

A Study On Alcohol Use Among Working Youth Who Are Continuing Apprenticeship Training

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SUMMARY:

Objective: Considering both burden of entering working life and engaging in adult roles in terms of being employed, working youth forms a specific group to be handled regarding alcohol use problems. In this study it was aimed to investigate prevalence and patterns of alcohol use among youth in apprenticeship schools in central Ankara.

Method: A survey was done to investigate presence of alcohol use problems among students of five apprenticeship schools in Ankara using CAGE Questionnaire and a questionnaire form including more detailed questions about alcohol use.

Results: Prevalence of life-time use of alcohol was 37.3% and prevalence of alcohol use more than once was 24.3%. Ten per cent of students with a history of alcohol use told that they went on drinking during last year. Proportion of students who continued drinking during the last year and getting at least 2+ score from CAGE was found as 4.5%.

Conclusion: Prevalence of clinically significant alcohol use is quite high among working youth. Thus, in order to plan preventive measures, risk factors for alcohol use problems should be considered in detail in working youth.

Key Words: Alcohol use, adolescence, epidemiology, working youth

INTRODUCTION

Alcohol or substance use disorders generally begin with adolescence. In studies which were done in clinical population with alcohol dependency from Turkey, beginning age for alcohol use was reported between 14 and 20 (Coşar et al. 1996, Atbaşoğlu and Doğan 1996, Özgür-İlhan et al. 2003, Akvardar et al. 2003).

When evaluated from the point of psychosocial development, adolescence is a period in which the individual is very sensitive to environmental effects. There is a rapid and intense change during this period. In Turkey, most studies which investigated prevalence of alcohol use among youth were performed with students; in these studies prevalence for alcohol use differed between 11.6 % and 56.2 % (Türkcan 1999). Prevalence of lifetime alcohol use was reported as 53.6 % among young individuals between 18-25 years of age in İstanbul (Ögel et al. 2003), and as 45 % among high school students in nine different provinces (Ögel et al. 2004). In their study with working youth, Özbay et al. (1991) found a higher prevalence for alcohol use than age-matched students (9 % vs. 5 %). In a more recent study which was done in Mersin Apprenticeship Schools, prevalence for alcohol use among working youth was reported as 39.1 % (Öner et al. 2005). But as patterns of alcohol use were not defined exactly in these studies, comparison of the results is difficult. Nonetheless, it may be concluded that alcohol use disorder is an important problem among working youth and should be evaluated extensively.

Working adolescents form a special subgroup of young population. It was proposed that alcohol use disorders were related with negative consequences of working life and this proposal was supported with some studies: in adolescents who attended to school and worked at the same time, working hours more than 10-20 hours a week were shown to be a risk factor for alcohol or substance use (Resnick et al. 1997, Wegman and Davis 1999, Valois et al. 1999, Kouvonen and Lutonen 2002). As working adolescents are away from controlled social environments like school and family, they are more susceptible to some negative factors with regard to alcohol abuse (Gorman 1988, Hammer and Vaglum 1990, Wegman and Davis 1999). As a result, working adolescents meet with the need to overcome the responsibility of work life before completing their psychosocial and biological development. To undertake such a responsibility like adults may be followed by alcohol use which is generally considered as an adulthood behavior (Kouvonen and Lutonen 2002).

In this study we evaluated alcohol use problem in adolescents who were working and continuing their occupational training at the same time. For this purpose, we investigated prevalence and patterns of alcohol use in attendants of five apprenticeship training centers in Ankara.

METHOD

Sampling

Adolescents who were attending five apprenticeship training centers in Ankara formed the universe of this study (N=4405). In these training centers, different student groups attend to school on each day of the week; i.e., each Monday same students are present at the school and Tuesday group attends to the school on each Tuesday, and so forth. On the remaining days of the week, the students are at work. Total number of students and their distribution according to schools are presented in the Table 1. Distributions of students in weekdays were similar in each school and it was told that the pattern of this distribution process was randomized by school administrators. One day was randomly selected for each school and all students who were present at the school at that day were interviewed. If the interview procedure could not be completed in a single day, the school was revisited on the corresponding day next week.

Considering a prevalence of 50 % and confidence interval of 95 % minimum sample size was estimated as 354. But when school drops and probable refusal of participation were taken into consideration, it was decided to include all students from one week day. The objective was to access 800 students (approximately 4405/5). As a result of discontinuity, totally 593 students were contacted for participation. Seven students refused the interview and five students had examinations at the time determined for the interview. Finally a total of 581 students were included in the study. This number was greater than calculated minimum sample size.

Instruments

The students were asked questions about their sociodemographic characteristics. In the second part alcohol use was added to the questionnaire. Age of first drink, continuation of alcohol use after the first experimental use, the place and presence of peers at the first use of alcohol, use of alcohol in the last-year period, frequency and quantity of alcohol consumption, tolerance, problems with stopping drinking once initiated, effect of drinking on their daily activities and subjective awareness of the alcohol use problem were included in the second part of the questionnaire.

At the second step, the CAGE questionnaire was administered to the students who reported that they used alcohol more than once in life-time. The CAGE questionnaire covered the following four items: "Have you ever felt you should cut down your drinking? (Cut down)", "Have people annoyed you by criticising your drinking? (Annoyed)", "Have you ever felt bad or guilty about your drinking? (Guilty)", and "Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover? (Eye-opener)" Each question was scored with one point.

The CAGE questionnaire did not aim to diagnose alcohol abuse or dependence. However, one can decide about presence of a clinically significant alcohol use problem using the CAGE questionnaire. When the cut-off point is taken as 1 (CAGE 1+), and then a probable alcohol use problem is considered. A score above 1 indicates presence of a clinically significant alcohol use disorder (Schorling and Buchsbaum 1997).

Table 1. Total number of students and distribution of the sample at the schools.

School	N*	%	n**	%
School 1	901	20,4	145	25,0
School 2	430	9,8	49	8,4
School 3	390	8,9	52	9,0
School 4	1020	23,2	143	24,6
School 5	1664	37,7	192	33,0
Total	4405	100,0	581	100,0

* Total number of students who were attending to the school

** Total number of students who were included in the study within whole sample

Procedure

After receiving permission from the Turkish Ministry of Education, Directorate of Vocational Schools and the school administrators, visits were paid to classrooms and the study was explained to the teachers and the students separately. At the beginning, all students were informed about the objectives of the study. Confidentiality and anonymity of the data were assured. Interviews were performed face-to-face by the first two authors of the study and four sixth grade medical school students who were attending their internship at alcohol dependency unit and informed about the questionnaire. The cut-off point for probable alcohol use problems was taken as 1+ in the CAGE questionnaire. If the subject got a score of CAGE 1+, then more detailed questions about alcohol use were asked.

The study was held between May 2004 and June 2004.

Statistical Analysis

SPSS 10.0 software was used for the statistical analysis. Frequency estimates were done. Relationships between sociodemographic variables (age, place of birth, educational level of the parents, status of being the only one earning money in the family), and presence of alcohol use problem according to CAGE 2+ cut-off point were analysed with chi-square test or Fisher's exact test where appropriate. According to weekly limit of 45 hours which was determined by the International Labor Organisation (ILO), weekly working hours were divided in two categories and its relationship with alcohol use problem was analysed using chi-square test again.

RESULTS

Of the sample population, 564 students (98.8 %) were males and 7 (1.2 %) were females. Mean age ($\pm$ standard deviation) was 17.4 ± 1.2 (between 15-24) years. Weekly working hours of the sample population were 67.3 ± 14.1 hours (between 14-128 hours). According to birth places, 276 students (47.5 %) were born in an urban area, 96 students (16.5 %) were born in a small city, 208 students (35.8 %) were born in a town or village, and one student (0.2 %) was born abroad. Family structure of the youth was asked; 15 students (2.6 %) reported that they lived alone, 472 students (81.2 %) had nuclear families, 81 students (13.9 %) had larger families, and the remaining 13 students (2.3 %) lived with relatives, friends or resided in a hostel or at the workplace. Paternal educational levels were as follows: illiterate ($n=15$, 2.6 %), primary school graduate ($n=379$, 65.2 %), secondary school graduate ($n=177$, 30.5 %), university graduate ($n=6$, 1 %) and unknown ($n=4$, 0.7 %). When we looked at paternal employment status, the picture was as follows: 27 of them (4.7%) were unemployed or had not a regular job, 343 (59 %) were employee, 99 ran his own business (17 %), 50 (8.6 %) were employer, 48 (8.3 %) were farmer, and employment status of 14 (2.4 %) was unknown. Twenty-seven apprenticeship students reported that they were the only one gaining money for the household.

There was a wide variety of occupational divisions that the youth were attending (Table 2).

Two hundreds and seventeen juveniles (37.3 %) reported that they had used alcohol at least once in lifetime, and 141 (24.3 % of total sample) of them told that they used alcohol more than once. Fifty eight students (10 % of total sample) reported that

Table 2. Occupational distribution of the sample.

Working area	n	%
Lathe	28	4,8
Metal work	56	9,6
Electricity	21	3,6
Auto mechanic	120	20,7
Auto painting	9	1,5
Upholstery	36	6,2
Furniture	65	11,2
Hairdressing	169	29,1
Shoemaking	17	2,9
Plastic joinery	8	1,4
Sales representative	13	2,3
Other*	39	6,7
Total	581	100,0

*Cookery, delicatessen, photography, floriculture, etc.

they continued alcohol consumption during the last year. The prevalence of alcohol use problems as indicated by CAGE 2+ score or above was 4.5 %. Distribution of CAGE scores of the youth who continued alcohol intake during the last year is presented in the Table 3.

Mean value for quantity of alcohol consumption of students who had positive history for alcohol intake within the last year and whose CAGE points were more than 1+ was 4 units at a time (between 1 and 20). Thirty of these 56 youth (53.6 %) consumed alcohol at least once a week. Other characteristics of alcohol use are presented in the Table 4.

Average age of first drinking among the youth who had positive history for alcohol intake within the last year and whose CAGE score was above 1+ was 14.9 ± 2.3 (between 7 and 18 years). Twenty-one of these 56 students (37.5 % of this group and 3.6 % of the total) developed tolerance for alcohol and 1.8 % of them reported presence of withdrawal symptoms. Seven of them (12.5 % of the group and 1.2 % of the total) reported that they had difficulty in controlling alcohol consumption, five of them (8.9 % of the group and 0.9 % of the total) told that alcohol intake affected their daily activities, and 17 of them (30.4 % of the group and

2.9 % of the total) expressed that they considered alcohol consumption as a problem for themselves.

We divided the group into two categories according to their ages: 560 students (96.4 % of the sample) were between 15-19 years of age and 21 (3.6 % of the sample) were between 20-24 years of age. There was not any statistically significant difference between these two groups according to CAGE 2+ cut-off point ($\chi^2=2.702$, $p=0.088$). There was not any relationship between alcohol use problem and birth place ($\chi^2=1.065$, $p=0.302$), parental education level ($\chi^2=0.424$, $p=0.525$), paternal employment status ($\chi^2=0.941$, $p=0.311$), maternal education level ($\chi^2=0.670$, $p=1.000$), presence of another individual in the household other than the student who was gaining money ($\chi^2=1.136$, $p=1.000$) or weekly working hours ($\chi^2=1.844$, $p=0.399$).

DISCUSSION

This study is the first in Turkey that evaluates the prevalence and patterns of alcohol use among working youth. In a survey done in apprenticeship schools in Mersin (Turkey) (Öner et al. 2005), alcohol use history was investigated and lifelong prevalence of alcohol use was found as 39.1 %. Likewise prevalence rate that we found in the present study was 37.3 %. In studies which were done in schools before 2000, prevalence of alcohol use was found to be lower than our study (Tümerdem et al. 1986, Türkcan 1999). However, recent studies done in urban youth revealed higher prevalence rates for lifelong alcohol use. Ögel et al. (2003) found prevalence rate of alcohol use as 53.6 % in İstanbul in youth between 18-25 years of age. Alcohol use prevalence among individuals between 12-65 years of age was found as 33.5 % in İstanbul (Akvardar et al. 2003), and as 45% among students of 15-17 years of age in nine provinces of Turkey (Ögel et al. 2004). In a survey done by the Association of Turkish Psychologists which was performed in 72 provinces, 74 towns and 51 villages in Turkey by face-to-face interviewing ($n=7681$), life-time prevalence of alcohol use was found as 71 % among urban males between 15-24 years of age ($n=999$).

Özbay et al. (1991) found one-year prevalence of alcohol use as 9 % in working youth; similarly it was 10 % in this study. One-month prevalence of alcohol use among high school students in Ankara was found a little bit higher (13 %) by Ögel

Table 3. Distribution of the CAGE scores of the sample who continued alcohol intake during last 12 months.

CAGE score	n	%
0	2	3,5
1	30	51,7
2	17	29,3
3	9	15,5
4	0	0
Total	58	100,0

and colleagues in 2001, and it was found as 20% in secondary school students who were between 15-17 years in nine different provinces of Turkey (Ögel et al. 2004). All these findings indicate that alcohol use is becoming more prevalent among general young population by time, but it is not true for the working youth.

Comparison of our findings with other studies, which also used the CAGE questionnaire as the screening instrument, would demonstrate the extent of alcohol use problems in youth. Arıkan et al. (1996) found rate of getting 2+ and higher scores from the CAGE as 2.2 % among 1097 males who were older than 15 years of age in Ankara. Akvardar et al. (2003) found this rate as 10.9 % (n= 807) among males who were between 12-65 years of age in İstanbul. In a survey done in general urban population (including both males and females) between 15-24 years of age, prevalence of alcohol use problems, as determined by getting 2+ score from the CAGE questionnaire, was found as 1.9 % (the Association of Turkish Psychologists, 2002). Thus, it can be suggested that the prevalence rate of alcohol use problems found in the present study (4.5%), is higher than that for Ankara as well as that is reported for general population in Turkey. When alcohol use problem of adult male population in İstanbul is taken into consideration, the significance of this may be better understood. The prevalence for conditions indicating alcohol use problems, such as presence of withdrawal symptoms, difficulty in control of drinking, being affected from alcohol intake in daily activities, and subjective awareness of alcohol use problem, ranged between 0.9 % and 3.6 %. As these results indicate, alcohol use in the young working population of Turkey should not be underestimated.

In our study we found the average quantity of alcohol consumption as 4.5 units. The same level was found as 7 units in the same age group all around Turkey (Turkish Psychologists Association 2002). The level of consumption was not similar, but the increase in time in alcohol consumption was more prominent in our study (37.5 % vs. 10.2%). Age of first drink was found as 14.9 in both studies. The findings of these two studies and the survey done by Özbay et al. (1991) in working youth revealed that more than half of the juveniles consumed alcohol more than once a week. One-year prevalence of alcohol use at least once a week was found as 5.2 % in this study. This level was lower than that reported by Ögel et al. (2003) (10.9 %) for the youth at 18-25 years of age in İstanbul. In students prevalence of alcohol consumption more than once a week differed between 1.6 % and 7.9 % in Turkey (Türkcan 1999).

In this study the lifetime prevalence alcohol use was found as 37.3 %. In England the prevalence for regular alcohol use among youth who were 16 years old was found as 82.9 % (Sutherland and Willner 1998). In a multicenter study, the lifetime prevalence for alcohol intake in male and female students who were between 12 and 14 years of age was found as 68.2-87.0 % in Denmark, 51.8-73.2 % in Finland, 42.1-65.7 % in Netherlands, 26.1-46.6 % in Spain, and 58.8-80.2 % in England in two consecutive years (Wetzels et al. 2003). In USA, it was reported that 77.9 % of male students who were attending 12th grade used alcohol at least once in a lifetime and 5.3 % of them consumed alcohol on a daily basis (Windle 2003). According to the same study, 48.7 % of males in USA between 18-24 years of age consumed at least 5 units of alcohol at a time within last 30 days. In our study, the quantity of consumed alcohol at one time was

Table 4. Characteristics of alcohol use in youth who consumed alcohol during last 12 months and whose CAGE score was 1 or above (n=56).

	n	%
First attempt of drinking		
alone	2	3,6
with friends	49	87,5
with father	1	1,8
with employer/master	3	5,4
with an older relative	1	1,8
Place of first alcohol use		
school	2	3,6
street	29	51,8
home	9	16,1
workplace	5	8,9
wedding	3	5,4
pub	4	7,1
other	4	7,1
The quantity of consumption at one time (standard unit*)		
1-5	41	73,2
6-10	11	19,7
11-15	1	1,8
16-20	2	3,6
Unknown	1	1,8
Frequency of alcohol intake		
Once in two months or less	12	21,4
Once in a month	11	19,6
Once in 15 days	2	3,6
1-3 times a week	29	51,8
Everyday	1	1,8
Unknown	1	1,8
Total	56	100,0

1 standard unit $\approx$ 15 gr of pure alcohol $\approx$ 1 bottle of beer

between 1 and 5 units in 7.1 %, and 6-10 units in 1.9 % of the working youth. When compared with Western countries, relatively lower rates for alcohol consumption in Turkey indicate that primary preventive measures are equally important with, even more important than therapeutic interventions.

When weekly working hours of the participants of this study were taken into consideration (67.3 hours/week on average), it might be concluded that their burden of a hard working schedule constitutes a risk factor for drinking problems. As there was

only one participant whose weekly working hours were less than 20 hours, it was not possible to make a comparison according to the cut-off point of 20 hours. Students who attended to school and additionally worked more than 10-20 hours a week were found to be in risk for alcohol or substance use (Resnick et al. 1997, Wegman and Davis 1999, Valois et al. 1999, Kouvonen and Lintonen 2002). It may be concluded that the entire sample of the present study was at risk for alcohol use because of long working hours.

One limitation of this study was the inacces-

sibility of non-registered working youth. It was well known that only 34 % of working youth were attending apprenticeship schools (<http://www.turkis.org.tr/Icerik/cocukiscilik.html>). Moreover, we could not access 27.4 % of the target population because of absenteeism. This may be considered as another limitation of the study. When evaluating the results, it should be considered that juveniles who had absenteeism problem might have alcohol use problems either. However the large sample size

as well as similarity in distribution of the sample with the universe makes the findings noticeable. Moreover this is the first study in Turkey which demonstrate patterns of alcohol use in working youth in details.

As a conclusion, we suggest that it is important to monitor working youth for development of alcohol use disorders in order to detect and prevent associated risk factors.

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