

Main Facilitators of Smoking Among Young Males in Tehran: Tehran Lipid and Glucose Study

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Received: October 15, 2013; Revised: April 5, 2014; Accepted: April 9, 2014

Background: Smoking is the most preventable risk factor for non-communicable diseases and its alarming trend.

Objectives: The aim of this study was to explore and determine facilitating factors for smoking in young males, who participated in the Tehran Lipid and Glucose Study (TLGS), from their own perspective.

Patients and Methods: This qualitative study was conducted within the framework of the TLGS. Participants were young males with 15 to 25 years of age and various levels of education. The inductive content analysis approach was used to analyze data on the participants' perceptions with regard to smoking facilitators. Data collection was conducted through discussions by six semi-structured focus groups consisted of five to seven people. All the interviews were transcribed after being recorded and analyzed through constant comparative analysis.

Results: Two main categories derived from the analysis of the data: I) personal needs and features; and II) environmental facilitators. The former concept included three subcategories: 1) fulfilling essential needs; 2) search for identity; and 3) lack of life skills. Environmental facilitators were also divided into two subcategories: 1) social patterns; and 2) ease of access.

Conclusions: Tendency towards smoking is influenced by different factors. Clarifying these influential factors for smoking from the perspective of young males can be important in designing effective preventive programs.

Keywords: Qualitative Research; Smoking; Youth; Glucose

1. Background

The focus of healthcare authorities has dramatically shifted from infectious diseases to non-communicable ones due to the high worldwide mortality rate (63%) due to non-communicable diseases (NCDs) (1). Health problems such as mental illness, cancers, accidents, heart disease, which are known as NCDs, are not preventable by the traditional vaccination or medication and need new approaches (1). Smoking in particular is the major risk factor for NCDs (1). According to the World Health Organization estimates, by 2030, more than eight million people, mostly from low-income countries, will lose their lives because of smoking and/or its complications (2). Use of tobacco is a high-risk behavior during youth period. It has been shown that 80% of smokers start smoking before the age of 18 and it is estimated that about five million youngsters face early death annually because of starting smoking at an early age (3). Studies also indicate that those who start smoking in their youth turn into heavy smokers in their adulthood (4, 5). In some studies, prevalence of smoking among the youngsters has been reported between 3% and 80%. Findings of the Global

Youth Tobacco Survey in 43 countries showed the prevalence of the smoking experience and that of smoking to be 33% and 14%, respectively (4). According to another study, about 40% of American youngsters are smokers (5). The prevalence of smoking among young Iranian males varies from 15% to 35% in different studies and the mean age of starting to smoke was 14.36 years; this figure was 13.7 for those who had prior smoking experience (4, 6, 7). Existence of such risky behaviors is also influenced by sex factor, i.e. the risk is higher in males (7-9). One in every ten young Iranian males is affected by disabilities derived from risky behaviors, including smoking (4, 7, 8). Despite the harms that such behaviors entail, only 19.8% of young males are sufficiently aware of the harmful effects of cigarette smoking and interestingly, the most important factor in youngsters' inclination toward smoking is their curiosity (9). Results from many similar studies have led government officials to initiate publicizing the harmful effects of smoking in order to prevent the rise of smoking among the youngsters. Current data indicate that antismoking campaigns and publicizing the harmful ef

fects of smoking have little or no desired influence on youngsters (10). It seems that the youngsters' tendency toward and their choice of smoking can be attributed to other factors, yet to be uncovered.

2. Objectives

This qualitative study aimed to explore the perceptions and experiences of young males, who participated in the Tehran Lipid and Glucose study (TLGS), and to understand the factors influencing smoking from participants' point of views. The study was approved in Ethic Committee at the Shahid Beheshti University of Medical Sciences (date, 11 Oct 2005/#121). In addition, we obtain written informed consent form all participants and the aim of study was explained to them.

3. Patients and Methods

This study was conducted within the framework of the TLGS, a large-scale, community-based, prospective study performed on representative sample of residents of District 13 of Tehran, capital of Iran. Details of the rationale have been published elsewhere (11, 12).

3.1. Participants and Data Collection

This was a qualitative study was conducted between 2008 and 2009. Participants were male youngsters with 15 to 25 years of age, who participated in the fourth prospective follow-up of TLGS. Since we had aimed to understand the factors that influence young males' tendency toward smoking, the criteria for selection of participants were young male participating in the TLGS who were invited and tended to share their experiences. Focus group discussion (FGD) technique was used for data collection. A FGD is a structured discussion used to obtain in-depth information from a group of people on a particular topic. The purpose of a FGD is to collect information about people's opinions, beliefs, attitudes, and perceptions, rather than to come to consensus or make a decision. Based on the aim of our study, FGD technique was suitable and more reliable. We had already achieved a list of

male youngsters with age range of 15 to 25 years. For each focus group, between five and seven people were randomly selected. Then authors called them and explained the purpose of the study to them. All of the selected youngsters agreed to participate in the study (100% response). The first author arranged FGDs' time and location and informed the participants by calling them. Each FGD included a homogeneous group based on age, i.e. 15 to 20 and 21 to 25 years. The demographic characteristics of each group are shown in Table 1. To obtain participants views, FGDs were conducted to collect data and after six FGDs, when no new information and categories were achieved, we reached data saturation. All of the FGDs were conducted by the second author and assisted by an assistant moderator, who had participated in the qualitative study courses and workshops and had conducted several qualitative studies. The FGDs lasted between 60 to 90 minutes (mean, 75) and were conducted in a private room in East Site Clinic by a semi-structured guide, consisting of open-ended questions such as "In your opinion, why young boys smoke?" that enabled respondents to explain their personal opinions, perceptions, and experiences regarding their friends smoking. To begin, the authors asked participants to explain their perceptions and experiences with smoking; then by following questions and based on what were raised by the factors influencing youngsters' inclination preference toward smoking, effective ways to help youngsters in decreasing their inclination toward smoking were asked. All FGDs were conducted, audiotaped, transcribed, and analyzed in Farsi language.

3.2. Data Analysis

Data were analyzed base on inductive content analysis. Analysis processes are represented as three main phases: preparation, organizing and reporting (13). The key feature of all content analysis is classifying many words of the text into much smaller content categories (14, 15). The preparation phase starts with selecting the unit of analysis (16, 17). In this study the analysis processes were based on this three main phases: preparation, organizing, and

Table 1. The Study Participants' Characteristics ^{a,b}

FGDs (Age Range)	Age, y	Education, y	Marital Status		Occupation	
			Single	Married	Student	Employee
15-20 years old			18 (100)	0	15 (83.3)	3 (16.7)
F1 (15-19)	16.7 ± 1.5	10.2 ± 1.3				
F2 (17-20)	18.8 ± 1.1	11.7 ± 1.4				
F3 (15-19)	16.7 ± 1.2	10.5 ± 1				
21-25 years old			16 (89)	2 (11)	8 (44.4)	10 (55.6)
F4 (21-25)	21.8 ± 1.5	13.2 ± 1.5				
F5 (21-25)	23 ± 1.7	12 ± 1.3				
F6 (21-25)	22.6 ± 1.7	12.3 ± 1.3				

^a Abbreviation: FGD, focus group discussion.

^b Data are presented as mean ± SD or No. (%).

Table 2. A Summary of Findings Main Facilitators of Smoking Among Young Males in Tehran

Categories	Main Facilitators of Smoking ^a				
	Personal Needs and Features ^b			Environmental Facilitators ^b	
Subcategories	Fulfilling essential needs	Lack of life skills	Search for identity	Social patterns	Ease of access

^aTheoretically driven theme.

^bDerived from the data.

reporting Data were analyzed manually and guided by constant comparative analysis (13). In this approach, all manuscripts of the interviews were read repeatedly word by word to extract codes from the text, which were highlighted to capture key thoughts or concepts as an initial coding and to achieve immersion and obtain a sense of the whole documents (preparation). A total of 532 codes were extracted and sorted into categories to become organized and grouped. A consistent technique was used to develop categories and subcategories (organizing). Next, definitions were developed for each categories and subcategories (reporting). The first authors crosschecked the coding strategies with two other coauthors and after detailed discussion, reached a consensus. In this regards two main categories, namely, personal needs and features and environmental facilitators, and five subcategories were achieved.

3.3. Data Trustworthiness

To evaluate the rigor and enhance the trustworthiness of data, we drew on Guba and Lincoln's (18) criteria to evaluate qualitative data. In this study, member check were done by giving a full transcript of the coded interviews with a summary of the emergent themes to two randomly selected participants to determine whether the codes and themes matched their point of view. The participants provided feedback and all confirmed that they were in agreement with the concepts and themes that were developed by the research team. Peer debriefing was accomplished by sharing the data and ongoing analysis with two senior experts in qualitative and smoking-related research. During data collection and analysis, the research team worked together and participated in meetings to discuss emergent codes and themes and any necessary revisions. In order to ensure data accuracy and consistent interpretations during the course of data analysis, the research team kept decision trails to document the decisions that were made over the course of the study. Results were also checked with some of the participants who met the inclusion criteria of the study but did not participate in the research and they confirmed the fitness of the results as well. To confirm dependability, four faculty members conducted a second review. Results were also checked with some of the males, who did not participate in the research and they confirmed the fitness of the results as well. All research details including procedures, actions, and decisions were documented for audit purposes.

4. Results

Two main categories emerged from the data analysis: I) personal needs and features; and II) environmental facilitators. The former concept included three subcategories: 1) fulfilling essential needs; 2) search for identity; and 3) lack of life skills. Environmental facilitators were also divided into two subcategories: 1) social patterns; and 2) ease of access.

4.1. Category I: Personal Needs and Features

4.1.1. Fulfilling Essential Needs

According to a number of participants in this study, responding to innate needs was one of the most important factors in youngsters' inclination toward smoking. Pleasure seeking, particularly among teenagers and the youngsters, persuades many of them into smoking, which becomes a persisting habit. "When you smoke for the first time, it gives you pleasure; thereafter, it become routine" (FGD # 4 [F4]). In the same line, satisfying the sense of curiosity and gaining experience were other cited factors by study participants. "In response to their curiosity or adventurism, they lean toward smoking. Of course, suggestions by peers are influential, too. There are also those who say 'Let's smoke once' [to see what it is like]" (F2). "A kid likes to experience at least once, to see what this cigarette is that parents smoke" (F6).

4.1.2. Search for Identity

A considerable number of participants cited that being underage or being regarded as underage by peers was humiliating and an indication of failure in achieving the desired identity. "To my mind, they want to show to their friends that they've grown up" (F1). "I wanted to say the same, that is, most youngsters think that they become adults by smoking" (F1). Some participants believed that competition with peers and concerns about humiliation pressurizes the youngsters to copy their peers in smoking. "There is a kind of rivalry among youngsters that if you are within the group and do not smoke, it's like you are a loser". An 18-year-old male (F3) said, "I asked someone who was my friend about his smoking, and he said he did not like it, but, then, he went to university, and found that everybody smoked there. He said his friends smoked there, so he felt ashamed if he did not smoke, or thought that they might think of him as a baby. Guys said, 'Smoke!' I did, and I turned into a smoker". Another one who had

become smoker during his national conscription, said, "Everybody smoked there; I smoked, too, and gradually became a smoker [addicted to]" (F5).

4.1.3. Lack of Life Skills

In the words of many participants, lack of life skills was among the personal factors that create the ground for propensity toward smoking among teenagers and the youngsters. Because youngsters do not have sufficient understanding of teen-year tensions and lack the required life skills to deal with the associated excitements, they tend to become inclined toward substances such as tobacco, which society perceives to be "tranquilizing". "They think by exhaling smoke they can leave behind their worries. If one asks adults [why they smoke], they say that nicotine relaxes them" (F6). "Our friend referred to 'disquiet' as a reason", said an 18-year-old male in F1. "He hit the nail on the head. It is annoying that anyone who is asked 'Why do you smoke?' will respond that because 'My mind is preoccupied". Being unable to refuse or say "No" in high-risk conditions was another example of lacking life skills that was influential in youngsters' inclination toward smoking, as mentioned by some participants. "The reasons are the already mentioned ones. They see it [cigarette] in their friends' hands and do not want to be less [than their peers are]. Then, some others feel ashamed [to say no]" (F1). In the same line, a limited number of participants referred to a lack of social skills among some youngsters that, at times, lead to severe social antipathy and even anti-family behaviors that push them toward smoking. "Two youngsters were talking to each other; they had weird ideas; one told the other that 'We should be able to do whatever we want. We did not ask to be brought into this world, our parents brought us, and now, as the saying goes: If you do the crime, you'll do the time. We do whatever we wish to do.' Well, some people have similar way of thinking. They say, they are free to do whatever they want because others are responsible for them being brought to this world, and that 'Those people shouldn't have done the crime, if they couldn't do the time'" (F2).

4.2. Category II: Environmental Facilitators

4.2.1. Societal Patterns

According to the participants, youngsters' interpersonal connection plus their impressionability, particularly by parents and peers, was among the most important environmental factors that can prod them into smoking. "Our youngsters can't choose [role-] models, as their models might often be flawed. One chooses his friend, because he thinks [the friend] looks so cool, 'Look at his hair style or brand-clothing.' Well, he also smokes, 'Why shouldn't I?' He, then, becomes his model. Or, his model becomes an actor who also drinks and smokes, so, he says, 'I drink, too'" (F5). According to the participants, by

following the models of his friend, relatives, and family members and repeating their patterns, a youngster attempts to mold his social connections. "I know a boy who is our neighbor. He is about 13 to 14 years old, and is a good kid, but, recently, he smokes. When I ask him, 'Why?' he says, 'Because everyone does', or because he sees cigarettes in everyone's hands. For example, he has seen his father smoke and he has learned from him. His father has become his model, and he says he wants to be like his father" (F3). The participants believed that through their environmental interactions, they attempted to be accepted by their surrounding society. In search of this acceptance, they try to exhibit the type of behaviors that would portray them as an important individual; of these, they think, smoking is among behaviors that depicts them as valued members and lead them to be accepted by their social groups. "I think this misconception about culture has taken shape that if someone smokes, he is doing a high-class thing" (F1). "Another new thing, that I see many of my friends want to follow, is this rap music [smiles]. Everybody goes to sing, and you can see that everyone is giving out an album. But, since smoking affects voice and changes it, a lot of them smoke in order to adjust their voice to the [particular] tune" (F1).

4.2.2. Ease of Access

Based on the participants' statements, another reason for youngsters' interest in cigarette smoking was the "ease of access to tobacco products". In their opinion, tobacco products were readily available in society. This ease of access and the low prices of tobacco products remove any obstacle in the path of the youngsters who get inclined toward smoking. There are no social and financial obstacles, and he can purchase it easily from any store. "The reason is the availability of cigarette; it is everywhere you go. Vender has it, store has it, and the price is cheap, too" (F2). The participants in this study believed that the high prevalence of smoking in public environment and in mass media is among the factors that facilitate a youngsters' tendency toward smoking. "I ask my friend why do you smoke, and he responds that 'Well, everybody, everywhere is smoking'" (F6).

5. Discussion

The purpose of this study was to explore influential factors for young males' inclination toward smoking, from their own perspective. The findings show that both personal and environmental factors play major roles in a youngsters' tendency toward smoking. As defined by the United Nations, the youngsters are defined as those between the ages of 15 and 25 years (19). In accordance with this definition, transition from childhood to adulthood takes about ten years and in addition to changes prompted by hormones, youngsters experience curiosity in their interactions with people around them, which in turn leads them to new and occasionally pleasurable experi-

ences. Cigarette smoking is one these curiosity-driven experiences that, from the viewpoint of the participants of this study, brings about enjoyment and a sense of adventure. Similar to our findings, Pierce et al. have shown curiosity as one of the most important reasons to start smoking by youngsters (20). Although stresses of the adolescence are part of the physiological changes associated with the age, it has been shown that some youngsters are less capable in dealing with the ensuing crises. Participants in this study believed that lack of life skills was another factor that would incline the youngsters toward smoking. Adalbjarnardottir et al. have demonstrated that the more skills the youngsters possessed in controlling their behavior and enjoying decision-making capacities, the less they are inclined toward smoking. Their results also showed that among variables with significant aptitude in predicting risky behaviors, personal skills and traits were among the variables with significant prediction capacity and second rank to social influences (21). The youth years are the age of identity search and according to Schwartz, the most important process of the adolescent era is acquiring personal identity. It is a period when individuals are prompted to know who they are and what others think of them (22). A part of this identity is shaped by a youngster's peers. Even though peer influences are a prerequisite for socialization in the process of identity formation, they also have harmful influences (23). It has been demonstrated that those who are smokers have a significant influence in turning their youngster friends into smokers (24). As Schwart indicated, those who possess a successful identity enjoy self-respect and higher self-esteem; on the contrary, those who fail to form a successful identity are incapable of internalizing their own and others' experiences because of a lack of a sturdy referral framework. Consequently, these youngsters become anxious and feel compelled to be pre-entensive, i.e. a conflict between their external and internal aspects, and such people are vulnerable (22).

In addition to personal factors, environmental ones are also among the facilitators of high-risk behaviors like smoking. Oygard et al. in Oslo showed that peer influence, as predictor for smoking by youngsters in future, was significant (25). This influence is effective even at older ages, in those over 18 years of age. The study by Green et al. in the military demonstrated that smoking soldiers were models for newly recruited military males and aroused interest in smoking among them (26). In the opinion of those participated in this research, other social models, such as parents, were influential in the youngsters' inclination toward smoking. Liao et al. found that the effect of smoking peers was more during the early years of high school, and parents' influences were more pronounced during the last years of high school (27). On the other hand, Mercken et al. showed that youngsters with strict, smoking parents tended to be more interested in friendship with smoking peers, and a smoking mother had more influence over children than a smoking father had

(28). Contrary to our findings, Oygard et al. concludes that smoking parents had no effect on youngsters becoming smokers (25); perhaps the reason behind this discrepancy in the two findings lies in the prevailing socio-cultural differences of the countries under study. Yet one point that requires attention is that although this study indicated that environmental interactions and connections with peers and family members influenced youngsters' propensity toward smoking, the assigned shares to each factor were unclear.

5.1. Strengths and Limitations

The strong point of this study was getting opinion of young males about smoking facilitators. Absent of females opinion about smoking was the weakness of this study. In this way, the knowledge of study could be transferred to the some contexts but generally, it could not be generalized for all young people. We had to ask young people by FGDs and did not do triangulation by using the other techniques such as individual interviews or other groups to increase more credibility. This research was conducted on the youngsters residing in Tehran. Reasons for smoking by youngsters living in smaller cities or villages might differ from the findings of this study. Performing another research amongst the youngsters residing in smaller cities or villages can provide valuable additional information about their tendency toward smoking. In addition, a study based on diversities in ethnicities and cultures might shed lights on other aspects of youngsters' propensity toward smoking.

In conclusion, the reasons for youngsters' tendency toward smoking vary and cannot be attributed to any single personal or social factor. However, it seems that presence of personal factors in combination with suitable environmental conditions can increase the youngsters' tendency toward smoking. We suggest that other studies focus on the share of each of these factors (personal and environmental) so that the most important influences could be identified; thereafter, measures would be planned and implemented accordingly to prevent youngsters' inclination toward smoking.

Acknowledgements

We praise the substantial time and effort that each of the study participants dedicated to this study. Acknowledgements are also due to research staff at the Tehran Lipid and Glucose Study Unit. Our special thanks go to Mrs. N. Shiva for critical editing of English grammar and syntax of the manuscript. We also thank to Dr. Momenan, and Dr. Sadeghian, who assisted in the interviews.

Authors' Contributions

1) Study concept and design: Fereidoun Azizi; 2) acquisition of data: Parisa Amiri and Fahimeh Ramezani Tehrani; 3) analysis and interpretation of data: Marzieh Rostami; 4) drafting of the manuscript: Marzieh Rostami; 5) criti-

cal revision of the manuscript for important intellectual content: Parisa Amiri and Fahimeh Ramezani Tehrani; 6) administrative, technical, and material support: Maryam farahmand and Golshan Amirshakeri; and 7) study supervision: Fereidoun Azizi and Fahimeh Ramezani Tehrani.

Financial Disclosure

Dr. Fahimeh Ramezani Tehrani reported receiving research grants and consulting fees for speaking from Research Institute for Endocrine Sciences, Shahid Beheshti University Medical Sciences.

Funding/Support

This study was supported by the grant provided by Research Institute for Endocrine Sciences, Shahid Beheshti University Medical Sciences.

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