Adolescent Health Behaviors and Problems

Adölesanın Sağlık Davranışları ve Sorunları

(Araştırma)

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ABSTRACT

Adolescent health is an important area which needs collaborative works. This research is conducted to determine health behaviors and problems of adolescents. The research is carried out with 610 students in Malatya High School. The data is collected by the questionnaire form, Health Promotion Life-Style Profile (HPLP) and Problems of the Adolescent Diagnose Scale (PADS).

At the end of the research the health behaviors of the adolescent was observed to be at the medium level. The total scores of Health Promotion Life-Style Profile (HPLP) of boys found to be higher than girls. It was observed that the adolescent mostly had problems with the future and psychological problems. The boys had problems more than girls with nutrition, social adaptation, physiological and sexual matters. In the group important problems like smoking (33%) and thought of self-harm (47.5%) were found.

Key Words: Adolescent, health behaviors, problems of adolescent, health promotion, nursing

ÖZET

Adölesan sağlığı ortak çalışmalar gerektiren önemli bir alandır. Bu araştırma adölesanların sağlık davranışlarını ve sorunlarını belirlemek amacıyla yapılmıştır. Araştırma Malatya Lisesi'nde 610 öğrenci ile yürütülmüştür. Veriler anket formu, Sağlıklı Yaşam Biçimi Davranışları ölçeği (SYBD) ve Adölesan Sorunlarını Tanılama Ölçeği (ASTÖ) ile toplanmıştır.

Araştırma sonucunda adölesanların sağlık davranışlarının orta düzeyde olduğu gözlendi. Erkeklerin Sağlıklı Yaşam Biçimi Davranışları ölçeği toplam puanı kızlarınkinden daha yüksek bulundu. Adölesanların en çok gelecek endişesi ve psikolojik sorunlar yaşadıkları gözlendi. Beslenme, sosyal uyum, psikolojik ve cinsel konularda erkeklerin kızlardan daha fazla sorun yaşadığı belirlendi. Ayrıca grupta sigara içime (%33) ve kendine zarar vermeyi düşünme (%47.5) gibi çok önemli sorunlar saptandı.

Anahtar Kelimeler: *Adölesan, sağlık davranışları, adölesan sorunları, sağlığı geliştirme, hemşirelik*

Introduction

A significant number of the causes of mortality and morbidity experienced by the population today is preventable and controllable. The rising health care costs force looking at methods of keeping people healthy, and the need for alternative approaches is growing (1,2). The promotion of health and maintenance of healthy life-styles have become objectives of utmost importance to the health care profession (2). Lifestyle patterns for health behaviors are frequently tested and/or acquired during adolescence. Thus, interventions to promote positive health practices are best initiated in early adolescence (3,4).

Adolescence is generally described as a transitional phase of development that begins at the onset of puberty and continues into early adulthood (5,6). Generally, girls enter puberty earlier than boys-age 9-10 for girls and 10-11 for boys. In contrast to the slow, steady growth of the child, the adolescent experiences markedly accelerated growth. During a 2-to-3 year growth spurt, dramatic alterations in the adolescent's body size and proportions occur (5,7).

The adolescents confront a lot of problems by the physical, psychological, emotional, social, and spiritual changes experienced during adolescence (8,9,10). A limited number of studies have addressed to the issues of adolescent's health behaviors and problems. Most studies have focused solely on the specific health problem such as smoking, obesity, and sexual matters. These studies reported that adolescents are facing very important problems. The studies show that smoking cigarette among our young men and women continues to rise and has changed to level 13%-to-31%in high school students (9,11).

Because many obese children and adolescents become obese adults, the recent rapid increase in juvenile obesity poses a major puplic health challenge. The prevalence of adolescent obesity has changed between 2%-to-23%in Turkey (9,12). Obese adolescents often suffer from low self-image, psychiatric co morbidities, and discrimination by their peers (13). One of the most important problems facing our young today is sexual matters. The literature shows that adolescents have meager information about sexual development, sexually transmitted diseases (STDs), and use of contraception (12,14). In addition to these problems, young people experience emotional and psychosocial problems, and conflicted with parents, family, friends, and society demands at large (7,12).

The major threats to adolescent health are behavioral. These behaviors have important life-long consequences; many of major health problems confronting our nation are the result of behaviors established during adolescence. The health status of adolescents is concern of health care providers. As the future generations, health of adolescents influences not only their own health but also the health of future populations. The health behaviors and problems of adolescents should be well understood for designing appropriate services (2,12). A vital step in the planning and delivering of health programs is to include adolescent's own perceptions of their needs and problems (10,12,15). The assessment of adolescents' needs will assist in developing intervention strategies to solve problems of adolescents. A successful health promotion programme includes assessment of needs, organizing services to meet those needs, and implementing the program to the target population (2,16,17).

The purpose of this study was to investigate health behaviors and problems of adolescents. More specifically, the research questions were:

· What are the health behaviors of adolescents?

· What are the problems of adolescents? and

· Is there a relationship between the problems and health behaviors?

Health promotion programs that meet the needs of adolescents will have a greater impact on the potential success of promoting healthy lifestyle behaviors. This data would provide helpful information to nurses and other healthcare providers in the planning, prioritizing, and implementation of health promotion programs.

Methods

Subjects And Setting

The setting for this study was the Malatya High School. This school included 25 %of all students in Malatya with 2001-2002 enrollments of 4263 students. The sample was selected randomly and computed by a formula of sampling [n = N (t1 -α) 2 / S2 (N-1) + (t1-α) 2 (X) 2] that take into consideration mean and standard deviation of early studies related to health behaviors and problems in adolescent. According to this calculation, it was needed to identify at least 562 students for this research. Consideration was also given to incomplete data or response set bias. Approximately 865 subjects were approached for voluntary participation in the study. The responses of 255 students were excluded from the data analyses for various reasons, such as incomplete data. The final sample consisted of 610 adolescents, 248 females and 362 males.

The sample was selected randomly. Each student was assigned a number in consecutive numerical order beginning with the number 1 for school listing. A random numbers table was then used for subject selection. This ensured that each student had an equal chance of being selected.

Instrumentation

The research tool is an adopted version of the Health Promotion Life-Style Profile (HPLP) for Turkish by Esin (18,19). The HPLP consist of six subscales: self-actualization, health responsibility, exercise, nutrition, interpersonal support, and stress management. This 48-item, 4–point, Likert – type scale provides total and subscale scores. In prior use, alpha coefficients were reported as 0.93 for the total scale and 0.68 to 0.89 for the subscales (19). Esin18 adopted the HPLP for Turkish. Esin's reported alpha coefficients were as 0.91 for the total scale and 0.57 to 0.77 for the subscales. Repeated use of this tool in different populations in our country has been evidenced its reliability and validity (18,20,21). This tool designed for above 18 years of age. This sample was 15-19 years of age (M:16.44, SD:1.12). The instrument was pre-tested with 139 adolescents through consultation with Esin. Result of pretest alpha coefficient was found as 0.80. Items were an item-to-total correlation above 0.20. For this sample (610 adolescents), alpha coefficient was 0.89 for the total scale.

The problems of adolescents were measured by Problems of Adolescent Diagnose Scale (PADS) (12). The PADS consists of eight subscales: physical image-12 items, psychological symptom- 10 items, social adaptation- 12 items, nutrition- 5 items, activity- 4 items, physical concerns- 3 items, sexual issues- 7 items, and concerns of future- 11 items. These 64- items, 3- point (1 = always problem, 2 = sometimes problem, 3 = no problem), Likert type scale provides total and subscale scores. This tool was developed and valided by Görak et al (12). In prior use, alpha coefficient was reported as 0.79, and after revised in second use 0.80 (12). For this sample, the alpha coefficient was 0.94 for the total scale. Demographic variables obtained with a questionnaire.

Procedure

Data Collection: For this study written permission was obtained from Department of Public Education Institution and oral informed consent was obtained from all adolescents. The aim of the study was explained and adolescents were asked if they were willing to participate. Those who gave their consent were included in the study. Questionnaire and scales (HPLP and PADS) were administered to the students in their classrooms, and then the students were taken from their classrooms in-group of four to six for height and weight measurements.

Data Analyze: Statistical test used included the Independent Samples t test for continuous data statistical package for the social sciences (SPSS). Data was expressed as mean (M) and standard deviation of the mean (SD). In addition, Pearson correlation coefficient was calculated for relationship between HPLP and PADS.

Results

Of the 610 participants, 362 (59.3 %) were male, 317 (52 %) were 15-16 years of age

(M: 16.44, SD: 1.12 years). 293 (48 %) of adolescents were low level as socio-economical.

Table 1. Health-Promoting Lifestyle Profile (HPLP) and Subscale, and Problems of Adolescent Diagnose Scale (PADS) and Subscale of Participants (n = 610)

Scales	Total Point		Item Point *	
	M	SD	M	SD
HPLP Total				
HPLP Subscale	117.21	18.06	2.44	.37
Self actualization	35.19	5.88	**2.70**	.45
Health responsibility	19.15	5.21	**1.91**	**.52**
Exercise	10.94	3.30	2.18	.66
Nutrition	15.26	3.38	2.54	.56
Interpersonal support	18.88	3.61	2.69	.51
Stress management	17.77	3.48	2.53	.49
PADS Total	144.71	22.49	2.26	.35
PADS Subscale	29.20	4.58	2.43	.38
Physical image	21.65	4.36	2.16	.43
Psychologic symptom	27.43	6.15	2.27	.51
Social adoptation	12.47	2.15	**2.49**	**.43**
Nutrition	7.34	1.87	2.44	.62
Physiologic concern	16.80	3.88	2.40	.55
Sexuel issues	20.65	5.28	**1.87**	**.48**
Concern of future Activity	9.12	2.12	2.28	.53

*HPLP: Each item has four ordinal levels (1 = never, 2 = sometimes, 3 = often, 4 = routinely)
*PADS: Each item has three ordinal levels (1 = always problem, 2 = sometimes, 3 = never)

Total HPLP scores and six health promoting behavior subscale scores for adolescents are shown in Table 1. The least observed found to be the adolescents' health responsibility (M: 1.91, SD: 0.52) and the most being self actualization (M: 2.70, SD: 0.45) and interpersonal support (M: 2.69, SD: 0.51) behaviors.

Table 1 report total PADS scores and eight subscale scores for adolescents. It is observed that the adolescents mostly had problems with the concern of future (M: 1.87, SD: 0.48) and psychological problems (M: 2.16, SD: 0.43). Adolescents' nutrition scores was the highest mean (M: 2.49, SD: 0.43).

Table 2. Health-Promoting Lifestyle Profile (HPLP) and Subscale Scores of Male (n = 362) and Females (n = 248) Participants

Scales	Female (n = 248)		Male (n = 362)		t	p
	M	SD	M	D		
HPLP Total						
HPLP Subscale	115.08	16.70	118.66	18.81	- 2.41	0.016*
Self actualization	34.77	5.57	35.48	6.08	- 1.48	0.139
Health responsibility	19.13	4.90	19.16	5.41	- 0.08	0.939
Exercise	9.87	3.10	11.67	3.24	- 6.82	0.000**
Nutrition	14.98	3.24	15.45	3.46	- 1.68	0.094
Interpersonal support	18.73	3.53	18.98	3.67	- 0.85	0.397
Stress management	17.58	3.27	17.90	3.61	- 1.10	0.273

* p <.05   ** p <.001

Independent samples t test results showed that male reported more frequent performance of health promoting behaviors than females (t = –2.41, p = 0.016). Male and females students differed only in exercise aspect of health promotion: male scores on exercise were higher than females' (t = –6.82, p = 0.000). The students had similar scores on self-actualization, health responsibility, nutrition, interpersonal support and stress management.

Table 3. Problems of Adolescent Diagnose Scale (PADS) and Subscale Scores of Male (n = 362) and Females (n = 248) Participants

Scales	Female (n = 248)		Male (n = 362)		t	p
	M	SD	M	SD		
PADS Total	146.87	18.68	143.32	24.80	2.01	0.045
PADS Subscale	29.05	4.09	29.31	4.89	- 0.73	0.469
Physical image	21.69	3.91	21.63	4.64	0.17	0.868
Psychologic symptom	28.50	5.42	26.70	6.15	3.72	0.000**
Social adoptation	12.80	1.98	12.33	2.73	2.47	0.014*
Nutrition	7.86	1.56	6.98	1.97	6.10	0.000**
Physiologic concern	17.75	3.28	16.16	4.12	5.32	0.000**
Sexuel issues	20.13	4.89	21.01	5.52	- 2.07	0.038*
Concern of future	9.05	2.01	9.17	2.20	- 0.67	0.506
Activity						

* p <.05   ** p <.001

Independent Sample t test results showed that male reported more problems than females (t = 2.01, p = 0.045). Male students scored significantly lower than females on four of the eight subscales: social adaptation (t = 3.72, p = 0.000), nutrition (t = 2.47, p = 0.014), physiologic concern (t = 6.10, p = 0.000) and sexual issues (t = 5.32, p = 0.000). In other words, male students reported more problems on these issues than females. Female students reported more problems on the concern of future (t = -2.09, p = 0.038). The students had similar scores on physical image, psychological symptom, and activity.

Table 4. Relationship between Health-Promoting Lifestyle Profile (HPLP) and Problems of Adolescent Diagnose Scale (PADS) (n = 610)

Scales	Mean	SD	Correlation
HPLP	117.21	18.06	r = 0.06
PADS	144.71	22.49	p = 0.134

There was no significant correlation (r = 0.06, p = 0.134) between HPLP and PADS scores (Table 4).

Discussion

Health Promotion Behaviors of Adolescent

The highest score to be obtained from Health Promotion Life-Style Profile (HPLP) is 192. The total HPLP mean score was found to be as follows: M: 117.21, SD: 18.6 and the mean Item Point was M: 2.44, SD: 0.37. When these results are taken into account, Health Promotion Behaviors of adolescents are at just above medium level. In their study, conducted on university students, Gözüm and Tezel20 M: 117.6, SD: 17.3, Sertçelik21 M: 116.08, SD: 17.92, and Yetkin and Uzun22 M: 116.62, SD: 15.22 found similar HPLP findings for adolescents.

HPLP item scores of adolescents (M: 2.44, DS:.37.) are similar with those of black girls of whose scores were obtained in a study carried out by Felton, et al.23 on collage students. The HPLP scores of white girls (M: 2.71, DS:. 35) in the same study, by Felton, were higher than those found in this study. Total HPLP scores of adolescents were found to be lower than those of adults, which were determined in Turkey (18). The reason for this may have been the differences in age and education level. The adolescents got the highest score in self-actualization upon examination of HPLP subscale scores (Item M: 2.70, SD: 0.45) (Table 1). These results comply with the scores observed in other studies carried out on university students in late adolescents period in the country, Turkey (20,21,22). Self-actualization scores found by Felton et al.23were as follows: M.3.17, SD:.56 for black girls, M: 3.22, SD:.45 for white girls, which are higher than the scores (M: 2.70, SD: 0.45) found in this study. This may have been as a result of the differences in education, culture and socio-economical status.

The interpersonal support subscale scores (M: 2.69, SD: 0.51) of adolescents were observed to be the second highest scores (Table 1). According to existing literature, the highest scores are taken from interpersonal support subscale scores, which comply with these findings (16,18,20,21,22,23,24). Adolescents obtained the lowest score from health responsibility subscale (M: 1.91, SD: 0.52) (Table 1). According to this result, it can be claimed that health responsibility behaviors score of adolescents is below medium level. This value complies with the results of similar age group in the literature, but lower than those of adults (20,21,23). This situation complies with the facts existing in the literature that the higher the level of education and age, the greater health responsibility behaviors (18,25).

The total HPLP scores of males were found to be higher than those of females (t = -2.1, p = 0.016). In addition, the exercise subscale scores of males were found to be higher than those of females (t = -6.82, p = 0.000), (Table 2). That the exercise subscale scores of males were higher than those of females can be explained with the easy participation of males in our society to activities, plays, and sports taking place outside home. Özbaşaran et al.24 found that the total HPLP scores of females were be higher than males. Spear and Kulbok6 stated that females demonstrated more convenient health behaviors than males. No significant relationship between health behaviors and sexuality was reported in studies carried out on adolescents (17,20,21,22).

The Problems of Adolescents

The mean scores of total Problems of Adolescent Diagnose Scale of adolescents were found to be M: 144.71, SD: 22.49 and mean item points were M: 2.43, SD:.38 (Table1). In general, the problems of adolescents were seen to have been at the level "sometimes prob-

lem". These results are parallel with those of Görak et al.12 and McKay and Diem.15

When the subscales were examined, the worries regarding future were found to be at first priorities (Table 1). McKay and Diem15 found in a study carried on female students aged at 13-17 that the students had underlined the problems related to future and carrier at first place. Due to developments in abstract thinking ability in middle and late adolescent periods, that adolescents focused on future concerns and are more interested in such transitional plans to adulthood as academic achievements and carrier has been stressed (6,7). In addition, the findings of similar studies make us think that the worries of adolescents have increased and they have seen the future unsafe and felt them weak in planning their future (9).

The second issue the adolescents claimed it more as a trouble was psychological symptom subscale. (Item points M: 2.16, DS: 0.43) (Table 1). In this issue, it was determined that the symptoms like nervousness (26.7%), headache (26.9 %), stomachache (23 %), insomnia (25.7 %) and fatigue (23.1 %) were always considered by adolescents as troubles. At the same time, it was found that 47.5 percent adolescents thought of self-harm. Görak et al.12 and McKay and Diem15 also found that symptoms like nervousness and headaches to be first among problems of adolescents. That adolescent period includes intensive psychological stressors together with physical changes, due to which psychological problems are more often encountered has been stressed in literature (5,7,8,26). 22.8%of adolescents said they smoke always, while 10.2 %said they smoke sometimes (total 33.1%). Smoking rate among high school students in literature varies from 13%to 33.1%(2,9,11). It can be said tahat, smoking rate among adolescents appears to be in an increasing trend, which is frightening.

It was determined that the total PADS scores of males were slightly lower than those of females, which means males expressed more problems than females (Table 3). Similarly, it was found that males expressed more problems than females in their social adaptation (t = 3.72, p = 0.000), nutrition (t = 2.47, p = 0.014), physiologic concern (t = 6.10, p = 0.000) and sexual issues (t = 5.32, p = 0.000) subscales.

Females expressed more problems than males in concern of future (t = 2.07, p = 0.038) subscale (Table 3). In our society, sexual problems are not clearly expressed, particularly by young females (14). Therefore, females may have expressed more problems on the issue than males.

Relationship Between the Problems and Health Behaviors

The relationship between Health Promotion Life-Style Profile (HPLP) of adolescents and Problems of Adolescent Diagnose Scale (PADS) was examined and no statistically significant relationship was found (r = 0.06, p = 0.134) (Table 4). Upon examination of subscales it was observed that the better health behaviors of adolescents were, the fewer problems they had. However, this relationship was not statistically significant.

It has been emphasized in the literature that behaviors which are essential part of life style in adulthood have been acquired during adolescent period (2,6) and that making children and adolescents have convenient behaviors is easier than changing adults' behaviors (27). Therefore, it is significant that health behaviors of adolescents are improved (1). These findings reflecting health behaviors of adolescents and the problems expressed by themselves may put light on planning and practices related to health promotion of adolescents.

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