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## ABSTRACT

Smoking is a worldwide problem affecting the people beyond their age, sex race or community. Smoking in medical students has reached up to an alarming level

**Objectives:** To determine the psychosocial determinants related to smoking among students of KEMU

**Subjects and methods:** Fifty cases were randomly selected from students of King Edward Medical University. Fifty controls were selected and interviews were conducted. Data was collected, compiled and analyzed.

**Result:** After bivariate analysis, it was found that influence of negative advertisements (OR=3.857, CI=1.278-11.68) continuity of negative advertisements (OR=3.778, CI=1.3432-10.628) parental smoking (OR=2.263, CI=1.013-5.052) fake belief of athletic performance enhancement restlessness (OR=4.935, CI=1.986-12.26) friends offering cigarettes (OR=6.0641, CI=2.076-15.92) fake belief of opposite gender attraction (OR=6.682, CI=2.610-17.104) lack of sound sleep (OR=0.899, CI=0.363-2.224) not offering prayers (OR=4.529, CI=1.952-10.508) fake pleasure (OR= 10.028, CI= 4.005-25.108) are found to be significantly associated with smoking among students of KEMU. However after multivariate analysis, influence of negative advertisements OR=3.857, CI=1.278-11.68) continuity of negative advertisements (OR=3.778, CI=1.3432-10.628) parental smoking (OR=2.263, CI=1.013-5.052) fake belief of athletic performance enhancement, restlessness (OR=4.935, CI=1.986-12.26) friends offering cigarettes (OR=6.641, CI=2.076-15.92) fake belief of opposite gender attraction (OR=6.682, CI=2.610-17.104) lack of sound sleep (OR=0.899, CI=0.363-20.224) not offering prayers (OR=4.529, CI=1.952-10.508) fake pleasure (OR=1.631, CI=0.681-3.909) were significantly associated with smoking among students of KEMU.

**Conclusion:** Further investigations are required to find out various psychosocial factors leading to smoking and frequency of smoking.

**Key words:** Smoking, psychosocial factors

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## INTRODUCTION

Smoking is a worldwide problem affecting the people beyond their age, sex race or community. Smoking in medical students has reached up to an alarming level. This study is mainly focused upon distribution, determinants and frequency of smoking among the students of KEMU. Keeping in view the enormous number of male students indulging in Tobacco smoking, this problem is the main stream of our research. Influence of negative advertisements was associated with smoking in students<sup>1</sup>. Continuity of smoking was associated with smoking due to advertisements<sup>2</sup>. Smoking was not associated with relieving depression<sup>3</sup>. Lack of awareness was associated with increased smoking<sup>4</sup>. Lack of role of parents was not associated with increase chance of smoking<sup>5</sup>. Smoking of students was associated with their parent's smoking<sup>6</sup>. Smoking was associated with increased athletic performance<sup>7</sup>. Mental stress

was not associated with increase d incidence of smoking<sup>8</sup>. Smoking was not associated with increased feeling of independence<sup>9</sup>. Smoking was associated with relieve of restlessness<sup>10</sup>. More smoking of students was associated with their friends offering them cigarettes<sup>11</sup>. Students smoking was associated with attraction of opposite gender<sup>12</sup>. Lack of sound sleep was associated with increased smoking<sup>13</sup>. Broken families was associated with increased chance of smoking<sup>14</sup>. Lack of rest after lunch was not associated with increased smoking<sup>15</sup>. Lack of exercise was not associated with increased smoking<sup>16</sup>. Not offering prayers was associated with increased smoking<sup>17</sup>. Smoking of students was not associated with the fake pleasure<sup>18</sup>. Smoking friends was not associated with increased chance of smoking<sup>19</sup>.

## MATERIAL & METHODS

The study was carried out randomly among students of King Edward Medical Univeristy, Lahore from 8th of August 2008 to 10th of September 2008. Fifty cases were randomly selected from students of KEMU. Fifty controls were selected and interviews

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Final Year Students of King Edward Medical University  
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were conducted. Data was collected, compiled and analyzed.

a) Dependent variables: Psychosocial determinants of smoking among the students of KEMU

b) Independent variables: Influence of advertisements<sup>1</sup>, continuity due to advertisements<sup>2</sup>, parental smoking<sup>7</sup>, fake belief of athletic performance enhancement<sup>8</sup>, restlessness relief<sup>11</sup>, offering of cigarettes by friends<sup>12</sup>, fake belief of opposite gender attraction<sup>13</sup>, lack of sound sleep<sup>14</sup>, not offering of prayers<sup>18</sup>, fake pleasure<sup>19</sup>, lack of exercise<sup>17</sup>, depression<sup>4</sup>, lack of awareness about side effects<sup>5</sup>, lack of role of parents<sup>6</sup>, fake relief of mental stress<sup>9</sup>, broken families<sup>15</sup>, lack of rest after lunch<sup>16</sup>, smoking friends<sup>20</sup>.

**Study Design** was Case control. Study area was King Edward Medical University. Study universe was student community of KEMU.

Study subjects selection criteria:

**Inclusion Criteria** for the cases & controls: medical students of King Edward Medical University

**Exclusion Criteria** for the cases & controls: Medical students of other medical colleges

Social and Ethical Considerations:

- (a) Observing cultural ethics
- (b) Consent was obtained for interview

**Sample size** was calculated through Epi-info. Sampling Technique was random sampling.

The data was compiled and analyzed through SPSS. Before carrying out the actual exercise of data collection, questionnaire was tested on some subjects on experimental basis to observe:-

- Any deficiency in questionnaire.
- Ethical and social acceptability of questionnaire.

## RESULT

**Distribution:** A total of 100 individuals (50 cases and 50 controls) were recruited in the study. 65% were male and 35% were female. 100% were above matric whereas 0% below matric. 30% were skilled whereas 70% unskilled

**Multivariate Analysis:** The bivariate analysis showed some of the socio demographic factors exhibiting statistically significant association with smoking including influence of negative advertisements, continuity due to negative advertisements, lack of awareness about side effects, parental smoking, fake belief of athletic performance enhancement, restlessness, friends offering cigarettes, lack of sound sleep, fake belief of opposite gender attraction, not offering prayers, fake pleasure. Multivariate logistic regression model was used to control for the possible confounding effect of these socio demographic factors on each other. It was

observed that after the controlling for the socio demographic factors, only influence of negative advertisements (OR=3.857, CI=1.278-11.68) continuity of negative advertisements (OR=3.778, CI=1.3432-10.628) parental smoking (OR=2.263, CI=1.013-5.052) fake belief of athletic performance enhancement restlessness (OR=4.935, CI=1.986-12.26) friends offering cigarettes (OR=60641, CI=2076-15.92) fake belief of opposite gender attraction (OR=6.682, CI=2.610-17.104) lack of sound sleep (OR=0.899, CI=0.363-20224) not offering prayers (OR=4.529, CI=1.952-10.508) fake pleasure (OR=1.631-0.681-3.909). exhibited a statistically significant relationship with smoking whereas lack of awareness (OR=2.374, CI=1.035-5.444) about side effects did not exhibit a statistically significant relationship with smoking.

Similarly in the bivariate analysis some of the socio demographic factors did not exhibit statistically significant association with smoking including depression, lack of role of parents, fake relief of mental stress, fake feeling of independence, broken families, lack of rest after lunch, lack of exercise, smoking among friends. However after Multivariate analysis only lack of exercise did not exhibit a statistically significant relationship with the smoking whereas depression, lack of role of parents, fake relief of mental stress, fake feeling of independence, broken families, lack of rest after lunch, smoking among friends exhibited a statistically significant relationship with the smoking among medical students (Table).

## DISCUSSION

In multivariate analysis, advertisements increased smoking in students. Similar association was found in previous studies<sup>1</sup>. Students kept on smoking due to advertisements. Similar association was found in previous studies<sup>2,3</sup>. Smoking relieved depression. Similar association was found in previous studies<sup>4</sup>. Lack of awareness did not increase smoking. However, similar association was not found in previous studies<sup>5</sup>. Lack of role of parents increased chance of smoking. Similar association was found in previous studies<sup>6</sup>. Students smoked because their parents smoked. Similar association was found in previous studies<sup>7</sup>. Smoking increased athletic performance. Similar association was found in previous studies<sup>8</sup>. Mental stress increased incidence of smoking. Similar association was found in previous studies<sup>9</sup>. Smoking increased the feeling of independence. Similar association was found in previous studies<sup>10</sup>. Smoking relieved restlessness. Similar association was found in previous studies<sup>11</sup>. Students smoked more because their

friends offered them cigarettes. Similar association was found in previous studies<sup>12</sup> Students smoked to attract opposite gender. Similar association was found in previous studies<sup>13</sup>. Lack of sound sleep increased smoking. Similar association was found in previous studies<sup>14</sup> Broken families increased chance of smoking. Similar association was found in previous studies<sup>15</sup> Lack of rest after lunch increased smoking. Similar association was found in previous studies<sup>16</sup> Lack of exercise did not increase smoking. However, similar association was not found in previous studies<sup>17</sup>. Not offering prayers increased smoking. Similar association was found in previous studies<sup>18</sup>. Students smoked because they felt pleasure in smoking Similar association was found in previous studies<sup>19</sup> Smoking friends increased chance of smoking. Similar association was found in previous studies<sup>20</sup>.

Our study was limited by the fact that it was single centre study and had a small sample size.

Further investigations are required to find out various psychosocial factors leading to smoking.

### CONCLUSION

After bivariate analysis, it was found that influence of negative advertisements, continuity of negative advertisements, parental smoking, fake belief of athletic performance enhancement restlessness, friends offering cigarettes, fake belief of opposite gender attraction, lack of sound sleep, not offering prayers, fake pleasure are found to be significantly associated with smoking among students of KEMU.

However after multivariate analysis, influence of negative advertisements, continuity of negative advertisements, parental smoking, fake belief of athletic performance enhancement restlessness, friends offering cigarettes, fake belief of opposite gender attraction, lack of sound sleep, not offering prayers, fake pleasure were significantly associated with smoking among students of KEMU.

Table: Relationship of psychosocial determinants with smoking

Variables	Crude OR	95%CI	Adjusted OR	95% CI
Lacking exercise	1.632	0.736-3.616	0.607	0.274-1.342
Not offering prayers	4.529	1.952-10.508	0.180	0.704-0.436
Lack of rest after lunch	1.379	0.628-3.029	0.291	0.124-0.681
Lack of sound sleep	0.899	0.363-2.224	0.595	0.241-1.419
Lack of awareness of side effects	2.374	1.035-5.444	0.039	0.013-0.116
Offering cigarettes by friends	6.641	2.769-15.927	0.136	0.042-0.445
Smoking among friends	2.577	0.891-7.448	0.165	0.050-0.544
Parental smoking	2.263	1.013-5.052	0.032	0.007-0.149
Lack of role of parents	1.339	0.563-3.189	0.049	0.013-0.181
influence of advertisements	3.857	1.278-11.638	0.724	0.329-1.594
Restlessness	4.935	1.986-12.262	0.087	0.032-0.236
Continuity due to advertisements	3.778	1.343-10.628	0.021	0.007-0.071
Depression	1.102	0.464-2.615	0.114	0.035-0.368
Fake belief of opposite gender attraction	6.682	2.610-17.104	0.032	0.010-0.101
Fake relief of mental stress	1.631	0.681-3.909	0.210	0.085-0.518
Fake belief of athletic performance enhancement	3.273	1.372-7.806	0.210	0.040-0.123
Broken families	0.542	0.202-1.452	0.072	0.024-0.214
Fake feeling of independence	0.583	0.252-1.348	0.105	0.038-0.294
Fake pleasure	10.028	4.005-25.108	0.016	0.002-0.125

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