



## Investigating Drug-Related Risks for Behavioral Addictions Using WHO Reports

Sofia L Bergman\*

*Department of Behavioral and Addiction Research, Nordic Institute for Global Health Studies, Stockholm, Sweden*

### DESCRIPTION

Behavioral addictions, including compulsive gambling, gaming, shopping and hypersexual behaviors, have emerged as serious mental health conditions with significant social, psychological and economic consequences. Unlike substance addictions, these disorders do not involve direct chemical ingestion, yet they share core features such as loss of control, compulsive engagement and continuation despite negative outcomes. The intersection of pharmacology and behavioral addictions is a growing field of interest, as research increasingly suggests that certain medications may inadvertently contribute to or exacerbate these compulsive behaviors. Understanding these relationships is essential for clinicians and researchers alike, particularly when real-world data from sources like the World Health Organization (WHO) pharmacovigilance database are taken into account. The WHO pharmacovigilance database collects reports of Adverse Drug Reactions (ADRs) from around the world, offering an invaluable repository for identifying unexpected side effects that might not have been evident during clinical trials. This real-world perspective is particularly useful for detecting patterns of behavioral changes linked to medications, including those that may predispose individuals to behavioral addictions. By analyzing these reports, clinicians can gain insights into potential risks, develop monitoring strategies and make informed decisions about prescribing practices. [1-4]

Among the medications most commonly associated with behavioral addictions are dopamine agonists, widely used in the treatment of Parkinson's disease and certain endocrine disorders. These drugs stimulate dopamine receptors in the mesolimbic system, a key pathway involved in reward processing, motivation and pleasure. While essential for

managing motor and hormonal symptoms, dopamine agonists have been linked to impulse control disorders, including compulsive gambling, hyper sexuality and compulsive shopping. The reinforcing effects of these medications on reward circuits can inadvertently heighten susceptibility to compulsive behaviors in vulnerable individuals, particularly those with pre-existing psychological or personality risk factors. Other medications have also been implicated in behavioral changes. Certain antidepressants, particularly Selective Serotonin Reuptake Inhibitors (SSRIs), stimulants prescribed for Attention-Deficit Hyperactivity Disorder (ADHD) and even some atypical antipsychotics have been reported in case studies and pharmacovigilance reports to influence impulse control or reward sensitivity. For example, SSRIs may, in rare cases, lead to heightened restlessness, agitation or compulsive behaviors, whereas stimulant medications can increase reward-seeking tendencies in some individuals. Although these effects are relatively uncommon, WHO data provide an essential lens for identifying potential signals and guiding clinician awareness. [5-6]

The interaction between medications and behavioral addictions is complex and often multifactorial. Biological factors such as genetic predisposition, baseline neurotransmitter function and comorbid psychiatric disorders can influence an individual's susceptibility. Environmental and social factors, including exposure to gambling or gaming opportunities, stress and peer influence, further modulate risk. Understanding that medication-related risks do not occur in isolation but rather within a network of contributing factors is critical for effective prevention and intervention strategies. Behavioral addictions are particularly insidious because they often develop gradually and may be concealed due to shame, stigma or denial. Unlike physical side effects, which are often

**Received:** 17-February-2025; Manuscript No: IPJABT -25-23223; **Editor assigned:** 20-February -2025; PreQC No: IPJABT -25-23223 (PQ); **Reviewed:** 06-March-2025; QC No: IPJABT-25-23223; **Revised:** 13-March-2025; Manuscript No: IPJABT-25-23223 (R); **Published:** 20-March-2025; DOI: 10.35841/ipjabt-9.1.36

**Corresponding author:** Sofia L Bergman, Department of Behavioral and Addiction Research, Nordic Institute for Global Health Studies, Stockholm, Sweden; E-mail: sofia.l.bergman@example.org

**Citation:** Bergman SL (2025) Investigating Drug-Related Risks for Behavioral Addictions Using WHO Reports. *J Addict Behav Ther.* 9:36.

**Copyright:** © 2025 Bergman SL. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

observable and measurable, behavioral changes such as compulsive gambling or hyper sexuality may not be immediately evident. Patients may fail to recognize the connection between their behaviors and medications and clinicians may overlook subtle early warning signs. [7-8] This highlights the importance of proactive monitoring and patient education. Healthcare providers can mitigate risks by discussing potential behavioral side effects before initiating treatment, encouraging self-monitoring and involving family members or caregivers in observing early changes. It is also important to acknowledge the limitations of pharmacovigilance data. Reporting is voluntary and underreporting is common, meaning that the true prevalence of medication-related behavioral addictions may be underestimated. Additionally, confounding factors, including comorbid psychiatric conditions, lifestyle behaviors and polypharmacy, can complicate causal interpretations. Despite these limitations, pharmacovigilance provides unique insights that cannot be obtained from controlled trials alone, offering a valuable complement to traditional research methods. [9-10]

## CONCLUSION

Behavioral Addictions are complex conditions influenced by a combination of biological, psychological and environmental factors. Certain medications, particularly those affecting dopamine and reward pathways, may inadvertently contribute to compulsive behaviors. By leveraging WHO pharmacovigilance reports, clinicians and researchers can identify real-world drug-related risks, improve patient monitoring and implement strategies to mitigate harm. Integrating pharmacovigilance insights into clinical practice, patient education and public health policies ensures that medications continue to provide therapeutic benefits while minimizing the risk of behavioral addiction. Ultimately, a proactive, informed and patient-centered approach can enhance both safety and quality of life for individuals who may be vulnerable to the subtle but significant behavioral effects of medications.

## REFERENCES

1. Zou Z, Wang H, d'Oleire Uquillas F, Wang X, Ding J, et al (2017) Definition of substance and non-substance addiction. *Substance and non-substance addiction*. 3:21-41.
2. Haass-Koffler CL, Perciballi R, Brown ZE, Lee MR, Zywiak WH, et al (2021) Brief report: Relationship between cotinine levels and peripheral endogenous concentrations of oxytocin,  $\beta$ -endorphin and orexin in individuals with both alcohol and nicotine use disorders. *Am J Addict*. 30(1):88-91.
3. Provenzano S, Santangelo OE, Raia DD, Barresi D, Armetta F, et al (2020) Gambling in nursing students of the University of Palermo. *Ann Ig*. 32(3).
4. Potenza MN, Balodis IM, Derevensky J, Grant JE, Petry NM, et al (2019) Gambling disorder. *Nat Rev Dis Primers*. 5(1):51.
5. Groenman AP, Janssen TW, Oosterlaan J (2017) Childhood psychiatric disorders as risk factor for subsequent substance abuse: a meta-analysis. *JAACAP*. 56(7):556-569.
6. Van Rooij AJ, Schoenmakers TM, Vermulst AA, Van Den Eijnden RJ, Van De Mheen D, et al (2011) Online video game addiction: identification of addicted adolescent gamers. *addiction*. 106(1):205-212.
7. Mathews CL, Morrell HE, Molle JE (2019) Video game addiction, ADHD symptomatology and video game reinforcement. *Am J Drug Alcohol Abuse*. 45(1):67-76.
8. Mallorquí-Bagué N, Fernández-Aranda F, Lozano-Madrid M, Granero R, Mestre-Bach G, et al (2017) Internet gaming disorder and online gambling disorder: Clinical and personality correlates. *J Behav Addict*. 6(4): 669-677.
9. Larimer ME, Witkiewitz K, Schweibel FJ, Lee CM, Lewis MA, et al (2021) An international comparison of a web-based personalized feedback intervention for alcohol use during the transition out of high school in the United States and Sweden. *Prev Sci*. 22(5):670-682.
10. Lewin LM, Davis B, Hops H (1999) Childhood social predictors of adolescent antisocial behavior: Gender differences in predictive accuracy and efficacy. *J Abnorm Child Psychol*. 27(4):277-292.