

Social norms of cigarette and hookah smokers in Iranian universities

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Original Article

Abstract

BACKGROUND: First experiences of tobacco use usually occur in adolescence. The recognition of social norms leading to youth smoking is hence necessary. We tried to assess the social norms among Iranian young cigarette and hookah smokers.

METHODS: This cross-sectional study was conducted on 451 girls and 361 boys aging 20-25 years old who entered Isfahan and Kashan Universities (Iran) in 2007. Demographic factors (age, gender, and age at smoking onset) cigarette and hookah smoking status, having a smoking father or smoking friends and four related social norms were recorded. Binary logistic regression analysis was used to separately determine associations between hookah and cigarette smoking and the four social norm variables.

RESULTS: Cigarette and hookah smokers had significant differences with nonsmokers in two social norms: "Perceived smoking by important characters" [odds ratio (OR) = 1.35 in cigarette smokers and 1.58 in hookah smokers; $P < 0.001$] and "smoking makes gatherings friendly" (OR = 3.62 in cigarette smokers and 6.16 in hookah smokers; $P < 0.001$). Furthermore, cigarette and hookah smoking were significantly associated with having smoking friends.

CONCLUSION: Highlighting the social norms leading to cigarette and hookah smoking may help policy makers develop comprehensive interventions to prevent smoking among adolescents.

Keywords: Cigarette, Hookah, Smoking, Social Norm

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Introduction

First experiences of smoking usually occur in adolescence and most adolescent smokers continue smoking to adulthood. Due to the deleterious effects of smoking, exposure to tobacco smoke from adolescence increases related morbidity and mortality and leads to premature death.¹ Accordingly, every effort to prevent or decrease the prevalence of smoking should consider this age group. In fact, clarifying the determinants of smoking initiation in the youth is a necessity for effective tobacco control and prevention measures.

In spite of the recent decline in the prevalence of smoking among the youth in developed countries, the problem has become more prevalent in many developing countries.² In Iran, the prevalence of

smoking has increased from 12.6% in 2000 to 14.3% in 2004.^{3,4} A survey on 4361 adolescents living in Tehran (Iran) indicated that 30.7% of boys and 20.6% of girls had smoked hookah.⁵

Research has found the process of cigarette smoking to depend on underlying social and psychological factors such as peer smoking and approval,⁶ prevalence estimates of smoking among youth and adults,⁶ availability,⁷ parental characteristics, smoking, and approval,^{8,9} attitudes,¹⁰ family environment, and peer pressure.⁸ In other words, young people tend to follow the beliefs and attitudes of the group to which they belong or people they admire. According to the few studies on social correlates of hookah smoking, the smokers consider it as a pleasurable social hobby promoting

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a sense of togetherness. They view it a relatively harmless leisure time activity.¹¹ Apparently, the attitudes of family and society are more permissive regarding hookah smoking than about any other kind of smoking.¹²

The term “social norms” is a broad term that explains the underlying social factors for many of investigated determinants. It extends from family beliefs to social environments such as school and society. Cigarettes are the most common form of tobacco products in many parts of the world including Iran.³ In the recent decade, however, the traditional hookah smoking culture has become increasingly popular especially among the youth of Iran and its neighboring countries. Little evidence exists about social norms involved in hookah smoking and its similarities or differences with cigarette smoking particularly among the youth. Social determinants of hookah smoking will undoubtedly differ from those of cigarette smoking due to traditional and cultural backgrounds. This study aimed to compare social norms related to smoking behavior among young cigarette and hookah smokers.

Materials and Methods

This cross-sectional study included all 20-25 year-old students of Isfahan and Kashan Universities (Iran) during 2007. Isfahan and Kashan Universities are the first and second largest universities in Isfahan Province, central Iran. These universities have different majors such as health, science, law, and humanities sciences. Informed consents were obtained from eligible subjects after full explanation of the study. Approvals were obtained from the ethics committee of Isfahan University of Medical Sciences for performing the research. The participants attended a 30-minute interview in which trained health professionals recorded their sociodemographic characteristics, smoking behavior, and attitudes and perceived social norms related to smoking. The questionnaires were completed anonymously and no personally identifiable information was collected.

Sociodemographic characteristics such as age and gender were asked to characterize the sample. The participants were also asked about the age of smoking (either cigarette or hookah) onset and whether there is a smoker in their family. Smoking behavior was assessed by asking “Do you currently smoke tobacco products such as cigarettes or hookah?”. Positive answers were followed by another question: “What type(s) of tobacco

product(s) do you currently smoke?”. The answers could be only cigarettes, only hookah, or both. Those who smoked both hookah and cigarettes were asked “What type of tobacco product do you mainly smoke?”. Subjects who did not smoke at the time of the study were categorized as nonsmokers. Students who smoked cigarettes alone or more frequently were categorized as cigarette smokers and those who smoked hookah alone or more frequently were categorized as hookah smokers.

Four aspects of perceived social norms of smoking were measured: (1) perceived smoking of important characters, (2) belief that smoking makes the gatherings friendly, (3) perception that adults disapprove of youth smoking, and (4) the belief that anti-smoking campaigns are disregarded in the community. Cigarette smokers and hookah smokers offered their views toward the tobacco product they smoked mainly and nonsmokers reported their views on both cigarettes and hookah. The participants were asked what they thought about smoking doctors, nurses, teachers, athletes, actors/actresses, and women. They could respond as “The majority of them smoke and this is a personal affair”, “He or she should not smoke and few people in this job smoke”, and “I have no idea”. Respondents with missing data on more than two out of six items were excluded.

The scores of items were summed to create a range of 4 to 12 (Cronbach’s alpha = 0.86 for smoking cigarettes and 0.85 for smoking hookah). The participants were also asked if they agreed or disagreed with the statement “Smoking cigarettes/hookah makes the gatherings friendly.” or had no idea about it. The subjects could agree or disagree with or have no idea about the perception that adults disapprove youth smoking. In order to evaluate the idea of the participants about anti-smoking campaigns, the statement “The present prevalence of tobacco products is due to the fact that anti-smoking campaigns are not working properly at community level.” Was read to them and they were asked if they agreed, disagreed, or had no idea. Finally, the students had to clarify if their fathers or friends smoked.

Statistical analysis

Data was analyzed using SPSS for Windows 15.0 (SPSS Inc., Chicago, IL, USA). Continuous variables are presented as means while qualitative variables are presented as absolute and relative frequencies. Differences between cigarette smokers and none smokers as well as hookah smokers and

none smokers were detected with t-test and χ^2 tests.

Binary logistic regression analysis was used to find associations between cigarette and hookah smoking and four social norm variables and peer and father smoking. The stepwise approach was selected for regression model and two unique models were created for cigarette and hookah smoking.

Independent variables included four aspects of perceived social norms, peer and father smoking, and demographic characteristics (age and gender). Dependent variables were cigarette and hookah smoking in two separate models. P values were based on two-sided tests and were compared to a significance level of 5%.

Results

The sample consisted of 451 girls and 361 boys with the mean age of 21.50 ± 1.04 and 21.80 ± 1.32 years old, respectively. While 71% of the students had never smoked, 9.5% were cigarette smokers and 19.5% were hookah smokers. The mean age of smoking onset was 16.32 ± 3.18 years old in cigarette smokers and 16.38 ± 3.78 years old in hookah smokers. In addition, more than 50% of hookah smokers and approximately 40% of

cigarette smokers had smoking friends. Further details of the subjects are shown in table 1.

The response rate of the participants was 95%. The mean response for perceiving cigarette smoking by important characters was 7.45 ± 1.72 among cigarette smokers and 6.24 ± 1.77 in nonsmokers. Also, perceived hookah smoking by important characters was 7.58 ± 2.17 among hookah smokers and 5.92 ± 1.45 in nonsmokers. Cigarette and hookah smokers and nonsmokers were significantly different in this regard.

Of cigarette smokers, 75.3% believed that smoking cigarettes makes gatherings friendlier. Hookah smoking was believed to have the same function in the view of 88.4% of hookah smokers. Again, the two groups of smokers were significantly different with nonsmokers. On the other hand, 72.7% of cigarette smokers and 76.3% of hookah smokers believed that adults disapprove of youth smoking. Anti-smoking campaigns were considered ineffective at community level by 83.1% of cigarette smokers and 89.1% of hookah smokers. The groups did not have significant differences in the two latter factors. The four social norms had low correlations with each other ($0.21 \leq r \leq 0.35$) (Table 1).

Table 1. Personal characteristics of the participants

Personal characteristics	Cigarette smokers (n = 77)	Nonsmokers (n = 579)	Hookah smokers (n = 156)
Gender (male)	66 (85.0)*	191 (32.0)	104 (66.0)**
Age (years)	$22.00 \pm 1.35^*$	21.54 ± 1.03	$22.34 \pm 1.57^{**}$
Age at first cigarette smoking†	16.32 ± 3.18	-	-
Age at first hookah smoking†	-	-	16.38 ± 3.78
Family/peer smoking			
Father smokes	10 (12.9)*	44 (7.6)	14 (10.2)**
Friends smoke	31 (40.2)*	88 (15.2)	83 (53.2)**
Social norms			
Perceived cigarette smoking by important characters†	$7.45 \pm 1.72^*$	6.24 ± 1.77	-
Perceived hookah smoking by important characters†	-	5.92 ± 1.45	$7.58 \pm 2.17^{**}$
Belief that cigarette smoking makes gatherings friendly	58 (75.3)*	33 (5.7)	-
Belief that hookah smoking makes gatherings friendly	-	224 (38.7)	138 (88.4)**
Perceived adults' disapproval of youth smoking cigarettes	56 (72.7)%	463 (80.0)	-
Perceived adults' disapproval of youth smoking hookah	-	494 (85.3)	119 (76.3)
Belief that anti-cigarette smoking campaigns are disregarded in the community	64 (83.1)	424 (73.2)	-
Belief that anti-hookah smoking campaigns are disregarded in the community	-	407 (70.3)	139 (89.1)

Values are reported as n (%) unless expressed otherwise.

† Mean \pm SD

* Significant differences between cigarette smokers and nonsmokers ($P < 0.05$)

** Significant differences between hookah smokers and nonsmokers ($P < 0.05$)

Table 2. Odds ratio (OR) and 95% confidence interval (CI) of correlates of smoking (both cigarette and hookah smoking)

	Cigarette smoking OR (95% CI)	Hookah smoking OR (95% CI)
Personal characteristics		
Gender (male)	12.2 (6.60-21.27)*	7.90 (4.35-14.25)*
Age	1.59 (1.11- 3.29)**	0.92 (0.78-1.09)
Family/peer smoking		
Father smokes	1.21 (1.03-3.22)**	1.25 (1.04-1.70)**
Friends smoke	10.68 (3.15-36.06)*	12.09 (4.12-35.44)*
Social norms		
Perceived smoking by important characters	1.35 (1.05-2.70)*	1.58 (1.09-2.27)*
Belief that smoking makes gatherings friendly	3.62 (2.46-12.51)*	6.16 (2.37-9.01)*
Perceived adults' disapproval of youth smoking	0.55 (0.12-2.45)	0.63 (0.15-2.75)
Belief that anti-smoking campaigns are disregarded in the community	1.70 (0.47-6.09)	2.24 (0.47-8.45)

* P < 0.001

** P < 0.01

The two multivariate models predicting smoking are presented in table 2. At first, four social norm variables were simultaneously entered in cigarette smoking model and the results were statistically significant, consistent with the bivariate associations explained above (data not shown). These significant relationships were maintained for “perceived smoking by important characters” and “smoking makes the gathering friendly” in cigarette smokers when demographic characteristics were added to the model. In addition, by inserting father and peer smoking to the model, the odds ratios for the two mentioned scales among the cigarette smokers were 1.35 and 3.62, respectively.

Likewise, the four social norm variables were simultaneously entered in hookah smoking model and the results were statistically significant. By entering demographic characteristics and father and peer smoking, the odds ratios were significant for the above-mentioned scales, too (1.58 for “perceived smoking by important characters” and 6.16 for “smoking makes the gatherings friendly”).

Discussion

In this study, four social norm variables were assessed. Cigarette and hookah smokers were significantly different with nonsmokers in “perceived smoking by important characters” and “smoking makes gatherings friendly”. Moreover, odds ratio was higher in hookah smokers than in cigarette smokers. Both cigarette and hookah smoking were significantly associated with having smoking friends. Odds ratio of this factor was far higher than having a smoking father.

Several studies on the roles of social norms on high risk behaviors such as tobacco use among the youth have indicated that perceiving smoking by

significant others and friends as a social value can be a strong predictor of tobacco use.¹³ In fact, the youth may mimic the smoking behavior of significant others and acquire the habit of tobacco use.¹⁴ In the current study, smoking by doctors, nurses, or teachers as intelligent individuals, by athletes and actors as role models, and by women who are expected not to smoke could be imitated by the youth. Generally, role models are more widely followed in eastern societies than in western societies. Hence, mimicking persons who are publicly respected or shown in mass media can greatly influence the increased prevalence of cigarette and hookah smoking. Hookah smoking receives special attention in Middle East countries including Iran. As a result, the youths have a better perception of hookah smoking and they tend to smoke hookah much more than cigarettes. Consistent results were found in the present study.

Smoking behaviors are also affected by other social contexts such as family, school, and peer groups. According to a review article in 2003, while some studies have reported peer groups to have stronger effects than families on initiation of smoking, some others consider the role of parents to be greater.¹⁵ Based on the odds ratios calculated in the current study, cigarette and hookah smoking are more influenced by smoking of friends than having a smoking father. This difference was more significant in case of hookah smoking. Iran is a developing country which has faced extensive and rapid social changes in recent decades. Iranian youth and adolescents are thus totally different from their parents and peers can affect each other more. In other words, hookah smoking is seen as a social activity in which everyone can participate and have an enjoyable time. Hookah smoking can gather

people in public places such as coffee shops and tea houses and provide a sense of closeness through using a shared hookah.¹⁶ A study on Arab-American subjects reported similar results about tobacco, and particularly hookah, use.¹⁷

According to our findings, Iranian females are less likely to smoke cigarettes or hookah. Although the same is true in many countries in the Middle East, recent studies in this region have shown the increased prevalence of smoking, especially hookah smoking, among women.^{11,18} In general, hookah smoking is more positively perceived than other methods of tobacco use. Hookah users, especially women, believe that it looks traditional, familiar, social, and attractive. Therefore, hookah smoking may be perceived as a social norm in the Middle East especially among women.^{19,20}

The present study had some limitations. First, the results are relational and not causal. Therefore, it cannot be concluded whether social norms are causes or results of youth smoking. Moreover, this study relied exclusively on questionnaires to assess social norms and smoking. On the other hand, our findings cannot be generalized as our sample was restricted to students in Isfahan and Kashan Universities (Iran). Finally, individual traits influencing youth smoking was not considered in this study.

Conclusion

The results of this study indicated that social norms are significantly different in hookah and cigarette smokers. Among hookah smokers, “perceived smoking by important characters” and “smoking makes gatherings friendly” were more effective than among cigarette smokers. In addition, smoking friends had a greater influence than smoking fathers. By highlighting the social norms related to cigarette and hookah smoking, this study may help policy makers develop comprehensive interventions to prevent smoking among adolescents.

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Conflict of Interests

Authors have no conflict of interests.

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