THE COOP ADOLESCENT CHART APPLIED IN HATAY – TURKEY, AND HEALTH CONDITION OF THE ADOLESCENTS WITH RESPECT TO THEIR SOCIO-ECONOMICAL STATUSES[1]

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ABSTRACT

Backgrounds: Primarily, actions to be taken for adolescents are providing secure and supportive environments, providing information regarding health, providing counseling and health services in order to aid their talent development.

Purpose: To determine the health condition of adolescents attending to Primary Schools between 11-15 years old registered in Hatay, Turkey.

Methods: There are 38 schools and 14.233 adolescents studying in these schools in Hatay Centrum. Of the 698 adolescents who were selected via stratified sampling, 313 of them were low level, 271 of them were medium level and 114 of them were high level respectively. In data collection, the socio-demographic characteristics of adolescents and COOP Adolescent chart (Dartmouth CO-OP Project) were used under supervision. Turkish adaptation of the COOP Adolescent Chart, as a part of the research was performed. Height and weight of the adolescents were measured in order to compute BMI (body-mass index). Trained briefly, three interviewers were used to assist implementation phase of the study.

Results: It was detected that adolescents frequently suffer headache (37.7%). The rate the adolescents were asked to have medication longer than 3 days a week (78.5%) and that they were given bed rest for one day or more a week (73.1%) were found to be high. Also found was that, adolescents wanted to receive information about AIDS, sexually transmitted diseases and substance abuse. Counselors or psychologists were of the two advisors adolescents chose to go most, and difference of schools was found to be significant ($p<0.001$).

Conclusion: AIDS and other diseases about which information is sought by adolescents, and which may be transmitted sexually, and about the substance abuse subjects, information was given to the Hatay Provincial Directorate of Ministry of National Education and education planning was suggested.

Key words: COOP Adolescent Chart, adolescent, health, nursing, pediatric nursing.

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[1] This article was the post graduate thesis, the academic consultancy of which was carried out by Senay Cetinkaya.

No financial or nonfinancial benefits have been received or will be received from any party related directly or indirectly to the subject of this article.

Permission was obtained from Çukurova University, Medical Faculty Clinical Research Ethics Committee.

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INTRODUCTION

By the help of preventive health services, the mortality risk worldwide tends to decrease beginning from childhood with the advancing years. On the contrary, the mortality risk suddenly increases in adolescence. Fatal accidents, suicide, murder and AIDS are of the major reasons for increase. Among the most frequent pubescence problems were found to be smoking, use of alcohol and drugs, excessive consumption of junk foods with rich fat and carbohydrate ingredients and low nutritional quality, continuing diets, no time-spare for sports and exercise, insecure and unauthorized vehicle driving and unprotected sexual intercourse. Unless such risky behaviors are not inhibited or corrected during adolescence, it is possible to extend the damage into their adulthood life. It is known that there could be great differences in adult health behaviors and life-styles from person to person, and these characteristics are formed during adolescence (Kara, Hatun, Aydoğan, Babaoğlu & Gökalp, 2003).

Causes of morbidity and mortality in the USA are mainly the results of misconduct. Motor vehicle accidents and other accidents intentional or not intentional constitute the majority of fatality with 75.0%. During adolescence, unhealthy nutrition and inadequate physical activity end up with adiposity which can lead to further various complications (Ersoy, 2006).

Actions to be taken for the adolescents are primarily; providing secure and supportive environments, providing information regarding health, counseling and health services to aid their talent development (Özcebe, 2002).

In our country, there is a need for uncovering the magnitude of risky behaviors in adolescence in the sense of health (Ercan, 2001). The COOP Chart includes questions regarding to daily activity, family condition, school success, physical and emotional social support, pain and general health condition (Nelson, Landgraf & Hays, 1990).

On this regard, many useful and valuable data shall be obtained by the help of this study performed in Hatay that aimed to determine the applicability, validity and reliability of COOP Adolescent Chart tests, which had not been used in Turkey before.

METHOD

This is a cross-sectional study since the health conditions of adolescents were examined with respect to socio-economical statuses using this COOP Adolescent scale. The research was done between 1st-31st December 2009 at the central primary schools located in Hatay City of Turkey (39:12:00 East Meridian; 36:52:00 North latitude).

The population of the research was established by the adolescents between the ages of 11-15 (6th-8th class), who continued to the central primary schools of Provincial Ministry of National Education in Hatay City. As per the statistical data obtained from the Provincial Directorate of the Ministry of National Education there are a total of 38 schools in Hatay City Center and a total of 14.233 adolescents. Stratified sampling was performed in selection of the samplings. No standard scales are used for the assessment of the socio-economic situation in our country. Therefore Ministry of National Education observations have been used for socio-economic classification (Üner, Özcebe & Çetik, 2009). The schools have been stratified as low, medium and high income levels as to the socioeconomic classification. The distribution of schools were found as; 23 schools in the low Socio-economic Level (SEL=SES) (6382 adolescents), 10 schools in medium SES (5526 adolescents), 4 schools in high SES (2325 adolescents) respectively.

Theoretical Sampling Magnitude table was used in determining the sampling magnitude of the research. In a population of approximately 20.000 the sampling magnitude was given as

642 at the level of 99% reliability with an error margin of (±) 5. (Özdamar, 2002; Özdamar, 1999). Accordingly, from a total of 14.233 adolescents who are educated in the schools within H….. Center 698 adolescents were taken as sampling. Of the 698 adolescents who were selected via stratified sampling, 313 of them were low level, 271 of them were medium level and 114 of them were high level respectively.

The preliminary trial of the COOP Adolescent Chart test was performed in October 2009 at Fevzi Çakmak Primary School of Provincial Ministry of National Education of Hatay City. The test was applied to 20 adolescents who were selected from the class lists randomly among the 6^{th}, 7^{th}, 8^{th} classes. The data of the preliminary application were not included in the research.

COOP Adolescent Chart has a wide and easily applicable usage potential in clinical applications (Wasson, Kairys, Nelson & Kalishman, 1995). The developers of the scale suggest examination by doctor as getting a score of 3 or more may indicate a health problem regarding the respective inquiry within the tables (Koot & Wallander, 2001).

3 surveyors were trained in order to assist for the application of the research. The surveyors firstly were trained on theory about the survey questions and the specific health terminology of the survey. Afterwards the surveyors provided with experience by one on one implementation.

The schools were selected by random sampling by considering the access to the schools, survey applications, data procurement, and branch numbers. The surveys were applied to 6^{th}-8^{th} classes of İstiklal Primary School, İnönü Primary School and Private Ata College of Hatay Center.

The Survey Form has 14 questions determining the socio-demographical characteristics of the adolescents. The adolescents replied the questions approximately within 10 minutes. COOP Adolescent Chart Scale has 19 questions related to the daily activities of the last 4 weeks, family status, school success, physical, emotional, social support, pain and general state of health (Larson, Hays & Nelson, 1992). The adolescents replied these questions in 20 minutes following the questions being directed.

During the internal of one hour after the first test the height and the weight of the adolescents were calculated for BMI calculation. The weight was calculated via a bathroom type scale which is sensitive by 0.1 kg and while the children were dressed; and the height measurements were done by a height ruler fixed o the wall with the shoes on, as heels joined, shoulders and hip leaning on the wall (Kliegman, Marcdante, Jenson & Behrman, 2006; Behrman, Kliegman & Jenson, 2000; Behrman & Kliegman, 1996).

The body mass index (BMI) is calculated as body weight/square of the height (Behrman, Kliegman & Jenson, 2000).

BMI= kg/m2

In the statistical analysis, $p<0.05$ was accepted significant; the data was analyzed on the computer by using SPSS 11.5. (SPSS Inc, 2002). Chi-square method was applied twice in variable analysis in the survey.

Compliance with Ethical Standards

Contacting the developers of COOP Chart, Eugene C. Nelson and John H. Wasson by e-mail, we were granted permission for the use of this scale in Turkey (permission was obtained by the Ethical Board of Researches, School of Medicine, Mustafa Kemal University). For the performance of research, written permissions were obtained from the parents, Ministry of

Education Provincial Directorate of Hatay City, and verbal consents were asked form adolescents.

Informed Consent Form: It was prepared to inform the family about the content of the research, to question their participation in the study and to obtain written permission from them. Written consent was obtained from the families of all the children included in the study.

No financial or nonfinancial benefits have been received or will be received from any party related directly or indirectly to the subject of this article.

RESULTS

Of 698 adolescents which were included in the sampling, 368(52.7%) of them are male, whereas 330(47.3%) of them were females. The distribution of the adolescents were 263(37.7%) at the 6^{th} class, 219(31.4 %) at the 7^{th} class and 216(30.9%) at the 8^{th} class respectively (Table 1). The average age of the adolescents was found to be 12.00±0.94.

The education level of the mothers of the adolescents was found to be as 63(9.0%) mothers are illiterate, 274(39.3%) mothers are primary school graduates, 84(12.0%) mothers are secondary school graduates, 157(22.5%) mothers are high school graduates and 105(15.0%) mothers are university graduates. 117(25.3%) mothers were employed while 521 mothers (74.7%) were unemployed. The difference between the job distribution the mothers with the education level and the schools of the mothers was statistically meaningful ($p<0.001$) (Table 1).

The educational status of the fathers of the adolescents were as following; 24(3.4%) of them were illiterate, 225(32.2%) of them were primary school graduates 125(17.9%) of them were secondary school graduates, 141(20.2%) of them were high school graduates, 159(22.8%) of them were university graduates and those who did not answer were 24(3.4%) of them. While 632(90.5%) of the fathers were employed, 66(9.5%) were unemployed. The difference between the job distribution the fathers with the education level and the schools of the fathers was statistically meaningful ($p<0.001$) (Table 1).

While 344(49.3%) of the adolescents' families stated that they have health insurance, those without any health insurance were 109(15.6%) and 245(35.1%) of them stated that they are not aware If they have any health insurance. The difference between the schools was found meaningful statistically ($p<0.001$) (Table 1).

In the responses given by the adolescents to the questions such as how many sisters and brothers do they have and their order of age among their sisters and brothers, the average number of the sisters and brothers was 3.00 (min=1, max=12), the average answer to their order of age was found to be 2.00 (min=1, max=12). The sibling order while the lower SES average sibling count had been 3.80 was found to be 2.58, that while the mid SES average sibling count had been 2.91 was found to be 1.97 and that while the upper SES average sibling count had been 2.13 was found to be 1.5. The difference between the number of the sisters, brothers and the order and the schools, was meaningful statistically ($p<0.001$).

The height and the weight of the adolescents were measured and body mass indexes were computed, the average height was 153.00 cm (min=118, max=178), the average weight was found to be 70.00 kg (min=44, max=102). The low SES BKİ average was found 30.00±3.56, medium SES was found 30.52±4.37, higher SES was found as 30.66±4.55. The difference between the height, weight, body mass index and the schools was not meaningful statistically ($p>0.05$).

The 9th question of the COOP Chart determines the vaccine status. From the adolescents who gave answers to the vaccine question expressed that they are inoculated with MMR 88(12.6%), tetanus 168(24.1%), hepatitis B 81(11.6%), varicella (chicken pox) (17.9%) and BCG 199(28.5%).

The distribution of the responses as per the socioeconomic levels, received from the adolescents to the question *"During the last four weeks in what frequencies did you experience the below problems?"* can be viewed in the Table 2.

According to the responses given by the adolescents to the question *"Do you have one of the below given problems?"* 558(79.9%) stated asthma, 546(78.2%) stated obesity, 506(72.5%) stated other diseases.

578(78.5%) of the adolescents stated that they administer medicines more than three days a week, 510(73.1%) adolescents stated that they had one or more days bed rest in one week. 335(48.0%) adolescents stated that they watch TV for 1-3 hours during the week time, and 245(35.1%) adolescents stated that they do exercise 3 days a week and for 20 minutes at most times (Table 3).

The question, which mentioned various issues about which adolescents asked for information, was left blank by 5 adolescents. 638(91.4%) of the adolescents stated that they want to obtain information about AIDS and other diseases that are sexually transmitted, 637(91.3%) of then wanted information about bad habits (alcohol, cigarette and drug use), 615(88.1%) wanted information about reproductive health and birth control, 578(82.8%) wanted information about depression, 574(82.2%) about violence; 333(47.7%) on nutrition and eating disorders, 317(45.4%) about exercise and healthy living (Table 4).

In response given by adolescents to the question "*Have you gone to the below-written Healthcare staff for general inspection during the last one year?"* 676(96.8%) stated that they have been to psychologist or counselor, mostly (Table 5).

DISCUSSION

The primary school graduation ratio of the parents of the adolescents who participated in the research (mother=51.3%, father=50.1%) is below the average in Turkey (women=87.9%, men=2.25%) (Turkey Institute of Statistics, 2009); and from the point of those who are graduated from the university (mother=%15.0, father=%22.8), it is over the average in Turkey regarding the men (women=18.6%, men=21.5%) (Turkey Institute of Statistics, 2009). Unemployment rate of the fathers (9.5%) as per the 2010 TUİK statistics (14.4%) (Turkey Institute of Statistics, 2009) revealed low. This ratio is pleasing for the Hatay City.

Those who did not have health insurance in the family of the adolescents were found to be 15.6% (n=109) and as per the SES of the schools this difference was meaningful ($p<0.001$) (Table 1). In the study performed by Demirezen and Çoşansu' at the schools with low socioeconomic levels this rate was found to be 22.5% (Demirezen & Coşansu, 2005), from this point our group was evaluated to be at a good level regarding the social security.

Regarding the vaccine state of the adolescents, the general average of all vaccines revealed to be low. Most of the vaccine questions within the survey are regarding the vaccines which are completed by the age of 1.5 in our country so the adolescents may have forgotten this information retrospectively.

It was determined that the adolescents in general frequently suffer headaches (n=72, 10.3%); stomachaches (n=53, 7.6%), drowsiness or asthenia or complaints about tiredness

(n=64, 9.2%) and chest pain (n=26, 3.7%) in the respective orders (Table 2). As per the Turkey Population Health Research results of 2008 (Turkey Institute of Statistics, 2009) the frequency of the headache has been 10.4% and it is similar to the results of the research.

Adolescents, in their responses them to the health questions in general, stated that they have difficulties in solving problems and they again face difficulty keep concentrated. Further studies may be performed on adolescents tended to the reasons of these.

Generally, the drug administration by adolescents more than 3 days in a week (n=578, 78.5%) and bed rest for one or more days in one week (n=510, 73.1%) were found at high levels (Table 3). The ratio of benefiting from the preventive health services must be increased among the adolescents.

Again the TV watching ratio among adolescents in the week time was found to be 1-3 hours 48.0% (n=335), and most times exercise ratio was found to be about 3 days a week and for 20 minutes, 35.1% (n=245) ($p>0.05$) (Table 3). As per the research results performed by Ercan (Ercan, 2001) on 4153 students in Istanbul the ratio of the adolescents who exercise one hour a week or less was 56% and the long time TV watching ratio of the adolescents was found to be 26%. As per the research performed by Kara et al (Kara, Hatun, Aydoğan, Babaoğlu & Gökalp, 2003) at the high schools in Kocaeli City, no exercise performance in the last 7 days was 26.5%, watching TV for more than one hour a day was 72.7%. At our contemporary time the computer use and watching TV for longer times directs the adolescents to a more ponderous and unhealthy life, and in parallel exercise performance drops.

The adolescents, related to the question about the diseases and the physical health, generally stated asthma (n=558, %79.9) and obesity (n=546, %78.2). Meuleners et al. (Meuleners, Lee, Binns & Lower, 2003) in the study they've performed; 31% chronic diseases were indicated and asthma was indicated among the reasons of them by 19%. The frequency of asthma was found very high in the study. According to various studies performed in Turkey it is detected that the obesity prevalence in the children differed between 1.9% and 30.7% (Parlak & Çetinkaya, 2008), and the ratio in this study is high (%78.2). This information is extremely important from the necessity to take precautions preventive of asthma and obesity. This indicates that the reasons must be researched. Besides, information and counseling must be provided to adolescents for asthma and obesity.

To the open ended question which was asked for the various subjects on which adolescents seek information the first order was found to be AIDS and sexually transmitted diseases (n=638, 91.4%) following which there came the substance abuse (n=637, 91.3%) (Table 4): this term during which the sexual identity of the adolescents are determined is a term during which the interest and the curiosity about sexuality and the sexually transmitted diseases increase. The information deficit of the youth regarding this subject may be met by the content of the lessons and the counseling services. On the other hand; as the substance (drug) abuse risk also increases during this term this subject comes forward among the subjects they seek information about. It must be considered in this regard and precautions must be taken. As per the results of the study performed by Ercan (Ercan, 2001) the drug abuse at the high schools in Istanbul was detected to be 7% and it is detected that the most abused substances are the sedatives and calmative drugs by 6% which are not in fact prescribed by a doctor. The abuse of narcotic substances is 2% and the marihuana is at the second place by 1.3% and it was detected to be the narcotic substance that is most commonly abused. These data related to the substance abuse by adolescents are significant from the point of requiring education and counseling.

When the visit to doctors by adolescents is evaluated, it is detected that they mostly visit counselors or psychologists (Lower SES 97.8%, mid. SES 96.8%, upper SES 94.7%). The difference between schools are significant ($p<0.001$) (Table 5). It is known that the changing environmental conditions, socioeconomic reasons, all of the changes that affect the family structure have a negative effect on the health of the adolescents. This effect the rate they visit the counselors or psychologists. If we look from another point, we can deem it a positive development for our country that the adolescents tend to solve their problems with experts. Additionally, the sufficient number of the psychological counselor or the guidance counselor at the schools in recent years may have affected such rates.

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Table 1. Socio-demographic Characteristics of Adolescents and Families.

* Characteristics		Lower SES		Med. SES		Upper SES		TOTAL	
		n	%	n	%	n	%	n	%
Gender	Female	187	26.8	101	14.5	42	6.0	330	47.3
	Male	213	30.5	109	15.6	46	6.6	368	52.7
Class	6	155	22.2	74	10.6	34	4.9	263	37.7
	7	127	18.2	66	9.5	26	3.7	219	31.4
	8	118	16.9	70	10.0	28	4.0	216	30.9
Mother's Education**	Illiterate	51	7.3	12	1.7	0	0.0	63	9.0
	Primary	204	29.2	66	9.5	4	0.6	274	39.3
	Secondary	47	6.7	36	5.2	1	0.1	84	12.0
	High school	63	9.0	62	8.9	32	4.6	157	22.5
	University	27	3.9	28	4.0	50	7.2	105	15.0
	Unanswered	8	1.1	6	0.9	1	0.1	15	2.1
Mother's Vocation**	Housewife	324	46.4	153	21.9	44	6.3	521	74.6
	Worker	31	4.4	14	2.0	0	0.0	45	6.4
	Retired	7	1.1	5	0.7	1	0.1	13	1.9
	Public servant	20	2.8	22	3.2	28	4.0	70	10.0
	Private sector	8	1.1	10	1.4	15	2.2	33	4.7
	Unanswered	10	1.4	6	0.9	0	0.0	16	2.3
Father's Education**	Illiterate	21	3.0	3	0.4	0	0.0	24	3.4
	Primary	183	26.2	42	6.0	0	0.0	225	32.2
	Secondary	77	11.0	43	6.2	5	0.7	125	17.9
	High school	56	8.0	63	9.0	22	3.2	141	20.2
	University	50	7.2	49	7.0	60	8.6	159	22.8
	Unanswered	13	1.9	10	1.4	1	0.1	24	3.4
Father's Vocation**	Unemployed	55	7.9	10	1.4	1	0.1	66	9.5
	Worker	217	31.1	75	10.7	2	0.3	294	42.1
	Retired	21	3.0	17	2.4	4	0.6	42	6.0
	Public servant	45	6.4	53	7.6	17	2.5	115	16.5
	Private sector	46	6.6	50	7.2	64	9.2	160	22.9
	Unanswered	16	2.3	5	0.7	0	0.0	21	3.0
Health Insurance**	Social Sec. Authority	71	10.2	27	3.9	10	1.4	108	15.5
	Ins'd self-employed	44	6.3	43	6.2	17	2.4	104	14.9
	Green Card	61	87	9	1.3	0	0.0	70	10.0
	State Retirement	30	4.3	25	3.6	7	1.0	62	8.9
	N/A	86	12.3	21	3.0	2	0.3	109	15.6
	Doesn't know	108	15.5	85	12.2	52	7.4	245	35.1

*Chi-square applied, column percentages taken. **p<0.001

Table 2. Distribution of the Health Problems of Adolescents with respect to the socio-economical status of schools (SES)

	SCHOOLS			
***Health Problems**	**Lower SES**	**Med. SES**	**Upper SES**	**TOTAL**
	Count (%)	**Count (%)**	**Count (%)**	**Count (%)**
Head ache	34 (12.5)	55 (17.6)	20 (17.5)	109 (15.6)
Never	53 (19.6)	95 (30.4)	44 (38.6)	192 (27.5)
Rarely	122 (45.0)	105 (33.5)	36 (31.6)	263 (37.7)
Sometimes	25 (9.2)	36 (11.5)	11 (9.6)	72 (10.3)
Often	27 (10.0)	14 (4.5)	1 (0.9)	42 (6.0)
All the time	10 (3.7)	8 (2.6)	2 (1.8)	20 (2.9)
Non-response				
Abdominal pain	58 (21.4)	76 (24.3)	33 (28.9)	167 (23.9)
Never	46 (17.0)	104 (33.2)	43 (37.7)	193 (27.7)
Rarely	123 (45.4)	91 (29.1)	31 (27.2)	245 (35.1)
Sometimes	22 (8.1)	25 (8.0)	6 (5.3)	53 (7.6)
Often	11 (4.1)	10 (3.2)	0 (0.0)	21 (3.0)
All the time	11 (4.1)	7 (2.2)	1 (0.9)	19 (2.7)
Non-response				
Dizziness, weakness or fatigue	80 (29.5)	104 (33.2)	41 (36.0)	225 (32.2)
Never	48 (17.7)	83 (26.5)	34 (29.8)	165 (23.6)
Rarely	81 (29.9)	70 (22.4)	22 (19.3)	173 (24.8)
Sometimes	23 (8.5)	30 (9.6)	11 (9.6)	64 (9.2)
Often	24 (8.9)	15 (4.8)	2 (1.8)	41 (5.9)
All the time	15 (5.5)	11 (3.5)	4(3.5)	30 (4.3)
Non-response				
Chest pain	155 (57.2)	185 (59.1)	88 (77.2)	428 (61.3)
Never	40 (14.8)	54 (17.3)	19 (16.7)	113 (16.2)
Rarely	38 (14.0)	33 (10.5)	3 (2.6)	74 (10.6)
Sometimes	12 (4.4)	13 (4.2)	1 (0.9)	26 (3.7)
Often	6 (2.2)	14 (4.5)	0 (0.0)	20 (2.9)
All the time	20 (7.4)	14 (4.5)	3 (2.6)	37 (5.3)
Non-response				
Problems related menstrual bleeding				
Never	187 (69.0)	226 (72.2)	90 (78.9)	503 (72.1)
Rarely	8 (3.0)	19 (6.1)	4 (3.5)	31 (4.4)

Sometimes	15 (5.5)	8 (2.6)	1 (0.9)	24 (3.4)
Often	4 (1.5)	4 (1.3)	1 (0.9)	9 (1.3)
All the time	3 (1.1)	3 (1.0)	0 (0.0)	6 (0.9)
Non-response	54 (19.9)	53 (16.9)	18 (15.8)	125 (17.9)

	Lower SES	**Med. SES**	**Upper SES**	**TOTAL**
	Count (%)	**Count (%)**	**Count (%)**	**Count (%)**
Malnutrition / excess weight**				
Never	120 (44.3)	150 (47.9)	71 (62.3)	341 (48.9)
Rarely	34 (12.5)	66 (21.1)	17 (14.9)	117 (16.8)
Sometimes	45 (16.6)	49 (15.7)	12 (10.5)	106 (15.2)
Often	26 (9.6)	21 (6.7)	5 (4.4)	52 (7.4)
All the time	27 (10.0)	22 (7.0)	8 (7.0)	57 (8.2)
Non-response	19 (7.0)	5 (1.6)	1 (0.9)	25 (3.6)
Skin Problems				
Never	158 (58.3)	182 (58.1)	82 (71.9)	422 (60.5)
Rarely	39 (14.4)	64 (20.4)	19 (16.7)	122 (17.5)
Sometimes	30 (11.1)	31 (9.9)	7 (6.1)	68 (9.7)
Often	12 (4.4)	14 (4.5)	2 (1.8)	28 (4.0)
All the time	11 (4.1)	7 (2.2)	2 (1.8)	20 (2.9)
Non-response	21 (7.7)	15 (4.8)	2 (1.8)	38 (5.4)
Sexual Problems				
Never	208 (76.8)	266 (85.0)	103 (90.4)	577 (82.7)
Rarely	17 (6.3)	16 (5.1)	4 (3.5)	37 (5.3)
Sometimes	11 (4.1)	7 (2.2)	2 (1.8)	20 (2.9)
Often	6 (2.2)	2 (0.6)	2 (1.8)	10 (1.4)
All the time	4 (1.5)	1 (0.3)	0 (0.00)	5 (0.7)
Non-response	25 (9.2)	21 (6.7)	3 (2.6)	49 (7.0)
Asthma or respiratory distress**Never	186 (68.6)	219 (70.0)	102 (89.5)	507 (72.6)
Rarely	19 (7.0)	36 (11.5)	8 (7.0)	63 (9.0)
Sometimes	21 (7.7)	20 (6.4)	1 (0.9)	42 (6.0)
Often	14 (5.2)	10 (3.2)	0 (0.0)	24 (3.4)
All the time	9 (3.3)	8 (2.6)	0 (0.0)	17 (2.4)
Non-response	22 (8.1)	20 (6.4)	3 (2.6)	45 (6.4)
Concentration impairment				
Never	121 (44.6)	132 (42.2)	47 (41.2)	300 (43.0)
Rarely	53 (19.6)	82 (26.2)	34 (29.8)	169 (24.2)
Sometimes	42 (15.5)	47 (15.0)	18 (15.8)	107 (15.3)
Often	24 (8.9)	23 (7.3)	9 (7.9)	56 (8.0)

All the time	13 (4.8)	21 (6.7)	4 (3.5)	38 (5.4)
Non-response	18 (6.6)	8 (2.6)	2 (1.8)	28 (4.0)
Difficulty in solving problem**				
Never	82 (30.3)	94 (30.0)	50 (43.9)	226 (32.4)
Rarely	51 (18.8)	107 (34.2)	38 (33.3)	196 (28.1)
Sometimes	81 (29.9)	76 (24.3)	16 (14.0)	173 (24.8)
Often	22 (8.1)	19 (6.1)	5 (4.4)	46 (6.6)
All the time	18 (6.6)	10 (3.2)	2 (1.8)	30 (4.3)
Non-response	17 (6.3)	7 (2.2)	3 (2.6)	27 (3.9)

*Chi-square applied, column percentages taken. **$p<0.001$

Table 3. Adolescents Habits

* Habits	SCHOOLS Lower SES Count (%)	Med. SES Count (%)	Upper SES Count (%)	TOTAL Count (%)
Taking medication more than 3 per week				
Yes	210 (77.5)	246 (78.6)	92 (80.7)	548 (78.5)
No	55 (20.3)	64 (20.4)	21 (18.4)	140 (20.1)
Unanswered	6 (2.2)	3 (1.0)	1 (0.9)	10 (1.4)
1 or more Bed rests given within the last 3 months				
Yes	207 (76.4)	220 (70.3)	83 (72.8)	510 (73.1)
No	56 (20.7)	84 (26.8)	28 (24.6)	168 (24.0)
Unanswered	8 (3.0)	9 (2.9)	3 (2.6)	20 (2.9)
TV Watching duration in weekdays				
Less than 1 hour	67 (24.7)	69 (22.0)	21 (18.4)	157 (22.5)
1-3 hours	111 (41.0)	165 (52.7)	59 (51.8)	335 (48.0)
More than 3 hours	86 (31.7)	75 (24.0)	32 (28.1)	193 (27.6)
Unanswered	7 (2.6)	4 (1.3)	2 (1.8)	13 (1.9)
20 minutes of exercise for 3 or more days a week				
Yes, most of the time	119 (38.0)	84 (31.0)	42 (36.8)	245 (35.1)
Yes, occasionally	147 (47.0)	119 (43.9)	48 (42.1)	314 (45.0)
No, I don't do this much	44 (14.0)	61 (22.5)	22 (19.3)	127 (18.2)
Unanswered	3 (1.0)	7 (2.6)	2 (1.8)	12 (1.7)

*Chi-square applied, column percentages taken. **p<0.001

Table 4. Topics Adolescents Showed Desire to Learn

	SCHOOLS			
***Topics**	**Lower SES**	**Med. SES**	**Upper SES**	**TOTAL**
	Count (%)	**Count (%)**	**Count (%)**	**Count (%)**
Violence				
Yes	213 (78.6)	262 (83.7)	99 (86.8)	574 (82.2)
No	56 (20.7)	50 (16.0)	13 (11.4)	119 (17.0)
Unanswered	2 (0.7)	1 (0.3)	2 (1.8)	5 (0.7)
Reproductive Health and Birth control				
Yes	232 (85.6)	279 (89.1)	104 (91.2)	615 (88.1)
No	37 (13.7)	33 (10.5)	8 (7.0)	78 (11.2)
Unanswered	2 (0.7)	1 (0.3)	2 (1.8)	5 (0.7)
AIDS and sexually transmitted other infections				
Yes	245 (90.4)	287 (91.7)	106 (93.0)	638 (91.4)
No	24 (8.9)	25 (8.0)	6 (5.3)	55 (7.9)
Unanswered	2 (0.7)	1 (0.3)	2 (1.8)	5 (0.7)
Bad habits (veer, wine, drug use)				
Yes	247 (91.1)	288 (92.0)	102 (89.5)	637 (91.3)
No	22 (8.1)	24 (7.7)	10 (8.8)	56 (8.0)
Unanswered	2 (0.7)	1 (0.3)	2 (1.8)	5 (0.7)
Exercise and Healthy life				
Yes	138 (50.9)	148 (47.3)	31 (27.2)	317 (45.4)
No	131 (48.3)	164 (52.4)	81 (71.1)	376 (53.9)
Unanswered	2 (0.7)	1 (0.3)	2 (1.8)	5 (0.7)
Nutrition, malnutrition				
Yes	133 (49.1)	129 (41.2)	71 (62.3)	333 (47.7)
No	136 (50.2)	183 (58.5)	41 (36.0)	360 (51.6)
Unanswered	2 (0.7)	1 (0.3)	2 (1.8)	5 (0.7)
Depression				
Yes	227 (83.8)	252 (80.5)	99 (86.8)	578 (82.8)
No	42 (15.5)	60 (19.2)	13 (11.4)	115 (16.5)
Unanswered	2 (0.7)	1 (0.3)	2 (1.8)	5 (0.7)

*Chi-square was applied, column percentages were taken **$p<0.001$

Table 5. Visiting a Physician / Specialist for Adolescents

	SCHOOLS			
***Visiting Physician**	**Lower SES**	**Med. SES**	**Upper SES**	**TOTAL**
	Count (%)	**Count (%)**	**Count (%)**	**Count (%)**
Dentist **				
Yes	214 (79.0)	238 (76.0)	62 (54.4)	514 (73.6)
No	56 (20.7)	75 (24.0)	51 (44.7)	182 (26.1)
Unanswered	1 (0.4)	1 (0.9)	0 (0.0)	2 (0.3)
Oculist**				
Yes	240 (88.6)	267 (85.3)	78 (68.4)	585 (83.8)
No	30 (11.1)	46 (14.7)	35 (30.7)	111 (15.9)
Unanswered	1 (0.4)	0 (0.0)	1 (0.9)	2 (0.3)
Counselor or Psychologist				
Yes	265 (97.8)	303 (96.8)	108 (94.7)	676 (96.8)
No	5 (1.8)	10 (3.2)	5 (4.4)	20 (2.9)
Unanswered	1 (0.4)	0 (0.0)	1 (0.9)	2 (0.3)
Any Physician				
Yes	112 (41.3)	115 (36.7)	61 (53.5)	288 (41.3)
No	158 (58.3)	198 (63.3)	52 (45.6)	408 (58.5)
Unanswered	1 (0.4)	0 (0.0)	1 (0.9)	2 (0.3)

*Chi-square applied, column percentages taken. **$p<0.001$