Abstract
A survey of the smoking habits amongst Medical students was conducted in January - July, 1981. Of 2204 registered students, 1363 (62%) returned the self administered questionnaires. At the time of survey there were 191 smokers (M.188, F-3), 27 ex.smokers (M-26 F-1) and 1145 Non-smokers (M-668, F477).
The average age at start of smoking was 17 years amongst smokers and 18 year amongst exsmokers. The smokers and ex-smokers were classified into 6 groups based upon their psychological motivatives factors for smoking. On this basis, it was seen that most of the smokers smoked for pleasurable relaxation and tension reduction. It was also noted that in 72% of the smokers, the reasons for smoking were such that they could easily give it up (JPMA 33:39, 1983).

Introduction
Association of Smoking with diseases of the lungs, heart, blood vessels and cancer of bronchus, oral cavity and kidney is well established (WHO, 1975; Royal College cf Physicians Report, 1977; DHEW, 1979). Information on the health hazards of smoking is a part of a number of disciplines in the medical curriculum and it would be expected that medical students knowing these hazards would not take up smoking or give it up if they were previously smokers, yet a visit to any still smoking. It was therefore decided to conduct a survey in a medical college to determine :
1. What percentage of medical students are currently smokers and their reason for smoking.
2. What percentage of medical students have given up smoking and their reasons for doing so.
3. The attitude of non-smoking medical students towards smoking and their reasons for not taking up the habit.

Material and Methods
A self administered questionnaire was designed for this survey, which had three sections, one each for smokers, ex-smokers and non-smokers. A smoker was defined as one who had smoked at least one cigarette per day for 30 days and an ex-smoker as one who had previously smoked at least one cigarette per day for 30 days but does not smoke now.
To elicit the psychological factors motivating smoking a group of questions developed by Horn (1968) were used. The scores based upon the answers to these questions gave an idea of the psychological motivating factors for smoking.
The questionnaire was field tested amongst a group of students and on the basis of this trial certain modifications were made in the language and arrangement of the questions.
In order to cover the maximum number of students, volunteers were taken from each class of Sind Medical College and they then distributed the questionnaire amongst the students and collected the filled in questionnaires to return them to the Principal Investigator.
At the time of survey (January - July, 1981), there were 2204 registered students in Sind Medical College distributed in six classes (Table-I).
Completed questionnaires were received from 1963 students of which 882 were males (60.4% of the total registered males) and 481 were females (64.3% of the total registered females). The information from the questionnaire was then tabulated at the Pakistan Medical Research Council Headquarters.

**Results**

Out of the 1363 students who returned the filled in questionnaire, 191 were smokers, 27 exsmokers and 1145 non-smokers. Amongst the 882 males, 188 (21.37%) were smokers, 26 (3%) exsmokers and 668 (75.5%) ex-smokers and 477 (99.1%) were non-smokers (Table II).
Smokers:
The survey shows that amongst the males constituted 98.9% of all the smokers. Only 1.1% of the smokers were females. Sixty six percent of the smokers smoked 10 or less cigarettes per day and that they were confined mostly to the junior-most classes. Only six were heavy smokers (30-40+ cigarettes/day), and they belonged to the senior-most two classes. The number of cigarettes smoked per day was pro-portional to the average duration of smoking and it also increased with the seniority of the class (Table III).

Table III

<table>
<thead>
<tr>
<th>Class of:</th>
<th>No.</th>
<th>Duration +SD/Months</th>
<th>No.</th>
<th>Duration +SD/Months</th>
<th>No.</th>
<th>Duration +SD/Months</th>
<th>No.</th>
<th>Duration +SD/Months</th>
<th>No.</th>
<th>Duration +SD/Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 10</td>
<td>36</td>
<td>45 ± 14.3</td>
<td>9</td>
<td>61.3 ± 10.7</td>
<td>8</td>
<td>76.7 ± 8.7</td>
<td>3</td>
<td>71.3 ± 5.7</td>
<td>1</td>
<td>72</td>
</tr>
<tr>
<td>11-19</td>
<td>18</td>
<td>44.3 ± 14</td>
<td>7</td>
<td>66.0 ± 10.7</td>
<td>2</td>
<td>88 ± 0</td>
<td>2</td>
<td>68 ± 6.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>11</td>
<td>32.8 ± 13.6</td>
<td>10</td>
<td>60.8 ± 18.7</td>
<td>2</td>
<td>84 ± 0</td>
<td>2</td>
<td>50 ± 13.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-39</td>
<td>12</td>
<td>44.2 ± 14.3</td>
<td>5</td>
<td>31.2 ± 5.0</td>
<td>2</td>
<td>50 ± 13.6</td>
<td>2</td>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40+</td>
<td>17</td>
<td>26.7 ± 11.3</td>
<td>4</td>
<td>31.0 ± 6.0</td>
<td>1</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66%</td>
<td>33</td>
<td>18.2 ± 13.5</td>
<td>6</td>
<td>35.5 ± 10.8</td>
<td>2</td>
<td>35.5 ± 13.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22%</td>
<td>127</td>
<td>41</td>
<td>17</td>
<td>9.3%</td>
<td>3</td>
<td>1.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.3%</td>
<td>3</td>
<td>1.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6%</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This is understandable because students of the senior classes were older and had smoked for a longer period.
The response of smokers to questions on the associated health hazards of smoking is given in Table IV.
Amongst the smokers 61% believed smoking to be a cause of heart and lungs diseases, 59% believed it to be a cause of cancer while 55% believed it to be a cause of cancer while 55% believed that it shortened the life span.

The number of family members of smokers who smoked is given in Table V.

### Table V

**Family Influences in Smokers, Ex-smokers and Non-smokers.**

<table>
<thead>
<tr>
<th>Relation of smoking</th>
<th>Smokers</th>
<th>Ex-Smokers</th>
<th>Non-Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
</tr>
<tr>
<td>Cancer</td>
<td>114</td>
<td>16</td>
<td>473</td>
</tr>
<tr>
<td>Heart and lungs</td>
<td>118</td>
<td>19</td>
<td>481</td>
</tr>
<tr>
<td>diseases</td>
<td>61.7%</td>
<td>70.3%</td>
<td>72.09%</td>
</tr>
<tr>
<td>Life span</td>
<td>106</td>
<td>18</td>
<td>433</td>
</tr>
<tr>
<td></td>
<td>55.4%</td>
<td>66.6%</td>
<td>76.2%</td>
</tr>
</tbody>
</table>

Amongst the smokers 61% believed smoking to be a cause of heart and lungs diseases, 59% believed it to be a cause of cancer while 55% believed it to be a cause of cancer while 55% believed that it shortened the life span.

The number of family members of smokers who smoked is given in Table V.

### Table V

**Family Influences in Smokers, Ex-smokers and Non-smokers.**

<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th>Mother</th>
<th>Brother</th>
<th>Sister</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smokers</td>
<td>84</td>
<td>9</td>
<td>76</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>44%</td>
<td>4.79%</td>
<td>39.7%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Ex-Smokers</td>
<td>12</td>
<td>1</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>44.4%</td>
<td>3.7%</td>
<td>40.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Non-Smokers</td>
<td>409</td>
<td>26</td>
<td>255</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>35.7%</td>
<td>2.2%</td>
<td>19.6%</td>
<td>0.08%</td>
</tr>
</tbody>
</table>

Forty four percent of the fathers and 39.7% of the brothers also smoked. The percentage of mothers and sisters who were smokers was 4.7% & 1.5% respectively.
Table VI shows the psychological motivating factors for smoking. Pleasureable Relaxation is the factor given by most (49.9%) of the smokers. The next being Crutch Tension Reduction (38.2%). Other factors were handing and Craving psychological Addiction. Stimulation and Habit are motivating factors in a minority of the smokers.

**Ex-Smokers**

The number of ex-smokers in the sample of 1363 was 27 (3%) of which 26 were male and one female. The average age at start of smoking was 17 years the youngest being 9 years and the average age at which they give up smoking was 20 years. The number of ex-smokers smoking 10 or less cigarettes per day was 81% as compared to 70% for smokers.

Table IV shows the response of ex-smokers to the health hazards associated with smoking. Fifty-nine percent of the ex-smokers believed that smoking caused cancer, 70% believed it to have a relationship with heart and lung diseases and 66.6% believed it to shorten the life span.

Table V shows the number of family members of ex-smokers who smoked. Fourty four percent of the fathers and 40.7% of brothers were smokers.

On queries about why ex-smokers had ceased smoking, 63% answered that they leftsmoking on realisation of its adverse effects en health, 52% said that it was a waste of money and 44% left it because smoking lost its charm sometime (Table VII).
Table VI shows that pleasurable Relaxation was the main factor (44%) which motivated them to smoke. Other factors were Handling (44.4%) and Crutch Tension Reduction (44.4%).

**Non-Smokers**

The number of non-smokers was 1145 or 84% of the total 1363 of which 668 (59%) were male and 477 (41%) were female. Amongst the 481 female medical students, 99.19 were nonsmokers (Table II). The number of family members of nonsmokers who smoke is given in Table V. Amongst the non-smokers, 35.7% of the fathers and 19.6% of the brothers smoked.

On queries about the associated health hazards it was seen that 75% believed it to cause cancer (Table IV). Again 75% believed it to cause heart and lung diseases and 70% believed it to shorten the life span.

Comparing the male and female non-smokers it was seen that females, when asked why they never took up smoking, most (66%) answered because of the health hazards.

**Table VIII**

Table VIII also shows that 28% females did not smoke because they never got the opportunity, while 18% of the females had smoked at least one cigarette at one time or the other.
Discussion

Smokers
This survey has shown that smoking is almost exclusively confined to the males cf whom 21.3% are smokers. Compared to a study conducted by Mehmood and co-workers (1974, 1982) this figure is lower than from what they reported which showed that about 45% of the males in Karachi smoke. The average age at start of smoking in this study was 18 years with only one smoker beginning before 10 years. According to the study of Mehmood & co-workers (1974) most of the smokers had started before the age ef 10 years. The age at start is lower in this study because it is surveying a younger age group.

Family influence
As the family has a strong influence on the attitudes governing the behaviour and habits of the individual, it was expected thatthe same influence would apply to smoking. Amongst the various members of the family, it was the influence of the brothers which was more important in preventing or encouraging a person to take up smoking. The number of brothers who smoked was significantly higher (P = 0.001) in the group of smokers as compared to non-smokers. The difference in the number of fathers who smoked was not significantly different between those who smoked and those who did not (Table V). Other reports have also shown that the high influence of brothers may also be due to the fact that the other brothers may associate or take up after their elder brothers or those in close age group, a situation referred as “Peer Pressure”. Many of those who smoke due to Peer Pressure do so to counter-act their feeling of inferiority or to gain acceptance by the “In Crowd”.

Psychological motivating factors
The majority of smokers and ex-smokers smoke for “Pleasurable Relaxation” When this is a factor it means that the smoker smokes to get pleasure out of smoking and to accentuate or enhance pleasurable feeling accompanying a state of well being.
Those who smoke for “Crutch Tension Reduction” use cigarettes for their sedative or tranquilizer like effect in moments of stress, fear, shame, discomfort or pressure. This was the second most prominent factor in both smokers and ex-smokers.
In those in whom “Handling” is a major factor, the reason why they smoke is because they enjoy manipulating a cigarette with their hands and making a production of the process of lightening, holding, exhaling and flaking the ashes. This was again the second most prominent factor and is seen only in ex-smokers.
People who smoke mainly for Stimulation, Handling, and Pleasurable Relaxation can easily give up smoking as compared to those who smoke for Crutch Tension Reduction, Craving Psychological Addiction and Habit (Horn, 1968). Thus amongst the students of Sind Medical College who had given up smoking, it was seen that in 92% of them the reasons were such that they could easily give up smoking (Pleasurable Relaxation, Handling, & Stimulation). Amongst those who continued to smoke, 72% fell into this category. In other words they too could easily give up smoking.
The results of this survey show that smoking is basically a psychological habit with accompanying pharmacological (Knapp et al., 1963) and social satisfactions and reinforcements. Smoking is a learned behaviour occurring in response to direct and indirect social pressures. As 72% of current smokers in Sind Medical College are capable of easily giving up smoking, they must be encouraged to do so by means of “Quit Smoking” programmes. These should be such that they do not try to pressure cr brow beat the smoker to quit smoking on the basis of health hazards as most of the smokers are already well aware of the harmful effects of smoking. Also repeated studies have shown that coercive, scare type approaches or those based on excessive judgement, rationality and criticism do not work in a quit smoking programme. Thus, for an effect quit smoking programme, the individual’s attitude is the most important factor and that hel she must want to give up or want to ‘do something’ about smoking.
As quitting smoking is a long term process requiring a great deal of unconscious, constructive and painful conflict, the individuals wanting to give up smoking should have access to facilities where they can be advised and guided on how best to achieve their aim.

One can stop smoking if the problem is attacked on a broad front, if one cuts off all means of retreating back to the habit and if suitable satisfying alternatives and involvements are taken up. While all such pursuits - artistic, athletic, intellectual, spiritual and social are beneficial, the most important are those activities which promote greater “physical Self Awareness” like aerobic exercises (running, swimming & group sports). This type of activity is usually associated with a sense of accomplishment, independence and a sense of control of habits and lifestyle. Also such an individual is likely to become more resolute, emotionally stable and imaginative (Heinzelmann and Bagley, 1974; Sheehan, 1978).

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References