

Analysis of Smoking Status of Potential Teacher Candidates According to Various Variables (Sampling From Erzincan-Turkey)

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Abstract

The objective of the research is to analyze smoking status of potential teacher candidates according to various variables. In the scope of the research, there were 1060 students enrolled in six different teacher training programs of Education Faculty at Erzincan University. Survey sheet and the records of the faculty were utilized as a means of data collection. It was detected that there was a meaningful relation between a student's smoking status and his/her gender, class, teaching branch and housing. However, there was no meaningful relation between his/her smoking status and educational status of his/her parents. Though a meaningful relation was detected between a student's smoking status and that of the closest friend's or father's, no such meaningful relation was detected between his/her smoking status and that of his/her mother's. It was concluded that male students both started smoking at an earlier age and smoked more than female students.

Key words: Smoking, students of education faculty, potential teacher candidates, academic success

1. Introduction

Cigarette/Tobacco is the most widespread addictive substance. Easy and cheap access to cigarette and its legal use play significant role in this situation. Owing to adverse consequences it brings about, smoking habit is regarded as a significant psychosocial problem concerning the whole society (Yorgancıoğlu - Esen 2000; Herken – Özkan 1998). According to Ministry of Health of Turkey (2007), Turkey still loses 2.7 billion dollars annually because of tobacco's adverse effects on human health and approximately 100 thousand people die early annually because of smoking. According to World Health Organization (WHO 1988), diseases caused by smoking and economic losses and deaths caused by these diseases are 7-8 times more than economic losses and deaths caused by traffic accidents. Findings gathered about youngsters who smoke and use drug and alcohol have suggested that smoking and alcohol and drug abuse are closely related with one another (Aslan, Özvarış, Esin and Akin 2006). In a research conducted about Turkish university students (Bahar 2001), it was concluded that alcohol abuse is higher among smoking students. Thus, fight against smoking means fight against other undesired habits and behaviours.

In order to lessen cigarette smoking and losses incurred as a result of it, actual habits should be kicked and new habit formations should be prevented. It is very difficult to quit things that you have become habituated or addicted to (Bilgin 1991, s. 348). Therefore, though it is important to provide assistance to those who smoke to quit it, it is of more significance to prevent such habits before they are formed. Taking into consideration that smoking habit is a problem developed mostly in adolescence (Güngör 1997, s. 76; WHO 1997, s. 394), schools and other people and institutions responsible for the education of an individual have responsibility in the process to prevent smoking habits. As a matter of fact, one of the target groups in fight against smoking is students (Kutlu 2006).

Schools aim to provide students with the rightest and the strongest of all in every field. In a sense, schools detect what is wrong and what is right and accordingly provide support for preferences embracing "right" things (Bilhan 1996, s. 174). In this context, in addition to roles attributed, schools, as planned and programmed educational institutions, are expected to fight against undesired behaviors and habits and protect their students from them. Studies carried out show that teachers, instructors and students at secondary and higher education levels have problems in terms of smoking habit. Preventing undesired behaviors and habits before they are formed and wiping out these habits and behaviors if already formed are important tasks expected from schools. Teachers' attitudes play significant role in fight against smoking which is among undesired habits. With their attitudes, teachers are expected to provide essential contributions to fight against smoking. However, some studies conducted in Turkey (Marakoğlu, Erdem and Çivi 2007; Gencer, Ceylan, Yengil and Ethemoğlu 2007;

Fidan, Sezer, Demirel, Kara and Ünlü 2006), display that smoking is widespread among teachers and smoking teachers are in need of assistance and support, let alone constituting examples to the students. Certain researches on students' smoking habits (Marakoğlu, Erdem and Çivi 2007; Ögel, Tamar, Özmen, Aker, Sağduyu, Boratav and Liman 2003; Bahar 2001) point that secondary and higher education periods are important in the formation and development of smoking habits.

There are a great number of researches conducted at national and international level about smoking habits. At national level, there are various researches on smoking habits of vocational high (Azak 2006; Ögel, Taner, Eke and Erol 2004; Ögel, Tamar, Evren and Çakmak 2001; Çelik, Esen, Yorgancıoğlu, Şen and Topçu 2000; Herken, Özkan, Bodur, Kaya, Turan and Aşkın1997), university students (Aslan, Özvarış, Esin, and Akın 2006; Yazıcı. and Özbay 2006; Yazıcı and Şahin 2005; Demirel and Sezer 2005; İlhan, Aksakal, İlhan and Aygün 2005; Ögüş, Özdemir, Kara, Şenol and Çilli 2004; Bahar 2001), teachers (Marakoğlu, Erdem and Çivi 2007; Gencer, Ceylan, Yengil and Ethemoglu 2007; Fidan, Sezer, Demirel, Kara and Ünlü 2006), doctors (Çetinkaya, Biricik and Naçar 2006; Cirit, Orman and Ünlü 2002; Tuğlu, Güzelant, Erdoğan, Şenveli and Abay 2000) and other health care professionals (Altın, Kart, Ünalacak, Dutkun, Örnek, 2004; Kutlu, Marakoğlu and Çivi 2005; Erbaycu, Aksel, Çakan and Özsöz 2004). In these studies related to teachers, health care professionals and teachers, it was emphasized that smoking habit constituted a significant problem.

1.1. Objective of the Research

The objective of the research is to analyze smoking status of education faculty students according to various variables. Students' smoking status was treated under four categories. These categories were defined as Non-smokers (NS), Occasional Smokers (OS), Ex-smokers (ES) and Constant Smokers (CS) and abbreviated as shown in parentheses. These abbreviations will be used in the following parts of the study. Responses to the following questions were sought throughout the study.

1. Is there a meaningful relation between a student's smoking status and his/her gender, class, the program enrolled, type of the allocation unit of his/her family, his/her housing, parents' educational levels and smoking status of his/her parents and closest friend?

2. Does the age at which smoking students and ex-smokers started smoking vary significantly and meaningfully according to gender?

3. Does the average daily number of cigarettes of smoking students vary meaningfully according to gender?

4. According to smoking status of the students, is there a meaningful difference between their genders, number of siblings, birth orders, families' average monthly incomes, average monthly spending amounts and academic scores?

1.2. Significance of the Research

In order to launch an effective and fruitful fight against smoking, students' smoking habits should be clearly defined and analyzed in a multidimensional way according various variables. In this research, selection of the students enrolled in education faculty is significant in two ways: First, the group selected pertains to the age group regarded as risky as regards the formation of smoking habit. Second, the group selected is made up of potential teacher candidates expected to fight for this habit in the future.

2. Method

2.1. Survey Population and Sampling

The survey population of the research is composed of students enrolled in different teacher education programs of Education Faculty at Erzincan University. As per this semester, the survey population is made up of 2341 students. In the selection process, one class each from the 1st, 2nd, 3rd and 4th year of each program was planned to be covered in the scope of the research and in this way 1060 voluntary students participated in the survey.

2.2. Data Collection

Personal information and information on students' smoking statuses were gathered via survey and some other information such as department, gender and academic success was collected through records of the faculty. The first survey sheet, drawn up to essay questions of the survey and assess the coherence of the responses, was applied twice to 148 students with an interval of 12 days and stability coefficients presented in Table 1 were calculated based on the responses gathered in two applications. According to the results of the preliminary application, it could be said that responses that students gave in both applications were fairly coherent and could be used in accordance with the objective of the research.

Insert Table (1) here

Some questions in the survey sheet were open ended and some responses to be given were limited with choices. Students were asked to define type of the allocation unit where their families permanently reside (village, town, borough, city and metropole), housing type of their own (with family, with friends in an apartment, at a public dormitory, at a private dormitory, other), educational levels of the parents (illiterate, literate, graduate of elementary school, secondary school, high school or university) and smoking status of their own and that of parents and closest friends according to choices given. On the other hand, students were asked to specify the number of siblings, birth orders, families' average monthly incomes and their average spending amounts by responding to open ended questions. Open ended questions were also asked in order to determine ages at which smoking students and ex smokers started smoking and the average daily number of cigarettes they smoke. Information related to gender, class, program enrolled, age and academic success was gathered through the records of the faculty.

There are six different programs in which students are enrolled. Those programs are Primary School Teaching (PST), Physical Training and Sports (PTRS), Elementary Science Education (ESE), Elementary Mathematics Education (EME), Social Sciences Teaching (SST), Turkish Language Teaching (TLT). Students' academic success states refer to their weighted GPAs which they got at the end of two semesters for 1st year classes, four semesters for 2nd year classes, six semesters for 3rd year classes and 8 semesters for 4th year classes. The value set at the age variable was calculated to be the difference between the last day of the month in which the survey was applied and students' birth dates.

2.3. Statistical Operations

Findings gathered in the research were analyzed using chi square test, one sample t-test, one way ANOVA and LSD tests. Chi square test was applied in order to find out if there was a meaningful relation between a student's smoking status and his/her gender, class, the program enrolled, type of the allocation unit of his/her family, his/her housing, parents' educational levels and smoking status of his/her parents and closest friend. One sample t-test was performed in order to determine whether the number of cigarettes and the age at which a student starts smoking change vary according to gender. One way ANOVA test was applied in order to detect whether there were differences in gender, the number of siblings, birth order, family income, average monthly spending amount and GPA according students' smoking statuses. Results of the LSD test were utilized in order to find out the groups among which there were meaningful differences, based on the results of the ANOVA test.

3. Findings

Findings about students' smoking statuses are presented in Table 2. It is seen that the percentage of NSs is 62.4%, OSs is 12.1%, ESs is 7.3% and CSs is 18.2%.

Insert Table (2) here

Results of the chi square test performed in order to find out if there was a meaningful relation between a student's smoking status and his/her gender, class, the program enrolled, type of the allocation unit of his/her family, his/her housing, parents' educational levels and smoking status of his/her parents and closest friend are shown in Table 3. It is concluded that 62.4% of the participant students never smoke. While the percentage of constant smokers is 18.2%, that of occasional smokers is 12.1%. 7.3% of the students have quit smoking. A meaningful relation was established between a student's smoking status and gender. ($X^2 = 120,900$, $p < .01$). It is observed that the percentage of NSs is lower among female students and the percentages of OSs, ESs and CSs are higher among male students. Male students were reported to smoke more.

Insert Table (3) here

A meaningful relation was fixed between a student's smoking status and his/her class ($X^2 = 46,421$, $p < .01$). While the percentage of NSs reaches the highest point among 1st year students, this percentage is seen to fall in upper classes. The percentage of CSs is observed to rise in upper classes. A meaningful relation was detected between a student's smoking status and the program he/she is enrolled in ($X^2 = 39,296$, $p < .01$). The percentage of CSs is the highest among students enrolled in PTRS and the lowest among those enrolled in EME. The percentages of ESs and OSs are higher among students enrolled in social SST program.

A meaningful relation was established between a student's smoking status and his/her housing type ($X^2 = 57,697$, $p < .01$). The percentage of NSs is higher among the students residing at public and private dormitories and lower among those staying at apartments with their friends. The percentage of CSs is higher among students staying with friends, families and among other students. Results of the chi square test applied in order to find out whether there is a meaningful relation between a student's smoking status and his/her parents' educational levels are presented in Table 4.

According to results of the analysis, no meaningful relation was detected between a student's smoking status and the educational level of the mother ($X^2 = 21,059$, $p > .05$) and the father ($X^2 = 14,831$, $p > .05$). Parents' educational levels do not exert effects on students' smoking statuses. A meaningful relation was fixed between a student's smoking status and that of the closest friend ($X^2 = 315.552$, $p < .01$). Student's smoking status and that of the closest friend's are seen to be similar. It can be concluded that the closest friend is effective in the formation of the student's smoking habit.

Insert Table (4) here

A meaningful relation was established between a student's smoking status and that of his/her father's ($X^2 = 19,653$, $p < .05$). In the case of father's' being a NS or an OS, the percentages of ESs and CSs are observed to decline. On the other hand, in the case in which the father is an ES or a Cs, the percentage of CSs is seen to be high. No meaningful relation was fixed between a student's smoking status and that of his/her mother's ($X^2 = 5,853$, $p > .05$). In other words, mother's smoking status has no effects on student's smoking status. Student's smoking status is independent of that of the mother's. Age at which a student started smoking was concluded to vary meaningfully according to gender ($t = -4,768$, $p < .01$). Male students were reported to start smoking at earlier ages than female students. The average age of first smoking experience is younger among smoking male students or ex-smokers than females.

Insert Table (5) here

A meaningful difference was detected in the average daily numbers of cigarettes students smoked according to gender ($t = 4,617$, $p < .01$). The average number of cigarettes male students smoke on a daily basis is higher than those female students do. Briefly, it can be said that male students smoke more.

Insert Table (6) here

Age is a factor with effects on a student's smoking status ($F = 17,851$, $p < .01$). It is seen that smoking rates go up depending on the age and that the average age of non-smoker and ex-smoker students is lower than that of occasional smoker students and constant smoker students. The older the age, the higher the percentage of occasional and constant smokers is. Results of the analysis show that there is no meaningful difference between the numbers of students' siblings in terms of smoking status ($F = 2,081$, $p > .05$). According to this result, it can be suggested that the number of siblings has no effects on smoking status. No meaningful difference was detected in students' birth orders concerning the smoking status ($F = 2,091$, $p > .05$). It can be said that being the first, middle or the last child family has not any effects on smoking status. In other words, birth order does not exert any effects on smoking status.

Insert Table (7) here

No meaningful difference was fixed in average monthly income amounts of the students' families ($F = 1,890$, $p > .05$). It is clear that a family's pertaining to low- middle or high income level is not effective in a student's smoking status. It can be said that a student's smoking status does not depend on his/her family's income level. A meaningful difference was detected in students' average monthly spending amounts as regards the smoking status ($F = 22,780$, $p < .01$). It is concluded that average monthly spending amounts of non-smokers and ex-smoker students are lower than those of occasional and constant smoker students. It is seen that spending amounts of constant smokers are higher than those of occasional smokers. A meaningful difference was set in students' GPAs according to smoking status ($F = 26,873$, $p < .01$). The percentage of non smoking is higher among successful students. GPAs of non-smoking students are reported to be higher than those of others'. Furthermore, GPAs of occasional smoker students are higher than those of constant smoker students.

4. Conclusion and Suggestions

A meaningful relation was detected between a student's gender and his/her smoking habit. Female students were reported to smoke at lower rates than male students. This result is consistent with the findings of the researches conducted on university students in Turkey concluding that smoking rates of male students are higher than those of female girls (Aslan, Özvarış, Esin and Akın 2006; Demirel and Sezer 2005; Yazıcı and Şahin 2005; Bahar 2001). This finding is also similar to the findings putting forth that smoking rates of men are higher than those of women throughout the country (WHO 1997, s. 394; PIAR-Ministry of Health 1988). However, in some studies carried out about high school students in Turkey (Göksel, Cirit and Bayındır 2001; Ögel and his friends 2001), being different from present findings, it was concluded that the difference between female and male students disappeared. The same sources explain this situation with improvements in living standards and betterment in women's socio-economic status. A meaningful relation was defined between a student's class and his/her smoking status. Smoking rates were detected to rise more and more in upper classes. This results show that some students who have never smoked start smoking in university years and that the process at education faculty constitutes a risk in smoking habit formation.

Results of the research on smoking habits of the students of the School of Medicine at Akdeniz University show that there is a higher rate of smoking in upper classes (Öğüş and friends 2004). Analyses of students' smoking status according to age variable conclude that smoking rates of the older student group are higher. According to the program enrolled, smoking rate is higher among students enrolled in physical training and sports teacher education program. Smoking rate is at the lowest rate among students enrolled in primary and secondary school mathematics teacher education program. Occasional smoking rate is higher among students enrolled in social sciences teacher education, class teacher education and physical training and sports teacher education programs. Considering that occasional smoking constitutes a risk towards constant smoking, it can be suggested that these groups are riskier groups in terms of constant smoking habit formation. In a study conducted (Gencer and friends, 2007), no meaningful relation was detected between branch teachers and class teachers in terms of smoking rates.

No meaningful relation was discovered between a student's status and the type of his/her family's allocation unit where they permanently reside. In a study on hand rolled tobacco use in Şanlıurfa (Yanık, Gencer and Ceylan 2004), a meaningful relation was detected between place of residence and birth place. Findings can be said to be compatible with this result. A meaningful relation was fixed between a student's housing and his/her smoking status. It was detected that smoking habit rate was lower among students residing at public and private dormitories. This result is consistent with the findings of the study on smoking habits of university students concluding that smoking habit rates of those residing in a rent apartment or with a family are higher (Bahar 2001). No meaningful relation was established between educational level of parents and smoking status of a student. This finding is compatible with the results of a study conducted by Herken and his colleagues (1997) suggesting that there is no meaningful relation between parents' educational levels and smoking habits of their children.

A meaningful relation was fixed between the smoking status of the closest friend and that of the student. Some researches carried out in Turkey (Marakoğlu, Erdem and Çivi 2007; Azak 2006; Keskinoglu and friends 2006; Kutlu 2006; Yazıcı and Özbay 2006; Demirel and Sezer 2005; Kutlu, Marakoğlu and Çivi 2005; İlhan and friends 2005; Bahar 2001) show that friends play role in starting and continuing smoking. It is seen that results of this study are consistent with the findings of other studies on this issue. While a meaningful relation was detected between smoking status of his/hers and that of his/her father's, no meaningful relation was established between a student's smoking status and that of his/her mother's. Constant smoking rate was revealed to be higher among those whose fathers smoke and have quit smoking. In a study conducted (Göksel, Cirit and Bayındır 2001), no relation was fixed between mother's/father's smoking and student's smoking. However, there are studies which suggest that parents' smoking statuses have effects on children's smoking habits (Chassin, Presson, Rose, Sherman and Prost 2002), and that people who have smoking mothers, fathers or siblings smoke more than those who do not (Bahar 2001;).

Age at which students that smoke and have quit smoking started smoking varies meaningfully according to gender. It was detected that on average male students started smoking at earlier ages than female students. In the study conducted by Ogel and his friends (2001), it was found that boys started regular tobacco use at earlier ages. Some other researches (Demirel and Sezer 2005; Yazıcı and Şahin 2005; Bahar 2001) suggest that male students start smoking at earlier ages than female students. The average age at which female students started smoking was fixed to be 18.06. On average this age corresponds to that at which students enter universities. Female students' graduations from high schools and entrance to universities may lead to relative decrease in control of family and environment and cause various new problems to appear because of moving away from the family. This new situation may lead the students to smoking.

The average daily number of students smoking students smoke was detected to vary meaningfully according to gender. Male students higher number of cigarettes than female students. This is finding is consistent with the findings of similar researches (Yazıcı and Şahin 2005; Demirel and Sezer 2005; Bahar 2001; Çelik and friends 2000). In a study conducted about the smoking rates of teachers (Gencer and friends 2007), male teachers' smoking rates were concluded to be higher than those of female teachers'. Age was determined to be a significant factor in smoking status and age groups of students in NS, OS, ES and CS categories were concluded to vary meaningfully. Average age of the students in CS and OS categories was found to be higher and that of the students in NS category lower. It can be suggested that the age variable constitutes a risk factor in smoking habit formation. The number of siblings and the birth order were fixed to be insignificant in a student's smoking status. In other words, there is no relationship between a student's pertaining to NS, OS, ES or CS category and the number of his/her siblings or his/her birth order. According to this result, it can be concluded that the number of people in a student's family or his/her being the first or the last child has no effects on his/her smoking status.

It was detected that a student's familial income level did not play role in his/her smoking status, however student's average monthly spending amount was determined to be significant. Average monthly spending amounts of the students in CS category were found to be higher than others'. This does not mean that those with high amounts of monthly spending smoke. This situation can be explained by additional expenses made on smoking.

Academic success level was reported to be significant in a student's smoking status. While success levels of those in the NS group are higher, those of the students in CS and OS groups are lower. According to this result, it was detected that smoking students run the risk of not only the known adverse consequences of smoking but also of academic failures.

Based on these results, the following suggestions can be presented:

1. Findings show that in teacher education process, pre-service training period is a risky phase in the fight against smoking. Thus, necessary measures should be taken in order to end present smoking habits and prevent new habit formations concerning potential teacher candidates in the pre-service training process.
2. Differences in smoking statuses among female and male students and those enrolled in different teacher education programs show that fighting activities may be prepared and implemented in different ways according to teaching branches and genders in the pre-service training process. A meaningful relation was fixed between a student's housing place and smoking status. Accordingly, in the process to fight against smoking, it can be said that a student's housing place should be taken into consideration.
3. Having regard to the significance of the friends in smoking habits, success to be attained in the fight against smoking may influence larger masses more positively based on the influence of friends.
4. While academic success levels of the smoking students were determined to be lower, their average monthly spending amounts were higher. According to this result, success to be gained in the fight against smoking will contribute to betterment in a student's academic success level and on the other hand enable the students to save in economic terms and allocate more of his/her money on education.
5. Except from father's smoking status, it was concluded that variables analyzed related to family were not that effective in smoking status. According to this, it can be suggested that programs to fight against smoking at university level focus on the environment of the faculty and friends.

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Table 1: The stability coefficients for the information via gathered survey

| Variables | N | Stability Coefficient |
|---|-----|-----------------------|
| Family permanently reside | 143 | .98 |
| Housing type of the student | 142 | .97 |
| Educational level of the mother | 143 | .98 |
| Educational level of the father | 143 | .98 |
| Smoking status of the student | 148 | .99 |
| Smoking status of the closest friend | 148 | .96 |
| Smoking status of the father | 147 | .98 |
| Smoking status of the mother | 148 | .92 |
| The age of started smoking | 102 | .98 |
| Daily number of cigarettes (only smoking) | 38 | .93 |
| The number of sibling | 148 | 1.00 |
| Birth order | 147 | 1.00 |
| Families’ average monthly income | 131 | .87 |
| Average monthly spending amounts | 144 | .94 |

Table 2: Students’ smoking status

| Smoking status | N | % |
|-------------------------|------|-------|
| Non-smokers (NS) | 660 | 62,4 |
| Occasional Smokers (OS) | 128 | 12,1 |
| Ex-smokers (ES) | 77 | 7,3 |
| Constant Smokers (CS) | 192 | 18,2 |
| Total | 1057 | 100,0 |

Table 3: The result of chi square test related to students' some selected features and smoking status

| Variables | NS | OS | ES | CS | T | X ² | Df | p | C |
|------------------------------------|---------------|-----------|--------------|---------------|-----|----------------|----|-------|------|
| | f % | f % | f % | f % | | | | | |
| Gender | | | | | | | | | |
| Male | 297 (49,1) | 83 (13,7) | 61 (10,1) | 164 (27,1) | 605 | 120,90 0 | 3 | ,000* | ,320 |
| Female | 363 (80,3) | 45 (10,0) | 16 (3,5) | 28 (6,2) | 452 | | | | |
| Class level | | | | | | | | | |
| Freshman | 213 (74,5) | 17 (5,9) | 21 (7,3) | 35 (12,2) | 286 | 46,421 | 9 | ,000* | ,205 |
| Sophomore | 144 (60,5) | 39 (16,4) | 17 (7,1) | 38 (16,0) | 238 | | | | |
| Junior | 131 (57,5) | 34 (14,9) | 24 (10,5) | 39 (17,1) | 228 | | | | |
| Senior | 172 (56,4) | 38 (12,5) | 15 (4,9) | 80 (26,2) | 305 | | | | |
| Programs | | | | | | | | | |
| PTS | 110 (57,6) | 27 (14,1) | 16 (8,4) | 38 (19,9) | 191 | 39,296 | 15 | ,001* | ,189 |
| PTRS | 64 (53,3) | 17 (14,2) | 4 (3,3) | 35 (29,2) | 120 | | | | |
| ESE | 100 (63,7) | 20 (12,7) | 10 (6,4) | 27 (17,2) | 157 | | | | |
| EME | 168 (73,4) | 20 (8,7) | 15 (6,6) | 26 (11,4) | 229 | | | | |
| SST | 99 (55,0) | 29 (16,1) | 21 (11,7) | 31 (17,2) | 180 | | | | |
| TLT | 119 (66,1) | 15 (8,3) | 11 (6,1) | 35 (19,4) | 180 | | | | |
| Families permanently reside | | | | | | | | | |
| Village | 101 (62,7) | 21 (13,0) | 11 (6,8) | 28 (17,4) | 161 | 13,347 | 12 | ,344 | |
| Town | 69 (69,7) | 10 (10,1) | 7 (7,1) | 13 (13,1) | 99 | | | | |
| Borough | 161 (59,9) | 30 (11,2) | 28 (10,4) | 50 (18,6) | 269 | | | | |
| City | 225 (61,8) | 50 (13,7) | 23 (6,3) | 66 (18,1) | 364 | | | | |
| Metropolis | 91 (65,5) | 10 (7,2) | 7 (5,0) | 31 (22,3) | 139 | | | | |
| Housing type | | | | | | | | | |
| With family | 115 (65,0) | 21 (11,9) | 5 (2,8) | 36 (20,3) | 177 | 57,697 | 12 | ,000* | ,229 |
| With friends | 229 (53,1) | 61 (14,2) | 38 (8,8) | 103 (23,9) | 431 | | | | |
| Public dormitory | 250 (72,9) | 35 (10,2) | 21 (6,1) | 37 (10,8) | 343 | | | | |
| Private dormitory | 44 (73,3) | 3 (5,0) | 9 (15,0) | 4 (6,7) | 60 | | | | |
| Other | 14 (45,2) | 4 (12,9) | 4 (12,9) | 9 (29,0) | 31 | | | | |

*p < .01

Table 4: The result of chi square test related to educational levels of the parents, smoking status of the family, smoking status of the closest friend and students' smoking status

| Variables | NS | OS | ES | CS | T | X ² | Df | p | C |
|---|---------------|---------------|--------------|---------------|-----|----------------|----|-------|------|
| | f % | f % | f % | f % | | | | | |
| Educational level of the mother | | | | | | | | | |
| Illiterate | 142 (59,7) | 30 (12,6) | 26 (10,9) | 40 (16,8) | 238 | 21,059 | 15 | ,135 | |
| Literate | 81 (59,1) | 16 (11,7) | 6 (4,4) | 34 (24,8) | 137 | | | | |
| Elementary school | 322 (64,4) | 57 (11,4) | 37 (7,4) | 84 (16,8) | 500 | | | | |
| Secondary school | 50 (59,5) | 10 (11,9) | 4 (4,8) | 20 (23,8) | 84 | | | | |
| High school | 38 (64,4) | 10 (16,9) | 2 (3,4) | 9 (15,3) | 59 | | | | |
| University | 16 (80,0) | 3 (15,0) | 1 (5,0) | 0 (0,0) | 20 | | | | |
| Educational level of the father | | | | | | | | | |
| Illiterate | 19 (48,7) | 6 (15,4) | 4 (10,3) | 10 (25,6) | 39 | 14,831 | 15 | ,464 | |
| Literate | 43 (59,7) | 5 (6,9) | 6 (8,3) | 18 (25,0) | 72 | | | | |
| Elementary school | 248 (62,3) | 49 (12,3) | 33 (8,3) | 68 (17,1) | 398 | | | | |
| Secondary school | 113 (66,5) | 20 (11,8) | 14 (8,2) | 23 (13,5) | 170 | | | | |
| High school | 118 (61,5) | 24 (12,5) | 9 (4,7) | 41 (21,4) | 192 | | | | |
| University | 109 (64,9) | 23 (13,7) | 10 (6,0) | 26 (15,5) | 168 | | | | |
| Smoking status of the closest friend | | | | | | | | | |
| NS | 448 (83,3) | 29 (5,4) | 26 (4,8) | 35 (6,5) | 538 | 315,55 2 | 9 | ,000* | ,481 |
| OS | 92 (47,9) | 54 (28,1) | 11 (5,7) | 35 (18,2) | 192 | | | | |
| ES | 17 (37,8) | 5 (11,1) | 16 (35,6) | 7 (15,6) | 45 | | | | |
| CS | 100 (36,4) | 39 (14,2) | 23 (8,4) | 113 (41,1) | 275 | | | | |
| Smoking status of the father | | | | | | | | | |
| NS | 138 (66,3) | 29 (13,9) | 13 (6,3) | 28 (13,5) | 208 | 19,653 | 9 | ,020* | ,136 |
| OS | 61 (66,3) | 10 (10,9) | 9 (9,8) | 12 (13,0) | 92 | | | | |
| ES | 222 (60,7) | 50 (13,7) | 16 (4,4) | 78 (21,3) | 366 | | | | |
| CS | 232 (61,1) | 38 (10,0) | 39 (10,3) | 71 (18,7) | 380 | | | | |
| Smoking status of the mother | | | | | | | | | |
| NS | 529 (61,9) | 104 (12,2) | 62 (7,3) | 160 (18,7) | 855 | 5,853 | 9 | ,755 | |
| OS | 57 (67,1) | 9 (10,6) | 7 (8,2) | 12 (14,1) | 85 | | | | |
| ES | 42 (65,6) | 6 (9,4) | 7 (10,9) | 9 (14,1) | 64 | | | | |
| CS | 32 (65,3) | 7 (14,3) | 1 (2,0) | 9 (18,4) | 49 | | | | |

** p < .01

* p < .05

Table 5: The result of t-test connected with the age at which a student started smoking status and the average daily numbers of cigarettes as to gender

| Variables | Male | | Female | | df | t | p |
|--|-----------|-------|-----------|------|-----|--------|-------|
| | \bar{X} | Ss | \bar{X} | Ss | | | |
| The age of started smoking N: Male 266, Female 69 | 16,22 | 2,86 | 18,06 | 2,78 | 333 | -4,768 | ,000* |
| Daily number of cigarettes N: Male 221, Female 60 | 8,15 | 13,08 | 7,073 | 7,74 | 279 | 4,617 | ,000* |

*p < .01

Table 6: Smoking status according to some variables

| Variables | N | NS | | OS | | OS | | CS | |
|-----------|------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
| | | \bar{X} | Ss | \bar{X} | Ss | \bar{X} | Ss | \bar{X} | Ss |
| Age | 1057 | 21,10 | 1,98 | 21,98 | 2,16 | 21,46 | 2,04 | 22,23 | 2,39 |
| NSB | 1054 | 3,33 | 2,21 | 3,67 | 2,61 | 3,51 | 2,21 | 3,76 | 2,45 |
| BO | 1051 | 2,90 | 2,05 | 3,35 | 2,56 | 3,03 | 1,94 | 3,18 | 2,09 |
| FI | 999 | 904,70 | 623,11 | 997,00 | 809,80 | 848,03 | 541,87 | 1001,70 | 647,83 |
| AMSA | 1038 | 245,64 | 113,72 | 277,63 | 116,36 | 254,15 | 92,12 | 323,44 | 128,29 |
| GPA | 1057 | 2,74 | 0,49 | 2,51 | 0,50 | 2,47 | 0,52 | 2,43 | 0,47 |

* p < .01

NSB: The Number of Sibling
AMSA: Average Monthly Spending Amount
GPA
BO: Birth Order
FI: Family Income

Table 7: The result of one way ANOVA connect with age, NSB, BO, FI, AMSA and GPA as to smoking status

| | | Sum of Squares | df | Mean Square | F | p | LSD |
|------|----------------|----------------|------|-------------|--------|-------|----------------------------|
| Age | Between Groups | 233,732 | 3 | 77,911 | 17,851 | ,000* | NS-OS, NS-CS, OS-CS |
| | Within Groups | 4595,712 | 1053 | 4,364 | | | |
| | Total | 4829,443 | 1056 | | | | |
| NSB | Between Groups | 33,324 | 3 | 11,108 | 2,081 | ,101 | |
| | Within Groups | 5605,079 | 1050 | 5,338 | | | |
| | Total | 5638,403 | 1053 | | | | |
| BO | Between Groups | 28,246 | 3 | 9,415 | 2,091 | ,100 | |
| | Within Groups | 4715,293 | 1047 | 4,504 | | | |
| | Total | 4743,539 | 1050 | | | | |
| FI | Between Groups | 2372868,642 | 3 | 790956,214 | 1,890 | ,130 | |
| | Within Groups | 416457096,835 | 995 | 418549,846 | | | |
| | Total | 418829965,478 | 998 | | | | |
| AMSA | Between Groups | 909887,369 | 3 | 303295,790 | 22,780 | ,000* | NS-OS, NS-CS, OS-CS |
| | Within Groups | 13766941,683 | 1034 | 13314,257 | | | |
| | Total | 14676829,052 | 1037 | | | | |
| GPA | Between Groups | 19,843 | 3 | 6,614 | 26,837 | ,000* | NS-OS, NS-OS, NS-CS, OS-CS |
| | Within Groups | 259,519 | 1053 | ,246 | | | |
| | Total | 279,361 | 1056 | | | | |

* p < .01