

Research Article

A Qualitative Study of Factors Influencing the Onset of Hookah Smoking among Iranian Men with Turkmen Ethnicity

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ABSTRACT

Introduction: Hookah smoking has grown considerably among Iranian Turkmen in the past two decades. The reasons for this increase in the consumption of hookah are unclear. Therefore, this study was conducted with the aim of determining the factors related to the start of hookah smoking in men with Turkmen ethnicity.

Methods: This qualitative study was conducted between February 2018 and June 2018 in Turkmen cities of Golestan provinces in Iran. The study participants included 26 male Turkmen water pipe smokers with various ages, occupation, and education level. Study data were collected through semi-structured individual interview and the results were analyzed in August 2018 by content analysis. Data management was done by software, MAXQDA version 10.

Results: In this study, 26 hookah smoker men with the age range of 20–45 years were interviewed. The age of the participants at the time of starting hookah consumption varied from 14 to 25 years. On the basis of qualitative data, the reasons for the start of hookah smoking in male Turkmen were classified into three main categories: (1) individual (curiosity and sense of adulthood, fewer perceived risks compared with other substances and hookah's sensory attractions); (2) interpersonal (hookah-smoking friends and consumption of hookah by family members); and (3) societal (blaming unemployed people in small neighborhoods, cultural influence, more social acceptance compared with other substances, and easy access to hookah).

Conclusion: Individual, interpersonal, and societal factors play important role in the start of hookah smoking among male Turkmen. Developing health policies based on the above factors can be effective in adopting hookah prevention and control strategies. Moreover, future studies could be developed with the goal of discovering ways to solve the problem of unemployment and plan for developing recreational activities in this area to prevent initiation of hookah smoking especially among youth.

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1. INTRODUCTION

It is estimated that currently around 100 million people smoke hookah globally [1]. Studies in Iran also show that hookah consumption is increasing [2,3]. Factors such as attractiveness of different smells and scents on the market, greater social acceptability compared with cigarettes, easy access, and a false belief that hookah is not harmful as its smoke passes through the water have caused the youth and younger people to be interested in hookah. Generally, the harmful effects of hookah consumption are not mainly recognized or considered less harmful by hookah users [4–8]. Many consumers of hookah believe that hookah smoking does not lead to addiction and has no harmful health effects or has less harmful effects than cigarettes [9–11].

Despite the alarming increase in the prevalence of hookah consumption, the existing regulations on controlling hookah are not effective. Deceiving advertisement by manufacturers that produce aromatic tobacco that says their products are healthier than cigarettes

encourages hookah consumption. These manufacturers put a label on their products that says these tobaccos are hygienic and herbal and do not have tar and nicotine, which deceive and encourage the consumers [12–16]. However, hookah consumers are more likely to be exposed to nicotine, carbon monoxide, toxic substances, and heavy metals than cigarette smokers [9,10]. A report by World Health Organization (WHO) indicates that each hookah session, which takes an average of 20–80 min, is equal to the consumption of 100 or more cigarettes [17].

Identifying people's inclinations to hookah smoking is critical to succeed in tobacco control and prevention programs. In the meantime, qualitative studies have the potential to provide valuable and vital information to researchers because they explore the phenomenon more in depth [18]. This study was conducted with the goal of discovering the causes of Turkmen men's tendency toward the use of hookah because literature review previously conducted on this topic in Iranian population has shown that there has not been any study on Turkmen population, whereas about 40% of Golestan province population is Turkmen. Moreover, unofficial findings and observation report that the consumption of hookah among

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Turkmen, especially men, has increased significantly and there has been a rapid growth of hookah bars in Turkmen towns and villages in the past two decades. Therefore, this study has been designed in response to the observed community need and absence of scientific studies to evaluate the causes of initiation of hookah smoking among Turkmen population.

Iranian Turkmen live in two northern and northeastern provinces of Golestan and north Khorasan. Golestan province is situated in northern Iran and southeast of Caspian Sea. According to the 2016 census, the population of Golestan province was 1,868,819 [19]. This province has 14 cities (Figure 1).

According to literature review, except for the studies by Baheiraei et al. [19–21] about the causes of hookah smoking in women in Tehran, limited studies have been conducted on the factors affecting hookah consumption, which are all quantitative studies. The traditions and experiences of an ethnic group are different from other groups, and the Turkmen people are no exception. Cultural, ethnic, and social differences can be effective in shaping a health-related behavior.

2. MATERIALS AND METHODS

This qualitative descriptive study was conducted in 2018 on 26 male Turkmen hookah consumers in Golestan province. The study protocol was approved by the Tehran University of Medical Sciences (IR. TUMS. 95-02-99-31488).

In this study, sampling was administered with maximum variation using snowball sampling technique and individuals with geographic distribution in Turkmen Sahra with different age, occupation, socioeconomic status, and neighborhoods were approached for recruitment (Table 1). This means they were selected from different

educational, occupational, and social backgrounds and geographical locations regardless of their age or pattern of hookah consumption. In this study, after interviewing 26 hookah-smoking male Turkmen, the data saturation was reached, and sampling was terminated as the codes were repetitive and no new category or subcategory was formed during the analysis. Data were collected using in-depth and semi-structured individual interviews between February 2018 and June 2018 at the workplace of people, houses, hookah bars, and cafes that served hookah. The interview time varied from 30 to 60 min and interviews were recorded and implemented word by word by permission of the participants. The interviews were conducted by faculty members from Department of Public Health in Golestan University of Medical Sciences (Gorgan). Before beginning the interview, the informed consent forms were distributed among the participants and they were asked to read and decide to participate in the study. Informed consent forms contained the explanation about the purpose of study, introduction of the researchers, study method, sample selection process, and the benefits and outcomes of the research to the participants. After providing enough time and answering their questions and concerns, it was explained to the participants that the information they provide will be confidential and they can withdraw from the study at any time.

Interview questions are presented in Table 2. The first two questions evaluate the reasons for initiation of hookah smoking and the other questions evaluate their beliefs about hookah smoking.

Before the main interview, all participants were asked to complete the demographic characteristic questionnaire and the pattern of hookah consumption. Also, probing questions such as; “what do you mean” or “please explain more” were asked depending on the situation. The data analysis for this study was performed on August 2018 based on the qualitative content analysis method described by Graneheim and Lundman [22].

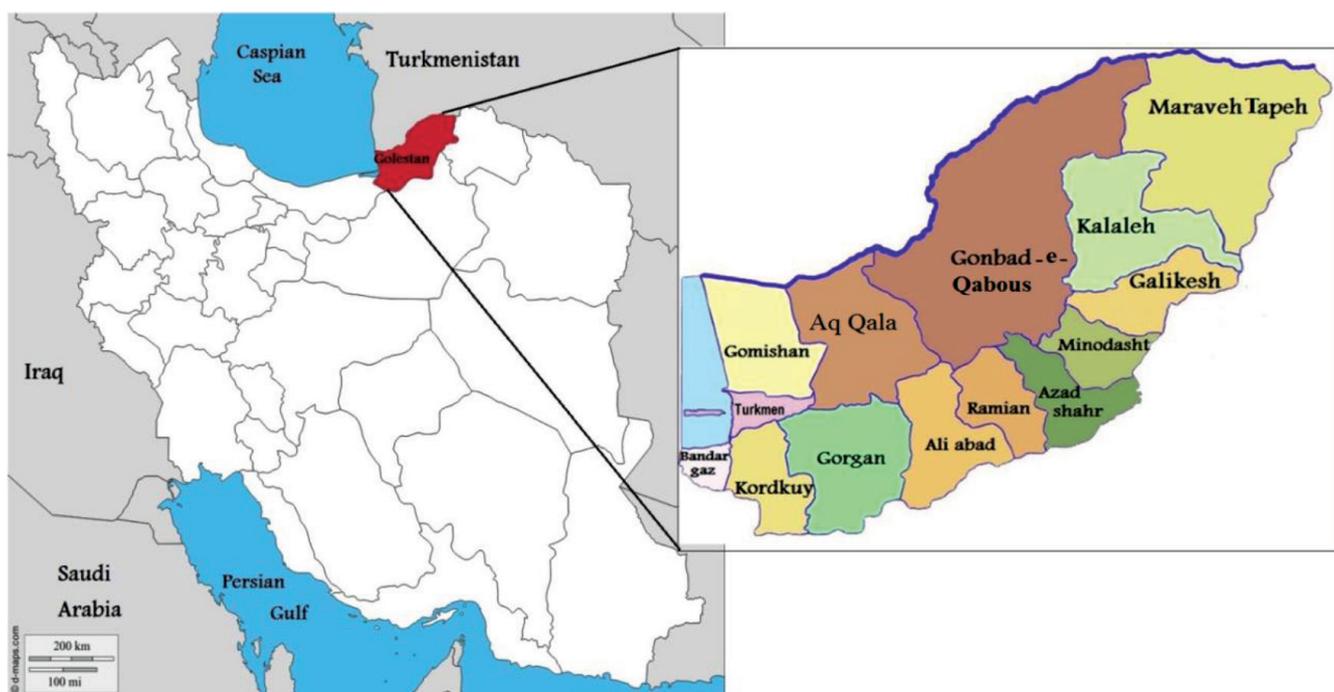


Figure 1 | Geographic map of the study area.

Table 1 | Study participant profile

Participant ID number	Age (years)	Occupation	Marital status	Education	Place of residence	Other drug use status	Age at first-time hookah use (years)
1	27	Skilled worker	Single	University degree	Ghonbad-e-Qabous	None	17
2	27	Retailer	Single	High school dropout	Ghonbad-e-Qabous	None	18
3	20	Unemployed	Single	High school diploma	Ghonbad-e-Qabous	None	17
4	21	Unemployed	Single	High school dropout	Ghonbad-e-Qabous	None	16
5	40	Mason	Married	Primary school	Turkmen	None	25
6	30	Laborer	Married	High school dropout	Turkmen	Opium	19
7	32	Hookah cafe client	Married	Secondary school	Turkmen	None	22
8	28	Driver	Married	High school diploma	Turkmen	Cigarette	18
9	35	Mechanic	Married	High school dropout	Turkmen	None	17
10	24	Unemployed	Single	Secondary school	Turkmen	None	16
11	34	Driver	Married	Secondary school	Turkmen	None	21
12	37	Unemployed	Married	High school diploma	Turkmen	None	22
13	24	Unemployed	Single	High school dropout	Turkmen	None	14
14	29	Driver	Married	High school diploma	Turkmen	None	19
15	26	Soldier	Single	Master degree	Turkmen	None	18
16	45	Hookah cafe client	Married	High school diploma	Aq Qala	Cigarette	20
17	22	Furniture maker	Single	High school diploma	Aq Qala	None	16
18	25	Furniture maker	Married	High school diploma	Aq Qala	None	17
19	30	Hairdresser	Married	University degree	Aq Qala	Cigarette	15
20	27	Hairdresser	Single	High school dropout	Aq Qala	None	16
21	36	Driver	Married	High school dropout	Tatar Olia	Cigarette	20
22	30	Driver	Married	Secondary school	Tatar Olia	None	15
23	26	Employer	Married	University degree	Tatar Olia	None	19
24	27	Driver	Married	Secondary school	Tatar Olia	None	17
25	28	Laborer	Married	Secondary school	Tatar Olia	Opium	18
26	30	Unemployed	Married	High school dropout	Ghomishan	Opium, alcohol, and cigarette	17

Table 2 | Interview guide

1. From your point of view, why some people start hookah smoking?
2. When was the first time you started hookah smoking? Why did you start it?
3. Please explain more about your first experience of hookah smoking?
Where was it and who accompanied you in this experience?
4. What are other reasons for initiation of hookah smoking?
5. You are welcome to add to what you provided on your hookah smoking experience.

First, the audio file of the interviews was hand transcribed. Qualitative content analysis method was used for analyzing the qualitative data and then, by carefully studying the manuscripts that formed the semantic units, the research team achieved an accurate and informative sense of the data. Then, the texts of the interviews were organized with open coding. The management of the extracted codes was done by MAXQDA-10 software (allpcworld/download-maxqda-10-4-free).

3. RESULTS

The age range of the participants was 20–45 years with an average and standard deviation of 29.23 ± 5.86 years. The age range of the participants at the time of starting hookah consumption was between 14 and 25 years with a mean and standard deviation of 18.03 ± 2.50 years. The demographic characteristics of the participants in the study are presented in [Table 1](#).

On the basis of the qualitative data, the reasons for the use of hookah in male Turkmens were classified in nine main categories, which are presented in [Table 3](#).

Table 3 | Categories extracted from qualitative data

1. Hookah-smoking friends
2. Blaming unemployed people in small neighborhoods
3. Curiosity and sense of adulthood
4. Consumption of hookah by family members
5. Cultural influence
6. Fewer perceived risks than other substances
7. Hookah's sensory attractions
8. Greater social acceptance compared with other substances
9. Easy access to hookah

3.1. Hookah-smoking Friends

All study participants [26] identified having hookah-smoking friends as the main reason for the start of hookah consumption. It usually occurs as result of spending time with hookah-smoking friends in cafes. Going to the recreational centers or cafes that serve hookah with friends encourage teenagers or young people to begin smoking hookah.

“Look, I think the first reason for consumption of hookah is having hookah smoking friends. Your friend suggests; let's go to cafe and even if you don't smoke, just come and join us. Then you go with them once or twice, but start to smoke at the third time.” (p. 2)

3.2. Blaming Unemployed People in Small Neighborhoods

Unemployment was another important cause of hookah consumption, which was pointed out by the 21 of the participants in

the study. The lack of entertainment and recreational activities as well as massive unemployment in the Turkmen region makes people to seek their friends' company and spend time with them. Therefore, they begin to smoke hookah or continue to consume it. Unemployment causes young people to gather around public places and their village's squares to have conversation. Meanwhile, they are blamed by other local people for being unemployed. So, to escape from this blaming, they take refuge in hookah cafes to avoid being humiliated by locals.

"When we go to the village and hang around the crossroads, we talk and laugh, so people tell us; what are you doing? And start to blame us. That's why we come here with friends and sit down, play and laugh." (p. 10)

3.3. Curiosity and Sense of Adulthood

According to the participants, the curiosity of people was an important reason for the initiation of hookah consumption. Hookah smoking by friends and others, especially the elderly, was new to them and made them curious about it. So, they began to smoke hookah.

Passing through the childhood and entering a turbulent period of adolescence with new sense of adulthood had caused some of them to show their entry to adulthood with risky behaviors such as hookah smoking.

"The most common cause of hookah consumption is curiosity. These kids who just turned teenagers to demonstrate their adulthood or to show their pride and play uncle game, start to smoke hookah." (p. 4)

3.4. Consumption of Hookah by Family Members

The consumption of hookah by older brother or father was another cause of hookah consumption, which was mentioned by some of the participants. Fathers or brothers were the family members encouraging these individuals to hookah smoking; however, it is expected that other family members such as uncles or grandparents could play the same role if these participants lived with them in the same household.

"I say I became hookah smoker as my father, who was also a smoker; one day brought an antique hookah at home, so this created a favorable ground for my hookah consumption. Bringing a hookah at home meant that he is in favor of hookah smoking. Incidentally, the first time he realized that I smoke hookah, he told me my son let's smoke together. Then, I put the charcoal and made a fire and suddenly, I saw my brother come out of the room and said; hey, you're smoking alone. Yes, this will increase the solidarity between the family members." (p. 19)

3.5. Cultural Influence

Cultural influences and the exchange between different cultures have been identified as the factors leading to the start of the hookah consumption among some of the participants. These

individuals claim that hookah consumption was rarely practiced by them in the past.

"The hookah smoking was quite common among the Fars, and now it has spread among the Turkmens. It is all about culture and people start to learn about it, that's how it spreads among us. I think this is the reason. For example, how was your dressing fashion when you were young? And how is it now? This is the same." (p. 18)

3.6. Fewer Perceived Risks Compared with Other Substances

According to 23 participants, hookah is not harmful to the health and has less risks than other substances:

"In general, people become interested in hookah as they believe hookah does not have any harmful effect on humans. They also think it has lower-risk than other substances." (p. 14)

3.7. Hookah's Sensory Attractions

Many of the participants have become interested in hookah because of its attraction and appearance. For instance, one of the attractions is exhaling the smoke of hookah in the form of a ring.

"Another reason is that, some people come and smoke hookah for the first time because they love to exhale the smoke in the form of a ring; that's why they start to smoke hookah." (p. 17)

Some of the participants also referred to the attractive appearance of hookah as a reason for their consumption.

"My brother brought a hookah at home, so I used it too. The hookah was so pretty, so I went and start smoking it. Yes, its appearance was very attractive." (p. 3)

3.8. Greater Social Acceptance Compared with Other Substances

Greater social acceptance of hookah compared with other substances, such as cigarettes and opium, was among the other reasons for hookah consumption according to the participants. Several participants believed that the social stigma of hookah is lower compared with cigarettes and Nass, and its consumption does not surprise others and the community.

"When you smoke cigarette, your family members say that, look he is smoking and talk behind your back, but hookah is different. Hookah is acceptable socially and is a common practice unlike cigarette. For example, when you smoke cigarette or take Nass, people are fast to talk behind your back, but hookah is not the same. Hookah is normal and does not surprise anybody, so they do not talk behind your back. Furthermore, the government has announced that hookah smoking is not band." (p. 21)

In addition, 21 of the participants mentioned that usually parents would be content with their children's hookah consumption because they do not want their children to use other substances, such as opium or cigarettes. For Iranian families, hookah is more acceptable than other tobacco products as well as narcotics.

“Yes, parents do not object their children’s hookah consumption in order to prevent their children use other substances. My parents did not object my hookah consumption and let me freely smoke it. Because they wanted to prevent me from using other substances. They told me, whenever you want to smoke hookah let us know to buy you one, but just smoke it inside the home. They told me I am free to smoke hookah at any time, but I should not touch cigarette or opium.” (p. 3)

3.9. Easy Access to Hookah

Easy and convenient access to cafes or shops serving hookah was another reason mentioned by some of the participants as contributing factors for hookah consumption. The abundance of hookah cafes in the city and even in the villages makes access to hookah easy for people.

“Previously, there were 3 or 4 licensed tea houses in the harbor, but they came and sealed them, and the result: 3–4 tea houses became 400 tea houses.” (p. 9)

4. DISCUSSION

The main aim of this study was to investigate and discover the causes of inclination toward the use of hookah among Turkmen men in Iran. The results of the literature review previously conducted on the topic of hookah smoking have shown that there has not been any study on Turkmen population and there are unofficial reports and observations about a significant increase in hookah smoking among Turkmen people in the recent years. Therefore, to our knowledge, this is the first study focusing on this topic among people with Turkmen ethnicity. Identifying the influencing factors that cause people to start hookah smoking is fundamental in tobacco control and prevention programs on the population level. This study is designed in the form of qualitative research because this type of research has the potential to provide valuable and vital information to researchers by exploring the phenomenon more in-depth.

4.1. Hookah-smoking Friends

Our findings indicated that all the participants in this study [26] approved that one of the most important reasons for the start of hookah consumption was having hookah-smoking friends. Most of the participants in this study believed that observing friends who use hookah over time have created a positive attitude toward hookah among them. This forces them to start smoking hookah to show their peers that they follow friends’ choices and interests. This finding is consistent with the results of a study by Subramaniam et al. that was conducted on the teenagers and young people in Singapore. Subramaniam et al. [23] discuss that many of the participants in their study believed that hookah smoking is accepted as a normative standard among their group, and they started to smoke hookah because of their sense of belonging to the group and the feeling of shame that they were the only non-alike member of the group. In another study, 90% of students stated that they smoked hookah for the first time at the presence of their family and friends [24].

4.2. Blaming Unemployed People in Small Neighborhoods

The lack of recreational activities and massive unemployment in the Turkmen region forces people to find alternatives to spend their free time. Most participants claimed that they were unemployed and had no entertainment, so they considered hookah as a kind of recreation. The tradition of getting together, especially among adolescents and young people, in front of grocery stores, especially during the evenings and at nights, is one of the traditional conventions for socializing among Turkmen villagers and town dwellers. This kind of gathering is somewhat blamed by adults and elders and they consider these gatherings inappropriate for teenagers and young people. To escape from this negative attitude, young people take refuge in places, such as hookah cafes, where they get together and smoke a hookah. Results of Ghasemi and Sabzmakan’s [25] study on students showed that peer pressure, having hookah-smoking friends, and lack of recreational activities are among the most important factors in tobacco use among students.

4.3. Curiosity and Sense of Adulthood

Curiosity and sense of adulthood was mentioned by a significant number of participants as one of the factors causing the consumption of hookah. This can be one of the most important factors in adolescence. In a study by Subramaniam et al., several participants referred to curiosity as the cause of hookah smoking. Some also referred to the start of hookah consumption as a rebellion against parents and school regulations, believing hookah smoking gives them independence and a sense of adulthood [23]. Some younger consumers believe smoking hookah is giving them a feeling of maturity and masculinity [26,27]. Educational public health programs in the schools should be organized to give information and knowledge to the students and their parents about the long-term health risks of hookah smoking.

4.4. Consumption of Hookah by Family Members

Observing hookah smoking by other family members serves as an action guide and an external stimulus, and makes the younger family members more likely to find a positive attitude toward the hookah and become curious about it and experience it. This is explained in a 2011 study by Griffiths et al. [10], the frequency of observing hookah smoking by relatives and family members results in the reduced embarrassment of smoking and this might even make it a desirable issue. This finding is supported by the results of a study by Rezaei et al. [28] that the consumption of hookah by father or brother increases the chance of hookah consumption by 5.33 and 31.6 times.

4.5. Cultural Influence

One of the influential factors regarding smoking hookah, is how hookah smoking is viewed by society’s culture. This factor is distinctively significant in the Middle East, including Iran [29]. Cultural

influence has led to the widespread use of hookah among Turkmen in the past two decades. Turkmens were using Nass or cigarettes in the past and the phenomenon of hookah smoking has been rarely seen among them. The social and economic changes over the past two decades have led to more interaction of Turkmen culture with the dominant culture of society, and the consumption of hookah from the mainstream culture of society has also been transmitted to this subculture. Meanwhile, factors like the media are also effective. Some hookah consumers consider hookah as a hereditary issue and a desirable way to get in touch with other tribes [30–32]. The effect of culture in hookah smoking has been discussed in a study by Madjzadeh et al. In this study, some hookah smokers, especially adults, believed that smoking hookah was rooted in public culture and tradition, and was a social sign of communication in familial and friendly gatherings [33]. Today, the globally oriented hookah has expanded to other countries and cultures [34].

4.6. Fewer Perceived Risks Compared with Other Substances

Participants in this study believed that the fewer perceived risks of hookah compared with other substances are another reason for the start of hookah consumption. This view has been reported in numerous studies. For example, the study by Barnett et al. [35] showed that in the focus group discussion between the group of young people involved in the study regarding the heat of burning charcoal in the hookah, its toxic substances, and the potential risks and side effects, the participants either were lacking knowledge or poorly understood these facts, although they were well aware of the dangers of cigarettes. The result of a study by Griffiths and Ford [36] showed that the participants believed the aroma of tobaccos used in hookah comes from natural plants in them, which in turn makes the tobacco burn better and, consequently, makes hookah tobacco less cancerous than cigarette that contains only pure tobacco. Moreover, the study by Song et al. showed that hookah consumers not only do not understand the long-term risks of hookah consumption but also have little knowledge about the harmful effects of hookahs, which usually comes from invalid sources or unreliable internet resources. They moderate their hookah-smoking behavior and advocate their beliefs about nonaddictive and nonharmful effects of hookah [37]. Hookah is perceived as a less harmful alternative for cigarette smoking [38]. However, not only is hookah not less harmful than cigarettes, but it is also associated with higher risks for respiratory diseases and cancers [39], and in some cases, its damages are more severe [11,39]. Therefore, health communication about the health risk and damages of hookah and more pervasive restrictions on smoking hookah in public places seems necessary [40].

4.7. Hookah's Sensory Attractions

The result of a study by Castañeda et al. indicates that one of the reasons for the start of hookah smoking among his study population was the sensory perception of hookah, which classified it as “entertainment”. In their study, many participants believed that exhaling the smoke in the form of a ring and seeing the water inside the hookah bubbling are fun and act as visual stimuli for the start of hookah consumption [34]. The result of a systematic review of 10 qualitative

studies by Kowitt et al., which aimed to investigate the perceptions and experiences associated with aromatic tobacco products, showed most participants referred to the smell and taste of hookah as pleasant. Also, in two studies conducted in Lebanon and Canada, the participants referred to the taste and smell of hookah as the reason for their motivation to start hookah consumption [29].

In a study in the UK conducted by Kowitt et al. [41], young people also believed that they have been addicted to this smoky product due to the smell and taste of hookah. Fruit fragrances that are added to hookah tobacco promote smoking of hookahs as a healthy choice and hides the real nature of tobacco [42]. The sensory characteristics of waterpipe smoking are important factors in the initiation and continuation of hookah smoking. This is supported in a study conducted by Nakkash et al. in Lebanon. Participants in this study noted the sensory qualities evoked from waterpipe tobacco smoking as reasons that motivated smoking. Men and women equally attributed motivation to the sensory qualities such as taste, smell, the sight of smoke, and bubbly sounds of the water in the bowl [43].

4.8. Greater Social Acceptance Compared with Other Substances

Another reason for the initiation of hookah consumption that was mentioned by participants in many studies was the greater acceptance of hookah by the society than other substances such as cigarettes and narcotics including opium and hashish. The social acceptance of hookah has often been mentioned in many studies [23,29,34]. For instance, the results of a study by Montgomery et al. [44] found that students who perceived hookah more socially acceptable were 21 times more likely to be consumers of hookah. Participants in our study also believed that hookah smoking was socially more accepted compared with other drugs. They pointed out two important aspects that have not been mentioned in other studies. First, the consumption of substances such as cigarettes, Nass, or opium causes consumption stigma and results in the consumer being called names such as smoker, opium or Nass addict, and so on, whereas consumption of hookah does not produce consumption stigma and does not put hookah in the same level as other substances. Second, this acceptance exists with the parents too, and they easily allow their children to smoke hookah to prevent them from using other drugs such as opium, methamphetamine, and cannabis, believing that smoking hookah prevents tendency toward other substances.

This finding is supported by a qualitative study conducted by Moradi et al. on a group of adolescents from the Youth Detention Center in Tehran province. In this study, participant's parents instead of forbidding hookah use would even offer a better hookah house to their children and they said hookah is not something dangerous [45]. In the study by Moradi et al. [45], cigarettes and hookah have been discussed as “gateway drugs” to prevent consuming other drugs in families with inadequate supervision or with fathers who are drug users. On the other hand, it must be stated that viewing hookah as socially acceptable is not supported by some other studies. For instance, participants in a study conducted by Ahmed et al. [46] in the San Francisco Bay Area, considered hookah smoking as unacceptable and undesirable. This could be related to the socioeconomic difference and geographic location of the participants and their knowledge about health risks of hookah smoking as a result of public educational programs.

4.9. Easy Access to Hookah

Easy access to hookah was another cause for hookah consumption, which was mentioned by many participants in different studies conducted in the past. The rapid growth of hookah cafes, even in villages, has caused people, especially teenagers and younger adults, to have easy access to hookah. Lack of unified governmental policy has failed to control the easy access of young people to hookah. Although at times it has temporarily led to the closure of hookah bars, practically this policy has failed, and now the cafes are easily accessible in every village and town that could be related to the unemployment in the region and lack of recreational facilities. This has resulted in easy access to hookah for teenagers and young people. Even though, according to the regulations, people under the age 18 are not permitted to the hookah bars, unfortunately, there is no regulation or mechanism to prevent access of the individuals under the age 18 to the hookah bars. Numerous studies have discussed that convenient access leads to onset and continuation of hookah smoking. One of the studies conducted by Momenabadi et al. [29] showed that easy access is one of the most important reasons for the initiation of hookah smoking. The result of a qualitative study by Castañeda et al. [34] showed that convenience is one of the main factors in the initiation of hookah consumption so that hookah and its accessories can be found in every shop, even online, or at gas stations. In other studies, one of the main drivers of hookah consumption has been the expansion of hookah cafes. In general, in communities with easy access to tobacco, a high prevalence of smoking is seen as a social norm [5,47].

It must be noted that this study did not recruit any participants from cities such as Maraveh-Tapeh and Kalaleh and the Turkmen living in the province of North Khorasan. This was due to the limited budget and the resources allocated to conduct this study. The results of the present study could be transferred to government officials or research institutes to absorb financial resources to conduct larger studies, design prevention programs, and develop educational programs based on the identified factors causing initiation of hookah especially among youth.

5. CONCLUSION

The results of this study showed that individual factors, interpersonal factors (hookah smoking by father or brother, having hookah-smoking friends), and environmental factors (easy access, cultural influence, unemployment, and lack of entertainment) were the main reasons for the consumption of hookah among male Turkmen. Meanwhile, widespread unemployment and the availability of hookah cafes have led Turkmen youths to spend their free time in hookah cafes out of sight chatting with friends for the sake of hookah smoking. Moreover, owing to the expanded and easy availability of other drugs many young people believe that smoking hookah has much less social stigma and is more socially accepted than other drugs. Also, the parents approve their children's hookah consumption as they are afraid of their children's tendency toward other substances. Intervention strategies for preventing hookah consumption could be developed and implemented based on the three influential categories (individual, interpersonal, and environmental) that were identified in this study.

CONFLICTS OF INTEREST

The authors declare they have no conflicts of interest.

AUTHORS' CONTRIBUTION

SSS contributed in study conceptualization and writing (review & editing) the manuscript, funding acquisition and project administration. FZ contributed in writing (review & editing) the manuscript. AC contributed in study conceptualization, data curation, formal analysis and writing (original draft), RN contributed in funding acquisition and writing (review & editing) the manuscript.

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REFERENCES

- [1] [Gatrad R, Gatrad A, Sheikh A. Hookah smoking. *BMJ* 2007;335;20.](#)
- [2] [Hessami Z, Masjedi MR, Ghahremani R, Kazempour M, Emami H. Evaluation of the prevalence of waterpipe tobacco smoking and its related factors in Tehran, Islamic Republic of Iran. *East Mediterr Health J* 2017;23;94–9.](#)
- [3] [Abbasi-Ghahramanloo A, Rahimi-Movaghar A, Zeraati H, Safiri S, Fotouhi A. Prevalence of hookah smoking and its related factors among students of Tehran University of Medical Sciences, 2012–2013. *Iran J Psychiatry Behav Sci* 2016;10;e4551.](#)
- [4] [Akl EA, Gaddam S, Gunukula SK, Honeine R, Jaoude PA, Irani J. The effects of waterpipe tobacco smoking on health outcomes: a systematic review. *Int J Epidemiol* 2010;39;834–57.](#)
- [5] [Cobb C, Ward KD, Maziak W, Shihadeh AL, Eissenberg T. Waterpipe tobacco smoking: an emerging health crisis in the United States. *Am J Health Behav* 2010;34;275–85.](#)
- [6] [Maziak W. The waterpipe: time for action. *Addiction* 2008;103;1763–7.](#)
- [7] [Maziak W. Commentary: the waterpipe—a global epidemic or a passing fad. *Int J Epidemiol* 2010;39;857–9.](#)
- [8] [Raad D, Gaddam S, Schunemann HJ, Irani J, Jaoude PA, Honeine R, et al. Effects of water-pipe smoking on lung function: a systematic review and meta-analysis. *Chest* 2011;139;764–74.](#)
- [9] [Smith-Simone S, Maziak W, Ward KD, Eissenberg T. Waterpipe tobacco smoking: knowledge, attitudes, beliefs, and behavior in two U.S. samples. *Nicotine Tob Res* 2008;10;393–8.](#)
- [10] [Griffiths MA, Harmon TR, Gilly MC. Hubble bubble trouble: the need for education about and regulation of hookah smoking. *J Public Policy Market* 2011;30;119–32.](#)
- [11] [Roskin J, Aveyard P. Canadian and English students' beliefs about waterpipe smoking: a qualitative study. *BMC Public Health* 2009;9;10.](#)

- [12] Maziak W. The waterpipe: a new global threat to CV health? *Glob Heart* 2012;7;179–81.
- [13] Nakkash RT, Khalil J. Health warning labelling practices on narghile (shisha, hookah) waterpipe tobacco products and related accessories. *Tob Control* 2010;19;235–9.
- [14] Wilson N, Weerasekera D, Peace J, Edwards R, Thomson G, Devlin M. Misperceptions of “light” cigarettes abound: national survey data. *BMC Public Health* 2009;9;126.
- [15] Noonan D. Exemptions for hookah bars in clean indoor air legislation: a public health concern. *Public Health Nurs* 2010;27;49–53.
- [16] Vansickel AR, Shihadeh A, Eissenberg T. Waterpipe tobacco products: nicotine labelling versus nicotine delivery. *Tob Control* 2012;21;377–9.
- [17] WHO Study Group on Tobacco Product Regulation (TobReg). Advisory note: Waterpipe tobacco smoking: health effects, research needs and recommended actions for regulators. 2nd ed., Geneva, Switzerland: WHO; 2015.
- [18] Woods P. *Successful Writing for Qualitative Researchers*. 2nd ed., London: Routledge; 2005, p. 200.
- [19] Baheiraei A, Sighaldehy SS, Ebadi A, Kelishadi R, Majdzadeh R. The role of family on hookah smoking initiation in women: a qualitative study. *Glob J Health Sci* 2015;7;1–10.
- [20] Baheiraei A, Sighaldehy SS, Ebadi A, Kelishadi R, Majdzadeh SR. Psycho-social needs impact on hookah smoking initiation among women: a qualitative study from Iran. *Int J Prev Med* 2015;6;79.
- [21] Baheiraei A, Sighaldehy SS, Ebadi A, Kelishadi R, Majdzadeh R. Factors that contribute in the first hookah smoking trial by women: a qualitative study from Iran. *Iran J Public Health* 2015;44;100–10.
- [22] Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today* 2004;24;105–12.
- [23] Subramaniam M, Shahwan S, Fauziana R, Satghare P, Picco L, Vaingankar JA, et al. Perspectives on smoking initiation and maintenance: a qualitative exploration among Singapore youth. *Int J Environ Res Public Health* 2015;12;8956–70.
- [24] Afifi RA, Yeretziyan JS, Rouhana A, Nehlawi MT, Mack A. Neighbourhood influences on narghile smoking among youth in Beirut. *Eur J Public Health* 2010;20;456–62.
- [25] Ghasemi M, Sabzmakan L. Experiences of high school students about the predictors of tobacco use: a directed qualitative content analysis. *J Educ Community Health* 2015;2;1–11.
- [26] Makhoul J, Nakkash R. Understanding youth: using qualitative methods to verify quantitative community indicators. *Health Promot Pract* 2009;10;128–35.
- [27] Khalil J, Afifi R, Fouad FM, Hammal F, Jarallah Y, Mohamed M, et al. Women and waterpipe tobacco smoking in the eastern Mediterranean region: allure or offensiveness. *Women Health* 2013;53;100–16.
- [28] Rezaei F, Noroozi M, Mansourian M, Safari O, Jahangiry L. The role of social and familial factors as predicting factors related to hookah and cigarette smoking among adolescents in Jahrom, South of Iran. *Int J Pediatr* 2017;5;4929–37.
- [29] Momenabadi V, Hossein Kaveh M, Hashemi SY, Borhaninejad VR. Factors affecting hookah smoking trend in the society: a review article. *Addict Health* 2016;8;123–35.
- [30] Hammal F, Mock J, Ward K, Eissenberg T, Maziak W. A pleasure among friends: how narghile (waterpipe) smoking differs from cigarette smoking in Syria. *Tob Control* 2008;17;e3.
- [31] Jahanpour F, Vahedparast H, Ravanipour M, Azodi P. The trend of hookah use among adolescents and youth: a qualitative study. *J Qual Res Health Sci* 2015;3;340–8.
- [32] Jamil H, Templin T, Fakhouri M, Rice VH, Khouri R, Fakhouri H, et al. Comparison of personal characteristics, tobacco use, and health states in Chaldean, Arab American, and non-Middle Eastern White adults. *J Immigr Minor Health* 2009;11;310–17.
- [33] Madjzadeh SR, Zamani G, Mousavi KS. Qualitative survey on the factors affecting tendency to hookah in hormozgan province and appropriate campaign methods against it. *Hakim Res J* 2002;5;183–7.
- [34] Castañeda G, Barnett TE, Soule EK, Young ME. Hookah smoking behavior initiation in the context of Millennials. *Public Health* 2016;137;124–30.
- [35] Barnett TE, Lorenzo FE, Soule EK. Hookah smoking outcome expectations among young adults. *Subst Use Misuse* 2017;52;63–70.
- [36] Griffiths MA, Ford EW. Hookah smoking: behaviors and beliefs among young consumers in the United States. *Soc Work Public Health* 2014;29;17–26.
- [37] Song AV, Morrell HE, Cornell JL, Ramos ME, Biehl M, Kropp RY, et al. Perceptions of smoking-related risks and benefits as predictors of adolescent smoking initiation. *Am J Public Health* 2009;99;487–92.
- [38] Pashaeypoor S, Negarandeh R, Nikpeyma N, Amrollah Majd Abadi Z. Determinants of intentions toward smoking hookah in Iranian adolescents based on the theory of planned behavior. *Iran J Public Health* 2019;48;1317–25.
- [39] Combrink A, Irwin N, Laudin G, Naidoo K, Plagerson S, Mathee A. High prevalence of hookah smoking among secondary school students in a disadvantaged community in Johannesburg. *S Afr Med J* 2010;100;297–9.
- [40] Dehdari T, Jafari A, Joveyni H. Students’ perspectives in Tehran University of Medical Sciences about factors affecting smoking hookah. *Razi J Med Sci* 2012;19;17–24.
- [41] Kowitt SD, Meernik C, Baker HM, Osman A, Huang LL, Goldstein AO. Perceptions and experiences with flavored non-menthol tobacco products: a systematic review of qualitative studies. *Int J Environ Res Public Health* 2017;14;338.
- [42] Dugas E, Tremblay M, Low NC, Cournoyer D, O’Loughlin J. Water-pipe smoking among North American youths. *Pediatrics* 2010;125;1184–9.
- [43] Nakkash RT, Khalil J, Afifi RA. The rise in narghile (shisha, hookah) waterpipe tobacco smoking: a qualitative study of perceptions of smokers and non smokers. *BMC Public Health* 2011;11;315.
- [44] Montgomery SB, De Borja-Silva M, Singh P, Dos Santos H, Job JS, Brink TL. Exploring demographic and substance use correlates of hookah use in a sample of southern California community college students. *Calif J Health Promot* 2015;13;26–37.
- [45] Moradi P, Lavasani FF, Dejman M. Adolescent substance abuse and family environment: a qualitative study. *Int J High Risk Behav Addict* 2019;8;e83781.
- [46] Ahmed B, Jacob P, Allen F, Benowitz N. Attitudes and practices of hookah smokers in the San Francisco Bay Area. *J Psychoactive Drugs* 2011;43;146–52.
- [47] Anjum Q, Ahmed F, Ashfaq T. Knowledge, attitude and perception of water pipe smoking (Shisha) among adolescents aged 14–19 years. *J Pak Med Assoc* 2008;58;312–17.