Smoking Habits of Medical Students at King Saud University, Riyadh

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The smoking habits of male medical students (n = 414) at King Saud University in Riyadh were studied. Of the total, 33% were current smokers, and 30.6% started before the age 15 years; 29% smoked more than 20 cigarettes per day. Filter-tipped cigarettes were the main form of smoking (95%). The majority were aware through the media of the hazards of smoking and wished to discontinue the habit. Non-smokers cited religion as the main reason for not smoking. As the critical age for starting smoking is around 15 years it appears that the target for any anti-smoking campaign should be school-children, and on this basis parents and school teachers should be the most suitable candidates to undertake such campaigns.

As a cause of morbidity and mortality, smoking today is what the killing epidemic diseases were to previous generations. Indeed, the World Health Organization (1983) has described the smoking habit as an epidemic; over one million persons die every year, all over the world, because of smoking-related disease. The associations between smoking and lung cancer, coronary heart disease, chronic obstructive lung disease, strokes, and polycythemia are well established. In addition, smoking is closely associated with peptic ulcer, low birth weight, and cancers of the tongue, larynx and urinary bladder. Many reports have shown that smokers not only damage their own health but can also be dangerous to others.

The spread of cigarette consumption to developing countries will inevitably result in the spread of smoking-related disease. An alarm has been raised warning against the serious implications of this situation and its future consequences. Two recent studies from Riyadh have established the high prevalence of smoking among schoolboys (40% smoked at some time, and 12% were current smokers) as well as students at King Saud University (37% excluding medical students).

This study aims at examining the smoking habits among male medical students at King Saud University in Riyadh, and also at exploring the attitudes of medical students towards smoking.

Subjects and Methods
The study population consisted of 414 male medical students (age ranges from 18 to 27 years) from the College of Medicine at King Saud University in Riyadh, and the study was carried out during February and March 1989. The female students are included in another survey. A self completion questionnaire (Arabic) was used to collect the required data from the students. With the cooperation of the student’s tutors the questionnaires were given to the students during practical and tutorial sessions by two
medical students and then immediately collected. The study included both pre-clinical and clinical students. The questionnaire used was a modified and translated version of the standard questionnaire for survey of smoking among health professionals originally devised by the WHO. It consists of questions on personal background, smoking behaviour, and perception of smoking as a health hazard. The questionnaire was anonymous and the information was treated in strict confidence.

All participants (414) returned the questionnaires, but five questionnaires were excluded before the data were computed because of incomplete or inconsistent information. The smokers were categorized as follows: a daily smoker, anyone who at the time of the survey smoked some kind of tobacco product every day, an occasional smoker; anyone who smokes, but less than once a day, and a non-smoker; anyone at the time of survey, did not smoke at all. An ex-smoker was anyone who had smoked daily for at least 6 months, but who did not smoke at the time of the survey. Other non-smokers included both those who had never smoked and those who had smoked too little (in terms of frequency and duration) to be regarded as ex-smokers (i.e. occasional smoker). The data obtained were analysed by computer. The \( \chi^2 \) test was used to determine significance.

**Results**

One-third of the medical students (33%) were regular smokers, of whom 66.4% started smoking above the age 15 and 30.6% between 10 and 15 years (Table 1); 38.8% smoked between 10 to 20 cigarettes daily and 29% smoked more than 20 cigarettes daily (Table 2). The majority smoked filter-tipped cigarettes. In addition to cigarettes, 15 students smoked sheesha (hubble-bubble), three smoked pipes and two smoked cigars. Two students smoked sheesha and one smoked cigars only. Most smokers (52%) agreed strongly that smoking is hazardous to health and 69% admitted that they would like to stop smoking (Table 3); 59% of the smokers had tried stopping the habit for a period ranging from a few days to several years.

Only 1.1% considered money-saving as a reason for not smoking (Table 4) while 39% of the non-smokers cited religion and protection of health as the main reasons for not smoking. The student's main sources of information on the hazards of smoking were television, press and radio (Table 5). Of the non-smokers only four (1.5%) were ex-smokers, 14 (5.0%) were occasional smokers, and 257 (93.5%) never smoked.

**Discussion**

Despite their access to medical information on the hazards of smoking, medical students have high smoking rates, ranging from as low as 14% in Brazil, 20% in Malaya, 28.9% in Iraq to a very high rate of 72% in Nigeria. All these studies included both male and female students. In
the current study 33% of the medical students were smokers, and the rate is not markedly different from the rate of 37% previously reported in male students in King Saud University in Riyadh (1990), but lower than recorded among male students in the College of Applied Medical Sciences in Riyadh (1987) where 46.8% were smokers.¹⁴ In these two studies and in our study the students were of comparable age (range 18–27 years). It is noteworthy that Saeed et al. in their study of smoking habits of doctors (general practitioners and specialists) in Riyadh have reported that 38% of the males and 16% of the females were smokers.¹⁵

This high prevalence of smoking among medical students and medical professionals is a serious cause of concern. Medical professionals, and doctors in particular are expected to set a good example for the general public as non-smokers. Additionally they have a professional responsibility of being anti-smoking motivators and educators and to be in the front line in anti-smoking campaigns. In this respect general practitioners have been successful in helping their patients to stop smoking,¹⁶ but were less likely to advise or help their patients to stop smoking if they were themselves smokers.¹⁷

The present study has confirmed the early age of initiation of the smoking habit. One third of the students started smoking before the age of 15 years. This was comparable with the previous findings reported in schoolboys in Riyadh,⁷ King Saud University students,⁸ and elsewhere.¹⁰,¹²,¹⁸ Therefore, intervention to prevent the starting of smoking before the children enter secondary schools would be most appropriate and probably most effective. Although 69% of the smokers in this study thought of quitting smoking, and 59% had tried, they resumed smoking after a short break. This shows how difficult it is to stop smoking once it has become an established habit.

Mass media were the main source of information on the hazards of smoking, while schools, surprisingly, played a lesser role, than expected. A similar finding was previously reported from the study on students at King Saud University.⁸ It may be more effective for parents and teachers to give strong advice to deter teenagers from starting smoking, rather than attempting to persuade them to stop after the habit is established. Fortunately all advertising of tobacco in newspapers, on radio, television, and posters is prohibited in Saudi Arabia. Foreign printed publications are the only source of cigarette advertising.

It is noteworthy that religious concerns and health beliefs were the main reasons for not smoking. Since Islam considers smoking unlawful and distasteful, this aspect should be emphasized in local anti-smoking campaigns.

In conclusion, cigarette smoking is almost as common among medical students as in non-medical students. It should be clear to them that as future doctors it is their responsibility to set a good example to patients and the public at large. This can be achieved through more emphasis on the health hazards of smoking on the curriculum of the medical school, prohibiting smoking inside the college and hospital buildings or allocating certain limited areas for smoking. The student union can play a role in organizing anti-smoking campaigns. Moreover, the teaching and the clinical staff should refrain from smoking while in the hospital to set a good example for the students. A well coordinated anti-smoking programme in Saudi Arabia is badly needed. School children are an important target and both parents and school teachers should play a leading role. The religious aspects should also be an integral part of such programmes.

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