

Smoking initiation among Iranian adolescents: a qualitative study

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الشروع في التدخين لدى المراهقين الإيرانيين: دراسة كيميائية

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الخلاصة: سعى الباحثون من خلال هذه الدراسة إلى التعرف على عوامل الاختطار الرئيسية التي تكتنف الشروع في التدخين لدى المراهقين، وذلك تلبيةً للحاجة إلى إنشاء برامج فعّالة لمناهضة التدخين في جمهورية إيران الإسلامية. وقاموا بإجراء تحليل للمحتوى بأسلوب كيميائي، من خلال إجراء 22 مقابلة موسعة، وتشكيل مجموعتين بؤريتين (4 و 6 مشاركين في كل مجموعة) و30 بحثاً سردياً. وقد كشف التحليل عن العوامل الثلاثة التالية بوصفها عوامل اختطار للشروع في التدخين لدى المراهقين وهي: العوامل الشخصية، والعوامل الاجتماعية، والمعتقدات حول التدخين. واستناداً إلى هذه النتائج، أوصت الدراسة بضرورة إدراج الأنشطة الوقائية ضمن أسلوب شامل يهدف إلى تغيير حالة التدخين والتصرفات الوالدية لدى الآباء والمعلمين، وإلى رسم سياسات مناهضة للتدخين في المدارس وغيرها من أماكن تجمع الشباب.

ABSTRACT In response to the need for effective tobacco prevention programmes in the Islamic Republic of Iran, the present study sought to determine the major risk factors for initiation of smoking by adolescents. A content analysis with a qualitative approach was conducted through 22 in-depth interviews, 2 focus groups (4 and 6 participants in each group) and 30 narratives. The following 3 themes emerged from the analysis as risk factors for initiating smoking by adolescents: personal factors, social factors and beliefs about smoking. Based on these findings, it is recommended that prevention activities should be embedded in a comprehensive approach which aims to change the smoking and parenting behaviour of parents and teachers, and at creating non-smoking policies in schools and other places where young people congregate.

Initiation au tabagisme chez les adolescents iraniens : étude qualitative

RÉSUMÉ Face à la nécessité de programmes efficaces de prévention du tabagisme en République islamique d'Iran, la présente étude a cherché à déterminer les principaux facteurs de risque d'initiation au tabagisme chez les adolescents. Une analyse de contenu avec approche qualitative a été réalisée à partir de 22 entretiens approfondis, 2 groupes de discussion (4 et 6 participants par groupe) et 30 narrations. Cette analyse a permis de dégager les trois thèmes suivants comme facteurs de risque de début du tabagisme chez les adolescents : les facteurs personnels, les facteurs sociaux et les croyances vis-à-vis du tabagisme. Sur la base de ces constats, il est recommandé d'incorporer les activités de prévention dans une démarche globale visant à modifier le comportement des parents et des enseignants en matière de tabagisme et d'éducation des enfants, et à mettre en place des politiques antitabac dans les écoles et dans les autres lieux de rassemblement de jeunes.

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Received: 27/12/05; accepted: 17/07/06

Introduction

Although the percentage of the population that smokes has declined in the United States of America and other industrialized countries, it is increasing in developing countries [1]. According to the World Health Organization (WHO), smoking diseases are set to become a greater problem in developing countries than communicable diseases and malnutrition [2]. Tobacco use is one of the chief preventable causes of death in the world [3]. Nearly 50 000 deaths annually are attributed to tobacco, and in the Islamic Republic of Iran it is estimated that the figure will reach about 200 000 annual deaths due to smoking in 20 years time [4].

Numerous studies throughout the world have examined the risk factors for cigarette smoking. Some of these include: genetic and demographic factors, social norms, peer influences and parental attitudes and behaviours [5]. Unfortunately, comprehensive studies focusing on prevalence, patterns and risk factors of smoking initiation among adolescents have not been conducted in the Islamic Republic of Iran, although the findings of some scattered studies from different areas have been beneficial. The findings of the Global Youth Tobacco Survey (GYTS) in the Islamic Republic of Iran in 2003 showed that 14.9% of students had smoked cigarettes (19.1% of boys, 9.4% of girls) [6]. Factors explaining early onset or escalation of tobacco use during adolescence include role modelling, beliefs about release of tension and pleasure [7], curiosity, seeking pleasure, parenting style and having family members and friends who smoke [8].

Cigarette smoking is considered a “gateway drug” in that its use often precedes use of alcohol, marijuana or other illicit drugs [9]. Therefore the battle to prevent smoking initiation among adolescents may also be the first step in prevention of alcohol and drug abuse. In order to achieving this goal,

the Islamic Republic of Iran ratified the WHO Framework Convention on Tobacco Control on 6 November 2005 and has committed itself to implementing comprehensive tobacco control measures in the near future [10]. Despite enormous expenditure on anti-smoking efforts, the Islamic Republic of Iran faces a growing risk due its geographic location and demographic profile. It is estimated that the population under 15 years old will reach about 26 million in 5 years time and this group will be an ideal market for tobacco products [11].

Because little research has been carried out on cigarette initiation among Iranian adolescents, knowledge about their perspectives on smoking is poor. This lack of awareness has meant that many current anti-smoking strategies for adolescents have been developed without the foundations of basic research to inform them; as a consequence, health education messages often have little impact. The findings of a study in Tehran showed that although students were knowledgeable about the harmful effects of cigarette smoking, a considerable percentage of them smoked daily or occasionally [12]. Clearly there is a paradox here: why would people continue to engage in a behaviour that will contribute to the deterioration of their quality of life and possibly their early death?

To achieve significant long-term reductions in tobacco use in any country, we must explore the different motives that influence young people in their decision to use tobacco [13]. According to Strauss and Corbin, qualitative methods are the most suitable for uncovering the nature of people’s experiences and what lies behind them [14]. Through the use of qualitative methods, it will be possible to start to discover how adolescents think about tobacco and to collect in-depth information about their opinions and the meanings associated with smoking. Such findings will create a

comprehensive picture of how adolescents conceptualize smoking in the context of their lives. Such information is crucial to the development of successful anti-smoking interventions [13].

In response to the need for effective tobacco prevention programmes in the Islamic Republic of Iran, the present study used qualitative methods to determine the major risk factors leading to initiation of smoking by adolescents.

Methods

To determine why adolescents start smoking we conducted a multi-site qualitative study using triangulation of data from heterogeneous samples of adolescents, parents and teachers. Data were collected and analysed over a 7-month period in 2004–05 in Tehran, the capital city of the Islamic Republic of Iran.

Data collection and sampling process

Data collection included a series of individual, in-depth, open-ended, semi-structured interviews (22 interviews), focus group discussions (2 focus groups: 4 and 6 participants in each group) and written responses to a questionnaire (30 narratives). According to Streubert and Carpenter, focus groups are the most useful method when dealing with sensitive topics, whereas narratives permit participants to think about what they wish to share [15]. A total of 62 people (50 adolescents and young adults, 6 teachers, 5 parents and 1 psychologist) participated in this study.

Adolescents explained their reasons in relation to the present time. However to understand more about retrospective views on smoking, we also interviewed a sample of adults, who, because of the distance in time, may be able to present their story with more insight.

We used purposeful sampling and continued with theoretical sampling according to the codes and categories as they emerged. The participants were selected from different locations, such as parks, workplaces and their homes. The goal of the study was explained to the potential participants by one of the researchers, then, with their consent, an appointment was made for interview.

The semi-structured interview consisted of a series of open-ended questions designed to elicit risk factors of smoking in adolescents. The questions that guided this study were as follows: Do you ever smoke? Why did you try smoking the first time? Or why did you never smoke? In your opinion, why do adolescents try smoking in our society? For the narratives, a questionnaire was developed to provide direction to obtain the desired information. Focus groups were led by one experienced moderator. During the interviews and focus groups, notes were made about the situation of the interviews and non-verbal signals from participants and the topics they raised in focus groups. These helped researchers to develop the interview guide over time.

Data collection was carried out by the same interviewer and audiotaped. Then the records were transcribed verbatim and analysed consecutively. The duration of interviews and focus groups was between 20 minutes and 4 hours, over 1–4 sessions.

Qualitative analysis

In this study a qualitative content analysis was used to analyse and derive themes from participants' responses in order to better understanding the risk factors for initiation of adolescent smoking [16]. Data were collected and analysed simultaneously using a grounded theory approach. The term grounded theory reflects the concept that the theory emerging from this type of work is grounded in the data. Data from the interviews, narratives and focus groups were

analysed concurrently using the constant comparative method. Open, axial and selective coding was applied to the data [14].

Following reading and re-reading of the transcripts, subthemes emerged and were then categorized and labelled as themes and were clustered into categories. This process progressed to a more detailed indexing. Following data reduction, constructs were formulated through a process of interpretation based on the contextual setting from which data were derived. The process of continual checking and questioning of emerging themes was continued until the same themes with those of repeated reading and analysis emerged [17]. Finally, data were categorized into categories and subthemes.

Each interview was transcribed verbatim and analysed before the next interview, thus each interview provided the direction for the next interview. Following transcription, the tapes were replayed and notes were made on the transcripts. Notes included comments such as recurrent themes and the researcher's own thoughts and feelings about the nature and meaning of the data. The transcripts were read and recoded several days later and the results were compared with the first coding. Repeated coding, yielding the same results, established the consistency of the data. The list of themes and subcategories was reviewed for completeness and accuracy.

Participants in subsequent sessions further validated the emerging categories and provided additional data. Interviewing continued until all categories were saturated and no new data emerged.

Rigour

Rigour in qualitative designs can be measured in terms of credibility, dependability, transferability, auditability and confirmability [15].

In this study, credibility was established through the participants' review of transcripts, prolonged engagement with participants and peer check [15]. The participants were contacted after the analysis and were given a full transcript of their coded interviews with a summary of the emergent themes to determine whether the codes and themes were true to their point of view (member check). To establish auditability, a second review was conducted by faculty members. The researchers also documented precisely the steps in the research for other researchers to confirm the findings in future studies. The results were checked with some individuals who did not participate in the research to confirm their fitness (peer check). Approximately 40% of all transcripts and themes were rechecked. Sampling strategies allowed for maximum variation and a wide range of views and perspectives to be considered. In-depth, prolonged engagement with participants in the research environment allowed the researcher to gain participants' trust and a better understanding of their situation.

Ethical considerations

Ethical approval was obtained from Tarbiat Modarres University. This research was approved by the Research Committee of the Faculty of Medicine. Permission for interviews and recordings was gained from both the Area School Organization Chief Executive and school principals when required.

Furthermore, ethical issues in this study involved the assurance of confidentiality and autonomy for the participants. All participants were informed of the purpose and design of the study and their voluntary participation. Verbal consent was sought from the participants for the audiotaped interviews.

Results

A total of 62 people participated in this study. The characteristics of participants are presented in Table 1.

Three main themes emerged from the data analysis as risk factors for smoking: personal factors, social factors and beliefs about smoking. Table 2 shows the major themes and their subcategories.

Personal factors

According to the participants, a key risk factor for cigarette smoking in adolescents is the need to be socially acceptable, for social prestige, to be attractive to the opposite sex, to look mature and to enhance their self-presentation:

Kids only adopt the habit of smoking in an attempt of portray to others that they are no longer just kids. They feel grown up and by smoking they will no longer feel like kids in the society in which they live. When we are smoking, nobody calls us kids and we believe that smoking is a sign which tells everybody that we are mature. It is done particularly for the attention of girls, to show them that we are grown-up enough and to make them more attached to us. It is also done to show neighbours and friends that we are no longer kids. [Schoolmaster, male, non-smoker]

During adolescence, individuals typically experiment with a wide range of behaviours. According to the participants, curiosity is also an important reason for experimentation with smoking by adolescents. One of the adolescents described his experience:

I tested it because I wanted to know what it is. [Experimenting boy, 12 years old]

Some of the interviewees argued that people freely choose to smoke and it is an intentional behaviour:

Nobody should place the blame for this habit on anybody else. Usually this is something that people do for themselves and nobody can force anybody else to smoke unless the person is willing to do so. Smokers usually show interest in smoking and others then join in. [Smoker, male, 26 years old]

However, lack of refusal skills was mentioned by some of the participants:

If you are continuously offered cigarettes by friends and acquaintances, it is inevitable that you will eventually start smoking. When we are with our friends, one of them says, do you want to smoke?

Table 1 Sociodemographic characteristics of the participants (n = 62)

Variables	No.	%
Sex		
Male	57	91.9
Female	5	8.1
Age (years)		
10–19	36	58.1
20–29	13	21.0
30–47	13	21.0
Marital status		
Married	8	12.9
Single	54	87.1
Education		
Primary/middle school	8	12.9
High school	22	35.5
Diploma	17	27.4
University	6	9.7
Higher education including BS, MS	9	14.5
Religion		
Muslim	62	100.0
Smoking status		
Smoker	25	40.3
Non-smoker	37	59.7
Experimenting	11	17.7

Table 2 Emerged themes and their subcategories

Theme/Subcategory	Example
<i>Personal factors</i>	
Personal need for	Social acceptability Social prestige Being attractive to the opposite sex Looking mature
Self presentation	
Curiosity	
Personal will	
Lack of refusal skills	
Lack of attention to religious values	
<i>Social factors</i>	
Society	Frustration Lack of social support Cultural alienation Joblessness Injustice Cultural and political influences in society Unhealthy role models for youth
Lack of healthy alternative behaviours	Lack of athletic and recreational facilities Excessive costs of athletic and recreational facilities Having too much free time Unhealthy social environment
Lack of health policies	Cheap price of cigarettes Easy access to cigarettes No legislation on tobacco control
Family	Dysfunctional family Role modelling Lack of attention to religious values Lack of information to children
School	Lack of attention to anti-smoking legislation Environment of school Interpersonal communication Role modelling
Affiliation with peer group	Role modelling
Media influences	Lack of effective anti-tobacco advertising
<i>Beliefs about smoking behaviour</i>	
Poor knowledge	
Invulnerability toward the harmful effects	
Positive attitude	
Perceived positive benefits	
Perceived positive norms	

I cannot say no. [Experimenting boy, non-smoker, 13 years old]

don't want to worry, I want to clear my mind, so I start smoking. [Smoker, male, 22 years old]

Social factors

According to the interviewees, youth smoking occurs in a web of social relations that foster many types of adolescent experimentation and that may also foster problem behaviours. Because of this social context, youth smoking arises from society, family, school, peer and media influences that are also important to the initiation of cigarette smoking.

The participants emphasized that parents play an important role in the development of their children's smoking behaviour, through role modelling effects, the ways they train their children and the ways they deal with smoking at home:

When children do not see or feel love from their parents, or when parents leave the children alone without asking them how they have been during the day, or what they have been doing, the children do not have any fun and feel that nobody cares for them. It is then that they take up the habit of smoking. [Non-smoker, boy, 17 years old]

The participants emphasized the effects of social structures on individual risk behaviours such as smoking. In a society that is unable to realize the common values of their residents or solve their commonly experienced problems, lack of social bonds, joblessness, unhealthy role models for youth, unhealthy social environment and feelings of frustration and injustice may lead to a higher rate of cigarette smoking:

I know that once I have graduated from university I will not be able to find a job and I won't know what to do. My family will not be able to help and I don't know who I would have to turn to for a job. I

Cultural alienation was mentioned as the reason of adolescents' tendency to cigarette smoking:

Big powers have managed through satellite television and the Internet to influence the younger generation and they have taken our values away from us and replaced it with their own values and culture. Although we have an Islamic government, it seems that we were better Muslims before. I believe that our education system is not working well, I don't know why. This is the reason our Islamic values and culture have been replaced by Western culture. We became a Western country: our clothes, our speaking and everything. [Teacher, non-smoker, female]

Cheap prices, easy access to cigarettes and no legislation on tobacco control were also mentioned as risk factors for smoking:

In our society, you find cigarettes everywhere. They are easy to find and easy to get. Recently the government announced that newsagents are no longer allowed to sell cigarettes, but this was just an announcement. They didn't enforce it, nor did they provide any means by which to stop the newsagents selling the cigarettes. It can be concluded that people smoke because cigarettes are so readily available and can be found almost anywhere. [Schoolmaster, non-smoker, male]

Cigarettes can be found anywhere and can be bought and sold at very cheap prices. It's very available and easy to access for children. [Smoker, male, 17 years old]

Based on our findings, schools play an important role in adolescents' behaviour:

We started at middle school. Several of us began smoking because we went to a bad school. It was easy to leave the campus during school times and sometimes our teachers were not present for the lessons. For example, we didn't have a teacher for English for 3 months. When a teacher wasn't present, we would leave the school and walk to the park. We wouldn't have anything else to do, so we would smoke. [Smoker, male, 21 years old]

According to the interviewees, tobacco advertising controls did not have the intended impact on the incidence of juvenile smoking:

I don't give attention to the anti-smoking ads.... It isn't important for me. When I am with my friends, we make fun of them. [Non-smoker, male, 19 years old]

The interviews suggested that friends' smoking has an influence on initiation of smoking and having more close friends who smoke can lead to cigarette smoking:

The first time I tried cigarettes, I had gone mountain climbing with my friends. We had known each other for years and I started smoking just for the fun of it and since then I have been smoking 1 or 2 cigarettes per day. [Smoker, male, 17 years old]

Beliefs about smoking

Lack of knowledge about smoking and feelings of invulnerability toward the harmful effects of smoking were mentioned as reasons for smoking. While the people who participated in this study were aware of some of the health effects from smoking, their depth of knowledge was limited:

I hope there are people out there who can guide youngsters not to smoke. If I had known that smoking was such a bad habit, I would never have started the first time. [Smoker, male, 17 years old]

Smoking isn't something that will affect the rest of your life or make you lose anything. People do it for fun and it's not something that can destroy your life. [Smoker, male, 18 years old]

According to the interviews, positive attitudes and perceived positive benefits and norms about smoking were the risk factors for smoking. Some of the participants believed that smoking has many perceived advantages (relieves boredom, stress, social anxiety, etc):

I start smoking whenever I get nervous and I do so with pleasure. [Experimenting, non-smoker, 13 years old]

Discussion

To the best of our knowledge, the present study is the first qualitative research designed to increase our understanding of the etiology of cigarette smoking among Iranian youth and to provide in-depth and comprehensive information and sound recommendations to guide efforts to refine approaches to prevention.

The findings from this research are consistent with another study that suggested that the causes of cigarette smoking stem from a complex interaction of personal, social, cognitive and behavioural factors [18]. These results indicate that efficient smoking prevention programmes must be comprehensive and require insight into all the influencing factors.

Similar to another study, our interviewees pointed to the high susceptibility

of adolescents to cigarette smoking [19]. These findings indicate smoking prevention interventions should target youth because of their greater vulnerability to a variety of smoking-related influences. The transition to early adolescence is typified by dramatic changes in attitudes and behaviour, including, for many adolescents, experimenting with cigarette smoking [20]. Our findings concur with other research suggesting that adolescents usually believe that smoking is a forbidden behaviour for them, while for adults there is no restriction [8,21,22]. This feeling can promote the belief among them that cigarette smoking makes a person “look like an adult”.

We found that although some of the smokers in our study knew about the adverse consequences of smoking, they believed that cigarette smoking is not dangerous for their health. This agrees with another study [7]. Also consistent with the findings of other studies, we found that adolescent smoking behaviour was associated with positive beliefs about smoking, such as smoking is “cool”, is fun or helps one to forget problems [8,19,21,22]. Our findings indicate that individual perceptions, rather than knowledge, predict tobacco use. Research indicates that delivering information about cigarettes has been shown to increase knowledge, but not to change behaviour [18]. For this reason the content and delivery method for smoking prevention messages is important and must establish appropriate norms and beliefs about cigarette smoking.

Most of our participants viewed cigarette smoking as an intentional behaviour. As far as we know, other researchers have not pointed to this factor. Differences between qualitative and quantitative methods could be an explanation, because in qualitative methods neither questions nor answers become manifest before starting the research. Our results suggest that for achieving re-

ductions in tobacco use we must promote a sense of personal responsibility among adolescents.

Kaufman et al. [23] and Whooley et al. [24] found an association between lack of attendance at religious activities and tobacco use. In our research only one of the participants pointed to this factor, although each participant was asked about it. This finding needs more attention and further research.

Although a wide range of views and experiences were studied in our research, the small number of participants may limit extrapolation of the findings.

Adolescence is a period when children become weaned away from the exclusive society of the family towards peer attachment and this may lead to risky behaviours [25]. As with another study, we found that smoking is a way of bonding with the peer group [26]. These findings suggest peer-to-peer education is an opportunity for establishing healthy norms, beliefs and behaviours within peer groups.

Consistent with other studies, we found various aspects of community [22], school environment [26] and family life [27] contribute to adolescents' inclination towards tobacco use. These findings indicate that comprehensive tobacco control programmes could yield preventive effects. It should be noted that parental awareness and school-based programmes are important elements of this approach.

In our study, cultural alienation was mentioned as a risk factor for smoking. Our interviewees indicated that adolescents are influenced to conform to messages and images portrayed on the Internet and satellite television. As far as we know, other studies have not pointed to cultural alienation as a risk factor for smoking; research methods and differences between countries may explain these findings. It is clear that the

majority of previous studies about smoking have been done in developed countries. Our findings suggest that cultural organizations are important for shaping national values. However, we need to recognise that we live in a media culture, and cannot escape the influence of the media. Mass media efforts in health promotion are therefore particularly appropriate for reaching youth.

Conclusion

The findings of this study revealed important and in-depth information for developing effective cigarette smoking prevention programmes. Based on these results, prevention activities need to be embedded in a comprehensive approach and to involve adolescents, parents, peer groups, schools, the

media, community organizations, government and law enforcement agencies, with intervention strategies generally focused on fostering change in both the environment and individual behaviour.

Acknowledgements

We gratefully acknowledge the very helpful participation of the adolescents and parents and school staff, without whose contribution the present study would not have been completed. This article is written based on the second author's PhD dissertation at the Department of Health Education of Tarbiat Modarres University, and the official support from the university is also acknowledged.

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