

Prevalence of Depressive Symptoms, Ways of Coping, and Related Factors Among Medical School and Health Services Higher Education Students

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Abstract

Objective: The aims of this study were to explore the prevalence of depressive symptoms, ways of coping, and their relationships to sociodemographic variables among students of the Medical Faculty (MF) and the Health Services Higher Education School (HSHEs) at İnönü University.

Method: The Beck Depression Inventory (BDI), Styles of Coping Inventory (SCI), and a sociodemographic questionnaire were used.

Results: Among the HSHEs students (n= 128), the prevalence of depressive symptoms was higher. The MF students whose fathers had a higher level of education had higher BDI scores. The MF students from families with lower levels of income had a higher frequency of depressive symptoms. In both groups, the students with previous histories of psychiatric and physical illness had higher BDI scores. Among the MF students, older age (OR= 2.72), and among the HSHEs students, having a previous history of psychiatric disorder (OR= 5.25) and female gender (OR= 1.85) affected the prevalence of depressive symptoms. The HSHEs students used passive styles of coping more frequently. Active coping styles were used more frequently by the male students in both groups. The HSHEs students whose mothers had lower levels of education, had higher passive coping style scores; active coping styles and higher family income correlated positively. In both groups, BDI and active styles scores correlated positively. Passive styles were used more frequently by male and female students that had a higher frequency of depressive symptoms.

Conclusion: The rate of mental health problems was quite high among the students. Preventive mental health programs should be developed and implemented.

Key Words: Depression, depressive symptoms, coping skills, medical students

INTRODUCTION

Mental health problems are a major public health problem due to their high prevalence rates, difficulties related with the treatment, and their tendencies to become chronic (Doğan et al., 1995; Güleç, 1997; WHO, 2001). According to a study conducted in 14 countries by the World Health Organization (WHO), the most frequently seen disorder among patients who present to primary health care facilities is depression (10.4%). In the Ankara-Gölbaşı data from the same study 17.6% of psychiatric diagnoses and 11.6% of depression diagnoses were reported. In the Turkish Mental Health Profile study, which is the only study to have used nationwide data, depression and anxiety disorders were the most frequently seen psychiatric disorders (Erol et al., 1998).

Depression is second only to upper respiratory track disorders in rate of prevalence and is a major public health problem (Öztürk, 2001; Sartorius et al., 1993).

Young adulthood is characterized as an identity-forming period in which individuals experience social and physical changes, as well as various conflicts in emotional, behavioral, sexual, economic, academic, and social areas. The mental health of young adult university students is one of the most important components of public health (Bayhan, 2003; Doğan et al., 1994; Özkürkçügil-Çorapçıoğlu, 1999). For these students, such factors as being female, age, and living away from the family were reported to be factors that increase psychiatric presentations (O'Neil et al., 1984). The most frequent reason for psychiatric presentation (62%) among univer-

sity students is depressive-based problems (Surtees et al., 1998; Evans, 1999). Depression in youngsters is one of the most frequently encountered mental disorders and it leads to severe impairment in psychosocial and academic domains. Depression in youngsters present with similar symptoms as in adults, or can be masked by antisocial behaviors or learning difficulties (Canat, 1997).

Epidemiological studies report that the prevalence of depression in adolescents is 0.4%-8.3% and the lifetime prevalence is 15%-20% (Canat, 1997; Muris et al., 2001). Kandel and Davies (1986) reported that adolescents experience more depressive feelings than adults. In the same study depressive affect was more frequent in females than in males.

Depression is fifth among the top illnesses that lead to global illness burden (Bruntland, 2000). Studies related to depression report a very wide range of prevalence (9%-25%). Depression is 2 times more frequent in adolescent girls and women than in adolescent boys and men (Öztürk, 2001). Depression can begin at any age; however, the mean age of onset is the mid 20's. Recent epidemiological studies report earlier age of onset. (Köroğlu, 1997; Öztürk, 2001; Yüksel, 2001). According to the earliest studies of depression prevalence in Turkey, the point prevalence speed is approximately 10% (Güleç 1997).

The concept of stress involves both stimulus and behavior, and the interaction between them (Baltaş, 2000). Stress is an adaptive behavior affected by individual differences and/or psychological processes, and appears as a result of any psychological behavior or event that causes severe stress on an individual (Artan, 1986). We can say that the basis of stress is an individual's perception and evaluation of events, and that individual understanding and response results in an increase or decrease of stress (Cüceloğlu, 1996). In this regard, we can posit that engaging in protective health behavior is related to the development of ways of coping with stress. In a study by the United States Department of Public Health and Human Services (1990), it was stressed that half of all fatalities in the US are consequences of a lack of preventive health behavior (Baltaş, 2000; Beasley et al., 2003). Styles of coping with stress have a preventive role in mental health. Certain styles of coping with stress protect individuals from a stressful life style and some styles of coping increase the sensitivity of individuals towards mental problems (Muris et al., 2001).

Using efficient and relevant ways of coping during adolescence results in the development of a healthy indi-

vidual, a healthy identity, and minimal behavioral problems and depressive symptoms. Relevant ways of coping with stress contribute a lot to the adjustment problems during these formative years (Steiner et al., 2002).

The present study aimed to explore the prevalence of depressive symptoms, ways of coping with stress, and their relationships with sociodemographic variables among students of the Medical Faculty (MF) and the Health Services Higher Education School (HSHEs) at İnönü University.

METHODS

This cross sectional study was conducted with students from the MF and HSHEs of İnönü University.

Sample

Of the 936 recruited students, 437 were MF students and 499 were HSHEs students. All of the 936 students were included in the study, 182 declined participation, and the participation rate was 80.5% (n= 754).

Data Collection Tools

Sociodemographic Questionnaire

This form developed by the researchers includes questions regarding age, sex, education, and working conditions of the parents, as well as family structure, residence (with the family or away from the family), place of birth (city or village), and past psychiatric or physiological illness. Socioeconomic status was determined according to the basic wage rate at the time of the study: basic wage rate and below ($\leq$ 200 million TL/month) and above the basic wage rate ($\geq$ 201 million TL/month).

Beck Depression Inventory (BDI)

One of the most frequently used self-report questionnaires used for research, the BDI is used to comprehensively detect depression symptoms. In addition, cognitive thought content is also evaluated (Sorias, 1997). In the Turkish adaptation study conducted with university students, a cut-off score of 17 was reported to correctly differentiate 90% of depression cases (Hisli, 1989).

Styles of Coping Inventory (SCI)

SCI was developed for university students based on the Ways of Coping Inventory developed by Folkman and Lazarus (1980). SCI is a brief inventory that measures ways of coping related to depression, loneliness, and psychosomatic problems, and is valid in different stress-

Table I. Demographic characteristics of the students

Sociodemographic characteristics	MF (n= 352)		HSHEs (n= 402)		χ^2	P
	Number	%	Number	%		
Gender						
Male	226	64.2	95	23.6	126.36	0.001
Female	126	35.8	307	76.4		
Mothers' education						
Primary and below	218	61.9	331	82.3	39.47	0.001
High school and above	134	38.1	71	17.7		
Fathers' education						
Primary and below	118	33.5	197	48.8	17.92	0.001
High school and above	234	66.5	205	51.2		
Mothers' employment						
Unemployed	316	89.8	390	97.0	16.51	0.001
Employed	36	10.2	12	3.0		
Fathers' employment						
Unemployed	117	33.2	166	41.3	5.19	0.023
Employed	235	66.8	236	58.7		
Family Income						
Basic wage rate and below	23	7.7	86	25.3	34.63	0.001
Above the basic wage rate	275	92.3	254	74.7		
Family Structure						
Nuclear + Large family	316	89.8	376	93.5	3.51	0.061
Divided family	36	10.2	26	6.4		
Residence						
With the family	200	56.8	197	49.0	4.59	0.032
Away from the family	152	43.2	205	51.0		
Place of birth						
City	270	76.7	242	60.2	23.45	0.001
Town or village	82	23.3	160	39.8		
Reported previous history of psychiatric illness						
Yes	25	7.1	18	4.5	2.40	0.121
No	327	92.9	384	95.5		
Reported previous history of any illness other than psychiatric illness						
Yes	51	14.5	49	12.2	0.86	0.353
No	301	85.5	353	87.8		

ful conditions. With the aim of developing a scale that measures depression, various psychological symptoms, and loneliness, we compared the scores of this inventory in various end groups, which were categorized according to depression, psychological symptoms, and loneliness scores. Subsequently, 30 items that discriminated and related with various end groups developed according to the BDI, SCI, and UCLA (University of California at Los Angeles)-Loneliness Scale were chosen for the Brief SCI version (Şahin and Durak, 1995).

The scale measures 2 main ways of coping with stress: problem oriented/active style and emotion oriented/passive style. Active styles are measured by the seeking of

social support, optimistic style, and self-confident style subscales, whereas passive styles are measured by the helpless style and submissive style subscales. It was found that individuals who cope effectively with stress use the optimistic style and the self-confident style, while those who cannot cope effectively use the helpless style and the submissive style. High scores indicate a tendency for the particular style (Şahin and Durak, 1995).

Procedure

Questionnaires used in the study were administered in classrooms under the guidance of the researchers. Before the questionnaires were administered, informed

Table II. Risk factors affecting the prevalence of depressive symptoms according to the logistic regression analysis

Factors	B	SE	Exp (B)	P	95% CI
MF					
Increase in age	1.00	0.13	2.72	0.001	2.09-3.54
HSHES					
Previous psychiatric history	1.65	0.63	5.25	0.009	1.50-18.27
Female gender	0.61	0.30	1.85	0.040	0.95-2.14

consent was received from all the participating students. Students were informed that they did not have to participate or provide their names, all their questions about the study would be answered, and the data would be used for scientific purposes. Students who accepted these conditions filled out the forms. The cut-off score for BDI was ≥ 17 (Ceylan et al., 2003; Karakaya et al., 2004; Bostancı et al., 2005; Güleç et al., 2005).

Statistical Method

All findings are presented as a mean and standard deviation. Mann-Whitney U tests and Spearman's correlation analyses were performed with the data that did not fit into the normal distribution. Data in the normal distribution was analyzed with the t test and chi-square analysis was used for categorical data. The level of significance was $P < 0.05$. In evaluating the risk factors of the students for depression according to schools, backward logistic regression analysis was used.

Variables that were found to be significant in the chi-square analysis were entered into the logistic regression model (significance level: $P \leq 0.10$) (Rothman and Greenland, 1998).

FINDINGS

The mean age of the students was 21.5 ± 1.8 years. The distribution of the MF and HSHES students according to some sociodemographic variables are presented in Table I.

Depressive symptoms

The mean BDI score of the MF and HSHES students was 10.57 ± 7.95 and 13.47 ± 8.45 , respectively. The BDI scores of HSHES students were significantly higher than those of the MF students ($U = 54585.5$, $P = 0.001$). When evaluated according to the cut-off score, depressive symptoms were more prevalent in HSHES students (31.8%, $n = 128$) than in MF students (21.9%, $n = 77$) ($\chi^2 = 8.91$, $P = 0.0003$).

The mean age of MF students with higher depressive

symptom levels was 24.07 ± 1.23 years, and the mean age of MF students with lower depressive symptom levels was 21.26 ± 1.76 ($U = 2152.5$, $P = 0.001$). There was no significant relationship between age and depressive symptomatology in both groups of students.

While there was no difference between the education level of the mother and depressive symptomatology scores among MF students, BDI scores of those whose mothers had a high school or above education (9.50 ± 7.88) were higher in comparison to the students with mothers whose education level was primary school or below ($U = 11885.0$, $P = 0.033$). When education level of the fathers was entered in to Spearman's correlation with illiterate, literate, primary school graduate, high school graduate, lycee graduate, university, and graduate education intervals, it was found to be related to BDI scores ($r_s = 0.117$, $P = 0.028$). When evaluated according to the cut-off score, the difference between depressive symptoms and education level of fathers was not significant.

The mean BDI score of HSHES students whose parents were divorced had higher (17.73 ± 10.17) than the students from nuclear or large families (13.18 ± 8.2) ($t = 2.67$, $P = 0.008$). According to the BDI cut-off scores, depressive symptoms were prevalent in 50% of the students from divided families ($\chi^2 = 4.22$, $P = 0.0040$). There was no significant difference in MF students, according to family type.

In the MF group, the BDI scores of the students from families with monthly income at or below the basic wage rate were higher than (15.39 ± 11.26) the students whose monthly family income was above the basic wage rate ($t = 2.18$, $P = 0.039$). Depressive symptoms were prevalent in 43.5% of the students from families with monthly income at or below the basic wage rate (Fisher's test $P = 0.014$). There was no relationship between socioeconomic level of the family and depressive symptomatology in the HSHES group; however, when income of the family was used as a continuous variable, the BDI scores increased as income decreased ($r_s = -0.126$, $P = 0.020$). This was not the case for the MF group. There

Table III. Distribution of the students according to SCI subgroup medians

SCI subgroups	MF students	HSHEs students	U	P
SSS ¹	7 (0-12)	8 (0-12)	68602.5	0.468
OS ²	9 (0-15)	9 (0-15)	69612.5	0.701
HS ³	9 (0-23)	11 (0-21)	58767.0	0.000
SS ⁴	5 (0-16)	6 (0-18)	66039.5	0.112
SCS ⁵	14 (0-21)	14 (0-21)	66595.5	0.162

1. SSS: seeking social support, 2. OS: optimistic style, 3. HS: optimistic style, 4. SS: submissive style, 5. SCS: self-confident style

were no significant differences between living away from the family, the place of birth, and BDI scores.

Both MF students (15.04 ± 10.93) and HSHES students (19.83 ± 9.48) with previous histories of psychiatric and physical disorders had higher BDI scores (MF: $U = 2974.5$, $P = 0.023$; HSHES: $U = 2034.0$, $P = 0.003$). While there were no differences in the MF group according to the BDI cut-off score, the prevalence of depressive symptomatology in HSHES students with a previous psychiatric history was 61.1% ($\chi^2 = 7.43$, $P = 0.006$).

The mean BDI score of the MF and HSHES students with a history of previous physical illness was 13.86 ± 10.88 and 16.63 ± 9.98 , respectively. Among both student groups, depression scores of the students with a history of previous physical illness were high (MF students; $U = 6212.0$, $P = 0.029$; HSHES students; $t = 2.41$, $P = 0.019$). When evaluated according to the BDI cut-off score, there was no significant difference between the 2 student groups.

For MF students, monthly family income ($P = 0.014$), previous psychiatric ($P = 0.076$) and physical illness ($P = 0.076$), and age ($P = 0.001$) variables were entered in to a backward logistic regression model and having older age ($OR = 2.72$) was related to the prevalence of depressive symptoms.

For HSHES students, monthly family income ($P = 0.053$), previous psychiatric ($P = 0.006$) and physical illness ($P = 0.077$), sex ($P = 0.068$), and family structure ($P = 0.040$) variables were entered in to a backward logistic regression model and monthly family income ($P = 0.014$), previous psychiatric ($P = 0.076$) and physical illness ($P = 0.076$), a previous history of psychiatric disorder ($OR = 5.25$), and being female ($OR = 1.85$) were related to the prevalence of depressive symptoms.

Ways of Coping with Stress

According to the subscales of SCI, HSHES students

used a helpless coping style more than MF students ($U = 58767.0$, $P = 0.001$). The passive coping style mean score of the MF students was 14.86 ± 6.19 , and for HSHES students it was 16.47 ± 6.84 . HSHES students used passive styles more than the MF students ($U = 59657.5$, $P = 0.001$). (Table III).

In the MF group, male students used more active coping styles ($t = 3.78$, $P = 0.001$), whereas female students used more passive styles ($U = 12004.0$, $P = 0.014$). Among the HSHES group, male students used more active coping styles than females ($t = 2.03$, $P = 0.043$), but there were no gender differences in terms of using passive styles.

Among the HSHES students, those whose mother's education level was primary school and below used passive coping styles more ($t = 2.10$, $P = 0.036$). There were no significant relationships between the level of education of the father, parents' working conditions, structure of the family, and living conditions, with using active and passive styles, among the students of both groups.

There was a weak, positive correlation between family income and active coping style scores in the HSHES group; as family income increased, active styles also increased ($r_s = 0.148$, $P = 0.006$). There was no correlation between family income and coping styles among the MF students.

There was no significant difference between having a past psychiatric illness and using active or passive coping styles in the MF group. HSHES students with past psychiatric illnesses used active styles more. The active coping style mean score of the students with past psychiatric illnesses was 25.22 ± 6.63 , while for students without a past psychiatric illnesses it was 30.20 ± 7.16 ($t = 2.89$, $P = 0.004$). There was no significant difference between having a past physical illness and active and passive styles in both groups. In addition, as BDI scores

Table IV. Correlations of BDI scores with active passive style scores.

	BDI	
	MF	HSHEs
Active styles	-0.474*	-0.352*
Passive styles	0.409*	0.448*

* $P < 0.05$

increased, active style scores decreased and passive style scores increased (Table IV). In both groups, students with depressive symptomatology used more passive coping styles and students without depressive symptomatology used more active styles ($P < 0.05$) (Table V).

DISCUSSION

The frequency of depressive symptoms in adolescents is reported to be 21%-56% worldwide, whereas in Turkey it is 27% (Öy, 1995). High depression scores in the HSHEs students might indicate that these students experienced more anxiety about their futures and employment, and that they were less satisfied with their schools. In a study conducted at Texas University, BDI mean score of the students was 8.2 ± 2.9 (Penland et al., 2000). In another US study conducted with students between 17 and 25 years of age, the BDI mean score was 7.6 (Oliver and Paul, 1995). BDI scores and the depression prevalence in our study were higher than the European and USA samples, except for the West European sample. The level of social and economic developmental factors might explain this.

Higher depressive symptoms in older students in the MF sample are compatible with studies showing higher depression rates in adolescents than in adults. On the other hand, increased depressive symptoms in senior students reflect future and employment anxieties (Kandel and Davies, 1986). Age increase was shown to be a factor that increases admission to psychiatry clinics (O'Neil et al., 1984).

Based on family income and education level, and place of birth and residence, it was observed that MF students were from higher socioeconomic and sociocultural classes.

In a study conducted with university students in Sivas, Turkey using the BDI, the prevalence of depressive symptoms for medical faculty students was 35.2% and for nursing graduate school students it was 26%. The prevalence in the total sample was 34.7% (Doğan et al., 1994).

In a study conducted using BDI in Denizli, Turkey among a sample of students from different faculties, the prevalence of depressive symptoms was 26.2% (Bostancı et al., 2005). The prevalence of depression found in a study conducted with the 13-item form of BDI in 15 European countries was 32% (Allgöwer et al., 2001). In the evaluation of 6463 university students from East and West Europe, the prevalence of depression in the East European sample was 3.2%, whereas in the West European sample it was 23.5% (Steptoe and Wardle, 2001).

Depressive symptoms were more prevalent in the HSHEs students whose parents were divorced. This finding could be an evidence for inadequate social support systems. In a study by Luecken (2000) loss of one parent in childhood was shown to be a risk factor for depression in adolescence and adulthood. Family unity is an important factor in the development and course of depression. Continuity of family unity serves as a protective factor for mental health (Toros and Bilgin, 2002). The general inadequate socioeconomic conditions of the HSHEs students might have affected their development of depressive symptoms. It was reported that cumulative stress that occurs which is a result of accumulated minor stresses is more of a factor in the development of physical and mental disorders than stress due to major life events. Reactions to minor stressors were found to have a greater effect on depressive mood (Felsten, 2004).

HSHEs students with previous psychiatric histories used active coping styles more. As a psychiatric disorder can make an individual more sensitive to the effects of stress, it can also cause differences in the ways of coping with stress. Many studies have shown that cumulative stress has a greater effect than stress due to major life events in the development of physical and mental disorders (Felsten, 2004). The effect of cumulative stress on the adjustment mechanisms of individuals is different than the effects of stress from major life events.

In the MF group, depression scores were higher among the students from families with monthly incomes at or below the basic wage. In a study conducted at Gülhane Military Medical Academy, Turkey, BDI scores of students of low socioeconomic class were significantly high (Bakır et al., 1997); however, in another study conducted with Pamukkale University students, there was no relationship between family economic status and the prevalence of depressive symptoms (Bostancı et al., 2005).

In our study, when socioeconomic differences between the students were considered, a relationship was found between low-income level and depressive symp-

Table V. Distribution of genders and coping style scores according to the prevalence of depressive symptoms.

SCI	Depressive symptoms		t	p
	Yes	No		
MF($X \pm S$)				
Male				
Active	25.04 $\pm$ 6.96	32.77 $\pm$ 6.05	7.49	0.000
Passive	18.71 $\pm$ 6.56	13.23 $\pm$ 5.99	5.42	0.000
Female				
Active	24.09 $\pm$ 6.22	29.67 $\pm$ 6.39	4.24	0.000
Passive	17.58 $\pm$ 5.18	15.20 $\pm$ 5.51	2.11	0.036
HSHES ($X \pm S$)				
Male				
Active	27.52 $\pm$ 6.47	32.50 $\pm$ 6.50	3.20	0.002
Passive	20.17 $\pm$ 7.00	14.76 $\pm$ 7.05	3.20	0.002
Female				
Active	26.52 $\pm$ 7.23	31.16 $\pm$ 6.81	5.54	0.000
Passive	19.85 $\pm$ 6.03	14.91 $\pm$ 6.37	6.56	0.000

toms; as income level decreased, the prevalence of depressive symptoms increased. It was shown that low socioeconomic status is related to poor mental and physical health (Belek, 1999). Socioeconomic differences, as an independent variable, may affect course of mental health by contributing to school and course adjustment, meeting educational expenses, healthy life conditions. Many studies report higher depressive symptomatology in low socioeconomic subjects (Bostancı et al., 2005; Ceylan et al., 2003; Lorant et al., 2003; Goodman et al., 2002; Goodman et al., 2003).

In the MF students, it was found that as the education level of the father increased, depressive symptoms also increased. Higher expectations of the family might be the underlying reason.

In both student groups, a previous history of psychiatric and physical illness increased depression scores, and a previous psychiatric history was a risk factor for depression only in the HSHES students. It is known that depression is frequent in individuals with physical illnesses and that mental disorders have a negative affect on the course of physical illness (Sağduyu et al., 2000).

HSHES students used more passive styles of coping with stress. This was a result of using more helpless styles of coping. Using more passive styles might have been due to higher rates of depressive symptoms and having lower socioeconomic status than the MF students. In a study conducted with The Coping Inventory for Stressful Situations (CISS) in Tasmania, it was reported that there were no gender differences in using active and passive styles of coping (Beasley et al., 2003). In a study of 13-19-year-olds conducted by Muris et al. (2001),

it was reported that female students used passive styles of coping more than males. In our study active styles of coping were more prevalent among male students in both schools.

In both student groups, as BDI scores increased, passive style scores also increased. In a study conducted at Texas University it was reported that depressive students used more passive coping styles (Penland et al., 2000). In Muris et al.'s (2001) study, similar to adults, adolescent depression scores also displayed a negative correlation with active styles and a positive correlation with passive styles. Researchers have suggested that a negative style serves as fuel for depression. In a study conducted in Canada in which depressive patients, hospital staff, and university students were compared, passive styles were more prevalent among depressive patients (Ravindran et al., 2002). In a Korean study, it was reported that university students with higher depressive scores used more passive coping styles and as depression scores decreased, active coping style scores increased (Choi, 2003). It can also be hypothesized that as depressive symptomatology increased, passive styles of coping with helplessness increased, and individuals who use passive styles are more prone to depression.

In a study conducted with women using CISS and BDI it was found that an emotion oriented coping style was positively correlated with depressive symptoms (Flett et al., 1996). In another study conducted with adolescents it was found that girls use passive styles more than boys and display more depressive symptoms (Hanninen and Aro, 1996). Boys in comparison to girls seem to be more socially advantageous in coping with stress. It can

be said that higher levels of depressive symptoms is the most important factor that negatively affects coping with stress.

Perceiving life events in a negative fashion leads to ineffective coping abilities (Ravindran et al., 2002). In turn, as a passive style of coping becomes the norm, active abilities are displayed less frequently. It was reported that negative cognitive evaluation fosters the development of psychiatric disorders. Individual differences in evaluating stress factors might result in developing different coping abilities (Hojat et al., 2003). The second most important point is the level and existence of social support systems. Social support is one of the most important factors for maintaining good health. Low levels of social support are related to poor health. Quality of life has a similar effect (Ravindran et al., 2002). It can be predicted that socioeconomic level differences would affect both social support systems and the relationship of the individual with the external world and therefore affect the information processing process and determine the quality of behaviors in coping with stress. Other studies also found a positive relationship between depressive symptoms and help-seeking behavior. Especially the predictive effect of female gender is stressed (Ravindran et al., 2002; Ayrancı and Yenilmez, 2002; Wilde et al., 2004).

A mother's education level is an important factor that affects a child's level of coping with stress. The present study found that as the mothers' education levels increased, using active, positive coping styles increased. In

another study conducted with medical faculty students it was reported that, as the educational level of mothers increased, the frequency of submissive behavior also decreased (Kaya et al., 2004). In our study there was no such relationship for the MF students.

The relationship between family income level and ways of coping with stress in HSHES students was important in terms of demonstrating the effect of socioeconomic variables on the level of coping with stress.

In conclusion, the prevalence of depressive symptoms and mental health problems among both groups of students were high. Therefore, in epidemiological studies of university students, socioeconomic variables should be evaluated more carefully and comprehensively. School-based health programs should be developed. The functions of medico-social centers that provide health services to students should be reviewed and reorganized. Programs in these centers should include preventive and protective approaches. When the characteristics of students who present to psychiatry clinics are considered, protective approaches should be developed, especially for groups at risk (female, students living away from their families, and students of low socioeconomic status). In addition to the development of preventive and protective training environments for children and adolescents, there is a need for both school-based counseling services and relationship opportunities that are therapeutic and aim to develop certain abilities.

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