Factors influencing alcohol and tobacco addiction among patients attending a de-addiction Centre, South India

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Abstract

Introduction: Alcohol and tobacco consumption are highly correlated behaviors. **Aim:** To assess the factors influencing alcohol and tobacco addiction and their impact on personal, family, and social life among patients attending the Spandana Nursing Home and De-addiction Centre, Bangalore. The objectives are to assess the various factors leading to alcohol and tobacco addiction, to assess the influence of addiction on personal, family, and social life, and also to create awareness among the community with regard to the causes, impact, and ill-effects of alcohol and tobacco addiction. **Materials and Methods:** An observational study with a cross-section design was conducted from September 2006 to November 2006. A questionnaire was used to collect information pertaining to different aspects like family influences, parental prompts, peer pressure, age factor, financial constraints, occupation and career problems, and relation with family members and friends, which influenced the participants to initiate the use of tobacco and alcohol. On the basis of the pilot survey the sample size was fixed to be 200. The data recorded was entered into the computer and analyzed using the statistical package SPSS 10. **Results:** A majority of 83 (41.5%) were influenced by peer pressure, followed by nine (4.55) due to family problems, 16 (8%) due to financial drawbacks, 14 (7%) were stress- and job-related, 12 (6%) under family problems and peer pressure, seven (3.5%) stated a feeling of loneliness and insecurity, four (2%) because they were unable to cope with challenges, and he remaining four (2%) were influenced by elders in the family with similar habits. **Conclusion:** Several potential mechanisms promote the combined use of alcohol and nicotine. Investigators and researchers still need to fully elucidate and consider the roles of various genetic, neurobiological, conditioning, and psychosocial factors in developing a more thorough understanding of this dual addiction.

Key words: *Addiction, impact, peer pressure*

INTRODUCTION

Tobacco and alcohol are the most widely used psychoactive substances across the globe. Alcohol is the leading risk factor related to the major burden of disease in underdeveloped and developing countries. It is the third most prevalent factor for leading diseases and injuries in developed countries (WHO 2002). Even as alcohol consumption is decreasing in some developed countries, it is on the rise in developing nations. Globally, a significant proportion of the young population consumes it at a hazardous level. Addiction is defined as a chronic, relapsing disease, characterized by compulsive drug-seeking and abuse because of long-lasting chemical changes in the brain.

The World Health Organization (WHO) estimates that there are about two billion people worldwide, who consume alcoholic beverages and 76.3 million with

diagnosable alcohol-use disorders, including harmful use and dependence, 78% of whom remain untreated. The rate of alcohol use disorder for men is 2.8% and for women it is 0.5%. It causes 1.8 million deaths (3.2% of the total) and a loss of 58.3 million (4% of the total) Disability-Adjusted Life Years (DALY)(WHO 2002). According to the WHO, in 2005, alcohol consumption was estimated to be present among 21% of the Indian population.

The use of tobacco is one of the greatest threats to global health today. At present, according to the WHO, one in three adults or 1.2 billion people use tobacco. In 2025, the number is expected to rise to more than 1.6 billion. According to the most recent estimate, 4.9 million people worldwide died in 2000 as a result of their addiction to nicotine (WHO 2002). This huge number is rising rapidly in the low- and middle-income countries, where most of the world's 1.2 billion tobacco users live. This is expected to rise to 8.4 million deaths by 2020.

In India, tobacco use is estimated to cause 800,000 deaths annually. The national prevalence of smoking tobacco was estimated to be 16.2% and chewing tobacco was 14.0% (WHO 2002). Men smoke 25.5 times more regularly, as compared to women. They chew tobacco 3.7 times more and consume alcohol 9.7 times more, as compared to females (WHO 2002). According to the WHO 2009, consumption of tobacco has been growing at the rate of 2 - 5% per year. In the recent studies of 2010, the WHO estimated a prevalence of tobacco consumption, of all forms, at 65 and 33%, respectively, among men and women.

The burden of alcohol exceeds that of tobacco, as problems from alcohol consumption arise earlier in life. The physiological and social consequences of alcohol use also negatively affects school performance, attendance, productivity at work, and relations within the family.

Common problems faced by alcohol and tobacco users are:

- Health problems like body aches, giddiness, and asthma
- Social problems include financial hardships, job-related difficulties, due to poor educational qualifications, and inadequate professional skills
- Parenting difficulties like separation from children, relationship difficulties with children. Family problems include family conflicts, broken families, tension, violence, and communication difficulties
- Emotional problems consist of depression, worry, and loss of memory.

There are cultural and social factors that put people at a greater risk. Poverty, lack of education and unemployment, and a stressful environment can also increase the risk. Environmental risk factors are the characteristics in a person's surroundings that increase their likelihood of becoming addicted to drugs such as community, family, school, and friends. These types of problems are commonly seen in nuclear families due to inadequate nurture, abuse or neglect, as they become emotionally sensitive. These factors may not always lead to substance misuse or dependency or any other addictive behavior, but they can increase the vulnerability. All of these biological and behavioral observations that focus on the individual, strongly suggest that a causal relationship between alcohol and tobacco use exists at a higher level. Thus, alcohol use may influence tobacco use and vice versa, not only in the individual, but also in the community.

Addiction is not caused by a drug or its chemical properties. Addiction has to do with the effect a drug produces for a given person in the given circumstances — a welcome effect that relieves anxiety. *What we are addicted to is the experience the drug creates for us.* This affects education, daily activities, food habits, occupation, income, and relation with family members and friends.

Youngsters are becoming involved with tobacco and illicit drugs in many ways. Unfortunately, adolescents do not see the link between their actions today and the consequences tomorrow. Adolescence is that time of life when most tobacco users begin, develop, and establish their behavior. The younger age group use tobacco and other drugs for many reasons: To feel good, to reduce stress, to feel grown up or to fit into their environment. The single biggest contributing factor is to have friends with the same attitude.

There has been a significant lowering of age of initiation for the drinking habit. Data from Karnataka showed a drop from a mean of 28 years to 20 years, between the birth cohorts of 1920-1930 and 1980-1990.[1]

Hence, the present study was conducted to assess the major influencing factors for alcohol and tobacco use and addiction. Also this study was carried out to assess the impact of alcohol and tobacco addiction on the personal, family, and social life of the individual.

MATERIALS AND METHODS

Study design

An observational study with a cross-sectional design was conducted from September 2006 to November 2006.

A pilot study was conducted among 25 patients in the same De-addiction Center for a duration of two weeks. After analyzing the results, the necessary modifications were done in the questionnaire and the same was used for the main survey.

Prior permission was obtained from the management of the hospital for conducting the study. The ethical clearance certified from the Independent Ethics Committee (IEC) was issued. Informed consent was obtained from the patients or guardians among minors. The questionnaire was used to collect information pertaining to different aspects like family influences, parental prompts, peer pressure, age factor, financial constraints, occupation and career problems, and relation with family members and friends, which influenced the participants to initiate the use of tobacco and alcohol. The questionnaire was also used to collect information on the impact of addiction on the personal, family, and social life of the individual. The required information was collected from the patient Attendants by a single examiner.

On the basis of the pilot survey the sample size was fixed at 200. Out of 200 participants, 192 were male and eight were female. Prior permission for conducting the survey was obtained from the Medical Director of the Nursing Home.

Inclusion criteria

1. The study participants included both inpatients as well as outpatients attending the Spandana Nursing home and Deaddiction Centre, Bangalore, during September 2006 to November 2006
2. Patients addicted to only alcohol or tobacco or both.

Exclusion criteria

1. Patients with no attendants
2. Patients taking other drugs.

The data recorded was entered into the computer and analyzed using the statistical package SPSS 10 (Windows version)

RESULTS

Out of 200 patients, 192 (96%) were male and only eight (4%) were females. Distribution of the study population according to the age showed that only one (0.5%) was between 10 and 19 years old; 43 (21.5%) were 20-29 years old; 66 (33%) were 30-39 years old; 69 (34.5%) were 40-49 years old; and the ages of the remaining 21 (10.5%) ranged between 50 and 59 years.

Distribution of the study population, according to their occupation, revealed that 46 (23%) were unemployed, two (1%) were government employees, 78 (39%) were farmers, and 74 (37%) were doing business. Distribution of the study population, according to their education level, showed that 33 (16.5%) were uneducated, 61 (30.5%) were educated up to middle school, 60 (30%) up to high school, 35 (17.5%) up to pre-university, and 11 (5.5%) had completed graduation. As the education level increased, the number of participants addicted to tobacco and alcohol decreased, and the difference was statistically significant ($P < 0.05$) [Table 1].

The distribution of study population according to their age of initiation of the habits showed that out of 200 participants, no habit was found among 10-15-year olds, 21 (10.5%) were addicted at the age of 16-20 years, 135 (67.5%) were addicted at the age of 21-25 years, and 44 (22%) were addicted at the age of 26-30 years. As the age of initiation of the habit increased, the number of participants also increased. The results showed a statistical significance ($P < 0.05$) [Table 2].

The percentage distribution based on the family structure of the participants depicted that a majority of 158 (79%) were from a nuclear family and only 42 (21%) were from a joint family.

The distribution of study population according to factors influencing the initiation of habits showed that a majority of 83 (41.5%) were influenced by peer pressure, followed by nine (4.55), who had family problems, 16 (8%) due to financial drawbacks, 14 (7%)

Table 1: Distribution in relation to education level

Education	Number	Percentage
Uneducated	33	16.5
Middle school	61	30.5
High school	60	30.0
Pre-university	35	17.5
Graduated	11	5.5
Total	200	100

(p<0.05)

Table 2: Distribution in relation to age of beginning these habits

Age of beginning	Number	Percentage
10-15	0	0
16-20	21	10.5
21-25	135	67.5
26-30	44	22.0
Total	200	100

(p<0.05)

were stress- and job-related, 12 (6%) had family problems and peer pressure, seven (3.5%) stated a feeling of loneliness and insecurity, four (2%) were unable to cope with the challenges, and the remaining four (2%) were influenced by elders in the family with similar habits.

The distribution according to the habits found among their relatives and friends revealed that 140 (70%) had peers having these dual habits, 58 (29%) had parents who indulged in these habits, and 52 (26%) had siblings who were involved in these habits.

DISCUSSION

Distribution of the participants in relation to occupation showed that most of them were farmers or had their own business, followed by unemployed patients. A study by A.M. Kadri in Ahmedabad city, 2003, showed a similar distribution. Out of 560 participants, seven were students, 79 government employees, 22 unemployed, 42 semi-skilled, 80 did business, 150 were laborers, 113 private employees, 64 autorickshaw drivers, and only three were professionals.[2] Consumer Interests Annual of 2004, showed that the typical non-smokers' net income was roughly 50% higher than the light smokers and twice that of heavy smokers. This study has depicted that the individuals who were addicted were less educated, belonged to the lower-income family group, which in turn showed a negative impact on their personal and family life.

A study by A.M. Kadri, in Ahmedabad city, in 2003, showed a similar distribution in relation to the education level. The study showed that out of 560 participants, 56 were illiterate, 218 were educated up to primary level, 219 to the higher secondary, 47 had graduated, and the remaining 20 were postgraduates.[2,3] It is important to note here that the educated class visited a de-addiction center more often when compared to uneducated patients. This depicts their level of awareness, affordability, and accessibility.

The present study showed that a majority of them, 67.5%, began these habits at a young age of 21-30 years. Data collected in relation to Karnataka state showed a drop from the mean of 28 to 20 years. There was a significant lowering in the age of initiation of drinking alcohol.[1] A study conducted by Michelle C. Kegler and Vicki L. Cleqaver among the American Indian adolescents, also showed similar results. The initiation of alcohol and tobacco use often occurred during adolescence, when young people experimented with multiple adult social roles, because it was the time for

trying new things. People used alcohol and tobacco for many reasons, including curiosity, to feel good, reduce stress, to feel grown up or to 'fit in'.[4]

The percentage distribution, based on the family structure of the participants, depicts that a majority 158 (79%), were from a nuclear family and only 42 (21%) were from a joint family. No similar studies, with regard to the influence of family structure and addiction to alcohol and tobacco, have been conducted. Further studies are recommended in this direction.

In the present study, the factors influencing the initiation of habits showed that a majority of 83 (41.5%) were influenced by peer pressure, followed by nine (4.55), who were under family problems, 16 (8%) due to a financial drawback, 14 (7%) were stress- and job-related, 12 (6%) were under family problems and peer pressure. A study by Patrik Miller among teenagers in France and UK showed that children from non-intact families, those who were not satisfied with their relationships with parents and who were less closely monitored by elders, were more likely to develop addiction than other students. The analyses confirmed that adolescents who lived in non-intact families were more likely to use alcohol, tobacco, or illicit drugs.[5,6]

CONCLUSION

Alcohol and tobacco use are highly correlated behaviors. People who drink are very likely to smoke and vice-versa. Furthermore, people who are dependent on alcohol are also frequently dependent on some form of nicotine. Several potential mechanisms promote the combined use of alcohol and nicotine. Although researchers have made substantial progress in delineating factors that may underlie alcohol and tobacco comorbidity, several research gaps remain. Investigators and researchers still need to fully elucidate and consider the roles of various genetic, neurobiological, conditioning, and psychosocial factors, in developing a more thorough understanding of this dual addiction.[7-10] Future research should be considered with regard to the social, personal, economic, environmental, biological, and physiological influences on alcohol and tobacco addiction. This information gathered will be useful in the identification of high-risk groups and in the design of interventions.

ACKNOWLEDGMENTS

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