A Sociological Study on Hookah Consumption Among the Youth of Shiraz

Sedighe Alborzi¹, Majid Movahhed²*, Rouholla Mozafari³

¹Ph.D. in Sociology of Shiraz University and Scientific Staff of Academic Center for Culture, Education and Research Fars Branch, Shiraz, Iran
²Professor of Sociology, Department of Sociology and Social Planning, Shiraz University, Shiraz, Iran
³Ph.D. Student in Sociology at Yasouj University, Head of Public Communication Division, General Directorate for Communications and International Relations at Shiraz Municipality, Shiraz, Iran

Abstract

Background: Tobacco smoking is a major anticipated risk factor that causes serious health challenges. In recent decades, hookah consumption has grown rapidly among adolescents and the youth around the world and it is currently considered a global public health problem. Therefore, the present study aims at investigating hookah consumption and identifying related socio-cultural factors.

Materials and Methods: This study used a quantitative method and the survey technique. Using multi-stage stratified sampling, 600 young subjects aged 18-29 were studied in the city of Shiraz. William Cockerham’s health lifestyles model was used as the theoretical framework for this study and the data were analyzed using SPSS.

Results: The findings of this study indicated that 44.2% of the respondents have a history of hookah use and there is a statistically significant relationship between hookah use and age, gender, marital status, education, social belonging, social capital, health-related cultural capital, and general self-efficacy.

Conclusion: Based on the results of this study, it seems that using coherent educational and culture-building programs and, thus, the promotion of social capital, health-related cultural capital, and general self-efficacy, the hookah consumption rate can be reduced among the youth.

Keywords: Hookah, Social capital, Cultural capital, Self-efficacy

Introductions

Smoking, especially cigarette smoking, has always been considered a global health hazard and the World Health Organization (WHO) predicts that by 2030, smoking will lead to 8.3 million deaths worldwide, most of which will occur in developing countries (1). In 2007, several reports indicated that the global pattern of smoking had changed, with cigarette-smoking declining and other forms of smoking, especially hookah, rising as an alternative (2). This has caused concern in many countries and has attracted the attention of the relevant authorities (3).

Despite the long history of hookah consumption, its harmful effects have not been illustrated to the general public properly. However, the evidence suggests that hookah use, just like cigarette smoking, increases the risk of nicotine/tobacco dependence, heart disease, and cancer. (4). This is mostly due to the fact that one hookah session exposes users to large amounts of smoke and, compared to cigarette smoking that lasts about 5 minutes, one session of hookah usually lasts about an hour and much larger amounts of harmful substances are breathed in than cigarettes (5). In addition to the harmful physical consequences, the use of hookah is not only considered a risky behavior but also can pave the way for the formation of high-risk behaviors to the extent that it is considered a hidden social problem (6). Some studies confirm the relationship between hookah consumption and high-risk sexual behaviors as well as drug and alcohol use (7). In general, studies have shown an increase in hookah use in adolescents and young people. Although the youth of the Middle East are most affected by the hookah epidemic, over the past two decades, many studies have reported an increase in hookah use among the youth in North America and Europe (8). In Iran, the use of hookah has an increasing trend, especially among adolescents and the youth (9, 10).

In Iran, since there are more restrictions on cigarette smoking among women than hookah, the use of hookah has become a pastime in many families, especially among women, and it has taken a feminine image compared to cigarettes (11, 12). On the other hand, it is clear that adolescence and youth are two significant stages in life. The habits and behaviors that people become accustomed to during this period are likely to continue...
into adulthood and become part of their lifestyle (13). Therefore, it is obvious that health-related behaviors are very important in adolescents because they are in transition to early adulthood, and in case an unhealthy behavior develops, it may be integrated into lifetime patterns and cause health problems (14). During this period, people are eager to gain various experiences and most of the choices and behaviors are based on the emotions specific to this period. Therefore, it can be dangerous and the consequences of these choices may affect the individual for the rest of his life. For example, individuals who engage in high-risk behaviors such as smoking and substance abuse mostly experience these behaviors in adolescence and youth, and this stage of life is the starting point of this path (15). Numerous studies have indicated that the tobacco use rate is increasing among adolescents and the youth around the world, and this is due to various factors such as misconceptions about the lack of health risks. This may also be due to the social acceptance, easy access, and relatively low cost of hookah (16). Other reasons for the growing popularity of hookah are the use of flavored tobacco and serving it in luxurious cafes and restaurants. During the last few years, spending leisure time on hookah use has become more common in cafes and restaurants. The tobacco used is often sweet, flavored, and attractive (17).

It should be noted that in Iran, smoking cigarettes is an unacceptable social practice and most families seriously forbid their children from smoking cigarettes (18). Additionally, female adolescents face more restrictions in the Iranian society and smoking cigarettes is associated with a worse social stigma than hookah. Meanwhile, hookah is common in many families and is considered a traditional pastime. Therefore, many adolescents, including girls, can use it in family communities and peer groups (14, 18, 19). Due to many adverse effects of hookah, its non-use has always been on the agenda of relevant institutions, for example, banning the hookah smoking in the relevant and public places, however this banning will not last long and the hookahs will be widespread again. Therefore, the first step in this direction is to better understand the complexities of hookah use, without which the interventions will be of no use. As mentioned, smoking not only has social, cultural, and psychological consequences but also arises from these contexts and components and does not occur in a vacuum (17, 20, 21). It should be noted that in order to develop an effective intervention program, it is necessary to determine the factors affecting the tendency to smoke. That's because if correct behaviors and patterns are not implemented in the society, its negative consequences will affect not only the individual but the society as a whole, and both will suffer significant consequences. When people are not healthy, they will not have productive performance and will not be able to fulfill their responsibilities as well as their social roles. Undoubtedly, healthy human beings are keys to achieving sustainable development; otherwise, they will not be able to take a step towards development. Therefore, maintaining and promoting the health of members of a community are very essential. Meanwhile, the health status of adolescents and the youth is important in all its dimensions in the society because this group forms a major part of the population in quantitative and qualitative terms and they play important social roles. In addition, many of the diseases and physical and mental stress that people face in adulthood come from this period. In other words, it can be said that behaviors of this period play an important role in future health status and this is due to the fact that most behaviors that people are accustomed to at this age can hardly be changed. Despite all this, important measures have been taken to control tobacco use around the world over the past 30 years, but this is still one of the leading causes of illness and death, which indicates the inadequacy of these measures. Therefore, intervention without scientific knowledge will not improve the current situation, and at the first step, it is necessary to draw a clearer picture of the hookah use prevalence and to identify its social, cultural, and psychological causes in order to implement effective and preventive interventions. Considering the prevalence of hookah use, its growing popularity in adolescents (with a different pattern from cigarettes), and its negative side effects, understanding the consumption patterns and associated social, psychological and behavioral factors in this age group can be effective in promoting preventive measures as much as possible. For this purpose, the present study investigates the sociological aspects of hookah use, aiming at detailing the current prevalence of hookah use among the youth and exploring the associated components.

Materials and Methods

The present study experimentally tested the hypotheses using the quantitative method and survey technique. The statistical population included all young men and women in the age group of 18–29 in the city of Shiraz. According to the latest census, the population size of this age group in Shiraz is 359,311 and the sample size was considered to be 600 using the Lin Table and the error rate of 4%. Multi-stage sampling method was used. First, according to the population of the 11 municipality districts of Shiraz, a suitable sample size was taken into account for each district. Then, the samples were randomly selected from each city block. Finally, the questionnaires were randomly distributed to the selected blocks considering the number of houses in that block. Additionally, the questionnaire was used as a data collection tool. Standard and researcher-made questionnaires were combined. Hookah use was measured using a researcher-made scale, whose face validity and reliability have been evaluated.
by Cronbach’s alpha coefficient (0.86). Social capital was assessed based on 20 items in three dimensions of social participation, trust, and social interaction network considering the Cronbach’s alpha coefficient higher than 0.7 and acceptable face validity (22). In addition, the health-related cultural capital was assessed using a 13-item scale with Cronbach’s alpha coefficient of 0.86 and acceptable content validity, which was used in numerous previous studies (23). Overall, a questionnaire with the Cronbach’s alpha coefficient of 0.73 and the acceptable face validity was utilized in the present study. Finally, SPSS software was used for statistical analysis of data.

Results

According to the findings of the present study, the average age of the youth was 24, 51% of whom were men and 46.7% were married. In terms of education, the majority of respondents were high school students or had a diploma and 36.7% considered themselves middle class. It was also observed that 44% of the subjects had experienced hookah consumption. In terms of social capital, as one of the important variables of the present study, the results showed that most respondents (43.1%) had moderate social capital, 36.7% were at a low level and only 20.2% had a high level of social capital. In terms of health-related cultural capital, as another major variable, observations indicated that most respondents (37%) were at a low level, 35.5% at a medium level and the remaining 27.5% at a high level of health-related cultural capital. Findings on general self-efficacy also indicated that the respondents were divided into three categories: low (34.9%), high (31.5%), and medium (33.6%). The results of inferential statistics also showed that there was a significant difference between the genders in terms of hookah consumption. In other words, this behavior was observed to be more common in men than in women. There was also a significant relationship between marital status and hookah consumption. In addition, there was an inverse significant relationship between education level and hookah use, that is, at higher education levels, hookah use decreased. As another variable in the study, social class affiliation had a significant and direct relationship with hookah consumption, so that in the lower classes, hookah consumption was more prevalent (Table 1).

It was also observed that there is a statistically significant and direct relationship between age and hookah consumption, indicating that the higher the age, the more likely subjects do not use hookah, and for each year of age increase, the probability of not using hookah increases by 13%. In the present study, the relationship of hookah use with social capital, health-related cultural capital, and general self-efficacy as three basic variables was examined and the results of hypothesis testing showed that all three variables have a statistically significant and direct relationship with hookah consumption. Therefore, for each unit of increase in the social capital of individuals, the probability of not using hookah has increased by 40% and for each unit of increase in health-related cultural capital, the probability of not using hookah increased by 36%. As a key concept in health studies, it was observed that the higher the general self-efficacy of individuals, the higher the probability of not using hookah, in other words, each unit of increase in general self-efficacy of individuals increases the probability of not using hookah by 50% (Table 2).

Discussion

Hookah consumption has a long history in Iranian society and culture, but its prevalence has been increasing over the past two decades. Today, the use of hookah is

Table 1. Results of Chi-square Test

| Variables          | Non-use of Hookah | Hookah Use | χ² | P Value |
|--------------------|-------------------|------------|----|---------|
|                    | No. (%)           | No. (%)    |    |         |
| Gender             |                   |            |    |         |
| Male               | 145 (47.2)        | 162 (52.8) | 18.88 | 0.000   |
| Female             | 190 (64.8)        | 103 (35.2) |    |         |
| Marital status     |                   |            |    |         |
| Single             | 158 (58.1)        | 114 (41.9) |    |         |
| Married            | 166 (59.3)        | 114 (40.7) | 23.01 | 0.000   |
| Divorced           | 11 (22.9)         | 37 (77.1)  |    |         |
| Education          |                   |            |    |         |
| Middle school      | 16 (24.2)         | 50 (75.8)  |    |         |
| High school        | 81 (45.8)         | 96 (54.1)  |    |         |
| Associate degree   | 56 (48.7)         | 59 (51.3)  | 94.70 | 0.000   |
| Bachelor’s degree  | 81 (61.8)         | 50 (38.2)  |    |         |
| MA                 | 67 (88.2)         | 9 (11.8)   |    |         |
| Doctorate          | 34 (97.1)         | 1 (2.9)    |    |         |
| Class affiliation  |                   |            |    |         |
| Low                | 78 (40.4)         | 115 (59.6) |    |         |
| Medium             | 134 (60.9)        | 86 (39.1)  | 28.40 | 0.000   |
| High               | 123 (65.8)        | 64 (34.2)  |    |         |
considered as one of the most important global issues, especially in Arab countries, Turkey, and Iran. Hookah consumption rate is especially higher in southern Iran than in other areas. According to the latest report of the WHO, smoking kills more than 8 million people annually. More than 7 million of these deaths are related to direct tobacco use. About 1.2 million non-smokers are exposed to secondhand smoke (24). For this reason, tobacco use should be considered by policymakers, but the literature review shows that the social and cultural dimensions of hookah use have not been properly considered in studies. Therefore, considering the importance of cultural and social components in hookah use, this study has dealt with these components and used the survey technique in a sample of 600 subjects from the youth community aged 18-29 in Shiraz. This study was conducted based on the health lifestyles theory and a questionnaire was used to collect data and they were analyzed by SPSS. The research findings can be considered in descriptive and inferential parts. In the descriptive part, it was observed that most of the respondents were males and 51.2% of them were young men. In terms of age, the age group of 26-29 had the highest frequency and the average age of the respondents was 24. In terms of marital status, single and married individuals were almost equal in terms of frequency, but there is a great diversity in terms of education. In other words, the highest frequency belonged to the diploma, followed by bachelor’s degree. In terms of class affiliation, it was observed that most respondents (36.7%) considered themselves middle class, followed by lower and upper classes. Regarding hookah consumption, which was a dependent variable in the present study, most of the respondents (56%) stated that they did not use hookah, while 44% used it. Numerous other studies show that about 30% of young people surveyed use hookah (25-27). Moreover, in a study conducted by Nakhostin-Rooohi et al., it was observed that hookah use has increased significantly in the last five years (28).

Inferential statistics also indicated that all hypotheses of this study are confirmed and there was a statistically significant relationship between all independent variables and the dependent variable. It was observed that there is a statistically significant difference between women and men in terms of hookah consumption rate and men consumed hookah more than women. This is also consistent with some other studies (27). There was a statistically significant difference in terms of marital status, that is, single individuals consumed hookah more than married ones. The results of hypothesis testing also showed that there is a statistically significant and inverse relationship between education level and hookah consumption, that is, the higher the education level, the lower the hookah consumption. Other studies have also considered this variable and confirmed the relationship observed in this study (29). Another finding of the present study was a statistically significant and inverse relationship between class affiliation and hookah consumption, i.e., the higher the social class the lower the hookah consumption rate. Regarding the age variable, it was observed that there was a statistically significant and inverse relationship between age and the dependent variable. In fact, hookah use was more common in younger subjects. Another social component studied was social capital. As many experts have stated, these capitals affect different aspects of life, type of consumption, taste, and performance of individuals. According to Bourdieu, the size and structure of capital are examples of the most important determinants in shaping behavior and lifestyle. Today, various types of capitals, especially social capital, have found a special place in the sociological literature of health and medicine. In the present study, this concept was investigated as one of the main variables in social participation, social trust, and social interactions. As Bourdieu pointed out social capital increases access to opportunities, information, material resources, and social opportunities for individuals and influences their preferences. In other words, there is a relationship between the position occupied in the social space and the desires of the subjects in that position.

The results show that there is a statistically significant relationship between this variable and the dependent variable. This is an inverse relationship which means that the higher the social capital, the less they consume hookah. The same relationship was observed for the variable of health-related cultural capital, which shows that the higher the health-related cultural capital, the less the subjects use hookah. Despite the fact that in recent years, types of capitals and their impacts have been investigated in health studies, cultural capital has been of less interest for researchers compared to social capital. Therefore, the present study also regards this component and examines health-related cultural capital. One of the most important issues in health studies is that cultural resources have been less studied than material and social resources in producing health-related outcomes and reproducing health inequalities. According to Abel, there is a strong

Table 2. Logistic Regression Analysis of Independent Variables and Hookah Consumption

| Variable            | B   | SD  | Parents Statistics | df | P Value | Odds Ratio Exp (B) |
|---------------------|-----|-----|--------------------|----|---------|--------------------|
| Age                 | -0.131 | 0.025 | 26.32              | 1  | 0.000   | 0.877              |
| Social capital      | -0.503 | 0.111 | 20.52              | 1  | 0.000   | 0.605              |
| Cultural capital    | -0.438 | 0.067 | 42.38              | 1  | 0.000   | 0.645              |
| General self-efficacy | -0.677 | 0.091 | 55.39              | 1  | 0.000   | 0.508              |
relationship between health-related capital and a healthy lifestyle. Therefore, the development, survival, and change of a healthy lifestyle depend on access to economic, social, and cultural resources. There are dialectical relationships between different types of health-related capital, and the combination of these effects strengthens or weakens a healthy lifestyle. Although Bourdieu believes that gaining a variety of capitals is important in determining people’s lifestyles, according to Abel’s theoretical approach to analyze health-related issues, capital resources related to health should be given more attention because access to a variety of resources strengthens values, knowledge, and norms of healthy behavior causes more money and financial resources to be spent on disease prevention, insurance plans, and the provision of healthy and quality food, and ultimately, strengthens collective support systems. The combination of these factors has a decisive role in improving personal health and strengthening collective health programs.

The last hypothesis of the present study is about the relationship between general self-efficacy and hookah consumption. One of the individual and behavioral factors in the field of health is general self-efficacy, which has a high predictive power. In this case, it was observed that the relationship between the two variables is inverse and significant, and the higher the general self-efficacy, the lower the hookah consumption. In other words, the self-assessment of capabilities in implementing effective measures to maintain and promote health can affect the relevant behaviors (i.e., hookah consumption). In his theory of social cognition, Bandura also focuses on the fact that the more one understands self-efficacy and empowerment, the better one will perform and this affects one’s feelings, thoughts, motivations, behavior, and thus, adoption of a healthy lifestyle. In fact, the confidence that an individual feels about performing a particular activity is effective in implementing a healthy lifestyle. Therefore, in his health promotion model, Pender has introduced general self-efficacy as one of the predictors of behavior. In 96% of studies based on his health promotion model, the role of general self-efficacy has been confirmed as a predictor (30).

**Conclusion**

In general, the findings of the present study indicated that hookah consumption, as a behavior, is strongly influenced by socio-cultural components. Therefore, it is necessary to take action in this regard or establish policies based on social and cultural contexts. Given that beliefs about self-efficacy are among the most important determinants of a healthy lifestyle, which is confirmed by research findings, the development of motivational theory-based programs and strengthening self-efficacy are very important. Additionally, considering that cultural resources are among the determinants of individuals’ actions and basic preconditions for the behavioral orientation of actors in structural areas and that these resources create behavioral tendencies in individuals through socialization, it is necessary to disseminate health-related cultural resources such as awareness, skills, values, norms, tools, and health-promoting facilities that are important components in the production and reproduction of healthy behavioral lifestyles. The outcomes will be a reduction in socio-cultural inequalities in the field of health, the adoption of health-based behaviors, and prevention and counteraction against diseases. The allocation of attention to community-based programs to create and strengthen social trust and support and provision of the necessary grounds for increasing social participation to strengthen social capital as one of the influential components in a healthy lifestyle will be of great importance.

**Authors’ Contributions**

Conceptualization: SA and MM; Study validation and supervision: SA and MM; Data analysis and interpretation: RM; Writing and reviewing: SA and MM and RM.

**Conflict of Interest Disclosures**

The authors declare that they have no conflict of interest.

**Ethical Statement**

The study was approved by the Ethics Committee of Shiraz University of Medical Sciences (IR.SUMS.REC.1399.1217). Patients’ information was kept confidential throughout research procedures.

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