Personality, Social Support, and Anxiety among Adolescents Preparing for University Entrance Examinations in Turkey

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This study aimed to investigate the importance of different sources of perceived social support, sociotropic and autonomic personality dispositions, achievement expectation, and importance of academic achievement in predicting anxiety symptoms of male and female students who were preparing for the university entrance exam. Three hundred and forty students with ages varying from 16 to 21 participated in the study. Separate multiple regression analyses were run for males and females in predicting anxiety symptoms. The total Sociotropy score and the total Social Support score predicted anxiety for females, whereas for males, anxiety was predicted by four variables, namely, Achievement Expectancy, Concern over Approval, Social Support from Family, and Social Support from Friends. Implications of these results were discussed.

Anxiety, academic achievement, and social support are closely linked concepts. Anxiety is related to such feelings as fear, dread, and tension. Social support on the other hand, is found to lower the level of anxiety, which in turn, predicts academic achievement (Cutrona, Cole, Colangelo, Assouline, & Russell, 1994). Therefore, social support plays an important role on anxiety.

When anxiety is considered, personality dispositions are also found to be important. Beck (1983) and Beck, Emery, and Greenberg (1985) have suggested two dimensions of personality called sociotropy and autonomy, which are believed to be important attributes for those vulnerable to psychopathologies like depression or anxiety. Highly sociotropic individuals are particularly concerned about the possibility of being disapproved by others and often act in ways designed to please others, thereby securing their attachments. Anxiety symptoms then will most likely occur in such individuals in response to perceived loss or rejection in social relationships. Highly autonomous, achievement-oriented individuals on the other hand are particularly concerned about the possibility of personal failure and often act in ways to maximize their control over the environment, thereby reducing the probability of failure. Anxiety symptoms are

most likely to occur for these individuals in response to perceived achievement failure or lack of control over the environment. Although these personality dispositions are very important in predicting anxiety symptoms, these concepts have not been studied in depth with children or adolescents.

Other than these personality dispositions, social support is also an important concept for anxiety symptoms. The effects of social support on physical and psychological well-being have been empirically documented in the literature (Cohen & Wills, 1985). Consistently, studies revealed that children and adolescents were able to increase their capacity to deal with stressors through the use of social support (Cutrona, 1990; Thoits, 1986). Research concerning the effect of social support on adolescents' functioning has measured the size of adolescents' social networks and/or the perceived availability of such support (Aro, Hanninen, & Paronen, 1989; Bell, Leroy, & Stephen, 1982; Dean & Lin, 1977; Wilcox, 1981). It is usually suggested that, it is the perception of availability of support that serves to protect the individual from the negative consequences of stress (Cohen, Towbes, & Flocco, 1988; Cohen & Wills, 1985). Since adolescents are developmentally in a transition period, perceived social support becomes even more important during this time in terms of coping with stress and its consequences.

Acute change s in stressful circumstances such as those associated with major life transitions, have been shown to be strongly associated with a wide range of disorders including psychological and emotional problems, behavioral problems at home and school, and poorer academic performance (Compas, Howell, Phares, Williams, & Giunta, 1989; Dubow & Tisak, 1989; Rowlison & Felner, 1988). It is also suggested, experiences of stresses and support during adolescence may have considerable significance for the degree to which young people are able to handle the multiple adaptive challenges that are associated with this period such as entrance into secondary school (DuBois, Felner, Brand, Adan, & Evans, 1992). The transition from high school to university also constitutes an example of a life crisis which also coincides with the transition from late adolescence to early adulthood. The environmental challenges involved in this transition are increasingly problematic for adolescents today. In developing countries, the democratization of educational opportunity has provided greater access to institutions of higher learning for young people.

Gottlieb (1980) has suggested that social support is particularly important during passages that require a reorientation to or rearrangement of the social network. He cites first-time parenthood, college entrance, and divorce as examples of life transitions requiring such a reorientation. Major life transitions may cause psychological and emotional problems. The transition from high school to university is a period when high levels of changes are experienced within a short time. The transition to university is a multidimensional concept. It is an anxiety-provoking situation due to the university entrance exam, as well as the anxiety these individuals have about their future. Also there are different expectations and roles which this change will bring, such as the transition from being a student to taking steps to one's future career, and the transition from adolescence to early adulthood. Thus, adolescents who are going through this transition comprise a major risk group.

Therefore, the aim of the present study is to investigate the associates of anxiety symptoms for adolescents who are in a transition period. The period of transition which this study will take into consideration, is the period during which adolescents ought to prepare for entering the university exam which will close an era in their lives and start a novel one. The importance of different sources of perceived social support, sociotropic and autonomic personality dispositions, motivation of individuals, achievement expectation, importance of academic achievement, and socio-demographic variables such as age and sex in predicting anxiety symptoms of adolescents preparing for the university entrance exam will be investigated. Furthermore, it will be examined whether the influence of these factors will change by the gender of the youngsters, considering that different expectations are held for different gender roles both by the individual himself and by the society.

METHOD

Subjects

The participants of this study were recruited from different cities of Turkey, who were attending to private high schools. The criteria for inclusion were, being in the senior class of high school and entering the university exam for the first time. The students in these schools were invited to participate through announcements made by their instructors. Questionnaires from a total of 340 students were used, including 178 females (52.7 %) and 160 males (47.3 %). Two of the students did not report their gender. The ages of the subjects ranged from 16 to 21 with a mean of 17.5 and a standard deviation of 0.58. All of the data were obtained via the administration of self-report questionnaires during class hours.

Instruments

Sociotropy-Autonomy Scale (SAS; Beck, Epstein, Harrison, & Emery 1983, Turkish adaptation by Şahin, Ulusoy, & Şahin, 1993). SAS is a 60–item, self-report measure which aimed to measure sociotropic and autonomic personality factors. Subjects endorse to what extent the items describe them, for each item on a 5–point scale ranging from 0 (not at all) to 4 (very well). It has two subscales as Sociotropy and Autonomy (for the psychometric properties of the scale see Beck et al., 1983; Gilbert & Reynolds, 1990; Hammen, Ellicott, Gitlin, & Jamison, 1989; Robins, Block, & Peselow, 1989).

In order to see the factor structure of SAS for the present sample, a factor analysis was conducted with the items of this scale. A principal component analysis with varimax rotation was carried out and scree-plot (Cattell, 1966) suggested the two-factor solution. Twenty-nine items loaded on the Sociotropy factor. An example for sociotropy items is: "I always feel I have to be kind to other people." The alpha coefficient in the study sample for SAS-Sociotropy subscale is .88, and the item-total correlation ranges from .27 to .60. Twenty-four items loaded on the Autonomy factor. Some examples for Autonomy scale were: "I prefer to make my own plans so that I'm

not controlled by others" and "I prefer to set my own targets instead of accepting those of others." The alpha coefficient in the study sample for SAS-Autonomy subscale is .80, and the item-total correlation ranges from .22 to .53.

The Sociotropy subscale was subjected to further factor analysis. The obtained Sociotropy factors were labeled as "Concern over Acceptance" with the alpha coefficient of .82, "Concern over Loneliness" with the alpha coefficient of .75, and "Concern over Approval" with the alpha coefficient of .72. The Autonomy subscale was also subjected to further factor analysis. The Autonomy factors were labeled as "Inclination for Achievement," "Inclination for Freedom," and "Inclination for Individuality." Alpha coefficients for these factors were .71, .53, and .61, respectively.

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988, Turkish adaptation by Eker & Arkar, 1995). MSPSS is a 12–items self report measure. It is a 7–point Likert-type Scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). It is designed to measure the perceived adequacy of support from the following three sources: Family, friends, and significant other.

State-Trait Anxiety Scale, Trait Form (STAI-T; Spielberger, Gorsuch, & Lushene, 1970, Turkish adaptation by LeCompte & Öner, 1976; Öner, 1977; Öner & LeCompte, 1985). State-Trait Anxiety Inventory (STAI) is a 40–item, self-report measure having two separate forms for Trait and State Anxiety. Trait form of the STAI (STAI-T) is utilized in this study. STAI-T is a 20–item, self-report measure, each item is rated on a 4–point Likert-type Scale ranging from 1 (never) to 4 (always), and designed to measure the level of anxiety an individual generally feels. High scores indicate high levels of trait anxiety.

Measurement of Expectation. The achievement expectancy of the students were measured by a 4–point Likert-type Scale ranging from 1 (I don't expect to be successful at all) to 4 (I expect to be very successful). For the present sample mean score for expectation was 2.37, with standard deviation of 0.68.

Measurement of Importance. The importance of the exam for the subjects was measured by a 7–point Likert-type Scale ranging from 1 (This exam is not important for me at all) to 7 (This exam is very important for me). As for the importance given to the university examinations by the present sample, the mean was 6.07, with standard deviation of 1.26.

Procedure

The scales were administered during regular class hours. The order for scales was randomized in each booklet. After receiving the informed consents it took about 30 minutes to fill out the scales. Following this procedure the participants were debriefed about the purposes of the study, and those who required further information about the study were also informed accordingly.

TABLE 1
Means, Standard Deviations (SDs), and Ranges for the Measures

Measure	Mean	SD	Range
Achievement Expectation	2.37	0.68	1-4
Importance of University Exam	6.07	1.26	1-7
Sociotropy—Total score	69.81	17.76	9-114
Concern over Acceptance	32.95	8.10	0-48
Concern over Loneliness	23.19	7.01	3-36
Concern over Approval	11.27	5.66	0-28
Autonomy—Total score	64.92	12.51	26-109
Inclination for Achievement	32.49	7.03	11-67
Inclination for Freedom	16.06	3.98	4-24
Inclination for Individuality	10.12	4.34	1-33
Social Support—Total score	67.19	13.03	12-84
Social Support from Family	21.81	5.87	4-28
Social Support from Friends	23.53	4.95	4-28
Social Support from Significant Other	21.85	6.77	4-28

RESULTS

Table 1 gives the means, standard deviations, and ranges for the measures of the study.

Hierarchical regression analyses were conducted for females and males separately. On the first step, importance given by the subjects to the university exam and expectations from the exam is entered into the equation, to control for the variance accounted for by these variables. On the second step personality variables are entered, since it is thought that personality is a relatively enduring and long lasting characteristic. Thus, total Sociotropy and Autonomy scores and three factors of each of these personality dispositions constituted the second step. As a final step, social support total score and its factors are entered into the regression equation. First step variables were forced to "enter" into the equation, to control for the variance accounted for by these variables, for the second and the third steps "stepwise" method is applied, to reveal the significant associates of anxiety symptoms.

According to the results of regression analysis conducted for females (see Table 2), 5 % of the variance was explained by the control variables (i.e., achievement expectation and importance given to the university exam), $F (2, 172) = 4.25, p < .05$; inclusion of sociotropy total score increased explained variance to 25%, $F_{change} (1, 171) = 47.12, p < .001$; with the addition of lower Inclination for Achievement, explained variance increased to 27 %, $F_{change} (1, 170) = 4.89, p < .05$; finally, by the inclusion of low Social Support, the explained variance increased to 41 %, $F_{change} (1, 169) = 40.46, p < .001$. Therefore, as can be seen in Table 2, five variables, namely achievement expectation ($t = -0.30$, n.s.; $pr = -.02$), importance given to the university entrance exam ($t = 1.18$, n.s.; $pr = .09$), Sociotropic attitudes ($t = 7.47, p < .001; pr = .50$), lower inclina-

TABLE 2
Significant Associates of Anxiety Symptoms for Females

Order of entry of set	Predictors in set	F for set	t for with-in set Predictors	df	Partial Correlation (pr)	Model R^2
1. Control Variables:		4.25*		2, 172		.05
	Achievement Expectation		-0.30	172	-.02	
	Importance of University Exam		1.18	172	.09	
2. Sociotropy—Total score		47.12**	7.47**	1, 171	.50	.25
3. Inclination for Achievement		4.89*	-1.24	1,170	-.10	.27
4. Social Support—Total Score		40.46**	- 6.36**	1,169	-.44	.41

*$p<$ .05, **$p<$ .001

TABLE 3
Significant Associates of Anxiety Symptoms for Males

Order of entry of set	Predictors in set	F for set	t for with-in set Predictors	df	Partial Correlation (pr)	Model R^2
1. Control Variables:		7.01***		2, 152		.08
	Achievement Expectation		-2.90**	152	-.23	
	Importance of University Exam		0.50	152	.04	
2. Concern over Approval		18.34***	3.63***	1,151	.29	.18
3. Social Support from Family		18.47***	-3.58***	1, 150	-.28	.27
4. Social Support from Friends		4.68*	-2.16*	1,149	-.18	.30

*$p<$ .05, **$p<$ .005, ***$p<$ .001

tion for achievement (t = -1.27, n.s.; pr = -.10), and lower social support (t = -6.36, $p <$ .001; pr = -.44) explained 41% of the total variance for anxiety symptoms of females. Among them only total Sociotropic attitudes and lower Social Support still appeared as significant predictors of anxiety symptoms at the last step.

A similar hierarchical regression analysis was conducted for males, and as can be seen in Table 3 this analysis revealed that for males, control variables (i.e., achievement expectation and importance given to the university exam) explained 8% of the variance, F (2, 152) = 7.01, $p <$ .001; Concern over Approval increased explained variance to 18%, F_{change} (1, 151) = 18.34,

$p <$ .001; with the addition of lower Social Support from Family, explained variance reached to 27%, F_{change} (1, 150) = 18.47, $p <$ .001; and finally, by the inclusion of lower Social Support from Friends explained variance reached to 30%, F_{change} (1, 149) = 4.68, $p <$ .05. Therefore as can be seen in Table 3, 30% of the variance was explained by five predictors which were lower Achievement Expectancy in the university exam (t = -2.90, $p <$ .005; pr = -.23), importance given to the university entrance exam (t = 0.50, n.s.; pr = .04), Concern over Approval (t = 3.36, $p <$ .001; pr = .29), lower Social Support from Family (t = -3.58, $p <$ .001; pr = -.28) and from Friends (t =

-2.16, *p* < .05; *pr* = -.18). Furthermore, all these variables, other than the importance given to the university entrance exam significantly predicted anxiety symptoms for males, even at the last step.

DISCUSSION

This study aimed to investigate the importance of perceived social support from different sources, having sociotropic or autonomous characteristics, achievement expectation, and importance of academic achievement, in predicting anxiety symptoms of adolescent students who are preparing for the university entrance exam.

The findings suggested that for females, general sociotropy measure, which includes having concerns about being accepted by others, fears of being left alone; for males being concerned over approval are significant predictors of anxiety symptoms. This finding is in line with the literature showing a positive relationship between anxiety and dependency (Devito & Kubis, 1983; Sarason, Lighthall, Davidson, Waite, & Ruebush, 1960). Since being dependent brings with it the urge to be approved by others in order to assure self-esteem, these concerns may create anxiety in the person. Though for females general sociotropic characteristics play an important role on anxiety symptoms, regarding males the only sociotropy dimension that significantly predicts anxiety symptoms is Concern over Approval. This may be due to social expectations that males are expected to be more successful, thus being appreciated by others becomes important particularly for males.

The association of the decreased achievement expectation with the anxiety symptoms of males is also congruent with this explanation that males are more sensitive to success related domains. This association between low achievement expectation and anxiety symptoms is in line with the literature where anxiety is negatively related to expectation (Furst, Tenenbaum, & Weingarten, 1985). This finding is also in line with the conclusion that test-anxious people are more self-preoccupied and self-deprecatory, and so they would have lower expectations for success (Sarason et al., 1960). Cultural attributions can be made as to why achievement expectation did not significantly predict anxiety symptoms in females. In the developing countries like Turkey, although females are encouraged to achieve in the university exam and have a profession, the bread-winning role is still upon the shoulders of the males, making it a more anxiety provoking issue for males.

These findings support the importance of sociotropic personality dimension, which may lead to maladjustments especially when people are exposed to an event threatening their vulnerable domain. Thus, it is suggested that sociotropy may be a general vulnerability factor for a wide range of experiences, including achievement related events, such as not being able to enter university may be perceived by highly sociotropic individuals as having a greater impact on their social relationships. Further research that takes into consideration the subjects' perceptions of how these events have impacts on their lives is strongly encouraged.

This study also suggests that the total social support score, that is social support from friends, family, and significant others in combination for females and social

support particularly from friends and family for males are significant predictors of anxiety. Thus, females and males showed reduced levels of anxiety symptoms when their perceived social support scores were high. This finding is in line with the literature relating psychological distress to reduced family support (Compas, 1987; DuBois et al., 1992; Kessler, Price, Wortman, 1985).

Several limitations of the present study should be noted. First, it was a one-shot design so that the findings of this study are correlational in nature, caution must be exercised in drawing causal conclusions. Another limitation of this study is that adolescents in this sample came from similarly advantaged communities and school systems. Thus, similar studies with broader samples are strongly encouraged.

This study addresses some useful implications for clinical settings as well. When dealing with anxiety symptoms clinicians should consider both individual and social factors together. Some individual vulnerabilities may bring about some social expectations like approval, love, and support. Furthermore, these vulnerabilities and expectations may change with gender probably due to socio-cultural expectations. Thus, anxiety symptoms may be alleviated through focusing on multiple factors which may be social, personal, or combination of both in nature.

Beck (1983) suggested that persons who vary in their sociotropic or autonomous needs might respond better to different therapeutic styles. Finally, a person's levels of sociotropy and autonomy should be examined in terms of the implications for treatment. By assessment of these characteristics, the therapist or counselor may work with the person in developing coping strategies and ways of cognitively processing specific events to which they are vulnerable, thus making way to reduce anxiety symptoms.

NOTES

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