs. In conclusion we can say that addictive problems are not just confined to chemical ingestion behaviours and that the current review do support the concept that most if the repetitive excessive activities or behaviours of reward seeking nature of do have many similarities with the characteristics of SUDs.

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REFERENCES

1. American Psychiatric Association DS, American Psychiatric Association DS. Diagnostic and statistical manual of mental disorders: DSM-5. Washington, DC: APA; 2013.
2. Robbins TW, Clark L. Behavioural addictions. *Curr. Opin. Neurobiol.* 2015; 30:66-72.
3. Griffiths MD. Behavioural addiction and substance addiction should be defined by their similarities not their dissimilarities. *Addict.* 2017; 112(10):1718-20.
4. Mitchell JE, Burgard M, Faber R, Crosby RD, de Zwaan M. Cognitive behavioural therapy for compulsive buying disorder. *Behav. Res. Ther.* 2006 Dec 1; 44(12):1859-65.
5. Christensen E, Brydevall M, Albertella L, Samarawickrama SK, Yücel M, Lee RS. Neurocognitive predictors of addiction-related outcomes: A systematic review of longitudinal studies. *Neurosci. Biobehav. Rev.* 2023 Sep 1; 152:105295.
6. Christensen E, Albertella L, Chamberlain SR, Brydevall M, et al. The neurocognitive correlates of non-substance addictive behaviours. *Addict. Behav.* 2024 Mar 1; 150:107904.
7. Lesieur HR, Blume SB. The South Oaks Gambling Screen (SOGS): a new instrument for the identification of pathological gamblers. *Am J Psychiatry*; 144(9):1184-1188.
8. Cowlishaw S, Merkouris S, Dowling N, Anderson C, et al. Psychological therapies for pathological and problem gambling. *CDSR.* 2012(11).
9. Cemiloglu D, Almourad MB, McAlaney J, Ali R. Combatting digital addiction: Current approaches and future directions. *Technol. Soc.* 2022; 68:101832.
10. Guo W, Tao Y, Li X, Lin X, et al. Associations of internet addiction severity with psychopathology, serious mental illness, and suicidality: large-sample cross-sectional study.

- J. Med. Internet Res. 2020; 22(8):e17560.
11. Karatoprak S, Donmez YE. Internet addiction and comorbid psychiatric disorders in adolescents. *Ann. Med. Res.* 2021; 27(2), 0504–0509.
12. Goslar M, Leibetseder M, Muench HM, Hofmann SG, Laireiter AR. Treatments for internet addiction, sex addiction and compulsive buying: A meta-analysis. *J. Behav. Addict.* 2020; 9(1):14-43.
13. Albrecht U, Kirschner NE, Grüsser SM. Diagnostic instruments for behavioural addiction: an overview. *P-S-M.* 2007; 4.
14. Holas P, Draps M, Kowalewska E, Lewczuk K, Gola M. A pilot study of mindfulness-based relapse prevention for compulsive sexual behaviour disorder. *J. Behav. Addict.* 2021; 9(4):1088-92.
15. Grüsser SM, Mörsen C, Thalemann R, Albrecht U. Fragebogen zur differenzierten Anamnese exzessiver Verhaltensweisen (FDAV). Unpublished manuscript. 2007.
16. Grüsser SM, Thalemann CN. Verhaltenssucht –Diagnostik, Therapie. Forschung. A. Aufl. Bern: Hans Huber. 2006.
17. Manning V, Verdejo-Garcia A, Lubman DI. Neurocognitive impairment in addiction and opportunities for intervention. *Current opinion in behavioural sciences.* 2017; 13:40-5.
18. Du YS, Jiang W, Vance A. Longer term effect of randomized, controlled group cognitive behavioural therapy for Internet addiction in adolescent students in Shanghai. *Australian & New Zealand Psychiatry J.* 2010; 44(2):129-34.
19. Zhang D, Lee EK, Mak EC, Ho CY, Wong SY. Mindfulness-based interventions: an overall review. *Br. Med. Bull.* 2021; 138(1):41-57.
20. Pennington CG. Applying the transtheoretical model of behavioural change to establish physical activity habits. *JERP.* 2021; 2(1).
21. Del Rio Szupszynski KP, de Ávila AC. The Transtheoretical Model of Behaviour Change: Prochaska and DiClemente's Model. *Psychology of Substance Abuse: Psychotherapy, Clinical Management and Social Intervention.* 2021:205-16.
22. Mann K, Kiefer F, Schellekens A, Dom G. Behavioural addictions: Classification and consequences. *Eur. Psychiatr.* 2017; 44:187-8.
23. Alimoradi Z, Lotfi A, Lin CY, Griffiths MD, Pakpour AH. Estimation of behavioural addiction prevalence during COVID-19 pandemic: a systematic review and meta-analysis. *Curr. Addict. Rep.* 2022; 9(4):486-517.
24. Young KS. CBT-IA: The first treatment model for internet addiction. *J. Cogn. Psychother.* 2011; 25(4).
25. Zhang YY, Chen JJ, Ye H, Volantin L. Psychological effects of cognitive behavioural therapy on internet addiction in adolescents: a systematic review protocol. *Medicine.* 2020; 99(4):e18456.
26. Gangadharan N, Borle AL, Basu S. Mobile phone addiction as an emerging behavioural form of addiction among adolescents in India. *Cureus.* 2022; 14(4).
27. Jahagirdar V, Rama K, Soppari P, Kumar MV. Mobile phones: Vital addiction or lethal addiction? Mobile phone usage patterns and assessment of mobile addiction among undergraduate medical students in Telangana, India. *J. Addict.* 2021(1):8750650.
28. Rachubińska K, Cybulska A, Szkup M, Grochans E. Analysis of the relationship between personality traits and Internet addiction. *European Review for Medical & Pharmacological Sciences.* 2021; 25(6).
29. Fowler J, Gullo MJ, Elphinston RA. Impulsivity traits and Facebook addiction in young people and the potential mediating role of coping styles. *Personality and Individual Differences.* 2020; 161:109965.
30. Grant JE, Potenza MN, Weinstein A, Gorelick DA. Introduction to behavioural addictions. *AJDAA.* 2010; 36(5):233-41.
31. Indah YF, Ramli M, Lasan BB. The effectiveness of transtheoretical model to reduce compulsive internet use of senior high school students. *J. Kajian Bimbingan Konseling.* 2024; 3(1):15.
32. Potik D. An historical overview of psychoanalytic perspectives on drug abuse and addiction—Part 2. *Psychodynamic Approaches for Treatment of Drug Abuse and Addiction 2020* ;(pp. 15-38). Routledge.
33. Sancho M, De Gracia M, Rodriguez RC, Mallorquí-Bagué N, et al. Mindfulness-based interventions for the treatment of substance and behavioural addictions: a systematic review. *Front. Psychiatry.* 2018; 9:95.
34. Holas P, Draps M, Kowalewska E, Lewczuk K, Gola M. A pilot study of mindfulness-based relapse prevention for compulsive sexual behaviour disorder. *J. Behav. Addict.* 2021; 9(4):1088-92.
35. Sahithya BR, Kashyap RS. Sexual addiction disorder—a review with recent updates. *SSH.* 2022; 4(2):95-101.
36. Fuchshuber J, Unterrainer HF. Childhood trauma, personality, and substance use disorder: The development of a neuropsychanalytic addiction model. *Front. Psychiatry.* 2020; 11:531.
37. Pennington CG. Applying the transtheoretical model of behavioural change to establish physical activity habits. *J. Educ. Rec. Patterns.* 2021; 2(1).