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The Social Factors Implicated in Cigarette Smoking in a Jordanian Community

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Abstract: Cigarette smoking is highly prevalent among scholars and university students in Jordan. The aim of this study is to discover the environmental factors and social influences that motivate Jordanian students to smoke and to recommend adequate programs in order to stop adolescents from smoking. A questionnaire of (28) items was designed to assess students and professor's attitudes towards smoking, the sample of the study consisted of (851) participants from different levels in a community nearby Al-Isra Private University. The study also attempted to examine the effects of the following factors: social status, age, gender, parental education and mode of spending free time, having parents, siblings, friends and teachers who smoke. The results show that the proportion of smokers to nonsmokers was of (33:67). The first cigarette smoked by 65% of the sample, was before the age of 18 years and 88.5% was before the age of 21 years. The environmental factors and social influences that motivate students to smoke were related to teachers and friends behavior. The major reasons to start smoking were to try something new and Spending free time with friends more than with family. Also Health disturbances suffered by smokers (fatigue, stress, frustration and depression) were as two times greater compared to nonsmokers. Desire to quit smoking among participants were very high and there was a positive correlation between nonsmokers and high level of education. Desire were greatly negative to have smoker mate = 93%, smoker children = 96% or smoker friends = 87%. In conclusion the increased rate of smoking before age of 18 years indicates that smoking prevention programs need to be started at an earlier age. The risk factors of smoking onset are subject to modification and families must be aware of the potential risks of certain ways of spending time and modifying attitudes.

Key words: Cigarette smoking, smokers, nonsmokers, health disturbances, prevention programs

INTRODUCTION

Smoking leads people over the long term to develop health problems like emphysema, organ damage and heart disease. These diseases limit a person's ability to be normally active and can be fatal. Smoking can cause fertility problems in both men and women and can impact sexual health in males. Smoking is also known to increase the risk of cancer. Lung cancer is the highest among males according to the Jordanian National Cancer Register, where breast cancer is the highest among females. Strong epidemiologic evidence links smoking and such cancers, suggesting that smoking is the leading cause of cancer related mortality (Eichholzer, 2000; Tomida *et al.*, 2005). Depending on where you live, smoking a pack of cigarettes a day can cost about $400 a year. Cigarette smoking according to the Jordanian Department of Statistics is increasing annually where, the tobacco net imports during 2004 exceeded 50 Million Dollars for a population of 5.4 millions. A figure that can be helpful to solve many problems as education, health care or other economical purposes needed in a country 60% of its population are young people aged 0-25 years.

The highly prevalence of cigarette smoking among Jordanian population then is a growing problem for the economy and health in the country. Many studies are needed about Jordanian smokers. Health care professionals can play a crucial role in the promotion of smoking cessation treatment programs to people of all ages. Most of the current smoking prevention programs emphasize the awareness of the health hazards of smoking. This study presents smoking factors that are subject to modifications: Onset of smoking, environmental sources, spending free time and smokers mode of thinking. With results that can help for the development of more effective smoking prevention programs.

The aim of the study was to determine in our population the age at which children begin cigarette smoking, analyze factors related to smoking onset, discover the environmental factors and social influences that motivate Jordanian students to smoke and help to the development of more effective smoking prevention programs.

MATERIALS AND METHODS

The present study was carried during the first trimester of 2006 in Amman-Jordan. The study examined a sample of 851 participants drawn from Al-Isra University Student and nearby scholars. A questionnaire was specifically designed to suit the present study, based on previously developed instruments that was found to

be reliable and valid for cigarette smoking (Meijer *et al*., 1997; Clemente Jimenez *et al*., 2003; Croghan *et al*., 2003; White *et al*., 2003; Nebot *et al*., 2004; Nerin *et al*., 2004). We followed the criteria drawn up by the World Health Organization, where a smoker is defined as a person who smokes daily (at least 1 cigarette per day) at the time the survey is carried out and a non-smoker is defined as a person who has never smoked or has quit (WHO Tobacco or Health Programs, 1997). The independent variables and interventions include: Age, gender, parents educational level, smoking status, first cigarette smoked, reasons to start smoking, number of cigarettes smoked per day, usual and social sources of cigarettes, environmental sources of cigarette smoking (friends, teachers, parents, brothers, etc), beliefs about smoking hazards, availability of punishment policies, desire to have future relations with smokers, desire to quit smoking, the presence of health disturbances, family history of cancer, how smokers spend the free time and what were their comments about children who smoke.

Participants were given the questionnaire personally under the supervision of researchers and requested to choose the answer themselves. The collection of data was made immediately after a rest in the scholastic or university schedule, since at the moment it is when the students they smoke more (Clemente Jimenez *et al*., 2003). It is known that young people usually provide accurate information about their own smoking status (Jarvis, 1997; Boreham and Shaw, 2001). Frequency analysis was performed and the collected data were analyzed using SPSS version-10 program. We used Cronpach alpha to test the reliability of scale and we found that alpha values were greater than 60% which is an accepted percent.

RESULTS AND DISCUSSION

A total of 851 participants completed questionnaires were collected. The sociodemographic variable had a significant association. Gender was significant, 60% of participants were males and 40% were females. Age was also significantly associated with current smoking with predominance of young people in our sample: 31% of participants were (14-18) years old, 33% were (18-21) years old, 27% were (21-25) years old and only 9% were over 25 years old. The distribution of participants according their occupation shows that scholars were 34% (216 males and 75 females), university students were 47% (204 males and 196 females), schoolteachers were 13% (58 males and 50 females) and university professors were 6% (32 males and 20 females). Figure 1 shows that 33% of participants stated that they are smokers (26.5% male and 6.5% females) with males being significantly more likely to

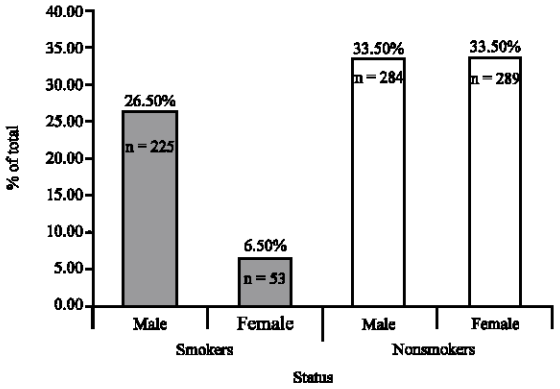

Fig. 1: Smoking status among participants

smoke cigarettes than girls, meanwhile 67% of participants stated that they are nonsmokers (33% males and 34% females). These results suggests that smoking is gender related as masculine specific, that was also reported by Prieto Albino *et al*. (1999). Moreover the high prevalence of smoking among participants found in the present study is similar to that found in United States and other western countries such as that reported by the Spanish National Health Survey (Ministerio de Sanidad y Consumo, 2002).

The onset of smoking was one aim of this study, where it revealed that 65% of smokers begun to smoke before the age of (18) years and 23% of them between (18-21) years old which means that 88% of participants started smoking before 21st birthday. Previous findings reported that over 90% of smokers started before their 20th birthday (Nerin *et al*., 2004). Other aim of the study was to discover the social influences that motivate Jordanian adolescent to smoke. The present study shows various ways in which the children obtained their first cigarette. Most of them, 59% in the present study obtained their first cigarette from a friend. That is having a friend who smoked substantially increased the likelihood of smoking. Similar findings were obtained by Meijer *et al*. (1997) and Croghan *et al*. (2003). These smoking factors could be modified if the public and, in particular, parents are aware of the danger of offering a cigarette to a child, that may help as predicted to the development of more effective smoking preventing programs.

The analysis of the environmental smoking factors in the present study, shows an influence attributable to an overall of teachers 74% (n = 630), friends 63% (n = 538), siblings 42% (n = 355), father 37% (n = 311) and mother 11% (n = 96). Smoker teachers and smoker friends, are then responsible of acting as harmful patterns. The most common agreed reasons to start smoking was, 79% related as to try something new, 28% because others smoke, 27% because smoking is forbidden, 15% to be more accepted, 14% to look more mature and 9% to look stronger. Such

reasons agrees with the level of thinking among adolescents, that they wish to try something new. Smoking preventing programs then must include the various attitudes about new things that correlates with the level thinking of the different ages. The results of spending free time are suggesting that family care may have an influence to diminish smoking. Figure 2 shows the association of smoking onset with patterns of free time use where 40% of smokers spend it with family meanwhile 60% of them spend it with friends. Spending free time for nonsmokers was vice versa, where 60% of them spend it with family and 40% of them spend it with friends. The association could be attributable to both greater access to cigarettes and reduced parental control. Similar results were also obtained by Nebot *et al.* (2004).

The most popular excuse to smoke offered by smokers is, to alleviate their nervousness and to prevent them from any consequent health disturbances. The clinical implications of smoking was recorded by participants as adverse health disturbances where, Fig. 3 shows that 46% of smokers suffers from fatigue compared to 23% among nonsmokers, 27% of smokers suffers from stress compared to 12% among nonsmokers, 25% of smokers suffers from frustration compared to 15% among nonsmokers and 33% of smokers suffers from depression compared to 21% among nonsmokers. The higher levels of health disturbances among smokers in general were as two times greater compared to nonsmokers. Such results may be very helpful in the awareness programs to scholars and university students for the prevention of smoking, where we may reject the popular sayings that smoking alleviates nervousness or stress feelings.

Many other smoking factors were also observed. Wishes result study among participants to quit smoking were 74% and it were proportionally increasing according to the smoker level of education. These observations of that smoking turns lower at higher educational levels was also observed by Nerin *et al.* (2004). The opinion of participants about measurements that may be helpful for smoking cessation, agreed that 79% of smoking cessation could be reached voluntary, 64% by the aid of others and 49% by the treatment with drugs. One of the most relevant results was the negative desire to have future smoker relatives, as shown by Fig. 4 where, the majority of participants were not wishing to have a smoker mate (93%), neither smoker children (96%) nor smoker friends (87%). Such results may be transmitted through smoking prevention programs to children minds in order to prevent themselves from starting smoking.

The effectiveness of punishment policies were asked to participants and there was a significant discrepancies between the views of students and teachers. Perspectives were controversial among scholars and university students in one side and schoolteachers and university professors in the other side. The study of the targeted people opinion resulted in that 59% of

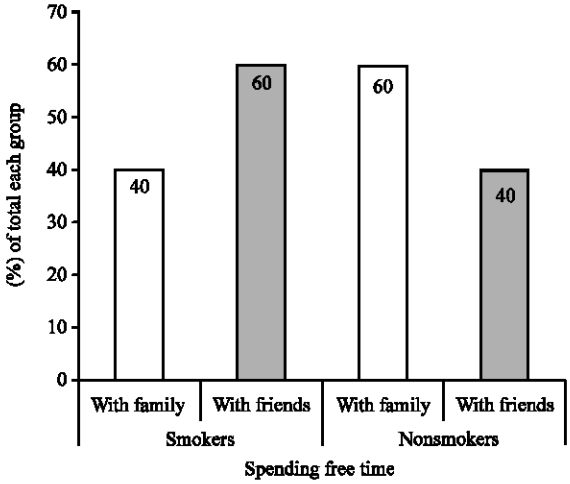

Fig. 2: Place of spending free time for smokers and nonsmokers

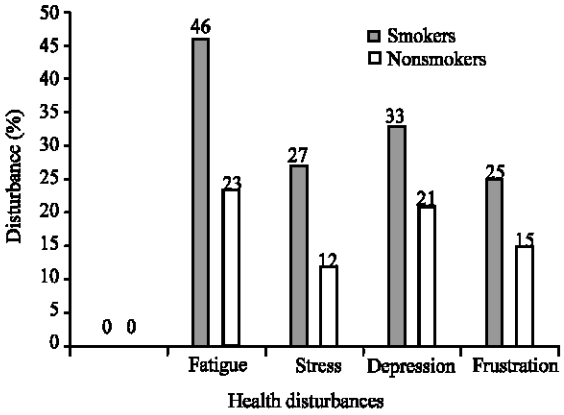

Fig. 3: Clinical implications of smoking as health disturbances

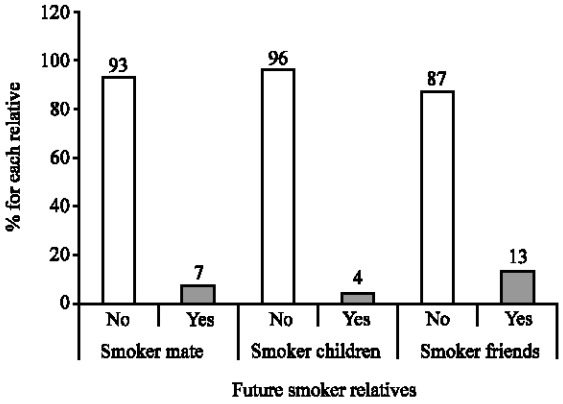

Fig. 4: Desire to have future smoker relatives

scholars and 51% of university students were supporting that the punishment will increase smoking, meanwhile the opinion of 76% of schoolteachers and 73% of university professors was that punishment will decrease smoking. Smoking prevention programs must consider that peer pressure, may be one of the most important risk factor for smoking in children as were emphasized by other studies (Croghan *et al*., 2003; White *et al*., 2003).

CONCLUSIONS

The most relevant reasons that motivate Jordanian adolescent to smoke were: the environmental smoking factors (friends, teachers, siblings and parents), to try something new, spending free time with friends and peer pressure as punishment policies.

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