

Misuse of Prescription and over the Counter Drug

**Siddhi S. Borhade¹, Korade Gayatri², Durgude Manasi³, Gaikwad Chandrabhaga⁴,
Ashwini B. Gaikwad⁵**

Student, Samarth College of Pharmacy, Belhe, Pune, India^{1,2,3,4}

Assistant Professor, Samarth College of Pharmacy, Belhe, Pune, India⁵

Abstract: The aim of review is to find out the reasons of misuse of prescription and over the counter drug. A variety of prescription and over-the-counter (OTC) medications have recently come under scrutiny for being taken recreationally, either alone or in combination with other drugs, both legal and illegal, such as novel psychoactive substances (NPS). There have been more and more instances of recreational drug abuse including a variety of OTC and prescription medications. The majority of people who use over-the-counter (OTC) drugs are older folks. More than 50% of significant adverse drug events involving older persons include an over-the-counter medicine. To find out how OTC pharmaceuticals are picked and, in a hypothetical situation, used by older persons, as well as if doing so would be regarded safe. Pharmacists should take part in evidence-based efforts to recognise, comprehend, and prevent drug diversion activities as well as the negative impacts of drug misuse in order to prevent and minimise drug abuse.

Keywords: Drug Misuse, Prescribing Drugs, Over the Counter Drugs. Health, Addiction.

REFERENCES

- [1] Schifano F, Chiappini S, Corkery JM, Guirguis A. Abuse of Prescription Drugs in the Context of Novel Psychoactive Substances (NPS): A Systematic Review. *Brain Sci.* 2018 Apr;22(4). pii: E73. DOI: 10.3390/brainsci804007.
- [2] Chiappini S, Schifano F. What about "Pharming"? Issues Regarding the Misuse of Prescriptionand Over-the-Counter Drugs. *Brain Sci.* 2020;10,736; DOI:10.3390/brainsci10100736.
- [3] Lessenger JE, Feinberg SD. Abuse of Prescription and Over-the-Counter Medications. *J Am Board Fam Med* 2008; 21:45–54.
- [4] Levine DA. "Pharming": the abuse of prescription and over-the-counter drugs in teens. *CurrOpinPediatr.* 2007, 19(3): 270-274. DOI: 10.1097/MOP.0b013e32814b09cf.
- [5] Wood D. Drug diversion. *Aust Prescr* 2015; 38:164–6.
- [6] Hernandez SH, Nelson LS. Prescription drug abuse: insight into the epidemic. *Clin Pharma col Ther.* 2010;88(3):307-317. DOI:10.1038/clpt.2010.154.
- [7] Lipari RN, Williams M, Van Horn SL. Why Do Adults Misuse Prescription Drugs? In: The CBHSQ Report. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); July 27, 2017.1-10.
- [8] McCabe SE, Cranford JA, West BT. Trends in prescription drug abuse and dependence, cooccurrence with other substanceusedisorders, and treatment utilization: results from two national surveys *AddictBehav.*2008;33(10):1297-1305. DOI:10.1016/j.addbeh.2008.06.005.
- [9] Fortuna RJ, Robbins BW, Caiola E, Joynt M, Halterman JS. Prescribing of controlled medications to adolescents and young adults in the United States. *Pediatrics.* 2010;126(6):1108-1116. DOI:10.1542/peds.2010-0791.
- [10] Kelly BC, Wells BE, Leclair A, Tracy D, Parsons JT, Golub SA. Prescription drug misuse among young adults: looking across youth cultures. *Drug Alcohol Rev.* 2013;32(3):288-294. DOI: 10.1111/dar.12016.
- [11] D'Souza RS, Eldridge JS. Prescription Drug Monitoring Program. In: Stat Pearls. Treasure Island (FL): Stat Pearls Publishing; February 19, 2020.
- [12] Stahl SM, Grady MM. Stahl's essential psychopharmacology: prescriber's guide. Cambridge, United Kingdom; New York, NY: Cambridge University Press, 2017.
- [13] EMC. Zyban 150 mg prolonged release tablets; 2019. [Cited 2020 August 16]. Available from: <https://www.medicines.org.uk/emc/medicine/2948/>



- [14] Stassinos GL, Klein-Schwartz W. Bupropion "Abuse" Reported to US Poison Centers. *J Addict Med.* 2016;10(5):357-362. DOI:10.1097/ADM.0000000000000249.
- [15] Reeves RR, Ladner ME, Perry CL, Burke RS, Laizer JT. Abuse of Medications That Theoretically Are Without Abuse Potential. *South Med Journal* 2015;108(3):151-157. DOI:
- [16] Benotsch EG, Koester S, Martin AM, Cejka A, Luckman D, Jeffers AJ. Intentional misuse of over-the-counter medications, mental health, and polysubstance use in young adults. *J Community Health*. 2014;39(4):688-695. DOI: 10.1007/s10900-013-9811-9.
- [17] Le VT, Norris Turner A, McDaniel A, Hale KM, Athas C, Kwick NC. Nonmedical use of over-the-counter medications are significantly associated with nonmedical use of prescription drugs among university students. *J Am Coll Health*. 2018 Jan;66(1):1-8. DOI:10.1080/07448481.2017.1356312.
- [18] Hughes GF, McElnay JC, Hughes CM, McKenna P. Abuse/misuse of non-prescription drugs *Pharm World Sci.* 1999;21(6):251-255. DOI:10.1023/a:1008788726842.
- [19] Levine DA. "Pharming": the abuse of prescription and over-the-counter drugs in teens. *CurrOpinPediatric* 2007, 19(3): 270-274. DOI: 10.1097/MOP.0b013e32814b09cf.
- [20] Burns JM, Boyer EW. Antitussives and substance abuse. *Subst Abuse Rehabil* 2013, 4: 75–82. DOI: 10.2147/SAR.S36761.
- [21] McCarthy M. Prescription drug abuse up sharply in the USA. *Lancet*. 2007, 369: 1505–1506. DOI:10.1016/S0140-6736(07)60690-4.
- [22] Cooper RJ. 'I can't be an addict. I am.' Over-the-counter medicine abuse: a qualitative study. *BMJ Open*. 2013;3(6): e002913. DOI:10.1136/bmjopen-2013-002913.
- [23] Acar YA, Kalkan M, Cetin R, Cevik E, Cinar O. Acute Psychotic Symptoms due to Benzydamine Hydrochloride Abuse with Alcohol. *Case Rep Psychiatry*. 2014: 290365. DOI:10.1155/2014/290365.
- [24] Anand JS, Lukasik – Głębocka M, Korolkiewicz RP. Recreational abuse with benzydamine hydrochloride (tatum rosa). *Clin Toxicol*. 2007; 45(2): 198-199. DOI: 10.1080/15563650600981210.
- [25] Ballesteros S, Ramón MF, Martínez-Arrieta R. Ingestions of benzydamine -containing vaginal preparations. *Clin Toxicol (Phila)*. 2009;47(2):145-149. DOI:10.1080/15563650801938670.
- [26] Can B, Oz I, Ozer H, Simsek T. Hallucinations after Ingesting a High Dose of Benzydamine Hydrochloride. *Clin PsychopharmacolNeurosci*. 2016;14(4):407-408. DOI:10.9758/cpn.2016.14.4.407.
- [27] Doğan M, Yılmaz C, Çakşen H, Güven AS. A case of benzydamine HCL intoxication. *East J Med*2006, 11(1): 26–28.
- [28] Gürü M, Şafak Y, Cengiz GF, Kuru E, Örsel S. Chronic psychosis related to benzydamine hydrochloride abuse. *Neurocase*. 2019 Jun - Aug;25(3-4):156-158. DOI: 10.1080/13554794.2019.1617318.
- [29] Rotolo MC, Pellegrini M, Solimini R, Pichini S, Pacifici R. 'Smart drugs', the new drugs on the web: two cases of acute intoxication. *Biochim Clin*. 2014; 38(3): 268-271
- [30] Schifano F, Corazza O, Marchi A, Di Melchiorre G, Sferrazza E, Enea A, Davey Z, Blaszko U, Deluca P; Psychonaut web mapping e rednet research projects. [Analysis of online reports on the potential misuse of benzidamine]. *RivPsichiatri*. 2013 May-Jun;48(3):182-6. DOI: 10.1708/1292.14286. Italian.
- [31] Zaprutko T, Koligat D, Michalak M, Wieczorek M, Józiak M, Ratajczak M, et al. Misuse of OTC drugs in Poland. *Health Policy*. 2016 Aug;120(8):875-81. DOI: 10.1016/j.healthpol.2016.06.008.
- [32] Avvisati R, Meringolo M, Stendardo E, Malavasi E, Marinelli S, Badiani A. Intravenous selfadministration of benzydamine, a non-steroidal anti-inflammatory drug with a central cannabinoidergic mechanism of action. *Addict Biol*. 2018;23(2):610-619. DOI:10.1111/adb.12516.
- [33] Kotwani A, Wattal C, Katewa S et al. Factors influencing primary care physicians to prescribe antibiotics in Delhi India. *Fam Pract* 2010;27(6):684 –90.
- [34] Kotwani A, Wattal C, Joshi PC et al. Irrational use of antibiotics and role of the pharmacist: an insight from a qualitative study in New Delhi, India. *J Clin Pharm Ther* 2012;37(3):308 –12.
- [35] Qato DM, Alexander GC, Conti RM, Johnson M, Schumm P, Lindau ST. Use of prescription and over-the-counter medications and dietary supplements among older adults in the United States. *JAMA*. 2008; 300:2867–2878.



- [36] Ryff CD, Seeman T, Weinstein M. National Survey of Midlife Development in the United States (MIDUS II): Biomarker Project, 2004-2009: Inter-university Consortium for Political and Social Research 2012. 2013 <http://dx.doi.org/10.3886/ICPSR29282.v2>.
- [37] Kaufman DW, Kelly JP, Rosenberg L, Anderson TE, Mitchell AA. Recent patterns of medication use in the ambulatory adult population of the United States: the Sloane survey. *JAMA*. 2002 Jan 16;287: 337–344.
- [38] American Geriatrics Society American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults. *J Am Geriatr Soc*. 2012; 60:616–631.
- [39] R: A language and environment for statistical computing [computer program] R Foundation for Statistical Computing; Vienna, Austria: 2008.
- [40] Hughes CM, McElnay JC, Fleming GF. Benefits and risks of self-medication. *Drug Safety* 2001; 24: 1027–1037.
- [41] Bradley CP, Bond C. Increasing the number of drugs available over the counter: arguments for and against. *Br J Gen Pract* 1996; 46: 121–122.
- [42] Mc Elnay JC, Nicholl AJ, Grainger-Rousseau TJ. The role of the community pharmacist-a survey of public opinion in Northern Ireland. *Int J Pharm Pract* 1993; 2: 95–100.
- [43] Bell H, McElnay J, Hughes C. Societal perspectives on the role of the community pharmacist and community-based pharmaceutical services. *42 J Soc Adm Pharm* 2000;17: 119–128.
- [44] Sihvo S, Klaukka T, Martikainen J, Hemminki E. Frequency of daily over-the-counter drug use and potential clinically significant over-the-counter prescription drug interactions in the Finnish adult population. *Eur J Clin Pharma col* 2000; 56: 495–499.
- [45] Honig PK, Cantilena LR. Polypharmacy. *Clin Pharmacokinet* 1994 ;26: 85–90.
- [46] Frank, D., Mateu-Gelabert, P., Guarino, H., Bennett, A., Wendel,T., Jessell, L., & Teper, A. (2015). High risk and little knowledge: Overdose experiences and knowledge among young adult nonmedical prescription opioid users. *The International Journal on DrugPolicy*,26(1),84–91. 10.1016/j.drugpo.2014.07.013
- [47] Hughes, A., Williams, M. R., Lipari, R. N., Bose, J., Copello, E. A. P., & Kroutil, L. A. (2016, Sept.). Prescription drug use and misuse in the United States: Results from the 2015 National Survey on Drug Use and Health. NSDUH Data Review. Retrieved from <https://www.samhsa.gov/data/>
- [48] Hogue MD, Hogue HB, Lander RD, Avent K, Fleenor M. The non-traditional role of pharmacists after Hurricane Katrina: process description and lessons learned. *Public health rep.* 2009; 124(2): 217-223. DOI: 10.1177/00335490912400209. [143]
- [49] American Society of Health-System Pharmacists (ASHP) (2016). ASHP statement on the pharmacist's role in substance abuse prevention, education, and assistance. *Am J Health-System Pharm*. 2016; 73: e267-70. DOI: 10.2146/sp140002.
- [50] Cooper RJ. Surveillance and uncertainty: community pharmacy responses to over-the-counter medicine abuse. *Health Soc Care Community*. 2013;21(3):254-262. DOI:10.1111/hsc.12012.
- [51] Sheridan J, Manning V, Ridge G, Mayet S, Strang J. Community pharmacies and the provision of opioid substitution services for drug misusers: changes in activity and attitudes of community pharmacists across England 1995-2005. *Addiction*. 2007;102(11):1824-1830. DOI:10.1111/j.1360-0443.2007.02016. x.
- [52] Wagner AG, Guerra de Andrade A. Pharmacist professionals in the prevention of drug abuse: updating roles, and opportunities. *Brazil Pharmacy Sciences*.2010; 46(1). DOI: 10.1590/S1984-82502010000100003
- [53] Major C Vincze Z Consumer habits and interests regarding non-prescription medications in Hungary *Fam Pract*20102733333820067976.
- [54] Hughes CM Mc Elnay JC Fleming GF Benefits and risks of self-medication *Drug Saf*20012414102710371173565.
- [55] Hughes CM Monitoring self-medication *Expert Opin Drug Saf*20032115129041
- [56] HämmерleinAGrieseNSchulzM Survey of drug-related problems identified by community pharmacies *ANN Pharmac other* 200741111825183217925500

