

A STUDY TO EVALUATE THE PREVALENCE AND PATTERN OF PRESCRIPTION DRUG ABUSE AMONG MEDICAL STUDENTS AND RESIDENT DOCTORS IN A TERTIARY CARE HOSPITAL IN MUMBAI: A QUESTIONNAIRE BASED STUDY

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ABSTRACT

Background: Substance abuse especially among health professionals is a serious problem which not only threatens their professional standards and the quality of services delivered but if left unchecked, can lead to grave consequences for health care consumers.

Aims & Objectives: To assess the prevalence and pattern of prescription drug abuse among Medical Students and Resident Doctors and also to assess the gender difference in the prevalence and pattern.

Materials and Methods: An observational, cross sectional, questionnaire based study conducted in Grant Government Medical College and Sir J.J. Group of Hospitals, Mumbai, among 200 undergraduate medical students and 200 resident doctors of the hospitals.

Results: Among 400 participants 250 were male and 150 were female. 134 (33.5%) in age group of 18-20 years followed by 129 (32.25%) in 27-29 years. Prevalence of drug abuse was high amongst the male resident 91 (74.59%). Antihistaminic were the most common drug abused by the male residents, Cough syrup by both female residents and female medical students whereas NSAIDs by male medical students. 59 (23%) correspondent were indulged in daily drug abuse, whereas majority, 201 (77%) were indulge in drug abuse more than once a month. Majority of the participants, 208 (80%), started with such prescription drug abuse from UG days, whereas 23 (8.84%) started before UG days. Self-prescription was the most common mode of obtaining the drug for 221 (85%) participants.

Conclusion: Further research is needed from the Indian subcontinent to study nationwide patterns of substance use, and to identify important determinants and reinforce protective factors. Strategies need to be developed for supporting students with a substance use problem.

Key Words: Prevalence; Pattern; Prescription Drugs; Resident Doctors; Drug Abuse

Introduction

Man has long used substances that alter consciousness for the production of pleasure and euphoria, or for the reduction of pain, anxiety, and distress. Substance abuse is an ongoing public health concern. Worldwide, an estimated 167-315 million people between the ages of 15-64 use illicit substances^[1], young persons aged 16-35 use the largest proportion of drugs of any age group^[2]. Physicians and medical students are by no means exempt from illicit and inappropriate drug use or abuse. Substance abuse especially among health professionals is a serious problem which not only threatens their professional standards and the quality of services delivered but if left unchecked, can lead to grave consequences for health care consumers.^[3,4] Due to their knowledge and ease of access to various drugs, physicians and medical students have been assessed as a possible target of substance abuse.

Medical literature has recorded cases of physician drug addiction back to the 19th century. However since 1950's

medical journal articles dealing with the problem have multiplied greatly^[5] Estimates of incidence of drug addiction among physicians vary from 30 to 100 times that of general population^[6]. This is a worrisome scenario in light of its professional consequences and possible social impacts. In recent year there has been a growing concern in India regarding the problem of drug abuse as witnessed by numerous report among student population^[7] and few on resident doctors^[8-10]. Moreover, data regarding the prevalence of medical student substance abuse are even more sparse.^[11] The present study was therefore planned on group of young doctors with the objective to assess the prevalence and pattern of prescription drug abuse among Medical Students and Resident Doctors and also to assess the gender difference in the prevalence and pattern.

Materials and Methods

This was an Observational, Cross sectional, Questionnaire based study conducted in Grant Government Medical College and Sir J.J. Group of

Hospitals, Mumbai, among the undergraduate medical students and resident doctors of the hospitals. A total of 400 participants were recruited in the study, of which, 200 were medical students and 200 were post-graduate students. Medical students of all years and resident doctors from all faculties were notified about the purpose of this study and invited to take part on a volunteer, anonymous basis, with safeguards to ensure that responses would not be identifiable. After obtaining Institutional Ethics Committee (IEC) clearance, medical students and resident doctors from all departments who consent to participate in the study were handed over a well-structured questionnaire based on the World Health Organization's guidelines for student drug-use surveys.^[12] Participants who chose not to answer the questionnaire were allowed to refuse it altogether or turn it in blank. For the purpose of this study, Drug abuse was operationally defined as "Indulgence in a drug with a frequency of atleast once a month without any prescription".

Results

A total of 400 participants participated in the study of which 200 were undergraduate (UG) and 200 were postgraduate (PG) students. Amongst all participants, 250 were male (UG-122, PG-128) and 150 were females (UG-78, PG-72). Age wise distribution of the participants showed majority of the participants 134 (33.5%) in age group of 18-20 years followed by 129 (32.25%) in 27-29 years (Table 1).

Age (Years)	No. of participants	Percentage
15-17	1	0.25
18-20	134	33.5
21-23	65	16.25
24-26	71	17.75
27-29	129	32.25
30-32	00	00
Total	400	100

Participants	No. of participants	Drug abusers	%
Male residents	122	91	74.59
Female residents	78	48	61.53
Male medical students	128	82	64.06
Female medical students	72	39	54.16
Total	400	260	65.00

Using the above mentioned definition of drug abuse, 260 (65%) participant were categorized as "drug abusers", as they consumed one or more drug at least once in a month. Prevalence was high amongst the male resident 91 (74.59%) and was least amongst the female medical students 39 (54.16%) (Table 2).

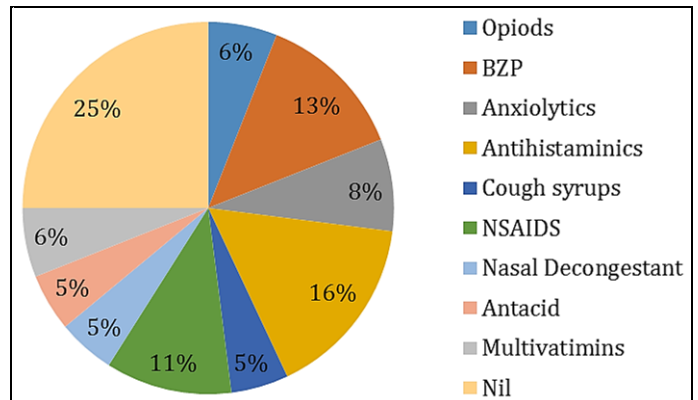


Figure-1: Pattern of drug abuse among male residents

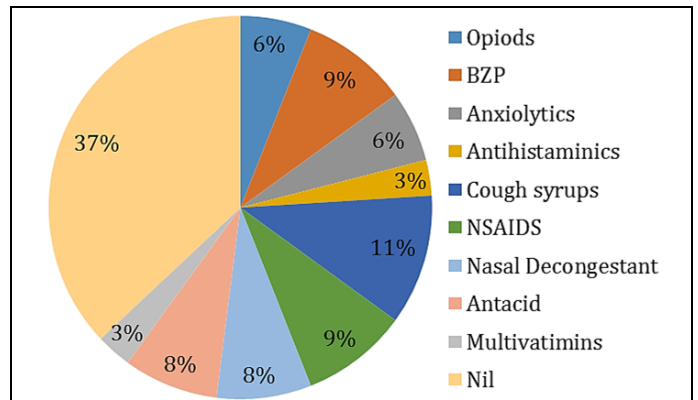


Figure-2: Pattern of drug abuse among female residents

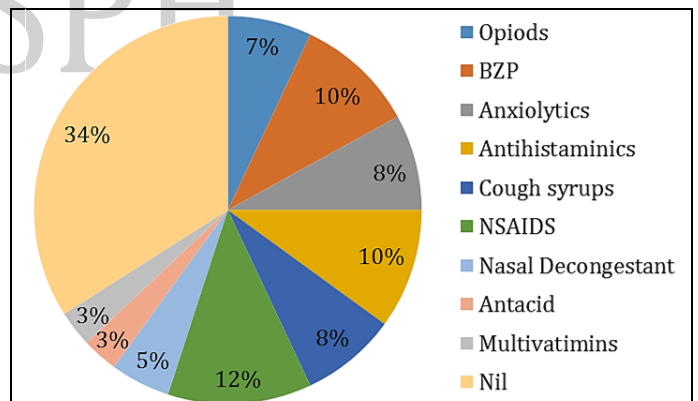


Figure-3: Pattern of drug abuse among male medical students

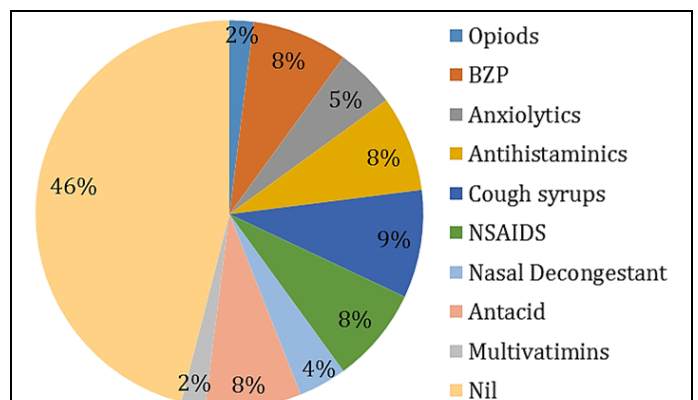


Figure-4: Pattern of drug abuse among female medical students

Antihistaminic were the most common drug abused by the male residents (Figure 1), Cough syrup was abused more commonly by both female residents (Figure 2) and female medical students (Figure 3) whereas NSAIDs was most commonly abused by male medical students (Figure 4). When frequency of drug abuse was analysed, 59 (23%) correspondent were indulged in daily drug abuse, multivitamins were the drug involved, whereas majority, 201 (77%) of the abusers were indulge in drug abuse more than once a month. Majority of the participants, 208 (80%), started with such prescription drug abuse from UG days, whereas 23 (8.84%) started before UG days and 29 (11.15%) started during PG days. Self-prescription was the most common mode of obtaining the drug for 221 (85%) participants, whereas borrowing from seniors (6.5%) and samples from medical representatives (MR) (8.46%) were the other common mode. More than half, 178 (68.14%), participants confessed that stress, increase workload or examination do increase their frequency or quantity of consumption of drugs.

Discussion

We have in this study investigated the prevalence and pattern of prescription drug abuse among medical students and resident doctors. Further an attempt was made to highlight the frequency and confounding factor for such drug abuse. As per our operational definition of drug abuse, 65% were categorised as drug abusers as they consumed the drug atleast once a month without medical prescription. This figure was much higher than studies conducted on medical students by Dube et al^[9] in Agra and by Seth and Manchanda in Lucknow^[8], where they showed prevalence of "drug abuse" to be 22.9% and 25.1% respectively. This figure is also much higher than several report of drug abuse in non-medical student population in India.^[7] Anti histaminic, cough syrups and NSAIDS were the most common drug abused which was in contrast to the study done in past where minor tranquilizers were the drug most commonly abused by the resident doctors.^[13] Dube et al in his study reported 53.5% and 19.7% prevalence among male and female medical students for tranquilizer.^[9] The indulgence in the drug may be due to the doctor residing in hostel where the chances of 'try' under the influence of company are likely to be higher. This has been proved in earlier studies conducted by Sethi and Manchanda in 1978^[8], Dube et al in 1978^[9] and McKay et al in 1973^[14]. Enquiry into the confounding factors reveals that 68.14% of participants said that stress, exam tension and

increase workload do increase the quantity and dose of drug consumption whereas resolution of personal problem was reported by NCDA in 1977.^[15] A true comparison of finding was not possible because we have not come across any study that has dealt with this problem making use of a similar sample.

Conclusion

This study provides a snapshot of the problem of substance abuse among medical students and resident doctors from the Indian subcontinent. Drug abuse by physicians and medical students was determined to be a significant problem in studies completed 20 or more years ago. Unfortunately, these studies have not been repeated in large numbers. The current extent of physician and medical student drug abuse and related impairment issues are not well known. An updated, comprehensive study of medical student drug abuse is needed to provide a better scope of trends in drug abuse among them and perhaps lead to improved education, awareness, prevention, and treatment. Further research is needed from the Indian subcontinent to study nationwide patterns of substance use, and to identify important determinants and reinforce protective factors. Strategies need to be developed for supporting students with a substance use problem. Abuse amongst medical students and physicians should be taken more seriously because their own attitudes towards substances may influence their professional behaviour. Therefore there is a need for better education about substances.

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