



Review on Overview of Substance Abuse among Medical Practitioners

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Substance Misuse, also known as substance abuse, is a disease marked by a harmful habit of using illicit or legal substances or medications such as alcohol, heroin, cocaine, or substituted amphetamines such as methamphetamine and MDMA. Drug abuse deeply impact physician's brain and behavior such that they are unable to control the use of drug to the point that it interferes with the ability to function which may harm patients and cause medical errors. The fact is, physicians can easily access various opioids and substituted amphetamines. This article review is the examination of existing published research articles on substance abuse among health care workers. This literature was reviewed using PubMed and google scholar search criteria set so that all the article could be found in English language along with certain keywords such as Health care workers, addiction, opioids, drug abuse. I gone through various articles, of which 10 articles related to study. It was found that substance abuse in medical workers were greater than general people and keeps increasing at an alarming rate. The most favored drug by health care workers is alcohol, the incidence of opioids and some nonopioids anesthetic agent abuse. Especially propofol, most commonly used by anesthetic department and emergency medicine. There is wide difference

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between general public and health care workers regarding drug abuse. Although Health care workers had a better prognosis but 10%-15% of health care are workers susceptible to drug violence at some point in their lives.

Keywords: Substance abuse; drugs; substance use disorders; review; physician; doctors; healthcare workers; resident and opioids and addiction.

1. INTRODUCTION

Employees in the medical sector Prescription drug addiction is a worldwide problem that affects over 100,000 physicians, nurses, and other medical professionals each year. Substance abuse is a pattern of harmful drugs causing changes in brain for mood-alteration mostly for pleasure seeking purpose. "Substances" can include alcohol and other drugs (illegal or not) as well as some substances that are not drugs at all [1].

Toxic materials are substances that may cause harm to an individual if it enters the body by altering the normal physiological processes of the body [2-8]. Toxic materials may enter the body in different ways they may be injected directly by syringe into blood vessels or can be swallowed.

Substance abuse are psychoactive drugs, alcohol or illegal substances which were consumed by users that are proven hazardous to themselves or others and can even lead to fatal death of the individual [9-17]. The afflicted physicians are those who are drug addicted which hinders their ability to attain the professional duties as required. Drug abuse begins with the exposure who has prescribed the medications, particularly with opioids. With time, develops into an addiction body develops drug resistance and Use of drug increases,

Most common drugs consumed by physicians are cocaine, cannabis, amphetamines, opioids, tranquilizers and propoxyphene. Intake of drugs reduces anxiety, depression, burn out, work related stress which led physician's ability to think, decline of mental abilities, behavioral control and increase in medical errors and patient harm. Easy access to drugs on account of being physicians, this article review aimed on substance abuse among physicians.

2. MATERIALS AND METHODS

The literature was analysed using PubMed and Google Scholar, with search criteria set to ensure

that all publications were contained in English. Keywords used included drug abuse, physician, physicians, healthcare professionals residency, and opioids and addiction. A total of 44 papers were found using these keywords in combination, but only 15 of them were relevant to this report.

3. RESULTS AND DISCUSSION

When the comparison of general public and the doctors where done, it was concluded that physicians have higher chances of prevalence of substance abuse and getting addicted to opioids international studies found the major cause of substance abuse is there relatively easy availability among medical community especially the prescription drugs. When the survey was limited to female population it was found that risk of suicidal death from alcohol related matters were four folds higher among female doctors when compared to female from the genral population from the same age group [4].

Physicians who were suffering from substances abuse found difficult to seek medical help, support, proper treatment due to their denial, and keeps on hiding in order to neglect the expression and emotions to their colleagues, family and even themselves regarding substance abuse

Although the medical education gives authentic knowledge to the upcoming doctors, healthcare professionals but it was found that medical education is not protective factor to prevent medical professionals from falling into drug abuse a harmful trap. Higher the possibility of developing substance abuse disorders can be seen in person with certain factors like male sex and psychiatric comorbidities. When compared male and female physicians, it was found females were less impairment in legal matter and medical task.

Also, females have had more ability in maintaining temperance. Generally, female population were more inclined in taking legal route, by prescribed medicine rather than alcohol or illegal drugs. As a result, female physicians

more incline to prescription of sedative hypnotics whereas male physicians face alcohol related problems. Moreover, Comorbidity rate of male population was higher than female population.

Drug abuse can cause long term damage to the body, drug addict who use needles are at greater risk of having HIV and Hepatitis B & C infections. In a case study, a USA citizen Laurel Elaine went into Denver Hospital for routine kidney stone surgery. After some weeks she started developing strange symptoms and diagnosed with hepatitis C. Surgical technician that was a part of the team operated on Lauren was caught diverting drug. That surgical technician was taking syringes that were full of fentanyl a pain killer, injecting herself and the refilling the same syringes with saline and putting back on surgical tray. That surgical technician had hepatitis C.

In a study conducted there were some interesting results were found that that showed 10%-15% health care practioners were more likely prone to substance during any given amount of point in their life-time. Whereas another study showed that 8%-15% physicians were suffering from substance abuse disorders [1].

Among all the various specialties in medical stream, anesthesiologist were at higher risk with 17.5% for alcohol abuse. The comparison of anesthesiologist with other specialists it was found that anesthesiologist had detected with higher rate of symptoms associated with alcohol more than opioids. Also, intravenous opioid were common drug abuse in anesthesiologist.

Easy access to drugs on account of being physicians. As a result, it increases rates of dependence and misuse. Another study showed that half of the healthcare professionals i.e 55.3% wrote painkillers prescription to themselves. Almost 87% of physicians have had self-prescribing behavior, give medication to themselves. It was examine that physician prescribe drugs to themselves to reduce trauma, exertion, stress, extreme work pressure which led healthcare professionals to misuse drugs. Texas Board of nursing 2010, it was showed that actions were taken against nurses and one third were related to drug and alcohol.

Moreover, it was found that anesthesiology residents during their clinical core rotation period were at a significantly higher risk getting themselves involved which result in failing at their residency program.

Anesthesiologist, surgeon and general practice physician are the most vulnerable specialties probably because of the stressful and competitive environment in which they work. Recently the General Medical Council reported that half of the physician reported for health difficulties liable to affect professional competence were found to have an alcohol related problem. There is considerable evidence to suggest that physician constitute a high-risk group in respect of drinking problem, Proving that occupational stress and ability to manage it plays an important as well as easy access to drugs and the possibility of self- prescribing may have a contributory role.

4. CONCLUSION

On the basis of the article that are reviewed it is concluded that several risk factors are responsible for increased probability of substance abuse disorder among health care workers, make gender, psychiatric comorbidity, anesthesiology.

Across the globe, tens of thousands of doctors, nurses medical technicians struggle with abuse or addiction. Impaired physician need to come out of hiding and get into proper treatment and get better themselves. Drug addicted physicians need right treatment and support to counter act disruptive effect of drug use and regain control in their life. They need access to rehabilitation or organized treatment program which may help to overcome addiction, stay drug free, also they can return to safe practice. It is also important for other health care providers to get proper consulting about the enormous danger of diversion. This may help to prevent others from falling into the same trap.

At very first place physician, health care professionals are considered with healthier lifestyle, good healthy habits, regular exercise, proper diet, no consumption of drugs, smoking but there is no difference in health care professionals and general public regarding addiction & drug abuse.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Bryson E. The opioid epidemic and the current prevalence of substance use disorder in anesthesiologists. *Curr Opin Anaesthesiol.* 2018;31(3):388–92. Available: <https://doi.org/10.1097/ACO.0000000000000589>
2. World Health Organization. Substance abuse; 2019 . [cited 2019 Nov 9] Available: https://www.who.int/topics/substance_abuse/en/
3. Jr BFP, Federico R Tewes. What attorneys should understand about Medicare set-aside allocations: How Medicare Set-Aside Allocation Is Going to Be Used to Accelerate Settlement Claims in Catastrophic Personal Injury Cases. *Clinical Medicine and Medical Research*, 2021;2(1):61-64. <https://doi.org/10.52845/CMMR/2021v1i1a1>
4. American Medical Association Council on Mental Health. The sick physician: impairment by psychiatric disorders including alcoholism and drug dependency. *JAMA.* 1973;223:684–7. Available: <https://doi.org/10.1001/jama.223.6.684>
5. Aach R. Alcohol and other substance abuse and impairment among physicians in residency training. *Ann Intern Med.* 1992;116(3):245. Available: <https://doi.org/10.7326/0003-4819-116-3-245>
6. Daniel V, Daniel K. Diabetic neuropathy: new perspectives on early diagnosis and treatments. *Journal of Current Diabetes Reports*, 2020;1(1):1214. Available: <https://doi.org/10.52845/JCDR/2020v1i1a3>
7. McAuliffe WE, Rohman M, Breer P, Wyshak G, Santangelo S, Magnuson E. Alcohol use and abuse in random samples of physicians and medical students. *Am J Public Health.* 1991;81(2):177–82. Available: <https://doi.org/10.2105/AJPH.81.2.177>
8. Sørensen J, Pedersen A, Vedsted P, Bruun N, Christensen B. Substance use disorders among danish physicians. *J Addict Med.* 2016;10(4):248–54. Available: <https://doi.org/10.1097/ADM.0000000000000228>
9. Daniel V, Daniel K. Perception of Nurses' Work in Psychiatric Clinic. *Clinical Medicine Insights*, 2020;1(1):27-33. Available: <https://doi.org/10.52845/CMI/2020v1i1a5>
10. MCGovern M, Angres D, Uziel Miller N, Leon S. Female physicians and substance abuse comparisons with male physicians presenting for assessment. *J Substance Abuse Treat.* 1998;15(6):525–33. Available: [https://doi.org/10.1016/S0740-5472\(97\)00312-7](https://doi.org/10.1016/S0740-5472(97)00312-7)
11. Pal Sutanaya, Rajat M. Oswal, and Ganpat K. Vankar. "Recognition of Major Depressive Disorder and Its Correlates among Adult Male Patients in Primary Care." *Archives of psychiatry and psychotherapy* 2018;20(3):55–62.
12. Daniel V, Daniel K. Exercises training program: It's Effect on Muscle strength and Activity of daily living among elderly people. *Nursing and Midwifery*, 2020;1(01): 19-23. Available: <https://doi.org/10.52845/NM/2020v1i1a5>
13. Dhobe, Sonal, Samruddhi Gujar, and Manoj Patil. "Prevalence of associated factors of depressive symptoms among school going children's." *International Journal Of Modern Agriculture* 2020; 9(3):31–35.
14. Ransing, Ramdas Sarjerao, Suvarna Patil, Krishna Pevekar, Kshirod Mishra, and Bharat Patil. "Unrecognized Prevalence of Macrocytosis among the Patients with First Episode of Psychosis and Depression." *Indian Journal Of Psychological Medicine* 2018;40(1):68–73.
15. Nagrale N, Wankhade T et al. Prevalence and Pattern of Substance Abuse among Patients Presenting to De-addiction Centres: A Study from Central India. *International Journal of Medical Toxicology & Legal Medicine.* 2018; 21(1 &2):31-34.
16. Pal Sutanaya, Rajat M. Oswal, Ganpat K. Vankar. "Recognition of Major Depressive Disorder and Its Correlates among Adult Male Patients in Primary Care." *Archives Of Psychiatry And Psychotherapy* 2018;20(3):55–62

17. Kelkar, Parisha Narayan, Ganpat K. Vankar, Kshirod K. Mishra, Sally John, Ajinkya Sureshrao Ghogare. "Prevalence of Substance Abuse in Patients with Schizophrenia." Journal of Clinical and Diagnostic Research 2020;14(3).

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