Smyrna Tıp Dergisi ***Araştırma Makalesi***

Trends in Selected Youth Health Risk Behaviors During Medical Education Period
Tıp Eğitimi Döneminde Seçilmiş Gençlik Sağlık Riski Davranışlarındaki Eğilimler

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Summary
Objective: Adolescent period is a transformation phase that physical and psychological changes take place. Adolescents have immature cognitive features and by the social circumferences they can easily show risky behaviours. In this study; alterations of risky behaviours of medical faculty students during their medical education period was investigated.
Material and Methods: Study was performed by destrictive method. 61 first term (57.5%) and 45 (42.5%) last term students of Isparta Süleyman Demirel University Faculty of Medicine were taken into account. A questionnare consists of 35 questions about personal safety, violence, hopeless and suicidal behaviours, smoking, alcohol consumption, weight, nutrition, physical inactivity, computer usage, sexual behaviours was carried out.
Results: Total student number was 106. 63 of them were male (59.4%) and 43 were (40.6%) female. Most of them (36.8%) were living at home, together with their friends. 70.8% (n:75) were watching television not more than 1 hour/day. Students' ratio, making exersize everyday was just 2.8%. 77.3% (n:82) were eating vegetable and fruit regularly. 71.7% of the students (n:76) were not drinking and 77.3% (n:82) were not smoking. 85 students (80.2%) hadn't have sexual experience. 5 students (4.7%) had some suicidal thoughts. First term students were watching television lesser than (p:0.032, t:2.171) and using computer major than (p:0.002, t:3.163) last term. First term students had lesser sexual education (p:0.000, t:7.301); besides they had more sexual experience than last term students (p:0.002, t:3.291).
Conclusion: About alteration of risky behaviours about health during medical education period; there was no significant difference except sexual experience.
Key words: Adolescent, behavior, risk

Özet
Amaç: Ergenlik dönemi, fiziksel ve psikolojik değişimlerin gerçekleştiği bir dönüşüm evresidir. Ergenlerin olgunlaşmamış kognitif özellikleri vardır ve sosyal çevreler tarafından kolayca riskli davranışları gösterebilirler. Bu çalışmada; tıp fakültesi öğrencilerinin tıp eğitimi süresince riskli davranışlarındaki değişiklikler araştırılmıştır.
Gereç ve Yöntem: Çalışma destrictive yöntemle gerçekleştirilmiştir. Isparta Süleyman Demirel Üniversitesi Tıp Fakültesi'ndeki birinci dönem 61 (%57,5) ve son dönemde 45 (%42,5) öğrenci çalışmaya alınmıştır. Kişisel güvenlilik, şiddet, umutsuz ve intihar davranışları, sigara, alkol tüketimi, kilo, beslenme, fiziksel hareketsizlik, bilgisayar kullanımı, cinsel davranışlar ile ilgili 35 sorudan oluşan bir anket yapılmıştır.
Bulgular: Toplam öğrenci sayısı 106 idi. 63'ü erkek (%59,4), 43'ü (%40,6) kadındı. Çoğu (%36,8) evde arkadaşlarıyla birlikte yaşıyordu. %70,8 (n:75) günde 1 saatten fazla televizyon izliyordu. Her gün egzersiz yapan öğrencilerin oranı yalnızca %2,8 idi. %77,3 (n:82) düzenli olarak sebze ve meyve yiyordu. Öğrencilerin %71,7'si (n:76) alkol ve %77,3'ü (n:82) tütün kullanmıyordu. 85 öğrencinin (%80,2) cinsel tecrübesi yoktu. 5 öğrencinin (%4,7) bazı intihar düşünceleri vardı. Birinci dönem öğrencileri, son sınıf öğrencilerine göre; televizyonu (p:0.032, t:2.171) daha az izliyor ve bilgisayarı (p:0.002, t:3.163) daha fazla kullanıyordu. Birinci dönem öğrencilerin cinsel eğitimi daha düşüktü (p:0.000, t:7.301); ayrıca, son dönem öğrencilere göre daha fazla cinsel tecrübeye sahiptiler (p:0.002, t:3.291).

Sonuç: Tıp eğitimi süresince sağlıkla ilgili riskli davranışların değiştirilmesine ilişkin; cinsel deneyim dışında önemli bir fark yoktu.
Anahtar kelimeler: Ergen, davranış, risk

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Introduction

Adolescent period, between the ages 10-19 (early adolescent period (10-13), middle adolescent period (14-15), late adolescent period (16-19) constitude 1/7th of lifespan. The ages between 10-19 account for 1/5th of the world population. 4/5th of the youth live in the developing countries (1,2).

Adolescent period is a transition period from childhood to adulthood; at the same time, growth and evolution period that physical and psychological changes take place. During this period; with many adaptation problems, independence and responsibility improve (3). Adolescence, unfortunately, is also a period fraught with many threats to the health and well-being of adolescents in which many suffer substantial impairment and disability (4). Adolescent period private health problems can be summarized as disorientation to physical growth, disorientation to psychological improvement, difficulties due to nutrition behaviour, reproduction and sexual health problems, issues related to drug use and injuries after accidents and violence (5).

Contemporary threats to adolescent health are primarily the consequence of risk behaviors and related outcomes. As adolescents have immature cognitive features; by the social circumferences they can easily show risky behaviours (6). These behaviors are risk factors for many chronic diseases and are currently the nation's leading causes of death and disability (7). During adolescence, the leading causes of fatalities which are accidents and suicides, closely related to risky behaviors (6). In the same way the first two ranks in adulthood mortality which are cardiovascular diseases and cancers, are closely related to the risky attitudes and behaviors such as smoking, alcohol or other substance abuse, physical inactivity, unhealthy diet (6).

Leading causes of mortality and morbidity among all age groups in the United States are related to the following six categories of health behavior: behaviors that contribute to unintentional and intentional injuries; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV) infection; unhealthy dietary behaviors and physical inactivity (8). As other age groups, adolescents while there may be acute and chronic medical problems, at this stage, important part of the diseases, death and disability are related risky behaviors and environmental related risks (9).

In the USA; to monitor priority health risk behaviors among youth and young adults, CDC developed the Youth Risk Behavior Surveillance System (YRBSS) (10). The YRBSS includes national, state, territorial, and local school-based surveys of high school students. National surveys were conducted in 1990, 1991, 1993, 1995, 1997, and 1999. This study is the most comprohensive health study which demostrating risky behaviors in adults. İn Turkey we need studies to reveal the size of the risky behavior (11). By Ercan and their friends study in high school students in the province of Istanbul "Cerrahpaşa Youth Helth Survey 2000'' preliminary data have been obtained (12).

This study summarizes results from a small study group in a faculty of medicine and trends during medical education period in selected risk behaviors. Two main research questions were considered:
1. To what extent youth risk behaviors for our study group show conformity with YRBSS;
2. To what extent do medical education period offer behavior change interventions.

Material and Method

The investigation was made in Isparta Suleyman Demirel University Faculty of Medicine. There was 117 students in 1st classroom and 87 students in senior class. Out of 61 students from 117 and out of 45 students from 87 answered

questions by themselves. Student response rates were 52.16% and 51.72%.
Datawere collected using a questionnaire which consisted of 35 multiple choice questions. Questions were designed in the context of the Centers for Disease Controland Prevention's "Youth Risk Behavior Surveillance". The questionnaires were answered face-to-face in the classrooms. Polls are filled as written under the supervision of work players by the way of one way. At the time the survey was adminestered, students responded to the survey were asked to be alone. It was told to students that not to write their credentials to survey form, responses to be kept confidential and if they wish it is permitted to leave some questions blank.

Behaviors that contribute to unintentional and intentional injuries; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV) infection; unhealthy dietary behaviors and physical inactivity personal safety, violence, hopeless and suicidal behaviours, smoking, alcohol consumption, weight, nutrition, physical inactivity, computer usage, sexual behaviours were evaluated in various sub-groups according to gender, graduated high school and living place variables. Located in the original survey,questions about drug use (Marijuana, Cocaine, Inhalant, Heroin, Methamphetamine, Steroid, Injecting-Drug) was taken from the questionaire form because drug use is not so common in our country and ıt is possible to lower the answering rate of questionaire. Whereas the use of computers and hypertension, diabetes, asthma as familial risk factors have been added to questionaire.

Rates of students answering the questionnaire was examined by sub-headings, all 100%, respectively. The investigation's analysis was done at SPSS 9.0 statictical program. For the analysis; descriptive statistics, chi-square, Fisher's Exact Test X^2, independent two groups avarages t-test were used. The level of meaningfullness was taken into consideraton in two ways and p was accepted as $p<0.05$.

Results

Behaviors That Contribute to Unintentional Injuries
Seat Belt Use
Motorcycle Helmet Use
Bicycle Helmet Use
Injuıious Physical Activity
Riding with a Driver Who had Been Drinking Alcohol
Driving After Drinking Alcohol

While traveling in the vehicle not wearing the belt 60 (56.6%) persons. 35 (58.33%) of them were at first term, 25 (41.66%) of them were at last term. Those traveling with someone using drunk driving in the last 1 month,15 (14.2%) persons. 8 (53.33%) of them were at first term, 7 (46.66%) of them were at last term. The number of drunk driving were 10 (%9.4) persons. 7 (70%) of them were at first term, 3 (30%) of them were at last term.

Behaviors That Contribute to Intentional Injuries
Carrying a Weapon
Physical Fighting
Dating Violence
Forced Sexual Intercourse
School Related Violence
Sadness and Suicide Ideation and Attempts

In terms of behavior in the past month due to violance, to carry a weapon such as guns, knives, sticks were 7 (%6.6) persons. 3(42.85%) first term, 4(57.15%) last term. Threatened rate was %0 during last year. Because of fight the injury and the need of treatment were 2 (%1.9) persons. 2 (100%) first term. Exposure to physical force was unwilling to do for sexual intercourse were 5 (4.7%) persons. 4 (80.0%) first term, 1 (20.0%) last term. Suicidal ideation were 5(4.7%) persons. 4 (80.0%) first term, 1 (20%) last term. The number of suicide attempts were 4 (3.8%) persons. 4 (100%) first term.

Tobacco Use
Cigarette Use
Smokeless Tobacco Use
Cigar Use
Current Tobacco Use
Access to Cigarettes

Over the lifetime of those who had tried smoking at least once were 18 (17.0%) persons. 7 (38.88%) first term, 11(61.12%) last term. All

of these students had been smoking regularly every day for the last 30 days. There were 2 (%1.9) persons whom onset of smoking age were 13 and less than 13. 1 of them (50.0%) first term, 1 of them(50.0%) last term.

Alcohol and Other Drug Use
Alcohol Use
Marijuana Use
Cocaine Use
Inhalant Use
Heroin Use
Methamphetamine Use
Steroid Use
Injecting-Drug Use

During his lifetime rate of at least one glass of alcohol drinkers,30 (28.3%) persons. 14 (46.66%) first term, 16 (53.34%) last term were found. Age of starting alcohol usage which was under 13 were 7 (%6.6) persons. 5 (71.42%) persons first term, 2 (28.58%) persons last term.

Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV
Sexual Intercourse
Condom Use
Birth Control Pill Use
Alcohol or Drug Use at Last Sexual Intercourse
Pregnancy
HIV Education

Among adolescents participating the study who had at least one sexual relationship in his or her life were 20 (%18.86) persons. 5 (25%) first term, 15 (75%) last term were found. Among this 20 persons; the age of first sexual intercourse 1 (0.9%) persons between 13 and 15 years, 8 (7.5%) persons between 15-19 years of age, 11 (10.4%) persons 19 years and above were found. Using birth control method in last sexual intercourse were 17 (%85) persons. Those methods in 10 (%9.4) persons condom, in 2 (%1.9) persons, in 5 (%4.79) persons coitus interruptus. Persons using condom 2 (20%) were first term, 8 (80%) were last term. Using oral contraceptive 1 (50%) person was first term, 1 (50%) person was last term. Using alcohol or drug during last sexual intercourse were 3 (2.8%) persons. 2 (66.66%) of them were last term, 1 (33.33%) of them was first term. 63 (59.4%) persons got HIV education in their school. 22 (34.93%) of them were first term, 41 (65.07%) of them were last term.

Dietary Behaviors
Overweight
Consumption of Fruits and Vegetables
Consumption of Milk
Attempted Weight Control
It was asked to the students that how they percieve their weight; owerweight answer rates were 26 (24.52%) 16 (61.53%) first term, 10 (38.47%) last term. Giving normal weight answers were 61 (57.54%) 32 (52.45%) first term, 29 (47.55%) last term. Giving underweight answer were 19 (17.92%) 14 (73.68%) first term, 5 (26.32%) last term. For weight loss or in order to protect those weight by making diet in last 30 days were 16 (%15.09) persons. Those who made exercise in last 30 days for weight loss were 36 (33.94%) persons. 12 (33.33%) of them were first term, 24 (66.66%) were last term. In last 7 days eating vegetable or fruits >5 service/day were 35 (33.01%) persons. 22 (62.85%) first term, 13 (37.15%) last term. In last 7 days drinking milk 3 glass/day 20 (18.9%) persons. 10 (50.0%) first term, 10 (50.0%) last term.

Physical Activity
Vigorous and ModeratePhysical Activity
Strengthening Exercises
Watching Television
Participation in Physical Education Class
Participation on Sports Teams

In last 7 days, making activity 20 minutes/day (3 times) 14 (13.20%) persons. 7 (50.0%) first term, 7 (50.0%) last term of them. Watching TV as a physical activity; watching TV less than 2 hours/day at school time 75 (70.75%) 46 (61.33%) first term, 29 (38.66%) last term. Who have computer at home 75 (70.75%) were persons. In last 7 days using computer regularly all day were 53 (50.0%) person.

The comparison of the survey evidence with 'Youth Risk Behaviour Surveillance' which made in USA in 1999, summaried at chart. There were significant statistical differences with these subjects; do not wear seat belt while travelling, travelling with drunk driver in last 1 month at least 1 time, carrying of weapon in last 1 month at least 1 time, fighting physical in

last 1 year at least 1 time, exposed sexual and physical violence in last 1 year, planning to suicide in last 1 year, smoking at least 1 time all life long, starting to smoke under 13 years old, drinking alcohol at least 1 time all life long, starting to drink alcohol under 13 years old, having sexual act at least 1 time all life long, using condom at last sexual act, using oral contraceptive at last sexual act, drinking alcohol or taking medicine before the last sexual act, studying AIDS at school, feeding fruit or vegetable in last 7 days more than 5 serving/days, doing activity in last 7 days more than 3 times, more than 20 minutes, watching TV less than 2 hours/days at school time. There were not any significant statistical difference with the other evidences (Table 1).

The comparison of the answers which giving survey questions, showed at table 2, there were significant statistical differences with according to smoking during last 1 month more than 20 days, doing sexual act at least 1 time all life long, studying AIDS at school, efforting to lose weight in last 1 month, watching TV less than 2 hours/days at school time (Table 2)

Table 1. *The comparison of the survey evidence with the 'Youth Risk Behaviour Surveillance' which was made in the USA*

	USA (1999) (n: 15349)	**Turkey (2008) (n:106)**	**t**	**p**
Behaviors That Contribute to Unintentional Injuries				
People who not wear seat belt while travelling	16.40%	56.6%	-8.334	**<0.01**
Travelling with drunk driver in last 1 month at least 1 time	33.10%	14.2%	5.540	**<0.01**
Drunk driving in last 1 month at least 1 time	13.10%	9.4%	1.299	>0.05
Behaviors That Contribute to Intentional Injuries				
Carrying of a weapon in last 1 month at least 1 time	17.30%	6.6%	4.547	**<0.01**
Fighting physical in last 1 year at least 1 time	35.70%	1.9%	24.469	**<0.01**
Exposed sexual and phsycal violence in last 1 year	8.80%	4.7%	1,982	**<0.05**
Planning to suicide in last 1 year	19.30%	4.7%	7.018	**<0.01**
Tobacco Use				
Smoking at least 1 time all life long	70.40%	17.0%	14562	**<0.01**
Smoking among in last 1 month more than 20 days.	16.80%	17.0%	-0.054	>0.05
Starting to smoke under 13 years old	27.40%	1.9%	2.194	**<0.05**
Alcohol Use				
Drinking alcohol at least 1 time all life long	81.00%	28.3%	12.013	**<0.01**
Starting to drink alcohol under 13 years old	32.20%	6.6%	10.488	**<0.01**
Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV				
Doing sexual act at least 1 time all life long	49.90%	18.86%	8.123	**<0.01**
Using condom at last sexual act	58.00%	9.4%	16.979	**<0.01**
Using oral contraceptive at last sexual act	16.20%	1.9%	12,549	**<0.01**
Drinking alcohol or taking medicine before the last sexual act	24.80%	2.8%	13.416	**<0.01**
Studying AIDS at school	90.60%	59.4%	6.533	**<0.01**
Dietary Behaviors				
Thinking oneself overweight	30.00%	24.52%	1.306	>0.05
Feeding fruit or vegetable in last 7 days more than 5 serving/day	23.90%	33.01%	-2.007	**<0.05**
Drinking milk in last 7 days more than 3 glasses/day	18.00%	18.9%	-0.235	>0.05
Efforting to lose weight in last 1 month	42.70%	33.94%	1.897	>0.05
Physical Activity				
Doing activity in last 7 days more than 3 times/ 20 minutes	64.70%	13.20%	15.557	**<0.01**
Watching TV less than 2 hours/day at school time	57.20%	70.75%	-3,054	**<0.01**

Table 2. *Evaluation ofdifferences infindingsaccording toclassesof respondents*

	first term	last term	X2	P
Behaviors That Contribute to Unintentional Injuries				
People who not wear seat belt while travelling	35(58.33%)	25(41.6%)	0.049	0.868
Travelling with drunk driver in last 1 month at least 1 time	8(53.33%)	7(46.66%)	0.174	0.815
Drunk driving in last 1 month at least 1 time	7(70.00%)	3(30.00%)	4.118	0.064
Behaviors That Contribute to Intentional Injuries				
Carrying of a weapon in last 1 month at least 1 time	3(42.85%)	4(57.15%)	2.990	0.162
Fighting physical in last 1 year at least 1 time	2(100%)	--	4.516	0.064
Exposed sexual and phsycal violence in last 1 year	4(80.0%)	1(20.0%)	1.791	0.222
Planning to suicide in last 1 year	4(80.0%)	1(20.0%)	1.791	0.222
Tobacco Use				
Smoking at least 1 time all life long	7(38.88%)	11(61.12%)	3.941	0.058
Smoking among in last 1 month more than 20 days	7(38.88%)	11(61.12%)	8.201	**0.017**
Starting to smoke under 13 years old	1(50.0%)	1(50.0%)	3.592	0.309
Alcohol Use				
Drinking alcohol at least 1 time all life long	14(46.66%)	16(53.34%)	2.727	0.108
Starting to drink alcohol under 13 years old	5(71.42%)	2(28.58%)	3.933	0.269
Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV				
Doing sexual act at least 1 time all life long	5(25.0%)	15(75.0%)	14.02	**0.001**
Using condom at last sexual act	2(20%)	8(80%)	6.870	0.076
Using oral contraceptive at last sexual act	1(50%)	1(50%)	6.870	0.076
Drinking alcohol or taking medicine before the last sexual act	1(33.33%)	2(66.66%)	0.156	0.561
Studying AIDS at school	22(34.93%)	41(65.07%)	51.38	**0.000**
Dietary Behaviors				
Thinking oneself overweight	16(61.53%)	10(38.47%)	7.237	0.124
Feeding fruit or vegetable in last 7 days more than 5 serving/day	22(62.85%)	13(37.15%)	1.587	0.662
Drinking milk in last 7 days more than 3 glasses/day	10(50.0%)	10(50.0%)	6.090	0.107
Efforting to lose weight in last 1 month	12(33.33%)	24(66.66%)	6.537	**0.016**
Physical Activity				
Doing activity in last 7 days more than 3 times/ 20 minutes	7(50.0%)	7(50.0%)	2.199	0.167
Watching TV less than 2 hours/day at school time	46(61.33%)	29(38.66%)	17.60	**0.001**

Discussion

In developed countries (especially USA) owing to their impact on health care systems, addressing multiple risk behaviors has become an urgent health priority (13). Although behavioral modification can decrease morbidity and mortality and increase quality of life (14), the opportunities to address youth health behaviors in strategic settings often are missed. In this respect, made a survey system by CDC and national surveys in 1990, 1991, 1993, 1995, 1997 and 1999 in USA (8). Through this system, it became an important subject to protected against risky health behaviour at adolescent age. Reducing the morbidity and mortality in adolescent age, through the protected method, will get success in accidents which are the main

factors (15). The traffic accidents are the first within the accidents (6). The risky behaviours to the contribution of traffic accidents (especially not to fasten seat belt in the car) was identified highly in workgroup. In USA, the death at adolescent age get decrease due to raising the legal age for using alcohol, making legal arrengement for driving alcoholic and obligation for using seat belt. In order to make similar reduction in our country, to ensure effective controls and detterant penalities to gain qualifications required.

Suicide is one of the frequent cause in adolescent and young death. In our work groug the rate is less than USA. In literature, it is emphasized that the adolescent suicide related depression (15). Because of this, it is necessary to make early diagnosis and therapy for depression at adolescent to reduce the suicide.

Smoking is not only increase the risk of devoloping diseases but also leads to environmental damages and brings burden on the country economy (15). After the new legal regulation, cigarette companies start campaigns on the women and adolescents. Considering that who starts to smoke at adolescent age will smoke at age of adult, it is forced to be active to wage war against smoking at this age. It ıs known that drinking alcohol at adolescent age, increases the risk of addiction and entoxication (15). Addiction of alcohol is one of the main factor to prepairing the ground of the accidents, suicides and murders. The rate of drinking alcohol in our workgroup is quite less than Youth Risk Behaviour Surveillance. However the rate is quite less than USA, nevertheless it is substantial size. In our country it is necessery to make simple but also effective political applications as increase the alcohol prizes and increase the age of drinking alcohol to prevent from the increases of drinking alcohol like western countries. Sexual activity may be risky in same cases (15). Especially decreasing the age of the first sexual act is very important risk factor. In our workgroup the rate of sexual acts and using condom, oral contaceptive is less than USA. The large part of adolescent in our workgroup, indicated not to study about AIDS. For our country it is necessery some sexual health policies and programmes covered especially adolescent and young adults. At adolescent age perceiving the body weight is frequent problem (16). Especially among girls, increasing fat in body and expansion in hip, may perceiving as obesity by them (17). The girls in puberty must enlighten for normal changes and provide to have realistic expectations for their physical growth may reduce the problems in this subject. Today most of adolescent feed enriched whit fat and salt called fast-food and less amount of fruit and vegetable (9). It is seen that the most of the half of the adolescents who join in our work, feed no fruit in last seven days. It is necessery to take preventions to change the diet habits of the adolescents. Educational programmes must be taken covered in family life, pre-school and school period till adult.

Summary

For the purpose of prevent the risky behaviours at adolescents, it is necessery to establish a counseling system to educate the teachers and health workers about the problems for this age. In our country there is no surveillance system as in USA and no certain datas for prior health risks. It will be useful to implement a same system.

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