

COMMENTARY

An Approach to Children's Smoking Behaviors Using Social Cognitive Learning Theory

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Abstract

This review article discusses the theoretical principles of social cognitive learning theory and children's risk-taking behavior of cigarette smoking, along with preventive initiatives. Social cognitive learning theorists examine the behavior of initiating and sustained smoking using a social systems approach. The authors discuss the reciprocal determinism aspect of the theory as applied to the importance of individual factors, and environment and behavioral interactions that influence smoking behavior. Included is the concept of vicarious capability that suggests that smoking behavior is determined in response to and interaction with feedback provided by the environment. The principle of self-regulatory capability asserts that people have control over their own behavior and thus that behavior change is possible. The principle of self-efficacy proposes that high level of self-efficacy of an individual may decrease the behavior of attempting to or continuing to smoke. Examples of initiatives to be undertaken in order to prevent smoking in accordance with social cognitive learning theory are presented at the end of each principle.

Keywords: Smoking - social learning theory - children smoking and social learning theory

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Introduction

The purpose for this article is to discuss the theoretical principles of social cognitive learning theory and children's risk-taking behavior of cigarette smoking. Preventive initiatives to prevent smoking are discussed. Social cognitive learning theorists examine the behavior of initiating and sustained smoking using a social systems approach. The authors discuss the reciprocal determinism aspect of the theory as applied to the importance of individual factors, environment and behavioral interactions that influence smoking behavior.

Cigarette smoking has a negative influence on human health beginning from fertilization and is included among the most important significant avoidable causes for mortality and morbidity. In addition, the use of tobacco products poses a risk for six of the eight main causes of death, especially cancer, around the world (Buzgan, 2007; European Tobacco Control Report, 2007; WHO Report on the Global Tobacco Epidemic, 2008).

Currently, world-wide, an estimated 1.3 billion people in the world smoke. Each year, 4.9 million people die from tobacco consumption. It is predicted that by 2030, 180 million people will have died due to smoking-related diseases by 2030 and 80 percent of the deaths will occur in developing countries so long as the current pattern of smoking continues. The pattern of the smoking pandemic

is increasing in shifts to the developing countries as a result of lawsuits filed and efforts made against smoking especially in developed countries (Buzgan et al., 2007; European Tobacco Control Report, 2007; WHO Report on the Global Tobacco Epidemic, 2008). Eighty percent of Turkish adults who smoke start before they are 18 and 25 percent of the adolescents who smoke begin before they are ten years old. This can be attributed to Turkish culture being a male dominated culture and smoking is accepted as a male behaviors. Also, international tobacco companies advertising affects people through the use of posters, advertisements, and prominent product placement in stores. The international tobacco companies view developing countries as a huge revenue opportunity (Simay, 2001; Buzgan et al., 2007; European Tobacco Control Report, 2007; WHO Report on the Global Tobacco Epidemic, 2008). In order to survive, the tobacco industry needs to find many new smokers to compensate for deaths and increasing rates of quit rates among adults. The newest resources for this are individuals who will prove long-term customers, that is children and the young (Buzgan et al, 2007; European Tobacco Control Report, 2007; WHO Report on the Global Tobacco Epidemic, 2008).

The basic aim to prevent and thus decrease smoking is to reduce the rate of smoking initiation. A review of the literature regarding smoking initiation and the reasons for doing so follows. We focus on risk factors for early

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smoking Theories and models enable researchers to consider factors affecting behavior as a whole and to suggest methods to prevent smoking by children. It is suggested that theories and models should be used as a guide for drawing out plans, testing hypotheses and discussing findings (Fawcett, 2005; McAlister et al., 2008) and consequently our review is focused in this area.

Many models such as the health belief model, theory of planned behavior, transtheoretical theory and positive and negative reinforcement models are proposed to explain aspects of smoking (Tiffany et al., 1999; Jairth et al., 2003), and social cognitive learning theory is one of the important theories which researchers effectively employ if they approach the problem using systems theory. Social cognitive learning theory enables researchers to explore factors affecting behavior as a whole and to thus to propose research methods. (Bandura, 1998; Gözümlü and Bağ, 1998; Sussman, 2005; Crain, 2005; Fawcett, 2005; McAlister et al., 2008). The authors propose this theory as an organizing system for exploring the issue of child smoking.

Social Cognitive Learning Theory

Social Cognitive Learning theory maintains that the social structure affects the health status as well as personal characteristics and that in order to develop health it is not enough just to change the behaviors of an individual but that it is also necessary to change the social systems in which the individual operates. The theory emphasizes simultaneous and reciprocal effects of environment and behavior, and suggests that behavior is affected by both external stimuli and internal cognitive factors (Bandura, 1989; Bandura, 1997; Gözümlü and Bağ, 1998; Senemoglu, 2004; Crain, 2005). Bandura, (1989) identified the basic arguments of the theory as the following:

- a) People can learn the behaviors of others through observation.
- b) Learning is an internal process which leads to or does not lead to a change in behavior.
- c) The behavior is goal-oriented.
- e) People can self-regulate their behaviors. They can learn how to control and take responsibility of their behaviors.
- f) Punishment and reward affect a certain behavior both directly and indirectly. Behaviors are more often affected by the punishment or reinforcement obtained from previous experiences.

Bandura, (1989) based this theory on six principles, namely reciprocal determinism, symbolizing capability, forethought capability, vicarious capability, self-regulatory capability and self-reflective capability, discussed in the following section.

Reciprocal Determinism: Bandura holds that individual factors, behaviors and environment reciprocally affect each other and that this interaction shapes the behaviors of an individual. The effect of these three factors in the emergence of a certain behavior are likely not equal. Sometimes environment predominates in these factors and at other times individual factors can trigger emergence

or non-emergence of a certain behavior (Bandura, 1998 Bandura, 1989). An explanation of this dynamic follows.

a) Relation between Personal Characteristics and Behavior: Expectations, beliefs and objectives of an individual shape and lead his/her behaviors. The interaction between emotion, idea and action reflects the relation between personal characteristics and behavior in the principle of reciprocal determinism. Behaviors of an individual are shaped by his/her physical characteristics such as age, gender and race, expectations, beliefs, self concept, situationally having either internal or external locus of control, behavioral objectives and intentions. Furthermore, it is seen that having an internal locus of control and having a high level of self efficacy and a positive self-concept are individual characteristics effective in controlling negative behaviors like smoking (Bandura, 1989; Bandura, 1994; Bandura, 1998). Studies suggest that individuals who continually negatively cope with their stress have a low self-concept and might have difficulty in anger control. Therefore, when deprived of nicotine, the behaviors of attempting and continuing to smoke may result (Cote, Godin ve Gagne, 2004; Sussman, 2005; Abroms et al., 2005; Bektas and Öztürk, 2008a; b; 2009). In addition, studies in Turkey found that following the cultural norm, male children are more likely to smoke or attempt to smoke than female children. Another finding is that there is a correlation between low self efficacy and depressive personal characteristics. These results indicate that personal characteristics are influential in smoking behaviors (Herken & Ozkan, 1998; PIAR 1998; Ogel and Liman, 2001; 2004; Tekinsoysal, 2003; Buzgan et al., 2007).

Hypothetically, children with personal characteristics of being short tempered, having external locus of control and poor coping may be at increased risk for smoking. These characteristics are risk factors for smoking or attempting to smoke. Perhaps smoking rates among children can be lowered through training of appropriate social skills like coping with stress, anger control, decision-making and saying no.

b) Environment-Individual Characteristics: Expectations, beliefs, emotional desires and cognitive competence of people are shaped and developed through social interactions. For that reason, social status and observable personal characteristics of individuals have an influence on social environment (Bandura, 1989; 1994; 1998).

Studies demonstrate that children are more likely to smoke if this behavior is considered as a positive behavior within the child's society. Moreover, behaviors displayed by a role model or celebrity are accepted and mimicked by individuals even if the behaviors are unhealthy. Such behaviors affect the environment in which individuals experience interaction and change the behaviors of other individuals included within the environment. For example, in the event that teachers, peers or school environment regard smoking as a normal behavior, children are more

likely to initiate and continue smoking. Another factor in behaviors are the cultural characteristics of the society and one's socioeconomic status within that society. The rate of smoking or attempting to smoke is high in regions with low socioeconomic status. In this case, inadequate individual coping skills and/or lack of sufficient personal or community resources are proposed as risk factors for smoking (PIAR 1998; Ogel and Liman, 2001; Cote et al., 2004).

In these regions, community initiatives such as formation of healthy environmental conditions, increasing job opportunities through cooperation among sectors, and opening various courses via non-governmental organizations are proposed. Increasing the number of social activity areas for children may make it easier for children to cope with stressful circumstances and to have some degree of agency over their environment. These activities may minimize the likelihood of negative personal characteristics generated by environmental conditions

Bandura maintains that life is undergoing a constant change; that behaviors modify the environment and that changes in environment alter the behaviors of an individual. Repetition - According to Bandura, individuals are both a product and producer within their environment. Hence, he holds that environment is not a single concept including only the physical dimension but it is divided into three sections, namely exposed environment, selected environment and structured environment. The environment of a child consists of his/her earth, region, culture, family and school. Bandura notes that it is of limited use to modify the exposed environment with the aim of leading to a change in behaviors (Bandura, 1989; 1994; 1998).

Smoking and Environment

Studies indicate that rates of smoking or attempting to smoke are higher among children who have parents or siblings who smoke, or who live within an environment surrounded by a great number of other people who smoke, and that children who have authoritative parents are more likely to smoke. Cigarette commercials on TV channels influence the development of positive attitudes towards smoking and increase the rate of smoking or attempting to smoke, and an increase was observed in the use of substances like cigarettes in an easy-access environment. Children are less likely to smoke within environments whose common areas are smoke-free. Likewise, cultural influences such as regulations against smoking in an environment reduce positive attitudes towards smoking and lower the rate of attempting or continuing to smoke. We think culture is one of the important factors effecting the smoking behavior or attitude, The other factor is parental attitude about smoking. The Parental attitudes effected by culture, and children smoking behavior effected by parental attitudes (Shiffman, 1996; Tekinsoysal, 2003; Cote et al., 2004; Harakeh et al., 2004; Meshack et al., 2004; Hahn et al., 2005; Sari and Ozturk, 2005; Sussman, 2005; Birney, Hardie and Crowley, 2006; Gingiss et al., 2006).

All these studies suggest a strong correlation between the environment and behavior. Therefore, all countries sign up for the World Health Organization MPOWER program shall be provided. Anti-smoking campaigns should be launched and children should be made to participate in these campaigns. And government programs for the prevention of smoking should be created. In certain cultures, the use of tobacco is a behavior is an integral part of traditional ceremonies. SUCH AS For that reason, it is necessary to determine the cultural attitude of a society towards the use of tobacco (Such as water pipe). Smoking should be prohibited in public. Around the area where the children found in cigarette sales and smoking should be prohibited. So, smoking rates will reduce by creating a structured environment

Symbolizing capability: An important skill that human beings use to understand and control their environment is the capacity to symbolize, or assign meaning to an event, word, or image. Many external factors affect behaviors via cognitive processes, or the generation of meaning. During the process of giving meaning, observations are recorded in the form of images, words or other symbols. These records are tested and transformed within cognitive models. This process proves to be a guide for individuals deciding whether or not to display a certain behavior (Bnadura, 1989; 1994; 1998).

According to studies the following contribute to positive cognitive schemas regarding smoking; if a parent smokes or both parents smoke, cigarette commercials, the presence of a great number of people who smoke in the child's environment, or positive expressions or behaviors towards smoking within their peer groups. Moreover, a child who has learned that smoking is a method of coping with stress will develop positive schemes about smoking. These schemass will make it easier for children to smoke or attempt to smoke (Martin and Bush, 2000; Cote et al., 2004; Harakeh et al., 2004; Meshack et al., 2004; Ogel, 2005; Susman, 2005). Programs for preventing smoking and also developing important social skills have an impact on diminishing behaviors of smoking or continuing to smoke (Hanewinkel and Abhauer, 2004; Thomas, 2004; Byrne and Mazanov, 2005; Hamilton et al., 2005; Wiehe et al., 2005).

Therefore, it is necessary to teach children how to cope with stress, to say no, to be assertive, or to behave how in a smoking group. Having learned these skills, children may determine and develop coping methods in their mind beforehand which they will use when faced with negative situations such as being required to attempt to smoke, try to employ these methods in real situations and select effective ones.

Also program trainers should take into account that verbal expressions are effective in symbolizing, design the educational content in accordance with the developmental stage of children, present it in a plain and understandable language and make use of images, figures, videos and flowcharts which will emphasize the importance of the subject and enable adolescents to retrieve them when necessary (Karatas and Ozturk, 2009).

Vicarious capability: Individuals learn by others' behaviors or outcomes of these behaviors. Bandura argues

that learning would be very limited if individuals learned just by personal experience. Bandura makes a distinction between learning through observation versus imitation. He argues that imitation leads to a complete reproduction of a behavior while learning through observation enables the behaviors to be exposed to cognitive processes, to be reproduced or not reproduced depending on its outcome (Bandura, 1989; 1994; 1998).

When children who smoke are excluded from a group, this will discourage other children who smoke from wishing to be included in the group. On the other hand, children included within a smoking group may continue to smoke in order to maintain their acceptance in the group. Also, if a mother or father who smokes claims that he/she or his/her headache gets relieved while smoking, children will be likely to attempt to smoke when they get bored or have a headache (Martin and Bush, 2000; Cote et al., 2004; Harakeh et al., 2004; Meshack et al., 2004; Ogel and Erol, 2005; Sussman, 2005). In summary, learning through observation is an effective process in learning to smoke or attempt to smoke. This process consists of attention, retention, reproduction and motivation (Bandura, 1989) which are discussed in the following section.

a) Attention: The first phase of learning through observation is to pay attention to the model behavior. The phase of attention is affected by the characteristics of the model, efficiency of sense organs, appropriateness of the behavior for the purpose of the observer and former reinforcement obtained from the observer. Some of the other factors in the process of attention are whether the model displaying the behavior is a celebrity or not, his/her age, status and power (Bandura, 1989; 1994; 1998).

Studies indicated that children are more likely to attempt or continue to smoke when role models, films, commercials, close friends and parents stimulate smoking (Bandura, 1989; Gozum and Bag, 1998; Martin and Bush, 2000; Tekinsoysal, 2003; Senemoglu, 2004; Crain, 2005). you already said this.

In the past, characters in cartoon films or heroes in children's fantastical worlds would smoke and children would pay attention to the way these heroes held their cigarettes and how they inhaled the smoke, and then attempt to do so initially as play. These behaviors develop positive attitudes in children's minds towards smoking. Such positive attitudes lead to increases in the behaviors of attempting and continuing to smoke. In order to lower the rate of smoking and attempting to smoke, role models of children should be made not to smoke or not so smoke at least in common areas through campaigns. Cartoon films, films and commercials should be officially free from scenes including cigarettes or reminiscent of smoking. Hiding of the scenes including cigarettes or putting a grass to the mouth of smoking characters in former cartoon films might attract the attention of children, remind them of schemes related to smoking, develop an interest in smoking and increase the rate of attempting to smoke. Therefore, it will be vital initiative to remove these scenes.

b) Retention: The second phase of learning in this way is retrieving the observed behaviors in order to make use of

the information learned through observation. Children turn the information obtained from the model into symbols and organize these symbols in a way that will enable them to retrieve them properly. When necessary, they retrieve and use the coded information related to the model behavior. Children code verbal or non-verbal data about smoking from their parents or models retrieve the information when favorable conditions for the experience of smoking occur and lead their behavior (Bandura, 1989; 1994; 1998).

Bauman (1990) found that children whose parents used to smoke are more likely to attempt to smoke when compared with the other children. This is an indicator that the process of retention is how long and effective.

Thus, children should be presented with scenarios including disadvantages of smoking, social problems experienced by smokers and lack of ability in coping with problems individually, all of which will develop negative attitudes towards smoking, and thus negative schemes about smoking should be developed in children. Then, when faced with negative health behaviors, children could retrieve these schemes and abstain from smoking or attempting to smoke. What about research with kids who do not smoke? What have researchers found to be their thought processes?

c) Reproduction: The third phase in this type of learning is the acquisition of physical and psychomotor skills. Bandura notes that development of psychomotor skills is not enough to reproduce the model behavior but that beliefs also affects the degree to which the behavior is reproduced. This belief is defined as self efficacy (Bandura, 1989; 1994; 1998).

Studies discovered that children with a low level of self efficacy have a higher level of displaying the behaviors of smoking or attempting to smoke and that such children display more negative health behaviors. Children with a low level of self efficacy were found to have an external locus of control and thus may be far more affected by negative guidance from their environment (Tekinsoysal, 2003; Cote et al., 2004; Ergül, 2005).

In addition, a low level of self efficacy leads to the development of a negative self concept among children. Negative self concept, in turn, does not enable them to cope with stressful circumstances in a proper way, thus triggers the development of negative health behaviors like smoking and results in a decrease in the level of self efficacy. This brings about a vicious circle. Therefore, children with a low level of both self efficacy and self concept display negative health behaviors such as smoking at a higher level (Bandura, 1989; Ogel and Erol, 2005).

In order to lower the rate of smoking and attempting to smoke, it is necessary to determine personal characteristics of children, their self concept and level of self efficacy. With the aim of developing a positive self concept and a high level of self efficacy, it is an obligation to design personal development programs such as coping with stress, determining one's positive and negative aspects, an understanding of one's emotions-anger control, being able to say no, effective studying and time management.

Furthermore, the behaviors of children can be reinforced by teaching them about the principles of providing and receiving feedback for and from each other. By developing positive attitudes among children towards themselves, such initiative programs will lower the rate of negative health behaviors like smoking and attempting to smoke.

Motivation: Bandura defines the phase of motivation as the one which enables what is learned to be transferred into performance. He makes a distinction between learning and performance. He also posits that people can learn behaviors or skills through observation but they do not display them until they are required or motivated to do so. Social Cognitive Learning Theory states that the reaction from the environment determines whether the observed behavior will be displayed by the observer, that people are willing to reproduce the behavior when there is a reward awaiting as an outcome of the behavior but that the behavior is not reproduced in the event that it will result in punishment. Also, the theory emphasizes that indirect reinforcement is not less effective than direct reinforcement (Bandura, 1989; 1994; 1998).

For instance, knowing a person whose fingers have been cut or seeing another one suffering from cancer due to smoking will develop a negative attitude towards smoking and prevent the behavior of smoking from appearing.

It can be defined as motivating behaviors for preventing smoking to present the children with the problems experienced by smokers and to explain the harmful consequences and what kind of benefits are derived from abstaining from smoking during educational sessions of smoking for children. Furthermore, if children, who have learned how to prove feedback, give negative feedback to their smoking friends, this will decrease the rate of smoking and attempting to smoke. Whether children attempt to smoke also depends on the attitudes of model people towards smoking.

Forethought Capability: This process involves one's capability to motivate himself/herself to display a certain behavior and guide himself/herself about the activities to be carried out. An individual's expectation from a behavior depends on the outcome of that particular behavior. If an individual has expectations from a behavior, he/she will prepare himself/herself for displaying that behavior. Regulation of behaviors in accordance with expectations is called forethought behaviors (Bandura, 1989; 1994; 1998).

Children imagine the behavior of smoking in their mind and try to determine what happens or what they experience if they smoke or do not smoke. So, they motivate themselves to smoke or not smoke and these mental exercises prove to be a guide for their behaviors.

Structured scenarios, films or short sketches on smoking can be prepared with the aim of developing children's forethought capability. By playing these sketches, children can predict what kind of problems they will suffer from or what kind of things they will experience. In this way, they can determine their behaviors towards smoking and make a decision over attempting or not attempting to smoke.

Self-Regulatory Capability: Self-regulation is one's ability to control his/her behaviors. Self-regulatory systems enable one to control his/her behaviors, ideas,

emotions and motivations. Since this process helps external locus of control behaviors to be replaced by internal locus of control ones, it is of vital importance. People control many of their behaviors such as how long to work or sleep, what to eat or drink and how to behave within the society. Locus of control is the state of expecting a certain event or reward as a result of individual efforts. If an individual bases the outcome of his/her behaviors on chance, probability or powerful people, that individual can be said to be external control-based. If he/she perceives the events he/she experiences as a result of his/her behaviors, he/she is internal locus of control. Bandura believes that people suffer from many problems such as anxiety, depression or substance use when they think their lives are controlled by powers beyond themselves. During the process of self-regulation, an individual sets targets and tries to fulfill these targets. In order for the individual to fulfill his/her targets, it is necessary to increase his/her motivation. There are three factors in the level of motivation. The first one is to increase the level of self efficacy in order to enable an individual to display certain behaviors. If a person feels himself/herself competent to display a particular behavior, he/she will try harder. Another important factor is feedback. Feedbacks increase the individuals' belief in attaining their goals and their control over the behavior by enabling them to set more realistic targets. The last one is a time allocated for attaining the goals. In self-regulation, an individual's control over his/her behaviors is of great importance (Bandura, 1989; 1994; 1998).

Studies indicate that smoking adolescents can decide to quit smoking more easily when their senses of the disadvantages of smoking are increased, that they plan for that purpose and the adolescents who have made a plan can give up smoking more easily (Tekinsoysal, 2003; Ergul, 2005).

In order to develop self-regulatory capability of children, it might be an effective way to present them with different behaviors displayed in various situations about smoking and to raise their awareness of how these behaviors are formed, how emotions affect the formation of such behaviors, how former experiences are effective in decision-making and how they or other people change their behavior. Through such initiatives, children can be made to determine the conditions affecting their behaviors and to comprehend how they can regulate and control their behaviors, and thus their tendency to smoke or attempt to smoke can be diminished.

Self-reflective Capability: Self-reflective capability is one's ability to think about himself/herself, to analyze his/her experiences, and think about and reflect on how he/she feels. Bandura calls such reflection of an individual on himself/herself as "self efficacy". The self efficacy plays a key role in attaining goals and solving problems. Self efficacy is the most significant determinant of individual regulation, too. Individuals learn about their behaviors, gain the power of controlling them, increase their belief in carrying out them and display them. Four basic psychosocial processes activate self efficacy and affect the sense of self efficacy (Bandura, 1989; 1994; 1998).

a) **Cognitive process:** During this process, individuals monitor their ideas, act in accordance with these ideas, evaluate the outcomes of their behaviors and change them accordingly when need arises. One of the concepts, in Bandura's opinion, effective in these behaviors is self efficacy. Self efficacy enables one to set his/her targets, to organize what he/she thinks and to take action (Bandura, 1989; 1994; 1998).

According to studies, an increase in self efficacy will result in an decrease in the rate of smoking or attempting to smoke (Hanewinkel and Abhauer, 2004; Thomas, 2004; Byrne and Mazanov, 2005; Hamilton et al., 2005; Wiehe et al, 2005).

Therefore, providing children with scenarios including various problems during anti-smoking programs will enable them to rehearse for how they will behave when faced with such problems in real life, to evaluate their behaviors and regulate them when necessary. Furthermore, children's level of self efficacy will get increased and they will be enabled to cope with negative health habits like smoking in a better way if they are provided with training in social skills such as problem-solving, saying no and standing upon their rights.

b) **Motivation:** This process is defined as attaining the goals, acknowledging the achievements and one's motivating himself/herself. Setting targets by oneself will lead to making efforts to display a particular behavior. Motivation of an individual has an impact on being or not satisfied with himself/herself, his/her belief in attaining his/her goals and his/her readiness level (Bandura, 1989; Bandura, 1994; Bandura, 1998).

Studies suggest that motivation affects whether a child will smoke or attempt to smoke (Hanewinkel and Abhauer, 2004; Thomas, 2004; Byrne and Mazanov, 2005; Hamilton et al., 2005; Wiehe et al., 2005).

The children's motivation will be increased when they are informed about disadvantages of smoking on them and their environment and how to behave when offered to smoke; when their social skills are developed; and when they are provided with positive feedback on the skills.

c) **Affect:** Affect is the process of using the skill of coping with events despite the problems experienced in attaining the goals and many obstacles. Self efficacy has a prominent place during this process (Bandura, 1989; 1994; 1998).

According to studies, children with a high level of self efficacy are able to cope with problems in a better way and are less likely to display such negative health behaviors as smoking. It is reported that they attempt and continue to smoke less than children with a low level of self efficacy (Tekinsoysal, 2003; Cote et al, 2004; Ergul, 2005).

For that reason, anti-smoking programs for children should include initiatives such as acknowledging their emotions, learning how to cope with problems, being able to say no and acting assertively. Making children actively try these initiatives will enable them to acknowledge their

emotions and express them in a proper manner. In this way, the children will be less likely to display negative health behaviors like smoking.

d) **Selection:** Selection is the process during which individuals make selections to display a particular behavior and arrange their environment accordingly. During this process, individuals partly or in greater part determines their environment, the people with whom they will interact socially and the activities they will carry out together with those people (Bandura, 1989; 1994; 1998).

Studies reported that children whose peer group or school has a high level of smoking are more likely to smoke or attempt to smoke but that children with a high level of self efficacy and self concept in such schools are less likely to smoke and attempt to smoke than other children (Engels et al., 1999; Cote et al., 2004; Hanh et al, 2005; Powell et al., 2005).

Therefore, it should be a one of the primary objectives of programs to raise the children's level of self efficacy and self concept, and to generate a smoke-free school and family environment. Moreover, the scenarios should include contradictory situations so as to be able to teach children how to behave in different situations, how to lead their preferences, the factors in their preferences and the steps in decision-making process, thus making it easier for children to prefer positive health behaviors such as not smoking.

In conclusion, social cognitive learning theory is an instrument which can be used effectively in explaining the reason to start/continue smoking and preventing the behavior of attempting and continuing to smoke among children.

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