

SUBSTANCE ABUSE AMONGST THE POPULATION OF DELHI NCR: A CROSS-SECTIONAL STUDY

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ABSTRACT

INTRODUCTION: Substance abuse is on the rise in India and this study tries to assess its prevalence amongst the population of Delhi and its adjoining National Capital Region (NCR), India. **MATERIAL AND METHODS:** A pre-tested and pre-validated questionnaire was distributed amongst 558 randomly selected people in the region of Delhi NCR. The Chi Square test was used to find out associations and data was subsequently analysed using SPSS Version 21.0. **RESULTS:** With a response rate of 83.3%, it was found out that 277 (59.7%) of the population smoked tobacco with the majority of smokers belonging to the age group of 21-22 years (50.2%). A high percentage (58.5%) of smoking was seen amongst hostellers as compared to those living with Family/Local Guardian (9.4%). Significantly relevant ($p=0.02$) alcohol abuse associated with tobacco use was seen in 34.7% of the population while drug abuse associated with tobacco use was seen in 17.7 of the population. Cigarette had the highest consumption rate (62%) amongst tobacco users followed by bidi (25%) and hookah (9%). **CONCLUSION:** It is time that our efforts should now be concentrated to reduce substance abuse in the young generation of Delhi NCR to reduce the prevalence of tobacco, alcohol and drug abuse and decrease the health related risks associated with such practices.

KEYWORDS: Substance; abuse, Delhi

INTRODUCTION

Substance Abuse has often been regarded as a personality disorder by many scholars, yet the manifestations of this abuse can be also be seen as a worldwide epidemic with evolutionary genetic, physiological and environmental influences that control the behaviour regarding its use.^[1] Our society, in recent years has been plagued by the menace of substance abuse (tobacco, alcohol and drugs) especially in the younger generation aged less than 15 years.^[2] Infact, innumerable deaths occurring per year due to this menace could have been entirely prevented if proper attention had been paid on the younger population (aged 15-25 years) through proper education and counselling in schools and the colleges they attend. The prevalence of substance abuse varies throughout the country, ranging from lowest of 13.9% in Punjab to the highest of 49.4% in Mizoram and it should be noted that these patterns are notorious for their ability to change over time.^[3,4] There is considerable evidence available to state that both licit and illicit substance use cause serious public health problems in the Indian population burdening the already overburdened health care sector.^[4] Very little information is available in India regarding the prevalence of substance abuse amongst the population, and hence, this study tries to assess and provide a baseline data regarding substance abuse amongst the population of Delhi NCR.

MATERIALS AND METHOD

Data was collected from the time period of 1st January 2014 to 31st March 2014 through a pre-tested and pre-validated questionnaire tested for its content and criterion validity. A total of 558 questionnaires were distributed amongst the various the population of Delhi NCR through

Table 1: Characteristics of the study population

Age	Male	Female	Total
18-20 years	89	27	116
21-22 years	105	96	201
23-24 years	60	10	70
>24 years	49	29	78
Total	303	162	465

Table 2: Tobacco use prevalence and association with living arrangement amongst the population

AGE RELATED SMOKING HABIT (n,%)			
Age	Smoker	Non Smoker	Total
18-20 years	79,68.1	37,31.9	31,21.1
21-22 years	101,50.2	100,49.8	82,55.8
23-24 years	35,50	35,50	20,13.6
>24 years	62,79.5	14,20.5	14,9.5
Total	277,59.7	188,40.3	465
LIVING ARRANGEMENT AND SMOKING HABIT			
Arrangement	n, %		
	Smokers	Non smokers	Total
Hosteller	162,58.5	88,46.8	250,53.8
Living with family/guardian	26,9.4	65,34.6	91,19.6
Living all alone	89,32.1	35,18.6	124,24.6

random sampling. An Ethical clearance was obtained from the corresponding author's institution. The questionnaire consisted of 15 questions that assessed various aspects regarding tobacco, alcohol and drug abuse amongst the population of Delhi NCR. Participation in the study was voluntary and anybody who did not wish to be a part of the study, was excluded. The Chi Square test was used to find out associations, if any. Data was tabulated and subsequently analysed using SPSS Version 21.0.^[5]

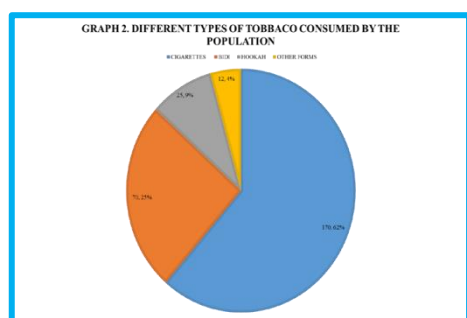
RESULT

Of the 558 questionnaires distributed to the population of Delhi NCR, 465 adequately filled questionnaires were returned (response rate 83.3%). The study comprised of a total of 303 males and 162 female population belonging to different age groups (Table 1). Upon assessing the level of tobacco abuse across different age groups, it was found out that almost an equal number of smoking (50.2%) and non smoking (49.8%) population belonged to the age group of 21-22 years (Table 2). After this age group, it was found out that the young generation aged 18-20 years had the second highest number of smokers (68.1%) which is quite alarming. Table 2 also reveals the smoking habit according to the living arrangement of the population and reveals that most hostellers (58.5%) followed by people living

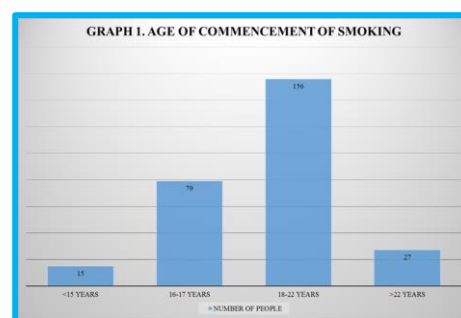
alone (32.1%) smoked more frequently as compared to the people living with their Family/Local Guardian (9.4%). Upon asking the population about the age at which they started smoking (Graph 1), most of the responses belonged to the age group of 18-22 years (156, 56.3%). Surprisingly, the second highest age group was 16-17 years with 28.5% of the population agreed to have started smoking at that time. When asked about the reasons as to why did they start smoking (Table 3), most of the respondents (32.4%) stated that they did so to get a "favourable experience" as compared to 16.8% of the population which agreed to have done it because of "peer pressure" followed by answers that it had become a habit (12.6%) and it helps them to socialize (11.6%). Graph 2 represents the different types of tobacco consumed by the population. It was brought to light that cigarettes use was the highest (62%) followed by bidi (25%), hookah (9%) and other forms of smoke related tobacco (4%). Different types of habits (alcohol and drug abuse) associated with tobacco in the population is described in Graph 3. Statistics revealed that from the study population, 161 people consumed alcohol (34.6%) and amongst those people, a high percentage of alcohol users also consumed tobacco (59.6%) whereas 46.3% of the non-alcoholics also did not

Table 3: Reasons for starting smoking amongst the population. *Some percentages do not total 100 because of rounding

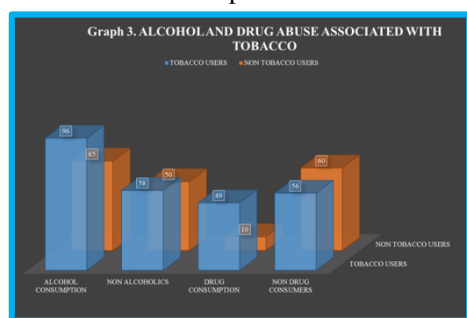
Reasons for smoking	Number	%
Pleasurable experience	90	32.4
Adds to intimacy in social gathering	32	11.6
Friends demand / Peer pressure	47	16.9
Socializing	28	10.1
Habit	35	12.6
Helps to deal with pressure	21	7.6
Time availability and boredom	7	2.5
Social status	10	3.6
Any other	7	2.8



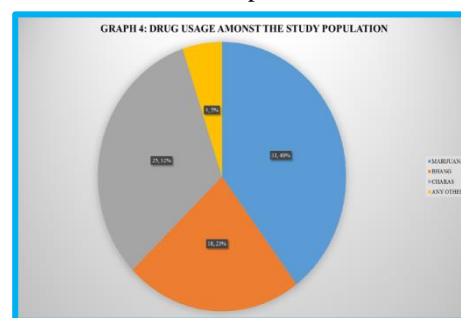
Graph 1



Graph 2



Graph 3



Graph 4

consume any tobacco related product. We observed a significant association between tobacco and alcohol use ($p=.02$). Amongst the drug users 59 (12.7%), 49 (83.05%) people consumed tobacco as compared to 60 (12.9%) of non drug, non tobacco consumers. No significant difference was seen amongst drug use associated with tobacco. The study also tried to assess the different types of drugs used by the population (single use, or in combination) and identified a total of 78 drug users with the types of drugs consumed (Graph 4). As the study data puts the number of drug users to be 59, it can be assumed that 19 people use certain drugs in combination which can have a more lethal effect than using a single drug in combination with tobacco.

DISCUSSION

In an attempt to assess smoking behaviour to alcohol and drug dependence amongst the

population of Delhi NCR, it was found out that a total of 277 (59.7%) people consumed tobacco which was associated with alcohol dependence in 96 (34.7%) people and drug dependence in 49 (17.7%) people. This prevalence of such a high smoking rate is contradictory to the findings of various authors who put the smoking in India to be 28.5% and 30.6% respectively.^[3,6] Living arrangement was considered as an important factor to determine smoking habits. In agreement to various studies, people living alone or in hostels had a greater prevalence of smoking due to “no restrictions” imposed over them as compared to people who lived with their Family/ Local Guardians who provide a “smoke-free environment” in their homes.^[7-9] Also, the fear of getting caught by their Family members/Local guardians leads to a lesser prevalence of smoking in such populations. In this study, the majority of

smokers belonged to the age group of 18-22 years (156,56.3%). Followed by the age group of 16-17 years (79,28.5%). 15 subjects reported to have started smoking before 15 years of age. This is an alarming issue as this is the time when the subjects are particularly in school and become dependent on tobacco and other substances and later find it difficult to quit this habit.^[10-12] This is a grim picture as the prevalence of tobacco uptake varies from 1.9 per cent in Delhi to 75.3 per cent in Mizoram leading to various and serious health concerns.^[13,14] The main reasons to take up smoking in the first place by have been “pleasurable experience” (32.4%), followed by “peer pressure” (16.9%) habit (12.6%) and intimacy in social gatherings 11.6%. This is in agreement to certain authors who state that for the young population, their peers forms an important part and they tend to do things that help them socialise with them.^[15,16] This may be one of the reasons that a knowledge based tobacco cessation programme may not be entirely successful as it is equally important to include, educate and motivate the peers of the cessation group to quit this habit as a whole.^[15] Amongst the various forms of smoked tobacco used, cigarette (62%) was the most common, followed by bidi (25%), hookah (9%) and other forms (4%). It has been generally found that prevalence of bidi consumption is higher in rural areas and cigarette consumption is seen more in urban areas.^[3,6] The prevalence of people consumed tobacco which was associated with alcohol dependence in this study was reported as alcoholism in 96 (34.7%) and drug dependence in 49 (17.7%) people. It is low as compared to a similar study comparing tobacco smoking of alcohol and drug abuse in patients and found out that 89.6% of the alcohol abusers and 90% of the drug users reported smoking cigarettes.^[17] In the year 2004, a systematic effort was made through the National household survey of drug use found that 21.4% of the population consumed alcohol. In the same study, Cannabis, popularly termed as “Bhaang” and “Charas” in India was consumed by 3% of the population.^[18] Amongst the population Uttar Pradesh, a prevalence of 22.8 per 1000 dependent on alcohol and drugs was reported in Lucknow, a prevalence of 18.55 per 1000 was reported.^[19,20] The results of this study indicate a steep rise in

the use on alcohol and drugs amongst the population of Delhi NCR. This study is however, prone to certain limitations. The first being that since this study was cross sectional in nature, fluctuations in patterns of substance abuse could not be recorded. Secondly, for questionnaire surveys, the inclusion certain bias like social desirability bias and under-reporting of data cannot be ruled out. Thirdly, it might be assumed that of the 93 people who did not completely fill the questionnaire, could be because of their hesitation to provide the true nature of such sensitive data, leading to under-reporting of the prevalence rate.

CONCLUSION

This study reports a high percentage of tobacco and alcohol abuse amongst the population Delhi NCR. Also, we found out that most of the people picked up this habit in their adolescent years, that is, while they were in school. More studies should be done to assess the nature of such abuse in the population of this area and emphasis of prevention strategies should be now focussed in schools to prevent further abuse of these ills at such a young and tender age. This shall in turn, help us reduce the burden of various diseases that occur as a result of such abuse and provide a much healthier, and substance abuse free youth in the country.

CONFLICT OF INTEREST & SOURCE OF FUNDING

The author declares that there is no source of funding and there is no conflict of interest among all authors.

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