



# The Viewpoints of Urban High School Male Students, Parents and Teachers About Cigarette Smoking by Adolescents: A Social Marketing-Based Qualitative Study, Shiraz, Iran

Masoud Karimi <sup>1,2,\*</sup>, Mohammad Hossein Kaveh <sup>1</sup> and Mohammad Ali Morowatisharifabad <sup>3</sup>

<sup>1</sup>Department of Health Promotion, School of Health, Shiraz University of Medical Science, Shiraz, Iran

<sup>2</sup>Shahid Sadoughi University of Medical Sciences, Yazd, Iran

<sup>3</sup>Elderly Health Research Center, School of Public Health, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

\*Corresponding author: Department of Health Promotion, School of Health, Shiraz University of Medical Science, Shiraz, Iran. Tel: +98-9171529307, Email: karimeim@sums.ac.ir

Received 2019 October 05; Revised 2020 January 13; Accepted 2020 March 06.

## Abstract

**Background:** Smoking is one of the greatest challenges for public health. It is estimated that 7% - 25% of adolescents have experienced smoking in Iran.

**Objectives:** The present study aimed to investigate the viewpoints of high school male students, their parents, and teachers about smoking by adolescents based on four components of the social marketing mix.

**Methods:** A qualitative study with a phenomenological approach was conducted via 12 focus group sessions in Persian language. To this end, 82 participants (30 students, 28 parents, and 24 teachers) were selected based on purposive sampling method in 2015. The data were analyzed through directed content analysis.

**Results:** All the three studied groups viewed "looking older" as the major cause of adolescent smoking, other factors included getting others' attention, looking smart person, calmness, decreasing pain, and attractive packaging of cigarette. Some differences were observed between the viewpoints of students, parents, and teachers about the complications of cigarette. The students focused on the social consequences of smoking, but the parents and teachers were more worried about its long term physical side effects and addictive properties. Unlike parents, the teachers and students considered imitating from parents and famous people as the main socio-environmental factor of smoking. All three groups believed that people's negative social image and negative attention towards smokers should be included in smoking prevention educational programs. However, some differences were reported between their ideas in other educational subjects.

**Conclusions:** Evaluating factors related to tobacco use from three different perspectives can provide a more comprehensive view of these factors and show the reason for the failure of many efforts to prevent student tobacco use and develop a more effective program to promote health.

**Keywords:** Smoking, Adolescent, Social Marketing, Qualitative, Focus Group

## 1. Background

Smoking is one of the prodigious challenges for public health (1, 2). About 90% of smokers experienced this behavior for the first time before the age of 18 (3, 4), and continue until adulthood (2, 3, 5). Therefore, adolescents are regarded as the main target groups for advertising some activities associated with smoking industries for a long time (6). On average, 54% of 15-16-year-old European adolescents experienced smoking in 2011 (7) while it is estimated to be 7% - 25% in Iran (8-13).

Young people usually smoke in many complex environments (e.g., home, school, and community) (14) for multifaceted personal, economic, and social reasons and peer

pressure at home and school (2). Studies have shown that smoking control measures are more likely to be successful based on careful research and local conditions (15). In recent decades, social marketing has been used as an approach to addressing such social problems (16).

According to the social marketing model, health policymakers should be aware of the costs, benefits, and several competitive factors considered in the selection of the people's behaviors (17) with regard to competitors' advertising and design proposals (18). Social marketing uses trade marketing methods to persuade people to change their behaviors (19). Consequently, a deeper insight into needs is to be achieved regarding the target audience and

their motivation to adopt their behavior through constituent studies (20). To design the interventions based on social marketing, four main elements include product (the appropriate behavior expected from target audience), price (social, economic and psychological costs of behavior), place (social conditions and distribution channels of product or the place in which the target audience commits the behavior or has access to the programs and services), and promotion (all planned measures such as interpersonal communication, media messages, special events and incentives designed to inform the audience about their ideas, behaviors and benefits) (18, 21-23). In the phase of market analysis of social marketing, these four components, which can affect the process of exchanging behavioral commitment, were mostly determined using qualitative studies such as focus groups, interviews, etc. (24).

A number of qualitative studies have examined the causes of smoking by adolescents (25-27). To the best of our knowledge, no study has been conducted on the opinions of parents and teachers about adolescent smoking.

## 2. Objectives

Therefore, the present study aimed to investigate deeply the viewpoints of high school male students, their parents, and teachers regarding adolescents' smoking based on four components of social Marketing.

## 3. Methods

### 3.1. Design

In this qualitative study, a phenomenological approach has been applied to understanding people's experiences of a particular phenomenon (28). In the focus group discussion (FGD), the meetings were held from January to April 2015, with the beliefs and views of students, parents, and teachers on the four main marketing components, including product, price, promotion, and location. FGDs allow the researcher to have deep access to the collective views of a group of people (28).

### 3.2. Participants

In the present study, the participants were male high school students (grades 9 to 11), parents and teachers in Shiraz. High schools were selected by multi-stage random sampling. First, two out of the four educational districts in Shiraz were selected randomly. Then, 2 boys' high schools were selected from each region. Based on purposive sampling, participants, regardless of whether they smoke or

not, were selected from two high schools. The school principals and their assistants were consulted to select the students and parents who participated in the study to cover all possible viewpoints. The school bosses, assistants, and sports' teachers who spent more time with students were invited to participate in the study. Twelve FGD sessions were held for 30 students, 28 parents (20 females and 8 males), and 24 male teachers.

The participants answered the questions about the factors influencing adolescents smoking based on the 4Ps of the marketing mix in FGD sessions: Why do adolescents tend to smoke? (Product), what are the social, economic, psychological side effects of smoking? (Price), what social and environmental conditions cause young people to think of smoking? (Place), what measures or methods do you think are more effective in preventing adolescents' smoking? (Promotion)

Directed by one of the research team members as a facilitator, all sessions were held in Persian in the schools at times set by school managers. Every session lasted 60 - 70 minutes.

All digitally-recorded discussions were transcribed verbatim. Data were coded and analyzed through directed content analysis. By this method, content analysis was done in an organized way so that the researcher could determine the key concepts and variables as the primary themes, based on the existing theories and studies (29). According to the directed content analysis, the responses were coded, categorized, and placed under four main themes of the social marketing mix, including price, place, promotion, and product.

### 3.3. Ethical Issues

The present study was approved by the Ethical Committee of Shahid Sadoughi University of Medical Sciences (ethical number: 7844) and education and training administration of Fars province in Iran. The participants were reassured about the confidentiality of their stated views.

## 4. Results

### 4.1. Theme I: Product

#### 4.1.1. Parents

According to the students' parents, two groups of factors can influence the adolescents' smoking: (1) the psychological effects of smoking (looking older as the most important factor, feeling pride and masculinity, and attracting the girls' attention, and calmness feelings): "The boys think that cigarette is for men and the girls do not

smoke". "They (boys) think that they should smoke because they have grown up, and smoking can prove masculinity"; (2) satisfying their curiosity.

#### 4.1.2. Teachers

According to the teachers' viewpoint, three factors can influence students' smoking: (1) The psychological effects of smoking (i.e., the sense of looking older and independence, showing off in the society, and hating downgrading): "Adolescents find cigarette as a symbol for self-expression and show-off ...", "some people start smoking when they fail and hope that it may relieve their psychological complexes"; (2) the physical characteristics of cigarette (price, variation, and the attraction of its packages); and (3) environmental factors (high abundance, low price and availability).

#### 4.1.3. Students

The students believed that three factors can influence the adolescents' smoking: (1) psychological effects of smoking (looking older, and smart person, get others' attention and calmness feelings): "It is said that cigarette belongs to the men...", "...he smoked in front of girls to show that he can support them and get their attention", "Adolescents smoke to be relieved whenever they become unhappy and angry about the lack of affection and family..." When they were asked, "why do you smoke when you are happy?" one of them answered: "I smoke for doubling my happiness and calmness because it makes me cool"; (2) cigarette appearance characteristics (its attractive packaging); (3) environmental factors (easy access to cigarette): "All newspaper stands sell cigarette and you can buy a single cigarette. So, you need little money to provide it".

### 4.2. Theme 2: Price

#### 4.2.1. Parents

According to the parents, there are two side effect categories associated with adolescents' smoking behavior: (1) physical problems (pulmonary diseases, cancer, addiction, and drug abuse): "I know two cases of lung cancer at age 40 because of smoking", "my sisters' husband got lung edema when he was just 45 because of heavy smoking"; (2) social problems (socializing with bad friends, ruining one's future, academic failure, rejecting them from home, family and their friends, being unmotivated and social isolation, loss of self-esteem, ...).

#### 4.2.2. Teachers

The teachers paid more attention to: (1) physical side effects of smoking, especially its addictive characteristic:

"... Every fault can be compensated, but it is difficult to quit smoking. Addiction is difficult to quit and has no way back", "cigarette is the entrance towards addiction. Someone who says yes to cigarette can tell yes to other kinds of addiction ..."; and (2) the social effects of smoking such as decreasing self-esteem and rejection by friends.

#### 4.2.3. Students

The students expressed three categories of side effects for smoking: (1) Social problems (untidy appearance, bad odor of mouth, and losing friends). Some students believed that smoking adolescents are notorious, isolated, and rejected by society. Nevertheless, most of them believed that the difference was related to the type of their friends: "Smokers get in touch with people who are addicted, have moral problems, and cut their connection with their good old friends"; (2) physical problems (long-term problems such as cancer and addiction, dyspnea, bad appearance due to smudged teeth, weakness, pain and reduced exercise capacity, and short-term problems such as shortness of breath, teeth decay, and weakness; and (3) economic problems, including wasting money, which was considered less important.

### 4.3. Theme 3: Place

#### 4.3.1. Parents

The parents considered that the lack of family support was a major issue leading to smoking. They believe that adolescents need respect, affection, and friendly relation with their parents. If parents do not meet these needs, they may get nervous, experience stress, and compensate their needs to a friend or any other supporter by getting in touch with bad friends and smoking. The parents believed that the boys were more susceptible than girls in this way: "The girls get along with this issue easier because the mothers are there. But, unfortunately, the boys have no supporter and companion", and social pressure from peers: "Some bad friends say, "If you do not smoke, you are a coward boy". Thus, he tempts to smoke". The parents believed that the adolescents would be tempted by their friends if they had no self-confidence and could not say "no".

#### 4.3.2. Teachers

The teachers expressed six categories of environmental factors influencing adolescents' smoking:

1) Social pressure made by friends and the social environment. Some teachers regarded neighborhood friends more important than school friends. They believed that inability to say "no", and assertion skill may cause the adolescents not to resist in these situations: "Some smoker stu-

dents were the best ones in the school, and obey what we asked, but they had no skill of saying “no”.

2) Imitating from others and films. Imitating the behavior of parents especially the father, as their role models, was considered as the most important reason for adolescents' smoking: “One of my students said, my father smokes cigarette and my mother smokes hookah, and I tried one time to get rid of my anger but I felt ill, and my mom blamed me and slapped my face and told me “why did you do so?”. I said, “you cannot blame me because you and my dad smoke, too”. There are different viewpoints, about which models are used by adolescents. Some believe that students imitate adults, regardless of their job or social situation: “... There is no difference. The children do not differentiate between a clerk, a doctor, or a shopkeeper. They get them as models and imitate them”. However, some believed differently as follows: “I believe it is not the same whether a worker or a doctor smokes”.

3) Unsuitable atmosphere of the family (the prevalence of lying and secrecy between family members). When the young man finds that his family tells a lie easily, he will imitate: “... For example, if the mother wants to buy something, and she asked her child not to tell his dad, it causes the young man to tell a lie when he wants to go out and says, “I go with my friends to study”. However, he goes to the park with them to smoke cigarette or hookah”.

4) Lack of family support, intimacy, and relationships between family members may lead to an emotional vacuum and provide the conditions for adolescents' tendency to cigarette smoking: “... Unfortunately, nowadays, parents do not get involved in their children's problems. For example, a father told me, “I leave home at six and come back at 21:00, and the boys usually disagree with their mother and do not listen to her”.

5) Lack of knowledge about most of the social problems and challenges associated with smoking: “We do not use muddy water on the street sides, because we are sure that it is bad for our health. In addition, if everybody finds such an in-depth understanding, no one can do it anymore...”.

6) Contradictions in society: “The students face a contradiction when it is written on the packet of cigarette that it is harmful for health, but the government produces it”.

#### 4.3.3. Students

Four environmental factors could have more significant effects on the students' smoking behavior:

1) Imitating from others, especially parents, celebrities, and champion athletes, is the most important social factors of smoking: “When his father smokes, he can stand in

front of him and say, “Why do you smoke? I do so. If you can control yourself, I can do, too”.

2) Lack of family support: Students believe that family support increases their self-confidence and attachment while lack of affection and having family problems can lead to smoking in order to get rid of grief: “When a wrangle happened in my family, and I confronted with my parents, I got nervous and started smoking. It gives me a good feeling”. However, some students believed that family support can have a negative effect as follows: “Some parents tell their children to do whatever they want when they are with them (for example smoking), but they do not know that they will continue in friendly circles, too”.

3) Social pressures: Some students believe that bad friends encourage adolescents to smoke: “... He does not smoke. He is a coward baby. Don't make friend with him ..., in this way, they get him into their own gatherings”. In some cases, the adolescent thinks that their friends think less of them if he does not smoke but one of them did not think so: “I disagree with being humiliated. I have never seen a guy humiliate his friend just for not smoking, but he thinks that he will be humiliated if he does not do so”. One of the students believed that smoking was advertised in the society as a social prestige: “When I went to take a photo in a studio, the photographer gave me a cigarette and spent out some smoke and took the photo”.

4) Weak religious beliefs and lack of familiarity: “Preach is useless for the guy who does not fast and pray, and they have weak religious beliefs. So, his friends, others, and his surroundings can affect him”.

#### 4.4. Theme 4: Promotion

##### 4.4.1. Parents

Four important ways to persuade their adolescents for not smoking:

1) Emphasizing the psychosocial side effects of smoking, such as the humiliation of young smokers by others, losing their family and health, and influencing personal and emotional life as well as telling adolescents that if they smoke cigarette, no one will marry them. The participants had no answers to this question, “What is your answer if he says many people are smokers while they are married, too?” The parents were asked, “If your children say that they know some people who are doctor, engineer, or department manager are smoker too, what will your answer be?”. They did not have any compelling answer.

2) Expressing some instances of smokers and highlighting their problems: “I tell him it is your dad who smoked, and this is his condition. If you want to behave like him, do it and spoil your youth”.

3) Focusing on cigarette addicting effects and ruining their future: "I emphasize that cigarette is initially enjoyable, but it becomes gradually ordinary, and you are forced to abuse something stronger. And, if something gets permanent, it cannot be cured anymore. Something else should be replaced".

4) Harsh reaction to adolescents' smoking behavior caused a lot of controversy in parent's discussions. A large number of parents confessed that if they knew that their adolescents have smoked, they would treat him angrily. However, most of the mothers disagreed with these methods and the physical punishment absolutely: "When you beat them, they don't listen to you anymore", "too much control causes adolescents to become sensitive and do it again, stubbornly".

#### 4.4.2. Teachers

The teachers suggested four ways to prevent adolescents from attracting to cigarette smoking:

1) Focusing on the social side effects of smoking such as being rejected by the society, addictive property of cigarette, its role in spoiling family structure and negative attitude of other people toward smokers: "If you fell in love with any girl, if she knows that you smoke, she says "no" to you".

2) Expressing some examples of smokers and highlighting their problems such as homeless addicted people who died under the bridges: "We tell him to see who do smoke. Why don't successful people usually smoke?" When the teachers were asked, "what is their answer if the students exemplify some successful people such as athletes or doctors who are smokers? They replied: "... if he quits this habit, he may achieve higher records". Or "We ask them whether they have found any guys who were successful because of smoking".

3) Assertive approaches to smoker students. According to the teachers', it is the main task of the teachers to communicate with students who smoke assertively, but they should not be treated aggressively. Most of them believed that making them isolated and neglected does not have any benefit, and expelling them from the school cannot be logical and legal: "Aggressive treatment is useless absolutely, but coming to him with a flower is in vain, too. He should know that I'm worried and angry", "Sometimes, the parents react so violently that no one dares to tell them that their offspring has smoked. I know a rich man who has a boy and thinks that he is quite a good boy, but no one dares to tell him that his boy is a smoker. He got it when his boy was addicted by crystal". one of the teachers thought that their approach relies on the reason and motivation of smoking: "If someone wants to be the head of other boys

just by smoking, physical punishment and aggressive reactions are necessary. But, it is different if someone else gets smoking because of the family atmosphere".

4) Informing and giving the advice. A number of teachers expressed explicitly that they advise students. The rest suggested some items such as informing them about smoking, describing reality and clarifying smoking harms and its consequences, guiding friendly, talking on time and logically, and emphasizing the negative values of cigarette.

#### 4.4.3. Students

Students suggested the following methods for decreasing adolescents' smoking:

1) Focusing on smoking social problems such as social rejection of smokers by their friends and society: "The smoker wants to be seen. So, we use this point and tell him this attention is negative, and we do not pay attention to him positively".

2) Introducing replaced healthy behaviors, such as sports and entertainments: "We try to guide our classmate to do their favorite affairs, such as going to the park or restaurant instead of cigarette smoking. These replacements have to be more enjoyable than smoking, and be useful for his physical and mental health".

3) Highlighting the physical side effects of smoking especially long-term side effects such as cancer, lung injuries, and heart diseases, addictive properties of cigarette, teeth decay.

Generally, the students disregarded the efficacy of threatening and fearing adolescents. Most of them believed that advising is not effective, too: "The person himself should come to this conclusion that cigarette is harmful and advice is not effective in this age". "If I tell him repeatedly not to smoke, he gets away from me. I should prove to him gradually that smoking is bad".

## 5. Discussion

Based on the social marketing model, identifying the factors influencing the behaviors to make the desirable changes is essential to design effective educational programs. The customer-oriented process of social marketing programs focuses on this issue by considering the marketing mix. Unlike other studies conducted in the smoking prevention area, the present study aimed to compare the viewpoints concerned with three main groups, including parents, teachers, and adolescents who can affect adolescents' smoking behavior.

### 5.1. Product

In general, all the three studied groups had approximately the same ideas about smoking behavior and the cigarette features leading the adolescents to smoke. From all three group viewpoints, looking older was the major cause of adolescents' smoking. Some other factors, such as getting attention, looking like a smart person, getting calmness, decreasing pain, and attractive packaging of cigarettes were stated in focus groups. However, the parents did not consider the attraction of cigarette packages as the main cause of adolescents' tendency for cigarette smoking. These findings are consistent with some other studies such as Ganeshasundaram and Henley (30), Lucksted et al.'s (31), Ho et al. (32) and Solecki et al. (33) and Bilsky et al. (34). Cigarette producers try to provide cigarette packages so attractive that they represent symbolic characteristics of smokers as high social class persons, and attract their customers among adolescents in this way (33, 35, 36).

Therefore, it seems that considering the adolescents' social realities, objective experiences and viewpoints about social, physical and psychological effects of cigarette is of great importance in a continuous struggle between public health advocates and tobacco industry on how to portray smoking.

### 5.2. Price

The results of this study revealed the differences between the viewpoints of students, parents and teachers about the most important complications of cigarette. While the students considered the significance of social consequences of smoking such as untidy appearance, the parents and teachers were more worried about the long-term physical side effects and addictive properties of smoking. Although all three groups agreed that smoking had negative social consequences, the students thought that it could affect the type of their friend groups rather than their number. As a matter of fact, they were worried more about making them known as dishonest, stupid and clumsy among their friends rather than being rejected by them. A number of studies conducted on the smoker adolescents' networks indicated that the smokers prefer to be associated with smokers and vice versa (37, 38). In the study of Ganeshasundaram and Henley (30), although all participants emphasized the lack of acceptance of smoking among family and society, as well as its negative effects on social prestige, they tend to relate with their friends, regardless of their smoking status. Although all three groups of participants emphasized the short and long term side effects of smoking, they reported the prevalence of invulnerability belief among adolescents, which are consistent

with the results of some other studies (39-41). The parents and teachers were more concerned about addictive properties and physical complications of smoking for adolescents than those in the students.

### 5.3. Place

While the teachers and students considered imitating from parents and famous people as a main social and environmental factor of smoking, the parent regarded this factor less than what was expected. As shown in the recent studies, risk factors related to family and friends are more affective on adolescents' smoking in inappropriate environments (42). All three groups of the participants emphasized the impact of peer pressure on the adolescents' smoking behavior which is consistent with the findings of Vitoria et al. (38) and Wills et al. (43). Lack of emotional support from family due to lack of parenting skills and familiarity with supporting styles were suggested as other reasons for the students' tendency to smoking. The results are in line with some other studies (44, 45).

A variety of socio-environmental factors for adolescents' smoking, which raised by the teachers, could be related to their closer and more intimate relationships with the students and more careful observation of their behaviors and listening to their problems. Therefore, considering the teachers' viewpoints is important in designing smoking prevention interventions.

### 5.4. Promotion

Despite Ho et al. (32) who concluded that education was less effective than policies in smoking prevention in adolescents, the students, parents, and teachers emphasized on students' education. They believed that social consequences of smoking such as negative social image of smoking by the adolescents and people's negative attention were the most significant factors considered in educational programs. Although the students and their parents focused on losing occupational chances in future, it was less emphasized by school officials merely because they were less concerned about job finding in future. In addition, students and school officials emphasized to present unsuccessful smokers as the negative role models, compared to the parents, who focused on keeping the family calm and safe. The students highlighted religious laws, physical complications of smoking and encouragement towards sporting which should be involved more in educational messages.

Although the students believed that advising and aggressive ways are not effective, parents often used this ways to make their offspring avoid smoking. In addition, most

of the school officials suggested some ways similar to advising such as informing them about smoking, presenting the reality, describing cigarette side effects and its consequences, guiding friendly, talking to them logically, and emphasizing the anti-valuing characteristic of cigarette.

In present study, the participants believed that threatening is common way to prevent adolescents from smoking. However, they believed that these methods lead to the adolescents' resistance and pertinacity. It seems that the contradiction in attitudes and behaviors is mostly related to the lack of knowledge about parenting skills. Thus, it is necessary for health promotion planners to invest more in this regard.

### 5.5. Limitations

The present study faced several limitations. First, the participants were limited to urban male high schools, so the results could not be generalized to the girls and adolescents who do not go to school in rural areas. Also, the majority of parents who participated in the study were mothers. Second, some of the participants, especially parents, may have not felt comfortable expressing their honest opinions, especially when they conflicted with others' views in the groups because of their unfamiliarity and lack of experience with the method in the present study.

### 5.6. Conclusions

Although all the aforementioned groups emphasized on social, environmental, and personal factors of smoking, they had various explanations in some respects. Therefore, considering these factors from different perspectives and considering the differences in people's perspectives can be the reason for the failure of many parents and teachers in preventing adolescents from smoking.

### Footnotes

**Authors' Contribution:** Masoud Karimi did study concept and design, acquisition of data, analysis and interpretation of data, and drafting of the manuscript. Mohammad Hossein Kaveh did study concept and design, analysis and interpretation of data, critical revision of the manuscript for important intellectual content, administrative, technical, and material support, and study supervision. Mohammad Ali Morowatisharifabad did study concept and design, analysis and interpretation of data, critical revision of the manuscript for important intellectual content, administrative, technical, and material support, and study supervision.

**Conflict of Interests:** No conflict of interest.

**Ethical Approval:** The present study was conducted after approving by the Ethical Committee of Shahid Sadoughi University of Medical Sciences (ethical number: 7844).

**Funding/Support:** No funding or support.

### References

- Paul CL, Ross S, Bryant J, Hill W, Bonevski B, Keevy N. The social context of smoking: A qualitative study comparing smokers of high versus low socioeconomic position. *BMC Public Health*. 2010;**10**:211. doi: [10.1186/1471-2458-10-211](https://doi.org/10.1186/1471-2458-10-211). [PubMed: [20420707](https://pubmed.ncbi.nlm.nih.gov/20420707/)]. [PubMed Central: [PMC2868819](https://pubmed.ncbi.nlm.nih.gov/PMC2868819/)].
- Chang HY, Wu WC, Wu CC, Cheng JY, Hurng BS, Yen LL. The incidence of experimental smoking in school children: an 8-year follow-up of the child and adolescent behaviors in long-term evolution (CABLE) study. *BMC Public Health*. 2011;**11**:844. doi: [10.1186/1471-2458-11-844](https://doi.org/10.1186/1471-2458-11-844). [PubMed: [22051222](https://pubmed.ncbi.nlm.nih.gov/22051222/)]. [PubMed Central: [PMC3229590](https://pubmed.ncbi.nlm.nih.gov/PMC3229590/)].
- Sanchez ZM, Opaleye ES, Martins SS, Ahluwalia JS, Noto AR. Adolescent gender differences in the determinants of tobacco smoking: A cross sectional survey among high school students in Sao Paulo. *BMC Public Health*. 2010;**10**:748. doi: [10.1186/1471-2458-10-748](https://doi.org/10.1186/1471-2458-10-748). [PubMed: [21129177](https://pubmed.ncbi.nlm.nih.gov/21129177/)]. [PubMed Central: [PMC3004838](https://pubmed.ncbi.nlm.nih.gov/PMC3004838/)].
- Park SH. Smoking and adolescent health. *Korean J Pediatr*. 2011;**54**(10):401-4. doi: [10.3345/kjp.2011.54.10.401](https://doi.org/10.3345/kjp.2011.54.10.401). [PubMed: [2232621](https://pubmed.ncbi.nlm.nih.gov/2232621/)]. [PubMed Central: [PMC3250592](https://pubmed.ncbi.nlm.nih.gov/PMC3250592/)].
- Prokhorov AV, Winickoff JP, Ahluwalia JS, Ossip-Klein D, Tanski S, Lando HA, et al. Youth tobacco use: A global perspective for child health care clinicians. *Pediatrics*. 2006;**118**(3):e890-903. doi: [10.1542/peds.2005-0810](https://doi.org/10.1542/peds.2005-0810). [PubMed: [16950972](https://pubmed.ncbi.nlm.nih.gov/16950972/)].
- Hayward L, Lambraki I, Garcia J. Social marketing to influence young adults' tobacco behaviour. *Program Training and Consultation Centre and the Propel Centre for Population Health Impact*. Toronto, Ontario. University of Waterloo; 2012.
- Hibell B, Guttormsson U, Ahlström S, Balakireva O, Bjarnason T, Kokkevi A, et al. *The 2007 ESPAD report*. **35**. 2009. p. 1-408.
- Alireza Ayatollahi S, Mohammadpoorasl A, Rajaeifard A. Predicting the stages of smoking acquisition in the male students of Shiraz's high schools, 2003. *Nicotine Tob Res*. 2005;**7**(6):845-51. doi: [10.1080/1462220050030233](https://doi.org/10.1080/1462220050030233). [PubMed: [16298719](https://pubmed.ncbi.nlm.nih.gov/16298719/)].
- Kelishadi R, Ardalan G, Gheiratmand R, Majdizadeh R, Delavari A, Heshmat R, et al. Smoking behavior and its influencing factors in a national-representative sample of Iranian adolescents: CASPIAN study. *Prev Med*. 2006;**42**(6):423-6. doi: [10.1016/j.ypmed.2006.03.001](https://doi.org/10.1016/j.ypmed.2006.03.001). [PubMed: [16624397](https://pubmed.ncbi.nlm.nih.gov/16624397/)].
- Gharlipour GZ, Hazavehei MM, Sharifi MH, Nazari M. Study of cigarette smoking status using extended parallel process model (EPPM) among secondary school male students in Shiraz city. *Jundishapur J Health Sci*. 2010;**2**(3):26-36.
- Ramezan KA, Sarbandi ZF, Zarghi A, Masjedi MR, Heydari GHR. Smoking habits of adolescent students in Tehran. *Tanaffos*. 2010;**9**(2):33-42.
- Moeini B, Poorolajal J, Gharghani ZG. Prevalence of cigarette smoking and associated risk factors among adolescents in Hamadan City, west of Iran in 2010. *J Res Health Sci*. 2012;**12**(1):31-7. [PubMed: [22888712](https://pubmed.ncbi.nlm.nih.gov/22888712/)].
- Karimi M, Kaveh MH, Morowatisharifabad MA, Dehghani A, Dastjerdi G. Cigarette smoking experience and its related socio-demographic and environmental risk factors in high school boy students, Shiraz-Iran. *Int J Pediatr*. 2017;**5**(2):4263-74.
- Lovato C, Watts A, Brown KS, Lee D, Sabiston C, Nykiforuk C, et al. School and community predictors of smoking: A longitudinal study of Canadian high schools. *Am J Public Health*. 2013;**103**(2):362-8. doi: [10.2105/AJPH.2012.300922](https://doi.org/10.2105/AJPH.2012.300922). [PubMed: [23237165](https://pubmed.ncbi.nlm.nih.gov/23237165/)]. [PubMed Central: [PMC3558763](https://pubmed.ncbi.nlm.nih.gov/PMC3558763/)].

15. Hamann SL, Mock J, Hense S, Charoenc N, Kungskulniti N. Building tobacco control research in Thailand: Meeting the need for innovative change in Asia. *Health Res Policy Syst.* 2012;**10**:3. doi: [10.1186/1478-4505-10-3](https://doi.org/10.1186/1478-4505-10-3). [PubMed: [22284811](https://pubmed.ncbi.nlm.nih.gov/22284811/)]. [PubMed Central: [PMC3305371](https://pubmed.ncbi.nlm.nih.gov/PMC3305371/)].
16. Gracia-Marco L, Moreno LA, Vicente-Rodriguez G. Impact of social marketing in the prevention of childhood obesity. *Adv Nutr.* 2012;**3**(4):611S-5S. doi: [10.3945/an.112.001958](https://doi.org/10.3945/an.112.001958). [PubMed: [22798001](https://pubmed.ncbi.nlm.nih.gov/22798001/)]. [PubMed Central: [PMC3649734](https://pubmed.ncbi.nlm.nih.gov/PMC3649734/)].
17. Rothschild ML. Using social marketing to manage population health performance. *Prev Chronic Dis.* 2010;**7**(5): A96. [PubMed: [20712944](https://pubmed.ncbi.nlm.nih.gov/20712944/)]. [PubMed Central: [PMC2938412](https://pubmed.ncbi.nlm.nih.gov/PMC2938412/)].
18. Ewing LA, Karvonen-Gutierrez CA, Noonan D, Duffy SA. Development of the tobacco tactics logo: From thumb prints to press. *Tob Induc Dis.* 2012;**10**(1):6. doi: [10.1186/1617-9625-10-6](https://doi.org/10.1186/1617-9625-10-6). [PubMed: [22515268](https://pubmed.ncbi.nlm.nih.gov/22515268/)]. [PubMed Central: [PMC3464712](https://pubmed.ncbi.nlm.nih.gov/PMC3464712/)].
19. Aras R. Social marketing in healthcare. *Australas Med J.* 2011;**4**(8):418-24. doi: [10.4066/AMJ.2011.626](https://doi.org/10.4066/AMJ.2011.626). [PubMed: [23393528](https://pubmed.ncbi.nlm.nih.gov/23393528/)]. [PubMed Central: [PMC3562881](https://pubmed.ncbi.nlm.nih.gov/PMC3562881/)].
20. Cheng H, Kotler P, Lee N. *Social marketing for public health: Global trends and success stories*. Massachusetts: Jones & Bartlett Learning; 2011.
21. Wong F, Huhman M, Heitzler C, Asbury L, Bretthauer-Mueller R, McCarthy S, et al. VERB - a social marketing campaign to increase physical activity among youth. *Prev Chronic Dis.* 2004;**1**(3): A10. [PubMed: [15670431](https://pubmed.ncbi.nlm.nih.gov/15670431/)]. [PubMed Central: [PMC1253475](https://pubmed.ncbi.nlm.nih.gov/PMC1253475/)].
22. Withall J, Jago R, Fox KR. The effect of a community-based social marketing campaign on recruitment and retention of low-income groups into physical activity programmes - a controlled before-and-after study. *BMC Public Health.* 2012;**12**:836. doi: [10.1186/1471-2458-12-836](https://doi.org/10.1186/1471-2458-12-836). [PubMed: [23031359](https://pubmed.ncbi.nlm.nih.gov/23031359/)]. [PubMed Central: [PMC3485196](https://pubmed.ncbi.nlm.nih.gov/PMC3485196/)].
23. Wilson DK, St George SM, Trumpeter NN, Coulon SM, Griffin SF, Wandersman A, et al. Qualitative developmental research among low income African American adults to inform a social marketing campaign for walking. *Int J Behav Nutr Phys Act.* 2013;**10**:33. doi: [10.1186/1479-5868-10-33](https://doi.org/10.1186/1479-5868-10-33). [PubMed: [23497164](https://pubmed.ncbi.nlm.nih.gov/23497164/)]. [PubMed Central: [PMC3610237](https://pubmed.ncbi.nlm.nih.gov/PMC3610237/)].
24. Neiger BL, Thackeray R. Application of the SMART Model in two successful social marketing projects. *Am J Health Educ.* 2002;**33**(5):301-3.
25. Teevale T, Denny S, Nosa V, Sheridan J. Predictors of cigarette use amongst Pacific youth in New Zealand. *Harm Reduct J.* 2013;**10**:25. doi: [10.1186/1477-7517-10-25](https://doi.org/10.1186/1477-7517-10-25). [PubMed: [24134693](https://pubmed.ncbi.nlm.nih.gov/24134693/)]. [PubMed Central: [PMC4015274](https://pubmed.ncbi.nlm.nih.gov/PMC4015274/)].
26. Waters EA, McQueen A, Caburnay CA, Boyum S, Sanders Thompson VL, Kaphingst KA, et al. Perceptions of the US National Tobacco Quitline among adolescents and adults: A qualitative study, 2012-2013. *Prev Chronic Dis.* 2015;**12**: E131. doi: [10.5888/pcd12.150139](https://doi.org/10.5888/pcd12.150139). [PubMed: [26292062](https://pubmed.ncbi.nlm.nih.gov/26292062/)]. [PubMed Central: [PMC4556101](https://pubmed.ncbi.nlm.nih.gov/PMC4556101/)].
27. Talip T, Kifli N, Murang Z, Naing L. Smoking initiation and continuation a qualitative study among Bruneian male adolescents. *Asian Pac J Cancer Prev.* 2016;**17**(7):3533-40. [PubMed: [27510005](https://pubmed.ncbi.nlm.nih.gov/27510005/)].
28. Ross T. *A survival guide for health research methods*. UK: McGraw-Hill Education; 2012.
29. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res.* 2005;**15**(9):1277-88. doi: [10.1177/1049732305276687](https://doi.org/10.1177/1049732305276687). [PubMed: [16204405](https://pubmed.ncbi.nlm.nih.gov/16204405/)].
30. Ganeshasundaram R, Henley N. Marketing the anti-smoking message to immigrant adolescents: Are cultural values risk or protective factors? *Australian and New Zealand Marketing Academy Conference*. Western Australia. 2005.
31. Lucksted A, Dixon LB, Sembly JB. A focus group pilot study of tobacco smoking among psychosocial rehabilitation clients. *Psychiatr Serv.* 2000;**51**(12):1544-8. doi: [10.1176/appi.ps.51.12.1544](https://doi.org/10.1176/appi.ps.51.12.1544). [PubMed: [11097651](https://pubmed.ncbi.nlm.nih.gov/11097651/)].
32. Ho SY, Chen J, Leung LT, Mok HY, Wang L, Wang MP, et al. Adolescent smoking in Hong Kong: Prevalence, psychosocial correlates, and prevention. *J Adolesc Health.* 2019;**64**(6S):S19-27. doi: [10.1016/j.jadohealth.2019.01.003](https://doi.org/10.1016/j.jadohealth.2019.01.003). [PubMed: [31122545](https://pubmed.ncbi.nlm.nih.gov/31122545/)].
33. Solecki S, Adegite E, Turchi R. Clearing the air: Adolescent smoking trends. *Curr Opin Pediatr.* 2019;**31**(5):670-4. doi: [10.1097/MOP.0000000000000810](https://doi.org/10.1097/MOP.0000000000000810). [PubMed: [31389807](https://pubmed.ncbi.nlm.nih.gov/31389807/)].
34. Bilsky SA, Cloutier RM, Guillot CR, Bynion TM, Lewis SF. Relations between parental distress intolerance, adolescent motives for cigarette Use, and adolescent cigarette smoking levels. *Subst Use Misuse.* 2019;**54**(13):2207-17. doi: [10.1080/10826084.2019.1638937](https://doi.org/10.1080/10826084.2019.1638937). [PubMed: [31299868](https://pubmed.ncbi.nlm.nih.gov/31299868/)]. [PubMed Central: [PMC6849207](https://pubmed.ncbi.nlm.nih.gov/PMC6849207/)].
35. Lund I, Scheffels J. Young smokers and non-smokers perceptions of typical users of plain vs. branded cigarette packs: A between-subjects experimental survey. *BMC Public Health.* 2013;**13**:1005. doi: [10.1186/1471-2458-13-1005](https://doi.org/10.1186/1471-2458-13-1005). [PubMed: [24156515](https://pubmed.ncbi.nlm.nih.gov/24156515/)]. [PubMed Central: [PMC4015779](https://pubmed.ncbi.nlm.nih.gov/PMC4015779/)].
36. Luke D, Allen P, Arian G, Crawford M, Headen S, Spigner AC, et al. Teens' images of smoking and smokers. *Public Health Rep.* 2001;**116** Suppl 1:194-202. doi: [10.1093/phr/116.S1.194](https://doi.org/10.1093/phr/116.S1.194). [PubMed: [11889285](https://pubmed.ncbi.nlm.nih.gov/11889285/)]. [PubMed Central: [PMC1913674](https://pubmed.ncbi.nlm.nih.gov/PMC1913674/)].
37. Axtell R, Durlauf S, Epstein JM, Hammond R, Klemens B, Parker J, et al. Social influences and smoking behavior final report to the American legacy foundation. *Citeseerx.* 2006.
38. Vitoria P, Pereira SE, Muinos G, Vries H, Lima ML. Parents modelling, peer influence and peer selection impact on adolescent smoking behavior: A longitudinal study in two age cohorts. *Addict Behav.* 2020;**100**:106131. doi: [10.1016/j.addbeh.2019.106131](https://doi.org/10.1016/j.addbeh.2019.106131). [PubMed: [31614308](https://pubmed.ncbi.nlm.nih.gov/31614308/)].
39. Millstein SG, Halpern-Felsher BL. Judgments about risk and perceived invulnerability in adolescents and young adults. *J Res Adolesc.* 2003;**12**(4):399-422. doi: [10.1111/1532-7795.00039](https://doi.org/10.1111/1532-7795.00039).
40. 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**(3):487-92. doi: [10.2105/AJPH.2008.137679](https://doi.org/10.2105/AJPH.2008.137679). [PubMed: [19106420](https://pubmed.ncbi.nlm.nih.gov/19106420/)]. [PubMed Central: [PMC2661432](https://pubmed.ncbi.nlm.nih.gov/PMC2661432/)].
41. Gerbasi ME, Gilman SE, Bitton A, Becker AE. Social norms and smoking risk in iTaukei Fijian adolescent women. *Health Behav Policy Rev.* 2019;**6**(3):242-55. doi: [10.14485/HBPR.6.3.4](https://doi.org/10.14485/HBPR.6.3.4). [PubMed: [31157285](https://pubmed.ncbi.nlm.nih.gov/31157285/)]. [PubMed Central: [PMC6541446](https://pubmed.ncbi.nlm.nih.gov/PMC6541446/)].
42. U.S. Department of Health and Human Services. *Preventing tobacco use among youth and young adults: A report of the surgeon general*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2012. Available from: <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/fullreport.pdf>.
43. Wills TA, Ainette MG, Walker C. *The construct of social influence*. Bronx, NY: Yeshiva University; 2007.
44. Simons-Morton BG, Farhat T. Recent findings on peer group influences on adolescent smoking. *J Prim Prev.* 2010;**31**(4):191-208. doi: [10.1007/s10935-010-0220-x](https://doi.org/10.1007/s10935-010-0220-x). [PubMed: [20614184](https://pubmed.ncbi.nlm.nih.gov/20614184/)]. [PubMed Central: [PMC3313483](https://pubmed.ncbi.nlm.nih.gov/PMC3313483/)].
45. Rostila M, Almquist YB, Ostberg V, Edling C, Rydgren J. Social network characteristics and daily smoking among young adults in Sweden. *Int J Environ Res Public Health.* 2013;**10**(12):6517-33. doi: [10.3390/ijerph10126517](https://doi.org/10.3390/ijerph10126517). [PubMed: [24351786](https://pubmed.ncbi.nlm.nih.gov/24351786/)]. [PubMed Central: [PMC3881128](https://pubmed.ncbi.nlm.nih.gov/PMC3881128/)].