

Magnitude of behavioural Risk Factors for Cardiovascular Diseases among Medical and Dental College Students in Andhra Pradesh, India

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Introduction

Cardiovascular diseases (CVDs) are the leading cause of death globally: 17.5 million die each year from CVDs, an estimated 31% of all deaths world-wide. Among these more than 75% deaths occur in the low- and middle-income countries.¹ On 22nd September 2016 World Health Organization (WHO) and partners launched a new initiative “Global Hearts” which aims to beat back the global threat of cardiovascular diseases including heart attacks and strokes.² Tobacco use, an unhealthy diet, and physical inactivity increase the risk. So, we made an attempt to estimate the magnitude of behavioural risk factors which is vital for planners and policy makers to formulate appropriate and locally suitable interventions.

Objective

To estimate the magnitude and pattern of behavioural risk factors for cardiovascular diseases among the medical and dental college students.

Materials and methods

Study design: Cross sectional study.

Setting: Konaseema Institute of Medical Sciences (KIMS) & KIMS Dental College, Amalapuram.

Sample size: 404 students among them 274 were medical students and 130 were dental students.

Data collection procedure: Behavioural Risk Factor Survey System (BRFSS) developed by CDC Atlanta and Cardiovascular Risk Assessment Questionnaire developed by Metagenics, New Zealand a self-administered questionnaire was used to collect the data.

Statistical analysis: Epi-info statistical software package version 3.5.4 was used for data analysis.

Ethical consideration: Institutional ethics committee (IEC) approval was taken, informed written consent was obtained from the participants.

Results

In our study among the 404 study participants majority (68.81%) of them were aged between 20 and 22 years. Gender wise 57.42% were females. Table – 1 shows course wise distribution of risk factors among the study subjects which revealed that 53.85% of the dental students lead a sedentary life style, while only 33.58% of MBBS students lead an inactive life. Overall 40.09% of the students were leading a sedentary life style. In a study conducted in Delhi among college students 42.6% of the students reported occasional or nil physical activity.³ The data also reveals hardly 9.72% of the students exercise in the gym regularly, despite having an equipped gymnasium in the college.

Dietary pattern assessment revealed that 73.26% of the students were consuming fried food frequently. Cheap and easily available fast foods are readily replacing a healthy and balanced diet with plenty of fruits and vegetables. Unhealthy diet is a significant focus point when it comes to medical college students. A similar conclusion was reached by Skemiene L et.al., in a study conducted among medical college students.⁴

57.42% were consuming salt savouries daily. There was a stark difference between males and females when it came to intake of salt savouries like pickles: 44.78% of the girls are consuming daily while only 12.64% of the boys did so. In a similar study conducted in Mysore they found that 70.00% of them consumed salt savouries frequently.⁵

17.82% of current smokers among them 84.72% were medical students and all of them were boys. Further 13.11% of the students were passive smokers. This could be due to the fact that most of the students stay in the college hostel, and students sharing rooms with smokers end up being victims of

passive smoking. In a study done in Lucknow they found that 28.8% of the students were current tobacco users.⁶

19.55% of the students were consuming alcohol among them 86.07% were medical students. 3.96% were admitted to binge drinking (more than 4 drinks at a time). Alcohol consumption is significantly higher among students elsewhere, in a study conducted in Wardha reported that 56.57% were consuming alcohol.⁷

Table 1. Course wise distribution of risk factors for cardiovascular diseases among the study subjects

Risk Factor		MBBS (n = 274)	BDS (n = 130)	Chi square value	P value
Physical Activity	Sedentary	92 (33.58%)	70 (53.85%)	77.423	<0.001
	Once a week	54 (19.71%)	17 (13.08%)		
	2 – 3 times a week	71 (25.91%)	14 (10.76%)		
	4 – 5 times a week	29 (10.58%)	17 (13.08%)		
	5+ times a week	28 (10.22%)	12 (9.23%)		
Fried Food	Less than once a week	74 (27.01%)	34 (26.15%)	20.490	<0.001
	1 – 2 times a week	115 (41.97%)	46 (35.39%)		
	3 – 6 times a week	51 (18.61%)	38 (29.23%)		
	Everyday	34 (12.41%)	12 (9.23%)		
Salt Savouries	Daily	142 (51.82%)	90 (69.23%)	95.945	<0.001
	3 – 4 times a week	61 (22.27%)	13 (10.00%)		
	Once a week	25 (9.12%)	11 (8.46%)		
	Occasional	46 (16.79%)	16 (12.31%)		
Smoking	Current smokers	61 (22.26%)	11 (8.46%)	15.697	<0.001
	Previous smokers	12 (4.38%)	4 (3.08%)		
	Never	201 (73.36%)	115 (88.46%)		
Alcohol	Alcoholic	68 (24.82%)	11 (8.46%)	18.850	<0.001
	Non-alcoholic	206 (75.18%)	119 (91.54%)		

Conclusion

Prevalence of behavioural risk factors is on the rise and the younger generations are spiralling into a bleak future of disease and disability. Developing strategies targeting these behavioural risk factors to improve the health status of college students play a crucial role in protecting the youth from cardiovascular diseases in future.

References

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