ABSTRACT... Introduction: World Health Organization estimates that approximately 5 million people die each year worldwide from tobacco related diseases. Cigarette smoking is the commonest form of tobacco and is incidence increasing specially in teenagers and women particularly despite of increasing awareness of harmful effects of smoking. This study aims the knowledge of determinants of smoking. Objectives: The objective of the study is to determine the knowledge about factors responsible for smoking. Study Design: Cross sectional survey. Setting: Study was carried out in Quaid-e-Azam Medical College, Bahawalpur. Duration: 1st Jan, 2010 to 31st May, 2010. Subject/Methods: A sample of 100 medical students of QAMC was selected according to stratified random sampling. Data was collected through pre-designed questionnaire. Results: Out of total 100 students 94% of the students know the determinants of smoking. According to (31.30%) of the students, tension/stress was the most important factor responsible for smoking with enjoyment (21.73%) and style/status symbol (20.86%). Conclusions: High proportion of students were aware of the determinants of smoking.

INTRODUCTION

Cigarettes are highly efficient nicotine devices and are as addictive as heroine and cocaine. According to WHO, 5 million people die per year by tobacco related illness, if current figure continues their figure will rise up to about 10 million/year by 2025.

Worldwide approximately 1 billion men and 250 million women smoke. Globally, tobacco use is significantly higher among men 47% and women 12% whereas in developing countries 50% men and 9% women are smoker. In almost all developing countries this is partly due to cultural traditions, although situation is changing and more women are taking up smoking in response to the marketing tactics of tobacco industry. By 2030, a projected 7 million people in developing countries will be killed every year by tobacco.

Tobacco consumption is on rise in Pakistan, especially among youngsters, A study conducted in Karachi, calculated prevalence of tobacco use as 32.7%.

Similar study conducted in Peshawar reported 36% and 11% smoking among males and females. Several factors are responsible for smoking including influence from parents and because of stress. The tobacco companies are competing to promote cigarette consumption while it has been increasing by 5% annually in Pakistan. Young girls smoke because of misconception of reduced appetite by smoking. Such youngsters cannot escape the dangerous consequences of smoking and suffer from, cancer of lungs, COPD, Asthma, Cancer of Bladder, Hypertensive Heart diseases etc.

A research in U.K reported that high incidence of smoking among youngsters is that their role model are parents, brothers, sisters and if they are smokers then they will also start smoking, secondly tobacco advertisements also play important role in smoking. Tobacco is also used in other forms like Hubble bubbles (hukka), oral dip (naswar) beetle nut (pan) berri (rolled tobacco leaves containing tobacco without filter).

OBJECTIVES

1. To know the awareness about determinants of smoking among medical students.

2. Figure out most important factor responsible for smoking.

MATERIAL AND METHODS

Setting

Our study was planned and conducted in Community Medicine Department of QAMC, Bahawalpur.
SMOKING

Duration
Study was conducted in summer i.e. from 1st Jan, 2010 to 31st May, 2010.

Sample Size
A sample of 100 medical students of QAMC was taken.

Sampling Technique
Sample was selected by stratified random sampling.

Study Design
A cross sectional survey was carried out.

Data Collection Procedure
Data was collected through a pre-designed questionnaire about bio-data, family education and income, knowledge of factors, their own smoking habits.

Data Analysis
Results were displayed in tabulated form showing frequencies and comparison of different socio-demographic variables. Any relationship noted was subjected to statistical analysis. As all variables were qualitative in nature, so, Chi-square test was used as a test of significance. Level of significance used was 0.05.

RESULTS
According to our study, out of 100 students 94% were in knowledge of the determinants of smoking. Ratio of awareness was higher in 18-21 years age group; most of the males were unaware while females were aware of the determinants of smoking. Students whose families were highly educated, were more aware. There was lack of knowledge in low socioeconomic group as compared to higher. However statistically insignificant relationship was found between age and smoking. (Table-I).

A statistically significant relationship was found between sex and smoking awareness (Table-II).

By comparison of awareness of determinants among smokers and non-smokers statistically significant relationship was found (Table-III).

Among the students who have knowledge about the determinants of smoking stress/tension (31.30%) was top most factor, enjoyment 2nd, style and status 3rd and addiction the last. (Table-IV)

Out of these 10% smokers all were males and it is seen that smoking is more common in senior students of age group 22-25 years than in junior students. Most of the smokers have highly educated fathers and doing business, while mother education and house wife factor is inversely related to magnitude of smoking among children. The family members of most of the smokers are smokers. (Table-V).

### Table-I. Relationship of age and awareness

<table>
<thead>
<tr>
<th>Age</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-21</td>
<td>59 (62.7%)</td>
<td>2 (33.33%)</td>
</tr>
<tr>
<td>22-25</td>
<td>35 (37.2%)</td>
<td>4 (66.67%)</td>
</tr>
</tbody>
</table>

$X^2 = 2.04$, $df = 1$, $P > 0.05$ (Insignificant)

### Table-II. Relation of sex with awareness

<table>
<thead>
<tr>
<th>Age</th>
<th>Aware (%)</th>
<th>Un-aware (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>36 (38.2%)</td>
<td>5 (83.3%)</td>
</tr>
<tr>
<td>Female</td>
<td>58 (61.7%)</td>
<td>1 (16.6%)</td>
</tr>
</tbody>
</table>

$X^2 = 4.71$, $df = 1$, $P < 0.05$ (Significant)

### Table-III. Comparison of awareness of determinants of smoking among smokers and non-smokers.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Smokers (%)</th>
<th>Non-smokers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>10 (100%)</td>
<td>31 (34.4%)</td>
</tr>
<tr>
<td>Female</td>
<td>0 (0%)</td>
<td>59 (65.6%)</td>
</tr>
</tbody>
</table>

$X^2 = 15.99$, $df = 1$, $P < 0.05$ (Significant)

DISCUSSION
We found in our study that only 10% of students smoke and out of them all were males, no female was smoker. However, studies conducted in other parts of country, reported prevalence of 36.8% in males and 9.3% in females.

Another study conducted in Department of Community Medicine Zia-ud-Din Medical University revealed 26%
Table IV. Comparison of different determinants of smoking among students who have knowledge about determinants of smoking, i.e. 94%

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Total No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tension stress</td>
<td>72</td>
<td>31.30%</td>
</tr>
<tr>
<td>Enjoyment</td>
<td>50</td>
<td>21.73%</td>
</tr>
<tr>
<td>Style/status</td>
<td>48</td>
<td>20.86%</td>
</tr>
<tr>
<td>Inspiration</td>
<td>36</td>
<td>15.65%</td>
</tr>
<tr>
<td>Addiction</td>
<td>24</td>
<td>10.43%</td>
</tr>
</tbody>
</table>

Table V. Comparison of awareness of determinants of smoking among smokers and non-smokers.

<table>
<thead>
<tr>
<th>Age in year</th>
<th>Smokers</th>
<th>Non-smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-21</td>
<td>3 (30%)</td>
<td>59 (62.7%)</td>
</tr>
<tr>
<td>22-25</td>
<td>7 (70%)</td>
<td>31 (34.4%)</td>
</tr>
</tbody>
</table>

$X^2 = 4.819$, df = 1, P < 0.05 (Significant)

males and 1.7% females as smokers. And a study conducted in Delhi, India reported 45% males and 11% females as smokers. This is a disagreement from our study, the reason for this is that 94% of our students were aware of the determinants and particularly the awareness was high in females (61%) and less in men (38.2%), and another reason is that culture and religious norms in this area don't allow the women to smoke and particularly women here are not bold enough to disclose their smoking habit. A Turkish study also reported that level of education was strongly associated with smoking.

Our study revealed that 40% of smokers are of age group (18-21) year and 60% of smokers are of age group (22-25) years. However, a study conducted among medical students in Omrain Tunisia revealed that 21% of 1st year students smoke and 37% of final year student's smoke.

Another study held among medical students in University De Bordeaux-II, France revealed 4% of 1st year students and 11% of final year students as smokers. In all these studies it is noted that smoking is more common in senior medical students which matches our study as mostly senior students of age group (22-25) are smokers.

Considering this high prevalence of smoking in senior students our study had the most important aspect i.e. WHAT ARE THE FACTORS WHICH ARE RESPONSIBLE FOR SMOKING? Our study estimated tension, stress and depression (31.30%) as the leading factor responsible for smoking.

Whereas a study conducted in All India Institute of Medical Sciences (AIMS) revealed 49% students said stress drives towards smoking and peer pressure 25%. A research in Gadap Town, Karachi estimated that social peer pressure 64.4% and depression 22.7% puts one on smoking. Other factors according to our study are status symbol/style 20.89% and inspiration 15.65%). However, 7% students get hooked to smoking because it gives them a glamorous look.

But a study conducted in Ukraine about knowledge of smoking in young adults revealed 73.6% of school and college going persons smoke due to exclusive advertisement and no smoking restrictions from their homes. Our results are almost similar to these studies and also in line with the research indicating that pro-tobacco media and advertising increase susceptibility for smoking over time, and tobacco advertising and promotion increases the likelihood that adolescents will start to smoke.

CONCLUSIONS

Among the medical students of QAMC, Bahawalpur the awareness about determinants of smoking was high. The most important factor responsible for smoking was tension/stress. The frequency of smoking was less and all the smokers were male.

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PREVIOUS RELATED STUDIES
