A Comparative Study on Lifestyle Pertaining to Risk of Chronic Non – Communicable Diseases between the Students of Two Professional Colleges

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ABSTRACT

Background: A healthy lifestyle in young adulthood helps maintain a low risk profile for non-communicable diseases (NCDs) in middle-age and beyond. The earlier a person adopts healthy choices, the more likely he is at a low-risk for NCDs. The present study was conducted to compare the Lifestyles of two different professional colleges, one being a medical college.

Objective: To assess and compare the risk behaviour leading to chronic non-communicable diseases among the undergraduate medical and engineering students.

Materials and Methods: This was a cross-sectional study conducted among 128 medical students (semester 6th) of Dr PSIMS&RF and another 128 engineering students who were randomly selected from Usha Rama College of Engineering (Pottipadu) both in Krishna District, Andhra Pradesh. Data was collected with a pre-designed, pre-tested, semi-structured and self-administered questionnaire and analyzed by SPSS version 16 software in proportions and chi-square tests.

Results: From this study it was evident that the engineering students were practicing exercise (at least half an hour a day; 5 times a week) more than the medical students and the difference was statistically highly significant. In our study this habit of smoking was observed only among 3.1% of medical students and 6.2% of engineering students, which is a good sign. The study reveals that 14.1% of medical students and 13.3% of engineering students were in the habit of consumption of alcohol which is not expected among the students from a professional set up. The study also identifies that many of the professional students particularly medical students were habituated to outside junk food which shows negligence towards their health.

Conclusion: NCD risk behaviour was observed among the students of both the professional colleges. Medical students were found to be at greater risk than the other professional college students.

KEYWORDS: Life Style, Non-Communicable Diseases, Professional Students, WHO- STEPS approach

INTRODUCTION

A healthy lifestyle in young adulthood helps maintain a low risk profile for non-communicable diseases (NCDs) in middle age and beyond. The earlier a person adopts healthy choices, the more likely he is at a low-risk. The burden of chronic non-communicable diseases (NCD) is rising in low and middle-income countries, particularly in Asia. NCD deaths account for 60% of all deaths in
the world and one in two deaths in the Asian region [1]. In India, NCDs were responsible for 53 per cent of deaths and 44 per cent of Disability Adjusted Life Years lost [2].

Lifestyle factors such as tobacco use, alcohol consumption, junk food, inadequate physical activity are predisposing to many chronic NCDs [3]. CAD is truly a lifestyle disease of multifactorial origin and the role and relationship of these factors can be best understood through the risk factor concept [4].

The World Health Organization (WHO) has recommended surveillance of NCD risk-factors with the “STEP-wise approach”, which uses standardized instruments and protocols for collecting, analyzing and monitoring trends of risk factors within and across countries [5].

The study was undertaken only after going through an article published in a local newspaper regarding the smoking and alcohol habits observed among the students from the professional colleges in the ‘dhabas’ located on NH-5. The study was aimed at exploring the chronic NCD risk behaviour if any, among the professional students and also to compare the risk behaviour between the different professional student groups.

MATERIALS AND METHODS
This was a cross-sectional study conducted among 128 medical students (semester 6th) of Dr PSIMS&RF and another 128 engineering students who were randomly selected from Usha Rama College of Engineering (Pottipadu) both in Krishna District, Andhra Pradesh. Informed consent was taken from all the study participants. Permission from the Institutional Ethical committee was informal since this study was non-interventional. Data on lifestyle risk behaviour was collected with a pre-designed, pre-tested, semi-structured and self-administered questionnaire which was based on WHO- “STEP-wise approach” [5]. Data was analyzed by SPSS version 16 software in proportions and chi-square test.

RESULTS
The sex wise distribution was almost equal among the medical students where as among the engineering students high proportion of males (73%) was observed (Fig1).

Figure 1: Gender distribution of the study population
Majority (82%) of the students from both the colleges were having the habit of consuming fruits and vegetables every day but not to the recommended level which is five servings a day (Fig 2).

**Figure 2: Consumption of Fruits and Vegetables/ day by the study subjects**

<table>
<thead>
<tr>
<th>Servings</th>
<th>Medical</th>
<th>Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>1-3 Servings</td>
<td>69.5</td>
<td>66.3</td>
</tr>
<tr>
<td>4-6 Servings</td>
<td>5.5</td>
<td>10.2</td>
</tr>
<tr>
<td>&gt;6 Servings</td>
<td>7</td>
<td>5.5</td>
</tr>
</tbody>
</table>

\[ X^2 = 3.492 \quad df = 3 \quad p\text{ value} = 0.479 \]

Engineering students were practicing exercise (atleast half an hour a day; 5 times a week) more than the medical students and the difference was statistically highly significant (p value < 0.01) (Fig 3).

**Figure 3: Practice of exercise/week by the study subjects**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>71.9</td>
<td>28.1</td>
</tr>
<tr>
<td>Engineering</td>
<td>86.7</td>
<td>13.3</td>
</tr>
</tbody>
</table>

\[ X^2 = 8.590 \quad df = 1 \quad p\text{ value} = 0.003 \]
When the students were asked about whether they had alcohol in the previous two months which was taken as a cutoff, only less than 15% of the students from each college agreed that they had (Table 1).

**Table 1: Consumption of Alcohol by the study subjects**

<table>
<thead>
<tr>
<th>Course</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>14.10%</td>
<td>85.90%</td>
</tr>
<tr>
<td>Engineering</td>
<td>13.30%</td>
<td>86.70%</td>
</tr>
</tbody>
</table>

\[X^2 = 0.033 \quad df = 1 \quad p\text{ value} = 0.856\]

Only 3.1% of medical students and 6.2% of engineering students were habituated to tobacco in any form (Table 2).

**Table 2: Consumption of Tobacco products by the study subjects**

<table>
<thead>
<tr>
<th>Course</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>3.10%</td>
<td>96.90%</td>
</tr>
<tr>
<td>Engineering</td>
<td>6.20%</td>
<td>93.80%</td>
</tr>
</tbody>
</table>

\[X^2 = 1.399 \quad df = 1 \quad p\text{ value} = 0.237\]

Majority students of both the colleges were having the habit of eat outs (junk food) every week. Medical students are taking out side food more than the engineering students and the difference was statistically significant (p value < 0.05) (Figure 4).

**Figure 4: Eat outs/ week by the study subjects**

\[X^2 = 10.046 \quad df = 3 \quad p\text{ value} = 0.018\]
DISCUSSION

It is now understood that the principles of prevention of CHD can be applied also to other major non-communicable diseases because of common risk factors. The preventive strategy will reduce not only CVD but also other major NCDs with an overall improvement in health and length of life, a small reduction in the average blood pressure in the community would produce large reduction in the incidence of cardiovascular complications such as stroke and CHD [6].

A regular physical exercise is likely to result in weight reduction, reduction of lipids and of blood pressure [7]. It was evident that the engineering students were practicing exercise (at least half an hour a day; 5 times a week) more than the medical students and the difference was statistically highly significant (p value < 0.01).

According to GATS the prevalence of tobacco usage in India was 24.3% and the prevalence among the adolescents was 27.2% [8]. In our study this habit was observed only among 3.1% of medical students and 6.2% of engineering students, which is a good sign.

According to CHHAP study, the prevalence of alcoholism among 15-24 yrs age group was 8.3% [9] and in our study 14.1% of medical students and 13.3% of engineering students were in the habit of consumption of alcohol which is not expected among the students from a professional set up.

According to some studies 40% of the youth (15-24Yrs) were in a habit of regular eat outs [10], and in our study, 78.9% of medical students and 60.9% of engineering students were in habit of regular eat outs with junk foods which shows negligence towards their health and this habit was significantly high among the medical students.

CONCLUSION

The results explores that the medical and engineering students are in risk of NCDs as regards life-style and even medicos “the docs in the making” are not being a role-model to the community as regards NCD-risk behaviour. It is recommended that professional students who are future role-bearers as intellectuals in a community, must adopt healthy lifestyle practices.

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REFERENCES


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