

## ORIGINAL RESEARCH

Medicine Science 2019;8(3):726-31

# Effects of socioeconomic levels of families and family relations on substance addiction of adolescents

Huseyin Arslan<sup>1</sup>, Eyup Sari<sup>2</sup>

<sup>1</sup>Polatli State Hospital, Ankara, Turkey

<sup>2</sup>Dr. Sami Ulus Training and Research Hospital, Department of Pediatrics, Ankara, Turkey

Received 18 April 2019; Accepted 10 June 2019

Available online 06.09.2019 with doi:10.5455/medscience.2019.08.9064

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### Abstract

In adolescents, family, friends, school, and personal characteristics of the individual may constitute a risk factor for smoking, alcohol, and substance abuse. This study aimed to evaluate the effect of the socioeconomic conditions and the relationships of adolescents on substance use. A total of 527 students aged 13-18 from 10 schools located in the Polatli District of Ankara were included in the study. Gender, age, school type, education levels of parents, income levels of the family, problem-solving approaches of the family, along with substance use history in the family, the substances used, age of onset, and domestic relations were all evaluated. Out of 326 male students, 75 (14.23%) were established as addicted, and out of 201 female students, 39 (7.40%) were found as addicted, making a total of 114 (21.63%) out of 527. While 70 (61.40%) of the addicts were found to be using tobacco, 41 (35.96%) were alcohol, 25 (21.92%) were using volatile substances, and 33 (28.94%) were abusing other substances. At least One of the parents of 122 students were found to use an addictive substance, and in total, close relatives of 293 students were determined to use substance. Of the students using substance, 26.3% were reported to use substance due to individual reasons. The age of fourteen was determined as the most frequent starting age for substance use. The type of school, the level of education of the student, and the mother were found to be effective in substance use. It was observed that the families of young individuals that used substance set rules at lower rates as to what they should be doing outside and when they should be home, and that they participated in fewer activities with their children. Our study showed that there are social and economic reasons that reveal or maintain addiction. These factors should be taken into account for the prevention of addiction.

**Keywords:** Adolescents, substance addiction, family relations

### Introduction

Substance addiction is a behavioral disorder that manifests itself thanks to synergistic interaction of various risk factors and protective factors, and that has psychosocial origins as much as biological origins [1]. Substance addiction is the course of maintaining substance use even though the individual observed its harms on themselves or their peers around them, and it is the resulting behavioral and adaptation disorder. The person who abuses substance cannot fulfill the tasks expected from them on a social level. Substance use is defined as a situation that limits the freedom of the individual and enslaves the individual [2]. Research shows that the age of onset of substance use has fallen day by day. In Turkey, studies conducted on patients hospitalized in AMATEM (Alcohol and Substance Addiction Treatment Centre) showed the average age of onset of drug use to be around 20 years of age [3].

A large number of risk factors that prepare the ground for smoking, alcohol, and drug use have been identified. These risk factors are family, friends, school, personal characteristics of the individual, occurrence of other risky behaviors, social, and environmental factors [4]. Family order, communication style, and consistency can directly affect the psycho-social adjustment of adolescents [5]. Family structure and family attitude are important factors in the development of substance use disorder [6]. A strong parent-child relationship is an important preventive factor in preventing substance abuse during adolescence and young adulthood [7,8]. This study aimed to evaluate the effects of adolescents' socio-economic statuses and their relationships with families on substance use.

### Material and Methods

The study was carried out on March 22, 2016, with the approval of Polatli District National Education Directorate. Students 13-18 years old from 10 schools located in the Polatli District of Ankara whose parents gave consents between March 23, 2016, and May 15, 2016, were included in the study. In the first part of

\*Corresponding Author: Eyup Sari, Dr. Sami Ulus Training and Research Hospital, Department of Pediatrics, Ankara, Turkey  
E-mail: [doktoreyup@hotmail.com](mailto:doktoreyup@hotmail.com)

the questionnaire given to the students: gender, age, school type, with whom they lived, the level of education of the parents, and the income level of the family; in the second part: comparison of the financial situation of the family with other families, with whom the problems were usually shared, the family's approach to solving the problems and whether there was substance use in the family were evaluated; and in the third part: individual's use of substance, used substance, and the age at onset; and in the fourth part: the status of family relationships were evaluated through 26 questions (Table 1). The answers for the four parts were evaluated in tables. Numerical data were evaluated as Mean  $\pm$  Standard Deviation or Median (minimum-maximum) according to distribution. Cross-tables were prepared for categorical variables, and the chi-square test was used to evaluate the effect of each factor on substance

dependence.

## Results

Out of 326 male students, 75 (14.23%) were established as addicted, and out of 201 female students, 39 (7.40%) were found as addicted, making a total of 114 (21.63%) out of 527. Of the students, 70 (61.40%) reported that they used tobacco, 41 (35.96%) alcohol, 25 (21.92%) volatile substances, and 33 (28.94%) reported to have used other substances. The percentage of students whose mother was graduated from primary school was established as 39%. Of the demographic data, type of school, level of education of the student and the mother were found as effective in substance use. Table 2 shows the effect of demographic data on substance use.

**Table 1.** Addicted Students' responses to 26 statements about families

| Expressions                                                                                                                                                                      | No |    | Partially |    | Yes |     | No response |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----------|----|-----|-----|-------------|
|                                                                                                                                                                                  | n  | %  | n         | %  | n   | %   |             |
| As a family, we are generally quite in accord; we solve problems with mutual understanding and respect.                                                                          | 21 | 18 | 44        | 39 | 49  | 43  | 0           |
| Anger, quarrel, and aggressive behaviors are common in our family relations.                                                                                                     | 70 | 61 | 33        | 29 | 11  | 9.6 | 0           |
| My family often informs my siblings and me about the damages of using the substance to the human being.                                                                          | 14 | 12 | 34        | 30 | 65  | 58  | 1           |
| I'd rather share my problems with other people instead of family members.                                                                                                        | 44 | 39 | 48        | 43 | 21  | 19  | 1           |
| People in my family act with empathy in their relationships with me. When they disagree with my thoughts, they tell me with an appropriate manner and with their justifications. | 22 | 19 | 46        | 40 | 46  | 41  | 0           |
| I think that it will hurt me if my father and my mother resort to physical and mental violence in the family.                                                                    | 21 | 20 | 27        | 25 | 59  | 55  | 7           |
| I believe that we will do our best together to prevent family members from abusing drugs.                                                                                        | 25 | 23 | 26        | 24 | 57  | 53  | 6           |
| Family members generally talk to me using imperative sentences. (Hush! Fetch me that! Stop talking! The study already! etc.)                                                     | 53 | 49 | 38        | 35 | 18  | 17  | 5           |
| I can freely express my thoughts in the family, and I know that I would be taken into consideration.                                                                             | 23 | 22 | 33        | 31 | 51  | 48  | 7           |
| I know I will be punished without warning if I do not fulfill my family's wishes.                                                                                                | 52 | 48 | 36        | 33 | 21  | 19  | 5           |
| Problems in the family do not concern me much and do not affect me.                                                                                                              | 65 | 60 | 34        | 32 | 9   | 8.3 | 6           |
| Words of love, respect, and good wishes are often used in our family. Good morning, how are you, dear, good night, etc.)                                                         | 19 | 18 | 39        | 36 | 50  | 46  | 6           |
| Comparing me with my friends by my family hurts me.                                                                                                                              | 23 | 22 | 36        | 34 | 48  | 45  | 7           |
| I would think I couldn't share it with my family if I were using the substance.                                                                                                  | 39 | 36 | 35        | 32 | 34  | 32  | 6           |
| My family supports me in all matters.                                                                                                                                            | 26 | 25 | 40        | 38 | 40  | 38  | 8           |
| Our family structure prevents us from having healthy solidarity.                                                                                                                 | 59 | 55 | 37        | 35 | 11  | 10  | 7           |
| My parents try to protect family members against all risks of life.                                                                                                              | 15 | 14 | 29        | 27 | 63  | 59  | 7           |
| I have a generation of conflict with my family. They don't understand me.                                                                                                        | 51 | 47 | 40        | 37 | 17  | 16  | 6           |
| In spite of my family's support and efforts, I could not prevent substance use.                                                                                                  | 43 | 40 | 34        | 32 | 31  | 29  | 6           |
| My parents know who I spend within the evenings.                                                                                                                                 | 16 | 15 | 27        | 25 | 67  | 61  | 4           |
| My family knows where I am in the evenings.                                                                                                                                      | 13 | 12 | 35        | 32 | 60  | 56  | 6           |
| My family knows my friends.                                                                                                                                                      | 14 | 13 | 37        | 34 | 58  | 53  | 5           |
| My family knows the families of my friends.                                                                                                                                      | 31 | 28 | 44        | 40 | 35  | 32  | 4           |
| My family often chats with the families of my friends.                                                                                                                           | 34 | 31 | 49        | 45 | 26  | 24  | 5           |
| My family sets strict rules as to what I can do outside the house.                                                                                                               | 40 | 36 | 48        | 44 | 22  | 20  | 4           |
| My family sets strict rules as to when I should be back home in the evenings.                                                                                                    | 23 | 21 | 49        | 45 | 37  | 34  | 5           |

**Table 2.** Effect of demographic data on substance addiction

| Substance Use                                | No  |     | Yes |      | Value       | p      |
|----------------------------------------------|-----|-----|-----|------|-------------|--------|
|                                              | n   | %   | n   | %    |             |        |
| Gender                                       |     |     |     |      | 0.926       | 0,336  |
| Male                                         | 251 | 77  | 75  | 23   |             |        |
| Female                                       | 162 | 81  | 39  | 19.4 |             |        |
| Education Level                              |     |     |     |      | 112.930     | <0.001 |
| Primary Education                            | 253 | 98  | 6   | 2.3  |             |        |
| High School                                  | 160 | 59  | 108 | 40.9 |             |        |
| School Type                                  |     |     |     |      | 146.627     | <0.001 |
| Primary Education                            | 253 | 98  | 6   | 2.3  | 1,2,3,4,5,6 |        |
| Imam Hatip High School                       | 56  | 71  | 22  | 28.2 | 1           |        |
| Private high School                          | 21  | 55  | 17  | 44.7 | 2           |        |
| Anatolian High School                        | 3   | 75  | 1   | 25.0 | 3           |        |
| Open Education High School                   | 3   | 30  | 7   | 70.0 | 4           |        |
| Apprenticeship / Vocational High School      | 64  | 53  | 58  | 47.5 | 5           |        |
| Technical High School                        | 13  | 81  | 3   | 18.7 | 6           |        |
| Education Level of Father                    |     |     |     |      | 4.576       | 0.712  |
| Not literate                                 | 6   | 67  | 3   | 33.3 |             |        |
| Literate                                     | 10  | 83  | 2   | 16.7 |             |        |
| Primary School Graduate                      | 125 | 78  | 36  | 22.4 |             |        |
| Secondary School Graduate                    | 90  | 74  | 31  | 25.6 |             |        |
| High School Graduate                         | 128 | 80  | 33  | 20.5 |             |        |
| College Graduate                             | 3   | 60  | 2   | 40   |             |        |
| University Graduate                          | 37  | 86  | 6   | 14   |             |        |
| Education Level of Mother                    |     |     |     |      | 16.115      | 0.024  |
| Not literate                                 | 11  | 50  | 11  | 50   |             |        |
| Literate                                     | 15  | 88  | 2   | 11.8 |             |        |
| Primary School Graduate                      | 159 | 79  | 43  | 21.3 |             |        |
| Secondary School Graduate                    | 110 | 78  | 32  | 22.5 |             |        |
| High School Graduate                         | 82  | 78  | 23  | 21.9 |             |        |
| College Graduate                             | 6   | 100 | 0   | 0    |             |        |
| University Graduate                          | 16  | 94  | 1   | 5.9  |             |        |
| Postgraduate / Ph.D. Degree Holder           | 2   | 67  | 1   | 33.3 |             |        |
| Number of People in the Student's Household  |     |     |     |      | 11.539      | 0.073  |
| Parents and Sibling                          | 347 | 79  | 93  | 21.1 |             |        |
| Parents and Sibling                          | 21  | 81  | 5   | 19.2 |             |        |
| Father and Sibling                           | 10  | 83  | 2   | 16.7 |             |        |
| With adult family members other than parents | 12  | 92  | 1   | 7.7  |             |        |
| With friends                                 | 4   | 57  | 3   | 42.9 |             |        |
| Away from relatives / On their own           | 0   | 0   | 1   | 100  |             |        |
| Other                                        | 12  | 57  | 9   | 42.9 |             |        |
| Income Level of the Family                   |     |     |     |      | 3.1968      | 0.202  |
| 2500<                                        | 223 | 54  | 50  | 12   |             |        |
| 2500>                                        | 104 | 25  | 18  | 4.3  |             |        |
| 4500>                                        | 21  | 5   | 1   | 0.2  |             |        |
| No Response                                  | 65  |     | 45  |      |             |        |

p&lt;0.05 was accepted as significant and shown in bold characters.

406 (77%) students, reported that they were looking for a solution to their problems with their families. One of the parents of 122 (22.20%) students and a total of close relatives of 293 (55.59%) students were found to use addictive substances. The answers given by the students to the second part of the questionnaire are given in Table 3.

Of the students using the substance, 26.3% were reported to use substance due to individual reasons. The age of fourteen was determined as the most frequent starting age for substance use. Table 4 shows the frequency of substance use, and details on substance use are given in Table 5.

**Table 3.** Individuals that the students share their issues, family's approach to problem-solving, and substance use in family

| Individuals that students share their issues, feelings, and opinions* | Number (n) | Percentage (%) |
|-----------------------------------------------------------------------|------------|----------------|
| Nobody                                                                | 92         | 17.5           |
| Family                                                                | 277        | 52.6           |
| Friends                                                               | 259        | 49.1           |
| Teachers                                                              | 8          | 1.5            |
| Relatives                                                             | 5          | 0.9            |
| Families' solution-seeking statuses according to students             | Number (n) | Percentage (%) |
| Yes                                                                   | 404        | 76.7           |
| No                                                                    | 26         | 4.9            |
| Occasionally                                                          | 94         | 17.8           |
| Addictive substance use in the family                                 | Number (n) | Percentage (%) |
| Nobody Uses                                                           | 234        | 44.4           |
| Mother                                                                | 55         | 10.4           |
| Father                                                                | 67         | 12.7           |
| Sibling                                                               | 16         | 3.0            |
| Close relative                                                        | 49         | 9.3            |
| Unspecified                                                           | 106        | 20.1           |

\*Multiple options can be marked.

**Table 3.** Frequency of use of substances

|                                         | Number (n) | Percentage (%) |
|-----------------------------------------|------------|----------------|
| No substance use                        | 406        | 77             |
| Tobacco products use                    | 70         | 13.3           |
| A few a day                             | 19         | 27.5           |
| One pack a day                          | 30         | 43.5           |
| One pack a week                         | 5          | 7.2            |
| Two or more packs a week                | 3          | 4.3            |
| With irregular intervals                | 12         | 17.4           |
| Unspecified                             | 1          | 0              |
| Frequency of alcohol use                | 41         | 7.8            |
| Everyday                                | 4          | 9.8            |
| A few days a week                       | 2          | 4.9            |
| Once a week                             | 2          | 4.9            |
| Several days per month                  | 2          | 4.9            |
| With irregular intervals                | 31         | 75.6           |
| Frequency of use of volatile substances | 10         | 1.9            |
| Everyday                                | 4          | 40             |
| Several times a week                    | 2          | 20             |
| Several times a month                   | 2          | 20             |
| With irregular intervals                | 2          | 20             |
| Frequency of use of other substances    | 15         | 2.8            |
| Everyday                                | 5          | 33.3           |
| Several times a week                    | 4          | 26.7           |
| Once a week                             | 1          | 6.7            |
| Several times a month                   | 1          | 6.7            |
| With irregular intervals                | 4          | 26.7           |

**Table 5.** Details on substance abuse of students

| <b>Trial status to quit using the substance</b>                        | <b>Number (n)</b> | <b>Percentage (%)</b> |
|------------------------------------------------------------------------|-------------------|-----------------------|
| No, I haven't tried                                                    | 56                | 49.1                  |
| Yes, I tried, but I couldn't quit                                      | 28                | 24.6                  |
| Yes, I tried, and I quit                                               | 21                | 18.4                  |
| No response                                                            | 9                 | 7.9                   |
| <b>The most important factor in substance use</b>                      | <b>Number (n)</b> | <b>Percentage (%)</b> |
| Personal reasons                                                       | 38                | 33.3                  |
| Social reasons                                                         | 30                | 26.3                  |
| No Response                                                            | 25                | 21.9                  |
| Domestic reasons                                                       | 21                | 18.4                  |
| <b>The reaction of the family when they discover the substance use</b> | <b>Number (n)</b> | <b>Percentage (%)</b> |
| They would not say anything.                                           | 21                | 18.4                  |
| They warn                                                              | 38                | 33.3                  |
| They would get angry                                                   | 30                | 26.3                  |
| They use physical violence                                             | 25                | 21.9                  |
| <b>Age of onset to use the substance</b>                               | <b>Number (n)</b> | <b>Percentage (%)</b> |
| Eight years of age                                                     | 2                 | 1.8                   |
| Ten years of age                                                       | 4                 | 3.5                   |
| 11 years of age                                                        | 4                 | 3.5                   |
| 12 years of age                                                        | 3                 | 2.6                   |
| 13 years of age                                                        | 7                 | 6.1                   |
| 14 years of age                                                        | 11                | 9.6                   |
| 15 years of age                                                        | 7                 | 6.1                   |
| 16 years of age                                                        | 6                 | 5.3                   |
| 17 years of age                                                        | 2                 | 1.8                   |
| Unspecified                                                            | 68                | 59.6                  |

## Discussion

While a study conducted by TUBIM (Turkish Monitoring Centre for Drugs and Drug Addiction) in Turkey in 2014 established that the age to start using drugs are down to ten and above, the main focus is the age group of 14-15 [9,10]. Tobacco addiction is most common in the adolescent age group [11,12]. The frequency of substance addiction varies between the types of schools. In a study conducted by our study, it was shown that the rates of addiction in vocational high schools were high [11]. In studies conducted in our country, it was reported that individuals with low-income levels [13] that do not seek solutions to problems and that grow in uninterested families [14] are more likely to start using drugs. Our research also produced data in this direction. Families should raise their children's awareness of drug addiction and enlighten their children on this issue. They should be exemplary for their children by not using any substance (smoking, alcohol, volatile substances) [15]. They should provide options for children to use their leisure time positively and should accompany in their activities appropriate to their tendencies. They should ensure two-directional and empathetic communication in their domestic dialogues, and thus, they should support the adolescent for the solution of the problems they may face [15]. Parents that find out that their child uses substance should not develop a reactionary approach; they should try to identify the causes that directed the adolescent towards substance abuse; they should assist their children in eliminating the said causes; and when necessary, they

should seek an expert opinion and help for psychological and social support [16]. Addiction is high in extremely shadowing, oppressive, and violent families [17,18]. Common habits that provide unity, solidarity, and discipline in the family should be established. To be able to eat together, to go out together, not to come home late without permission, and manners and behaviors that would lead to regular and orderly living habits should be put forward. Activities which they would enliven by participating and that they would enjoy should be carried out. These activities can be a game, entertainment, or a task that will attract the child. Doing such activities are very important in psychosocial development from infancy [17].

There are public obligations in the fight against substance addiction as well. The issue of prevention, early intervention, treatment, and rehabilitation of drug addiction should be one of the priorities in health policies. Our study showed that the use of the substance in the adolescent age group was higher. For this reason, prevention studies should be given priority specifically to the 11-15 age group. Bearing in mind the fact that this is a public health issue, heightening the awareness of the public should be targeted. Local and global common plans should be made to prevent drug addiction. Operations of state institutions and implementations of non-governmental organizations should be encouraged in terms of capacity increases, and synchronized modeling should be carried out on this issue. Addiction treatment should be available for everyone, the number of professionals specializing in addiction

should be increased, and in addition to pharmacological treatment, the infrastructure for the presentation of psychosocial treatments should be implemented. Customized and addiction level-dependent treatment programs should be developed for addicts at varying stages. New technologies should be utilized to treat addiction, and new applications and tools should be developed through these technologies. In the treatment of addicts, the necessary support systems should be established on social, economic, and health-related problems that reveal or maintain addiction [19].

## Conclusion

Substance addiction is high in the 16-18 age group. The type of school, the level of education of the student, and the mother were found to be effective in substance use. Our study showed that there are social and economic reasons that reveal or maintain addiction. These factors should be taken into account for the prevention of addiction.

## Conflict of interest

*The authors declare that there are no conflicts of interest.*

## Financial Disclosure

*All authors declare no financial support.*

## Ethical approval

*Consent of ethics was approved by the local ethics committee.*

*Huseyin Arslan ORCID: 0000-0003-1025-7873*

*Eyup Sari ORCID: 0000-0003-3020-5632*

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