



Prediction of Smoking Based on Self-Esteem and Self-Assertion in Students

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Abstract: *Purpose: The purpose of this study was to “predict smoking based on self-esteem and self-assertion in students”. Methods: This research in terms of purpose was applied, and in terms of methods was descriptive-correlational. The statistical population of this study included all students of Islamic Azad University of Boroujerd, who were studying in the academic year 2015-2016 which included 14000 students. The voluntary and a non-randomized sampling method was used. The sample size obtained based on the Cochran formula and at 0.053 level of error, it was 383. In order to collect the data, the self-assertion questionnaire of Lee et al. (1975) and self-esteem questionnaire of Cooper Smith (1967) had been used. In order to analyze the data and test the hypothesis, Kolmogorov-Smirnov tests for validation of data, simple linear regression for testing hypotheses and multiple linear regression based on alpha of 0.05 had been used with the aid of SPSS software version 22. Results: The results indicated that in multivariate analysis, self-assertion and self-esteem variables had a direct relationship with smoking. However, in the analysis of single variable, the more the self-esteem was, smoking cigarettes increased, while when the self-assertion was higher, smoking cigarettes decreased. Conclusion: Based on the findings of this study, it is concluded that self-esteem plays a more significant role in cigarettes smoking of students. As a result, with the increase of self-assertion of individuals, their tendency to use cigarettes decreased.*

Keywords: *Self-Assertion, Self-Esteem, Cigarette Consumption*

INTRODUCTION

Today, the problem of drugs and tobacco addictions became a global and universal problem. The statistics released by international organizations, in particular the World Health Organization, the World Drug Control Committee and the UNESCO organization, indicate an increasing use of this material globally. The difference is only between the various countries and their different age groups for their consumption. It is not hidden to anyone that the spread of this process destroys the ethical, economical, and social foundations of a society, corrupts it from within and eventually degenerates it. This problem today pretense to such extent that no country can be completely immune to it. What is certain is that treating such phenomena before its occurrence is more logical than any other solutions.

In this regard, a new perspective must be obtained towards the factors of cigarette consumption. The main factors that makes smoking cigarettes addictive are the addiction power of nicotine, advertising and the absence of specific legal requirements that limits the use of cigarettes and psychological problems such as self-esteem and self-assertion of individuals in this matter. These factors are enough so that cause smokers to smoke for rest of their lives.

It is worth noting that self-esteem can be associated with smoking cigarettes. Self-esteem is the perception and the judgement that individual have about themselves and determines how they deal with different issues, (quested by Parnian et al. 2016). Individuals with low self-esteem and self-confidence need to express themselves but they don't have mental independency; therefore, they can do something like smoking to be seen and get a sense of self-confidence in order to be seen and get the necessary self-esteem.

Another influential factors in the use of cigarette is self-assertion. Self-assertion is one of the most important communication skills that can reduce the amount of depression and anxiety in the individual. Self-assertion is very different from aggressive behavior or individualization, and it is one's attitude and mindset towards others. The problem with self-assertion is directly related to the specific mental picture that individuals have about themselves. The kind of picture the person has about him / herself and how he / she likes to do things and what he/she expects the outcome of a job would exactly be is exactly what he expresses to others. There are different ways to express oneself, even if there is not much self-esteem within the person.

According to the mentioned points, the present study aims to investigate the following hypotheses for predicting smoking based on self-esteem and self-assertion in students.

1. The rate of self-esteem predicts smoking in students.
2. The rate of self-assertion predicts cigarette smoking in students.

Factors such as self-esteem and self-expression forms in childhood and adolescence, thus, if the hypotheses in this study are to be confirmed, special attention should be paid to the developmental periods of people and planning and expenses should be anticipated by the government in this area so that families can best be able to grow their children, and addiction to cigarettes and any other drugs can be prevented.

Theoretical and research backgrounds

Literature and theoretical scope for cigarette smoking

Smoking and drug use is one of the major causes of early death in developed and developing countries. Each year millions of people die from smoking cigarettes and drug use, and nearly a third of those victims are from developing countries (Zohoor, 2001).

Smoking is one of the most important preventive health problems in most countries in the world (Nazari, 2001). Unfortunately, despite the relative decline in smoking in industrial and western countries, this problem is increasing in third world countries, including our country. This is indicative of the fact that third world countries are the new targets for cigarette manufacturers, and these factories are seeking to create new markets instead of their lost markets in the west. According to the 1996 census, about 60% of adolescents are at high risk of smoking. Also, in a field study on smokers in the country, it was found that 82% of smokers started smoking under the age of 14 and 88% of smokers in Iran began smoking in school (Masoudnia et al., 2003).

There are many patterns and theories in the study and understanding of smoking behavior. One of these patterns is the meta-theory pattern or the stages of change. According to this pattern, individuals pass through five stages of pre-thinking, thinking, preparation, action, and maintenance. Pre-thinking is a stage that the person does not intend to change or decrease the consumption for the next six months. At the stage of thinking, one thinks of a change in the next 6 months, but it is still not prepared enough to change. At the stage of preparation, the individual is ready to change and provides the arrangements for the onset of the behavior. In the stage of action, the person changes his behavior, but it is under 6 months. During the maintenance phase, it is more than 6 months that the person changed his behavior.

Researches on the etiology of smoking cigarettes have focused on determinants such as emotional, social, behavioral, gender differences, parental smoking, low mood and frustration, and cognitive constructs. Factors associated with emotional vulnerability and psychological status are associated with a successful reduction in smoking, increased consumption and long-term experience of withdrawal symptoms during quitting period. One of the variables that are considered today in addictive behaviors including smoking cigarettes are

attributes related to personality. According to studies, the difference in personality traits is a known component of substance abuse disorders and addictive behaviors that can be refer to traits such as anxiety, anxiety sensitivity, and enthusiastic behaviors.

Self-esteem

For self-esteem, various definitions have been proposed. Callahan (2007) believes that self-esteem is the satisfaction of the person about the his/her mental image of himself. Cooper Smith's definition of self-esteem is that self-esteem is the personal judgment of competences which is the general characteristic of personality, not a momentary or a specific attitude. Self-esteem is referred to an intrinsic value of self or to a person's judgment about his worth. According to Lauport and Sogyni, having a good self-esteem means that: be aware of the one self's abilities and weaknesses and accept oneself with those which are more personal and valuable. It means to take one's own responsibilities, self-approval, responding to your own needs, to have goals and for achieving them having good choices, personal integrity and attention to others. self-esteem is the value of information one has for self-concept and it is based on the individual's perceptions of all attributes and characteristics that are in him. Maslow considers self-esteem as competence, ability, adequacy, assurance, independence, and freedom. If it is satisfied, the person feels worthy, being capable, fruitful and feeling pride and self-confidence, and if it is not satisfied, he feels humiliated and helpless.

Principles of Healthy Self-Esteem is based on six principles:

Conscious life, acceptance of self, accountability, self-assertion, purposeful life, a life along with truth.

Self-Assertion

The expression is equivalent to the words assertion in texts translated into Farsi; the word assertion is used for self-confirmation, commentary, daring, self-expression, boldness, decisiveness, and so on. Self-assertion comes from distinctions and positive or negative beliefs of the observer. The term self-assertion or courage, in addition to incorporating certain types of response classes in specific situations such as claims that the individual does not agree with and expressing won's beliefs, also includes a value component of "insisting on one's own rights." The proposed topic of self-assertion was first introduced by Andrew Salter (1949). He was influenced by Pavlov's ideas about Excitation and inhibition, Salter believed that some people were more inclined towards taking action and have a lot of arousal. Others are more prone to neuroticism, which means they have a greater inhibition. What salter meant by arousal is a situation in which individuals can fulfill all their powers cognitively or emotionally. According to people who show a relatively low self-assertion, they do not believe that they have rights in their emotions, beliefs or opinions. They discard this principle that they are similar to others. As a result, they cannot find grounds for protesting against abuse or mistreatment. This suggests that they see their perceptions, beliefs, feelings and desires less important or correct than others. Self-assertion is considered to be a behavioral characteristic that characterized by positive social behavior in order to defend the right or to achieve the right which on the one hand, there is passive behavior and, on the other hand, aggressive behavior. Behavior indicates self-assertion of the right or optimal response to a situation that can cause frustration. Self-assertion consists of seven categories of responses. Three of these are the negative ones: the expression of unusual or different opinions, the demand for changing behavior from others, and the rejection of their irrational requests. Four other categories are positive responses: acceptance of one's own shortcomings, exchange of compliments, initiation and continuation of interactions and expressing positive emotions.

A review of the researches

Comparison of interpersonal sensitivity and self-assertion in drug-dependent and normal people was reviewed. The results of the review are as follows: People who are not able to express themselves and are sensitive to the interrelationship, that is they are sensitive to rejection, are more likely to be exposed to drug dependency; and it is possible to prevent people from getting into this problem by teaching these skills.

In a research study, the prevalence of smoking and its relation with self-esteem have been studied among students of Islamic Azad University of Gonabad. They state that there is no significant difference between the average self-esteem of smokers and non-smokers. Considering the lack of a relationship between smoking and

self-esteem as an important component of mental health, it seems that smoking in students is associated with other factors including modeling others (including modeling from parents and brothers and sisters).

In a study, the relationship between aggression, self-assertion and depression with drug addiction was studied in female students of Allameh Tabatabai University. The study showed that the relationship between variables of aggression, self-assertion and depression is significant with readiness for addiction. Also, the results of multivariate regression analysis showed that the linear combination of aggression, self-assertion and depression have the ability to predict the readiness for addiction; that is, the addiction tendency is predictable based on aggressive and self-assertion variables.

Saw et al. (2017), in the study “self-assertion of smokers against the exposure to Smoke: Chinese, American, and Korean Non-Smokers” concluded that in the multivariate analysis of all three ethnic groups, decisive behavior was associated with individual factors (Single versus married; knowledge of exposure to tobacco), family factors (living with smokers, with a non-exposed smoke law at home), community factors (exposed to smoke-free policies, Exposure elsewhere), cultural factors (Korean versus Chinese ethnicity; lower culturalism).

Kim et al. (2016) in a study entitled “self-assertion Behavior at the Request of Smokers to smoke among Patients with Vascular Disease” concluded that there is a significant relationship between smoking and self-assertion.

In a research, the relationship between smoking and self-esteem had been investigated which was shown that smokers have less power to refuse the pressure peers in comparison to non-smokers. Smokers also had more smoker friends, parents, brothers, and sisters in comparison to non-smokers.

Research methods

Research method

The present research is applied in terms of purpose, and it is descriptive-correlational and fieldwork in terms of method. In this type of studies, some variables can be predicted based on other variables. In this type of research, the goal is to determine the correlation between variations of two variables. In most bivariate correlation researches, interval scale with the default of the normal distribution of the two variables in the population is used for measurement, and Pearson's correlation coefficient is usually used to analyze the data.

In this type of correlational research, the goal is to predict one or more dependent variables (which is called a criterion in this research) from one or more independent variables (which are called prediction in this study).

In this method, based on the number of variables, one can use multiple regression models, a multivariate regression model to analyze the data.

Statistical population

In the present study, the study population include all students of Islamic Azad University of Boroujerd who were studying at different educational levels in the academic year 2015-2016 which were 14,000 students.

Sampling method and sample size

Sampling in this research was done using non-random volunteering method and the sample size based on Cochran's formula and at error level of 0.05 was obtained 383 people.

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left(\frac{z^2 pq}{d^2} - 1 \right)}$$

$$n = \frac{\frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2}}{1 + \frac{1}{14000} \left(\frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} - 1 \right)}$$

$$n = \frac{384.16}{1 + 0.00000714(383.16)}$$

$$n = \frac{384.16}{1.002} = 383.39 \cong 383$$

Research tools

- **Adolescence Self-Assertiveness Questionnaire of Li et al (ASA)**

This questionnaire was formulated by Yuli, Ti, Halberg, Salmon and Haus (1975), and translated and validated by Shanni Yilagh and Mansour (2011). This questionnaire has 33 items, which actually describes 33 interpersonal situations and determines what respondent done in any position with 3 options.

Lee et al., examined the reliability of self-assertiveness questionnaire and expressed it as moderate. The obtained reliability by them after 4 weeks was reported to be 0.84 using re-test method.

The scoring of this questionnaire is that one of the three options is considered as the proper answer (self-assertion), and it is given a score of 1, and the rest of the answers are scored zero.

- **Self-esteem Questionnaire**

Cooper Smith's Self-Esteem Inventory (SEI) consists of 58 items that describe feelings, opinions, or reactions of an individual.

The validity of the questionnaire has been confirmed in several studies, which showed that correlation coefficient between Cooper Smith's and Eysenck's self-esteem scores is 0.79, which can be said that between the raw scores of these two scales, there is about 63% of common variances.

Regarding the grading method, it should also be noted that since the questions of this test have two options of "yes" and "no", the scoring method is zero and one, as well as 8 questions detect lies, and in the overall score, the scores from this 8 questions are considered.

The process of conducting research

After determining the size of the sample and preparing a standard questionnaire, 100 questionnaires were distributed among the students. After giving instructions about how to fill the questionnaires, respondents completed the questionnaires with precision and then the questionnaires were collected; and in order to analyze data, responses of the responders had been entered into spss software version 21 and the data were analyzed.

Data processing and analysis methods

In this research, descriptive statistics was used in the form of frequency tables for studying demographic characteristic in order to analyze the statistical data, to exam the research questions, and according to the types of research variables. Inferential statistics of Cronbach's alpha test was used to study the reliability of the questionnaire and statistical test of Kolmogorov-Smirnov was used for data normalization, also multiple linear regression tests based on alpha of 0.05 was used to predict cigarette smoking based on self-esteem and self-assertion rate in students with the use of Spss software version 21.

Findings

Demographic characteristics of the participants

In this study, 139 women that is 37% and 244 men that is 63% were participated.

185 participants that is 47% were younger than 30 years. Also, 149 participants that is 37% were between the ages of 31 and 40. Also, 43 participants that is 14.41% were between the ages of 41 to 50 years old. Also, 6 participants that is 1.50% were above 51 years.

In this study, 124 participants that is 34% had a diploma. Also, 187 participants that is 48% had a bachelor's degree. Additionally, 72 participants that is 18 percent, had Master's degree.

The normal distribution test for statistical data

Kolmogorov-Smirnov test was used to measure the normal distribution of research variables.

Table 1. The results of the Kolmogorov-Smirnov test

Studied Variables	Number	Z - Statistic	Level of Significance
Smoking Cigarettes	383	0.257	0.548
Self-Assertion	383	0.272	0.080
Self-Esteem	383	0.064	0.125

As the results of Table 4-1 show, the values obtained for the z-statistics calculated in the alpha level of 0.05 is not significant ($\text{sig} > 0.05$), hence H_0 hypothesis regarding the normal distribution of variables is not rejected. Therefore, it is concluded that the variables studied have a normal distribution. Hence, the hypothesis for normal distribution of variables is established. Accordingly, and considering the interval of the scale of the variables, Pearson correlation coefficient and stepwise regression analysis were used to test the hypotheses of the research.

Testing the first hypothesis: “Self-esteem predicts smoking in students.”

A. Describing the data

Table 2. Indicators of central tendencies and distribution of research variables

Research Variables	Mean	Standard Deviation	Minimum	Maximum
Smoking Cigarettes	3.96	1.03	1	5
Self-Esteem	28.03	8.39	12	49

In the study sample of the current research, the average consumption of cigarettes was 3.96 and standard deviation was 1.03. The mean of self-esteem was 28.03 and the standard deviation was 8.39.

B. Data Analysis

Table 3. Regression results between self-esteem and smoking

Correlation Coefficient	Squared Correlation Coefficient	Corrected Correlation Coefficient	Standard Error
0.264	0.070	0.067	0.100

The correlation coefficient is 0.264 and the self-esteem variable only determines the 0.070 of smoking variance.

Table 4. Results of variance analysis of regression

	Degree of Freedom	Sum of Squares	F	Level of Significance
Regression	1	28.74	28.54	0.001
Remainder	381	1.00		
Total	382			

As can be seen from the results of Table 4-4, the variable of self-esteem has the ability to significantly predict smoking ($F = 28.54, P = 0.000$).

Table 5. Regression results

	Non- Standardized regression coefficient		Standardized regression coefficient	T	Level of Significance
	B	Standard Error	Beta		
Constant	3.04	0.179	0.264	17.00	0.000
Self-Esteem	0.033	0.006		5.34	0.000

* $p \leq 0.01$

The width from origin or constant number is also equal to 30.4, which represents the point at which the vertical line breaks the regression line. The resulting equation of the regression is as follows:

$$(\text{Self-esteem}) 0.033 + 3.04 = \text{Smoking}$$

Based on this equation, it can be seen that for each unit of change in the variance of self-esteem, smoking will vary by 0.264 units.

Testing the Second Hypothesis: “Self-Assertion predicts smoking in students”

A. Describing the data

Table 6. Indicators of central tendencies and Distribution of research variables

Studied Variables	Mean	Standard Deviation	Minimum	Maximum
Smoking Cigarette	3.96	1.03	1	5
Self-Assertion	22.11	5.32	16	33

In the study sample, the average consumption of cigarettes was 3.96 and standard deviation was 1.03, and the mean of self-assertion was 22.12 and the standard deviation was 5.32.

B. Data Analysis

Table 7. The results of regression between self-assertion and smoking

Correlation Coefficient	Squared Correlation Coefficient	Corrected Correlation Coefficient	Standard Error
0.506	0.256	0.254	0.897

The correlation coefficient is 0.506 and the coefficient of self-assertion determines 0.256 of the variance of smoking.

Table 8. Results of variance analysis of regression

	Degree of Freedom	Sum of Squares	F	Level of Significance
Regression	1	105.64	31.344	0.000
Remainder	381	0.805		
Total	382			

As it can be seen from the results of Table 4-4, the variable of self-assertion has the ability to predict smoking, significantly (F = 31.344, P = 0.000).

Table 9. Regression results

	Non- Standardized regression coefficient		Standardized regression coefficient	T	Level of Significance
	B	Standard Error	Beta		
Constant	0.60	6.14	-0.506	31.344	0.000
Self-Esteem	-14.099	-0.099		-11.455	0.000

*p<0.01

The width from origin or constant number is also equal to 6.14, which represents the point at which the vertical line breaks the regression line. The resulting equation of the regression is as follows:

(Self-Assertion) $0.099-6.14 = \text{Smoking}$

According to this equation, it can be seen that for each unit of change in self-assertion smoking will vary by -0.506 units.

Discussion and Conclusion

Study of research findings and their relation with the results of previous studies

- **First hypothesis: "The level of self-esteem predicts smoking in students."**

According to the data in Table 4.8, the correlation coefficient is equal to 0.264, while the self-esteem variable only determines the 0.070 variances of smoking. For each unit of change in self-esteem variables, smoking will vary by 0.264 units.

This finding is consistent with the findings of Sari et al. (2015), who found that weakness in adolescents' self-esteem is related to their smoking behavior in adulthood, and that the factors expressing self-esteem, such as extraversion, neuroticism, conscience, and age are the main factors in predicting smoking.

It is worth noting that on the other end, the findings of this research is not consistent with the findings of Tavakoli Zadeh et al. (2012) who found that there was no significant difference between the mean of self-esteem of smoker and non-smoker students; also the results of the current study is not consistent with the results of (2014) who concluded after a training period that such training reduces the tendency of the experimental group to substance abuse comparing the control group, but there was no significant difference in self-esteem, attitude and awareness between the two groups.

In explaining the findings, it can be said that factors such as individual factors (heredity and personality), interpersonal factors (parents, peer group, community, school, and rules) and environmental factors (advertising and legal encounter with students) contribute to smoking and drug use. It can be said that as adolescents experience various issues in the course of development, they would also like to experience smoking and drugs, which can be determined by the type of cognitive and psychological changes that occur during this period.

In this age period, a mythical thinking which makes them think that if they do something, it's just for the first time, and they won't repeat it, and consider themselves safe against its vulnerabilities. Smoking is also a reaction against the peer group, as well as it is the expressions of association with a peer group. It should be noted, however, that if the teenager is criticized, blamed and insulted in living environment by parents, they will be move away from the cycle of family (parents), and they satisfy the sense of belonging (or The need for belonging) through new relationships with peers that may have a major role in the juvenile trend towards drug use.

Studies have shown that self-esteem can be a factor in protecting adolescents from drug use. If a person feels secure, he or she will be more prepared to face the challenges and opportunities of life. Self-esteem gives the person the motive for progress and allows him to express himself more strongly.

- **Second hypothesis: "The level of self-assertion predicts smoking in students."**

Based on the data presented in the previous section, the correlation coefficient is 0.506 and, also, the coefficient of self-assertion determines variance of smoking by 0.256. For each unit of change in self-assertion variable, smoking will vary by -0.506 units.

This finding is consistent with the findings of the research that found those who are not capable of expressing themselves and who are sensitive to interpersonal relationships, that is, they are sensitive to rejection are more likely to be exposed to drug dependence. The results of the current study is also consistent with the findings of Haji Hasani (2012), who showed that a linear combination of aggression, self-assertion and depression can predict the readiness for addiction; that is addiction can be predicted based on aggression and self-assertion variables; they also determined that the difference of self-assertion between experimental and control groups was significant; that is, the self-assertion group showed more decrease in their tendency for smoking comparing

to the control group. The difference between the combined group of attitude and self-assertion change was significant in comparison to the control group; that is, the group of changed attitude and self-assertion showed more decrease in comparison to the control group in their tendency to use drugs.

Also, the outcomes of the study show that prevalence of smoking is higher and it was found that many smokers began smoking even before high school. The results also highlighted the importance of promoting self-esteem; also the findings of Kim et al. (2016), which concluded that there is a meaningful relationship between smoking and self-assertion is consistent with the results of the current study.

In the explanation of these findings, it can also be stated that, people who show relatively low self-esteem behavior, do not believe that they have a right in their emotions, beliefs or opinions. These individuals deny this principle that they are similar to others. As a result, they cannot find grounds for protesting against abuse or mistreatment. This shows that they perceive their perceptions, beliefs, feelings and desires to be less important or less correct than others.

It is evident that the inability of an individual to express himself, especially in dealing with peer groups, makes it possible to accept his suggestions and lays the foundation for addiction. Studies indicate that one of the problems that has an inhibitory effect on teenagers' efficiency and prevents the healthy formation of the identity and prosperity of their talents and emotional powers, is difficulty to establish and maintain social communication. In fact, one of the basic skills that a person must learn is the ability to communicate correctly with others. In fact, expressing courage is the learned ability to express emotions and supremacy when one feels without causing discomfort of others.

little courage that was taught to the child at home and through the parent is gradually makes him gutless and it is sometimes reinforced in the school. In this way, when a teacher proposes questions in the classroom, the child does not dare to answer the question, despite the fact that he knows the correct answer. Or, when he misses a word or does not understand part of a lesson, he does not ask teacher because of his lack of courage. Some of these children have high intelligence but they conceal it. gutless children dare not ask questions because they are shy; they do not answer questions, and thus, they seem to be lagging behind their true potential.

It is hoped that the findings of this study will be effective in promoting knowledge and application of effective tools for preventing student smoking. Finally, it is suggested that assistance be given to smokers through health counseling sessions by the university's counseling unit. Also, the establishment of sports and recreational facilities for students in order to help them strengthen their mood and spirit is suggested as well to cope with craving and temptation of smoking cigarette.

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