

# THE ASSOCIATION BETWEEN THE LIFESTYLE HABITS AND PARENTAL SOCIAL STANDING AND ENGAGEMENT AMID ADOLESCENTS IN BHOPAL CITY, INDIA

Binu Santha<sup>1</sup>, Hongal Sudheer<sup>2</sup>, Vrinda Saxena<sup>3</sup>, Manish Jain<sup>4</sup>, Vidhatri Tiwari<sup>5</sup> and Aishwarya Singh<sup>6</sup>

## Abstract

**Objective:** To assess the association of lifestyle habits and parental social standing and engagement among adolescents in Bhopal City, India.

**Methodology:** This is a Cross-sectional study conducted among students aged 17-23 years in an Arts college of Bhopal City, India. A convenience sample of college-going adolescents was selected for the study. Self-reported questionnaire for adolescents to assess their lifestyle habits and their parents' social standing and personal engagement was used. Descriptive statistics and chi-square test were applied. The Correlation was evaluated using Spearman's R and Pearson's test of Correlation.

**Results:** Out of the total study population, 53.54% (n=166) were males and 46.45% (n=144) were females. A significant association was observed between the parents' occupation (p=.037), education (p=.032) and social life (p= 0.040) with the use of tobacco among adolescents. A significant correlation was observed between parents' education, occupation and social life and personal engagement with the lifestyle habits of the adolescents.

**Conclusion:** Hence, there is an association between the adolescent lifestyle habits and their parents' social standing and personal engagement. There is growing interest in the relationship between parents' social status and their attributes towards their children which cause a dramatic influence on the child's way of living. Adolescent health is a major public health problem as it is influenced by deleterious lifestyle factors like smoking and alcohol consumption. Hence, it is required that regular checks are kept on factors that influence these children to adopt such habits.

**Key Words:** Adolescents, Lifestyle habits, Parent education, Parent occupation, Parent social life, Parental Engagement

## INTRODUCTION

'Lifestyle' is a circulate concept which represents the way people live, depicting their social values, attitudes and activities. It is composed of cultural and behavioural patterns and lifelong personal habits (e.g., physical activity, diet, smoking, alcoholism) that have developed through processes of socialization. Lifestyles are learnt through social interaction with parents, peer groups, friends and siblings and through school and mass media.<sup>1</sup>

Healthy lifestyles which are fundamental to public health are the human activities protecting, promoting or maintaining the health of the individual, while risk behaviour relates to actions which have negative impact on health.<sup>2</sup>

Life style habits like tobacco consumption and use of alcohol are risk factors for many oral diseases like oral cancer, oral mucosal lesions, periodontal disease and impaired healing after periodontal treatment, gingival recession, and coronal and root caries. Available evidence suggests that the oral diseases have an intense impact on general health and well being.<sup>3</sup>

All of the major forms of tobacco used-cigarettes, cigars, pipe tobacco, and smokeless tobaccos (chewing tobacco and snuff)-have oral and general health consequences. Tobacco use in children and adolescents is reaching pandemic levels. The World Bank has reported that nearly 82,000-99,000 children and adolescents all over the world begin smoking every day. About half of them would continue to smoke to adulthood and half of the adult smokers are expected to die

prematurely due to smoking related diseases. If current smoking trends continue, tobacco will kill nearly 250 million of today's children.<sup>4</sup>

Adolescents are the most vulnerable population to initiate impaired lifestyle habits. It is now well established that most of the adult users of tobacco start their use in childhood or adolescence. The tobacco, alcohol and the food companies are now aggressively targeting their advertising strategies in the developing countries like India. Adolescents often get attracted to these products because of such propaganda. A major factor which may influence this vulnerability of the adolescents is their parental social standing and their engagement with the children. It is important to understand these factors that influence and encourage young teenagers and adolescents to imbibe wrongful lifestyle habits.<sup>4</sup>

The emergence of the impaired lifestyle habits, with its future implications, prompted this study to be conducted in the Adolescent population of Bhopal city. The objective of this study was to determine the association between Life style habits of adolescents and their parents' education, occupation and personal engagement.

## MATERIALS AND METHOD

This is an institute based cross sectional survey conducted in an arts college of Bhopal city with a population of 1500 students in the age group of 17 to 21 years. The study population was chosen by convenience sampling.

A pilot study was conducted involving 20 students who were not included in the main study, aiming to test the proposed methodology.

<sup>1</sup>Department of Public Health Dentistry, Rotorua, New Zealand

<sup>2</sup>Department of Public Health Dentistry, A.M.E.'s Dental College and Hospital, Raichur, Karnataka India

<sup>3</sup>Department, Department of Public Health Dentistry, People's Dental Academy, People's University, Bhopal, M.P., India

<sup>4</sup>Department of Public Health Dentistry, SMBT Institute of dental Sciences and research Centre, Nasik India

<sup>5</sup>Department of Public Health Dentistry, Manasarovar Dental College, Bhopal, M.P., India.

<sup>6</sup>Department of Public Health Dentistry, People's College of Dental Sciences & Research Centre, Bhopal, M.P., India

Correspondence and Reprint Requests: Binu Santha

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The final sample size was 310 subjects.

Ethical clearance was taken from the college. Permissions for conducting this study were taken from Director of College Education, College Authorities and the subjects.

**Inclusion criteria**

1. Students present on the day of Survey
2. Students between the ages of 17-23 years

**Exclusion criteria**

1. Students absent on the day of survey
2. Students not willing to participate in the study

A self designed, close ended, structured questionnaire was used for collection of data which included the lifestyles habits of smoking and use of alcohol, family status and lifestyle of parents and parent's levels of education and occupation. The questionnaires were completed by the students themselves in their classrooms, and teachers supervised the procedure. The questionnaire was formulated in English.

The collected data were coded, and a statistical analysis was carried out by using Microsoft Excel 2007 and Statistical Package of Social Science (SPSS 20). Analysis of the data was carried out by frequency distributions.

Descriptive statistics and Pearson's R and Spearman's Correlation were also applied.

**RESULTS**

The present study was conducted among adolescents in the age range 18-24 years. The associations between lifestyle habits and parents' education and occupational status and personal engagement was analysed among 310 study subjects. The study participants consisted of both Male and Female students. Out of the total 91.93% of under graduate students, 54.03% were males and 45.96% were females and out of the total 8.06% of Post graduate students 48% were males and 52% were females.

The lifestyle habit of tobacco use had a significant association with parental occupation (p=.037) among the male (32%) and female (9.75%) study subjects. There was also a significant association between the adolescents who had taken an effort to stop their friends from tobacco use and parental education (p=.032). A significant association was observed between the frequency of tobacco use and the parents' social life (p= 0.040). However, there was no significant association found between the lifestyle habits of reasons for not using tobacco, awareness regarding the harmful effects of tobacco, frequency of tobacco use, reasons

**Table 1** Association between Life Style Habits and Parental Education, Occupation and Leisure time activities (A)

Lifestyle Habits/ Parental Education & Occupation	Parental Education		Parents leisure time engagement		Parental Occupation		Parents social life	
	Male	Female	Male	Female	Male	Female	Male	Female
Tobacco use N (%)	21(23.86%)	6(6.89%)	35(23.64%)	8(6.06%)	16(32%)	4(9.75%)	34 (22.07%)	9 (6.38%)
Statistical Significance $\chi^2$ value	.022 P=1.000(NS)		.086 P=1.000(NS)		4.654 <b>P=.037(S)</b>		1.622 P=.257(NS)	
Reason for not using tobacco N (%)	72 (81.81%)	80 (91.95%)	124 (83.78%)	122 (92.42%)	44 (88%)	37 (90.24%)	125 (81.16%)	132 (93.61%)
Statistical Significance $\chi^2$ value	.115 P=.863(NS)		.504 P=.559(NS)		.297 P=.708(NS)		.501 P=.703(NS)	
Harmful effects of tobacco N (%)	88 (100%)	87 (100%)	148 (100%)	132 (100%)	50 (100%)	41 (100%)	154 (100%)	141 (100%)
Statistical Significance $\chi^2$ value	Not Significant							
Stop friends from tobacco use N (%)	76 (86.36%)	65 (74.71%)	119 (80.40%)	94 (71.21%)	44 (88%)	31 (75.6%)	125 (81.16%)	102 (72.34%)
Statistical Significance $\chi^2$ value	4.975 <b>P=.032(S)</b>		.111 P=.823(NS)		3.070 P=.083(NS)		4.341 P=.058(NS)	

**Table 1** Association between Life Style Habits and Parental Education, Occupation and Leisure time activities (B)

Lifestyle Habits/ Parental Education & Occupation	Parental Education		Parents leisure time spending		Parental Occupation		Parents social life	
	Male	Female	Male	Female	Male	Female	Male	Female
Frequency of tobacco use N (%)	85 (96.59%)	87 (100%)	143 (96.62%)	132 (100%)	47 (94%)	41 (100%)	149 (96.75%)	141 (100%)
Statistical Significance $\chi^2$ value	.538 P=.474(NS)		2.925 P=.140(NS)		.630 P=.423(NS)		8.760 <b>P=.040(S)</b>	
Reason for tobacco use N (%)	2 (2.27%)	87 (100%)	4 (2.7%)	132 (100%)	1 (2%)	41 (100%)	4 (2.59%)	141 (100%)
Statistical Significance $\chi^2$ value	.560 P=.656(NS)		.620 P=.401(NS)		.214 P=1.000(NS)		2.537 P=.221(NS)	
Alcohol use N (%)	29 (32.95%)	13 (14.94%)	47 (31.75%)	18 (13.63%)	20 (40%)	3 (7.31%)	48 (31.16%)	24 (17.02%)
Statistical Significance $\chi^2$ value	.004 P=1.000(NS)		.687 P=.498(NS)		.140 P=.770(NS)		.963 P=.535(NS)	
Frequency of alcohol use N (%)	1 (1.13%)	87 (100%)	4 (2.7%)	132 (100%)	0	41 (100%)	4 (2.59%)	141 (100%)
Statistical Significance $\chi^2$ value	2.747 P=.171(NS)		.620 P=.401(NS)		2.112 P=.327(NS)		2.537 P=.221(NS)	
Reasons for alcohol use N (%)	0	3 (3.44%)	4 (2.7%)	3 (2.72)	0	1 (2.43%)	4 (2.59%)	4 (2.83%)
Statistical Significance $\chi^2$ value	1.200 P=.302(NS)		.075 P=.561(NS)		1.125 P=.445(NS)		.418 P=1.000(NS)	

for tobacco use, alcohol use and frequency and reasons of alcohol use with the parental education, occupation, social life and leisure time activities among the adolescent study population. (Table 1 A & B)

The Pearson's product moment correlation and Spearman's correlation between Life style habits and Parental Education & Occupation, leisure time activities and social life among adolescent study population was determined. The correlation between the habit of tobacco use and parental occupation were found to be statistically significant (p=.031). Also the correlation between the efforts imparted to stop friends from the use of tobacco and the parent's social life and parent's education were found to be statistically significant (p=.037 and p=.026 respectively).

The correlation between frequency of tobacco use and parent's social life were found to be statistically significant (p=.003). However, there was no correlation found between the reasons for not using tobacco and the awareness regarding the harmful effects of tobacco and alcohol consumption with Parental Education & Occupation among adolescent study subjects. (Table 2 A, B, C & D)

**DISCUSSION**

It is generally thought that lifestyle habits of smoking and the use of smokeless tobacco may have a detrimental impact on general and oral health. Several studies world-wide have denominated tobacco use as a risk factor for coronal and root caries and disclosed increased caries rates in tobacco smoking young adults, adults, and elderly.<sup>3, 4, 5</sup>

**Table 2** Pearson's R and Spearman's Correlation between Life Style Habits and Parental Education & Occupation and Personal Engagement - (A)

Lifestyle Habits/ CP/PA&D/PE&O		Parents social life	Parents leisure time spending	Parental Education	Parental Occupation
Tobacco use	Pearson's	-.072 P=.204 (NS)	.017 P=.770 (NS)	.008 P=.882 (NS)	.123 <b>P=.031(S)</b>
	Spearman's Correlation	-.072 P=.204 (NS)	.017 P=.770 (NS)	.008 P=.882 (NS)	.123 <b>P=.031(S)</b>
Reason for not using tobacco	Pearson's R	-.040 P=.481 (NS)	.040 P=.479 (NS)	-.019 P=.735 (NS)	.031 P=.587 (NS)
	Spearman's Correlation	-.040 P=.481 (NS)	.040 P=.479 (NS)	-.019 P=.735 (NS)	.031 P=.587 (NS)

**Table 2** Pearson's R and Spearman's Correlation between Life Style Habits and Parental Education & Occupation and Personal Engagement (B)

Lifestyle Habits/ CP/PA&D/PE&O		Parents social life	Parents leisure time spending	Parental Education	Parental Occupation
Harmful effects of tobacco	Pearson's R			No Significant Correlation	
	Spearman's correlation			No Significant Correlation	
Stop friends from tobacco use	Pearson's R	.118 <b>P=.037(S)</b>	.019 P=.740 (NS)	.127 <b>P=.026 (S)</b>	.100 P=.080 (NS)
	Spearman's Correlation	.118 <b>P=.037(S)</b>	.019 P=.740 (NS)	.127 <b>P=.026 (S)</b>	.100 P=.080 (NS)
Frequency of tobacco use	Pearson's R	.168 <b>P=.003(S)</b>	.097 P=.088 (NS)	.042 P=.465 (NS)	-.045 P=.429 (NS)
	Spearman's Correlation	.168 <b>P=.003 (S)</b>	.097 P=.088 (NS)	.042 P=.465 (NS)	-.045 P=.429 (NS)

**Table 2** Pearson's R and Spearman's Correlation between Life Style Habits and Parental Education & Occupation and Personal Engagement (C)

Lifestyle Habits/ CP/PA&D/PE&O		Parents social life	Parental Education	Parents leisure time spending	Parental Occupation
Reason for tobacco use	Pearson's R	-.090 P=.112 (NS)	-.042 P=.456 (NS)	-.045 P=.433 (NS)	-.026 P=.645 (NS)
	Spearman's Correlation	-.090 P=.112 (NS)	-.042 P=.456 (NS)	-.045 P=.433 (NS)	-.026 P=.645 (NS)
Alcohol use	Pearson's R	.056 P=.328 (NS)	.003 P=.952 (NS)	-.047 P=.409 (NS)	.021 P=.710 (NS)
	Spearman's Correlation	.056 P=.328 (NS)	.003 P=.952 (NS)	-.047 P=.409 (NS)	.021 P=.710 (NS)

**Table 2** Pearson's R and Spearman's Correlation between Life Style Habits and Parental Education & Occupation and Personal Engagement (D)

Lifestyle Habits/ CP/PA&D/PE&O		Parents social life	Parental Education	Parents leisure time spending	Parental Occupation
Frequency of alcohol use	Pearson's R	-.090/-.090 P=.112 (NS)	-.094 P=.098 (NS)	-.045 P=.433 (NS)	-.083 P=.147 (NS)
	Spearman's Correlation	-.090/-.090 P=.112 (NS)	-.094 P=.098 (NS)	-.045 P=.433 (NS)	-.083 P=.147 (NS)
Reasons for alcohol use	Pearson's R	.037 P=.520 (NS)	-.062 P=.275 (NS)	-.016 P=.785 (NS)	-.060 P=.290 (NS)
	Spearman's Correlation	.037 P=.520 (NS)	-.062 P=.275 (NS)	-.016 P=.785 (NS)	-.060 P=.290 (NS)

At present, little is known regarding the association of lifestyle habits among adolescents and the factors that may influence them. Hence this study was undertaken to analyze the influence of parental education, occupation and personal engagement on the lifestyle habits among the adolescents in Bhopal City, Madhya Pradesh.

In the present study, an attempt was made to determine the association between lifestyle habits and Parents' education, occupation, social life and leisure time activities.

Lifestyle may influence general health and oral health behaviour of an individual. Modifying lifestyle increasingly demonstrated in clinical and general populations has resulted in neglect in practice behaviours relevant to health include physical activities, diet, sleeping, smoking, drinking and drug consumption.<sup>6</sup> Deleterious habits like alcohol and tobacco consumption can be influenced by lifestyle of the adolescent which in turn is influenced by the family, peers and close associates.<sup>7</sup>

Therefore, in the present study, whether the lifestyle habits among adolescents were influenced by parents' social life was evaluated. The frequency of tobacco use was associated with their parent's social life. More number of adolescents indulged in using tobacco whose parents had a reasonable social life. Sutherland A (2012)<sup>8</sup> in his study found that familial and demographic factors were important predictors of substance abuse among young people. Ledoux S *et al* (2002)<sup>9</sup> opined that family variables like lifestyle of parents and family structure were related to the substance use like tobacco and alcohol use among adolescents.

The present study also analysed the association between the lifestyle habits and parental education, occupation and leisure activities. A significant association was found between parental education and occupation with the habits of tobacco use. But, no significant association was found between reasons for the tobacco use, awareness regarding the harmful effects of tobacco, frequency of tobacco use, reasons for not using tobacco among non users, frequency of alcohol consumption and reasons of alcohol consumption with the parental education, occupation and leisure activities. There was a significant correlation (Spearman's correlation) between the tobacco consumption and its frequency with parental education, occupation and their social life. These findings may be attributed to peer pressure and parental influences and lifestyle followed by them which contribute to the risk behaviours in adolescents. Yanez AM *et al* (2006)<sup>10</sup> suggested a significant association between the deleterious lifestyle habits of tobacco and alcohol use with the family structure and dynamics. This was in accordance with the present study. This can be attributed to the various family associated factors like lack of communication, support, care, and attention after school on the part of parents towards their children. Richter M *et al* (2006)<sup>11</sup> in his study found a negative association between parental education and occupation with the habit of alcohol consumption among adolescents. This was in contrast with the present study. The Sentinel Survey of the World Health Organization South-East Asia Regional Office (WHO-SEARO) and Indian Council of Medical Research (ICMR) in their literature review suggested a positive association between smoking among adolescents with leisure activity of smoking by parents in their homes. This

was in accordance with the present study.<sup>12</sup> Droomers M *et al* (2003)<sup>13</sup> found a significant association between fathers occupation and adolescent alcohol consumption which was in accordance with this study. This can be a result of socioeconomic background affecting adolescent alcohol consumption substantially. This probably contributes to cumulating disadvantage. Another attributable factor is that the Parents with possible alcohol problems take into account the low parental attachment or try to improve it, and attempt to diminish positive attitudes towards excessive alcohol consumption among youth. Anda RF *et al* (1999)<sup>14</sup> suggested a positive association between the parental deleterious habit of smoking with adolescent's lifestyle habits. This can be associated with the present study. These recent disturbing trends in smoking and alcohol may have occurred amidst efforts to reduce access to cigarettes & alcohol and counter the effects of tobacco and alcohol marketing, parent and sibling smoking and drinking alcohol and peer influence to smoke and consume alcohol.

### Limitations of the Study

Limitations of this study can be attributed to the self reported Questionnaire survey procedure followed. As the lifestyle habits like tobacco and alcohol consumption are not culturally accepted behaviours in Indian society, the reporting regarding these habits by the study subjects would have had its limitations.

### CONCLUSION

A significant association was found between lifestyle habits and parent's social life, parental education and occupation and personal engagement. The oral health of adolescents, especially those with risk habits is a public health concern and education regarding the deleterious effects of tobacco and alcohol consumption should be imparted to this population. Regular reinforcement with health promotion should be made a priority for this group. Continuous monitoring and regular reassessment of this population is mandatory for betterment of general and oral health of these adolescents in the future.

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