

Psychopathology in Parents of Children with School Phobia

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SUMMARY

Objective: In children, what is referred to as school phobia is usually avoidant behavior secondary to separation anxiety. The purpose of this study was to examine the psychopathology in parents of children with school phobia.

Method: The study compared 2 groups of parents: 1) parents of children with school phobia (n = 50); 2) parents of children free of any psychiatric diagnosis (n = 50). Parents were assessed with the Structured Clinical Interview for DSM-IV (SCID-I) to determine rates of overall psychopathology by a second clinician blind to the diagnostic status of their children, and they were also administered the Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and Liebowitz Social Anxiety Scale (LSAS) to determine the presence of anxiety and mood disorders. Children with school phobia (n = 25), aged 6-12 years, and an age- and gender-matched control group (n = 25) were assessed based on the criteria of the DSM-IV. Parents completed the Child Behavior Checklist (CBCL) 4-18.

Results: All of the children with school phobia met the criteria for an anxiety disorder. Parental psychopathology was higher in parents of children with school phobia than in parents of normal children. BDI, BAI, and fear and anxiety subscale scores of the LSAS were significantly higher in the parents of school phobic children than in the control group parents.

Conclusion: The high rates of psychopathology in parents of children with school phobia suggested that treatment of children diagnosed as anxiety disorder should include the treatment of parents as well.

Key Words: Parental psychopathology, phobia, school, anxiety disorders

INTRODUCTION

As all the anxiety disorders in DSM-IV can be adapted to children, as a syndrome that is unique to childhood, Separation Anxiety Disorder (SAD) is considered a separate anxiety disorder in this diagnostic system (APA, 1994). It has been reported that this approach reflects a tendency towards recognition of childhood predictors of later psychopathology (Hirshfeld et al., 1999).

Previously, school phobia was defined as a childhood syndrome characterized with avoidance of going to school and accompanying anxiety (Johnson et al., 1941). Today, school phobia is accepted as a symptom that can be seen in various other disorders, such as anxiety and depression, and is referred to as school avoidance (King and Bernstein 2001). School avoidance/school phobia during childhood is reported to be related to generalized anxiety disorder (GAD), social phobia (SP), major depression (MD), adjustment disorder (AD), and especially with SAD (Bernstein et al., 1997). In SAD, according to developmental level, the child experiences higher anxiety than expected and repeatedly avoids going alone to school or somewhere else other than the house due to separation anxiety (APA, 1994). Admissions of children with SAD to psychiatry clinics is generally accompanied with somatic symptoms such as headaches, stomach aches, vomiting, or panic attacks, in addition to school avoidance/school phobia (Hirshfeld et al., 1999; Cengel Kültür et al., 2003). Due to the above-mentioned characteristics, SAD is theorized to

have a similar phenomenology as agoraphobia in adults (Biederman, 1990).

Related research shows that the probability of heritability of anxiety disorders is lower than 40%-50% and anxious children may have anxious parents (Beidel and Turner, 1997; Martin et al., 2004). There are a limited number of studies on the parents of children with anxiety disorders in Turkey and all these studies were conducted with the mothers (Yurtbay, 1997; Türkbay and Söhmen, 2001). The purpose of this study was to examine the psychopathology in parents of children with school phobia. We hypothesized that there would be high levels of anxiety in the parents of children with anxiety disorders. After examining these hypotheses, findings on treatment interventions will be discussed.

METHODS

Sample

The sample of this study was composed of children and parents who had sequentially presented to Ankara University Medical Faculty, Child Mental Health and Disorders Department, complaining of SP. Inclusion criteria consisted of the following: between 6-12 years of age, the problem of school avoidance had persisted for at least one month, no past history of chronic disease, and an intelligence quotient (IQ) ≥ 85 . Twenty-five children who met the inclusion criteria and their parents composed the sample of the study. One child was excluded as he had accompanying mental retardation.

Twenty-five age- and gender-matched children from a government school and their biological parents comprised the control group. Inclusion criteria for the control group was as follows: no psychiatric or chronic disease; normal academic performance; no history of school phobia history in other children of the family. There were no inclusion criteria for parents in either the control or study groups other than agreeing to have a psychiatric interview and not having any health problems that would hinder the interview. Written consents of the children and parents in both groups were taken after explaining the aim of the study and tests that would be used.

Data gathering tools

Structured Clinical Interview for DSM-IV, (Clinical Version)

The Structured Clinical Interview for DSM-IV Axis-I disorders (SCID-I) (First et al., 1997) was

administered by a clinician. The Turkish translation and adaptation of the interview was made by Özkürkçügil et al. (1999).

Beck Depression Inventory (BDI)

This inventory objectively evaluates the level of physical, emotional, cognitive, and behavioral symptoms seen in depression. It was developed by Beck (1961). The reliability and validity study of the scale for the Turkish population was conducted by Hisli (1988).

Beck Anxiety Inventory (BAI)

This scale determines the presence of anxiety symptoms. It was developed by Beck (1988). The reliability and validity study of the scale for use in Turkey was conducted by Ulusoy et al. (1996).

Liebowitz Social Anxiety Scale (LSAS)

This scale was developed by Liebowitz (1987) and evaluates daily social situations experienced by individuals with SP. It is composed of fear/anxiety and avoidance subscales. The reliability and validity study of the scale for use with the Turkish population was conducted by Gençöz et al. (2003).

Child Behavior Checklist (CBCL) 4-18

Child Behavior Checklist (CBCL) 4-18 was developed by Achenbach and Edelbrock (1983). The translation for the 1991 Turkish form of the scale was realized by Erol and Kılıç, and with the other form that was realized by Akçakun in 1985 (Akçakın, 1985), a translation review study was performed in order to sustain the continuity of the scale (Erol and Şimşek, 1998).

Two different behavioral symptom scores are obtained with the CBCL, extroversion and introversion. The introversion score reflects social introversion, somatic complaints, and anxiety/depression subscales, whereas the extroversion score reflects crime-related behavior subscales. In addition, the following subscales are separate from both groups; social problems, sexual problems, and attention problems. A total problem score is obtained from the addition of these subscales.

Procedure

Assessment interviews of 50 mother-father pairs were conducted by a researcher who was blind to the diagnosis of the children, using the

Table I. Distribution of Psychiatric Diagnoses of the Parents in the Study and Control Groups

Parents' Psychiatric Diagnoses	Study Group		Control Group	
	Mothers (n = 25)	Fathers (n = 25)	Mothers (n = 25)	Fathers (n = 25)
Psychiatric Interview Normal	12	16	23	23
GAD	4	2	2	1
PD + MD	3	-	-	-
PD + Agoraphobia	1	-	-	-
MD	3	3	-	1
OCD + MD	1	-	-	-
SP + MD	1	-	-	-
SP	-	2	-	-
MD + Alcohol dependency	-	1	-	-
GAD + Alcohol dependency	-	1	-	-

GAD = Generalized Anxiety Disorder, PD = Panic Disorder, MD = Major Depression, OCD = Obsessive-Compulsive Disorder, SP = Social Phobia.

SCID-I, BDI, BAI, LSAS, and CBCL.

Statistical Analyses

Statistical analyses were performed with SPSS 11.0 computer package program (Statistical Program for Social Sciences, Chicago, IL). For sociodemographic data, for categorical variables, and for continuous variables, descriptive statistics, chi-square, and Student's t-test, respectively, were used. Due to the irrelevancy of score distributions to normal, Mann Whitney U test was used in the comparison of the scales. The level of significance was accepted as $P < 0.05$.

FINDINGS

Eleven (44%) of the children in the study group were girls, 14 were boys (56%), and the mean age was 7.7 ± 1.3 years. Ten (40%) of the children in the control group were girls, 15 were boys (60%), and the mean age was 7.6 ± 1.3 years. There were no significant differences between the 2 groups in terms of mean age and gender (respectively, $\chi^2 = 0.082$; $P > 0.05$; $t = 0.21$; $P > 0.05$).

The mean age of the mothers in the study group was 35.64 ± 5.13 years and the mean age of the fathers was 38.44 ± 4.59 years. The mean age of the mothers in the control group was 35.28 ± 4.72

years and the mean age of the fathers was 39.08 ± 5.35 years. There were no significant differences between the 2 groups in terms of mean ages of fathers and mothers (for the age of the mothers $t = 0.258$; $P > 0.05$; for the age of the fathers $t = 0.45$; $P > 0.05$).

When the education levels of the parents was considered, the percentage of being a high school or university graduate was found to be higher than the percentage of being a primary school or high school graduate in both groups. The mean duration of education of the mothers in the study group was 10.3 ± 3.6 years (range: 5-15 years), and the mean duration of education of the mothers in the control group was 10.8 ± 3.6 years (mean: 5-15 years) ($t = -0.49$; $P > 0.05$). The mean duration of education of the fathers in the study group was 11.9 ± 3.2 years (range: 5-15 years) and in the control group it was 11.04 ± 3.8 years (range: 5-15 years) ($t = 0.38$; $P > 0.05$). In the study group, 16 of the mothers (64%) were housewives, 9 were civil servants (36%), and in the control group 10 (40%) mothers were housewives and 15 were civil servants (60%). Groups were similar in terms of professions ($\chi^2 = 2.88$; $P > 0.05$). In the study group, 12 (48%) fathers were civil servants, 6 were retailer (2%), 5 were untrained labourer (20%) and 2 (8%) were unemployed. In the control group, 15 fathers were

Table II. Comparison of Psychiatric Diagnoses of Children in the Study Group (N = 25) With the Parents' Psychiatric Diagnoses

Parents' Psychiatric Diagnoses	Children's Psychiatric Diagnosis							
	SAD (n = 19)		SP (n = 3)		GAD (n = 1)		OCD (n = 2)	
	Mother	Father	Mother	Father	Mother	Father	Mother	Father
Psychiatric Interview Normal	11	11		3		1	1	1
GAD	2	2	1				1	
PD + MD	3							
PD + Agoraphobia	1							
MD	2	3	1					
OCD + MD	-				1			
SP + MD	-		1					
SP	-	1						1
MD + Alcohol dependency	-	1						
GAD + Alcohol dependency	-	1						

SAD = Separation Anxiety Disorder, GAD = Generalized Anxiety Disorder, PB = Panic Disorder, MD = Major Depression, OCD = Obsessive Compulsive Disorder, SP = Social Phobia.

civil servants (60%), 6 (24%) were retailer, and 4 (16%) were untrained labourer. The fathers did not differ in terms of professions ($\chi^2 = 1.56$; $P > 0.05$). When the professions and education levels of the parents were considered, it was thought that both groups reflected the middle socioeconomic class.

Ninety-two percent of the families in both groups were nuclear families and 8% were extended families, and the biological parents were alive in all the families. The highest number of children per family in both groups was 3, the rate of single child families in the study group was 68% and was 44% in the control group. It was found that the number of children in the families did not differ among groups ($\chi^2 = 4.2$; $P > 0.05$).

In the study group, 19 children were diagnosed as SAD (76%), 3 as SP (12%), 2 had obsessive compulsive-disorder (OCD) (8%), and one child had GAD (4%), whereas 6 of the children had an additional MD (2%) diagnosis and one child (4%) had an additional SP diagnosis. The psychiatric evaluations of the children in the control group were normal. According to the CBCL introversion, extroversion, and total problem scores, and both

mothers' and fathers' evaluations, it was found that children in the study group had more problematic behaviors and the difference between the children in the control group was significant ($P = 0.001$).

As 13 (52%) mothers in the study group had a psychiatric diagnosis, only 2 (8%) mothers in the control group had a psychiatric diagnosis. It was found that the psychiatric morbidity of the mothers was significantly different in the 2 groups ($\chi^2 = 9.92$; $P = 0.002$). While 9 (36%) fathers in the study group had a psychiatric diagnosis, only 2 (8%) fathers in the control group had a psychiatric diagnosis. It was found that the psychiatric morbidity of the fathers was significantly different in the 2 groups ($\chi^2 = 5.71$; $P = 0.017$). The distribution of the psychiatric diagnoses of the parents in both groups is summarized in Table 1.

The rate of the psychiatric morbidity in parents of children with SAD was 32%. The matrix of the diagnoses of children in the study group and distribution of the parents' diagnoses are presented in Table 2.

BDI and BAI scores of both parents in the study group were significantly higher than those

Table III. Comparison of Scale Scores of the Mothers and Fathers in the Study Group (N = 50) and Control Group (N = 50)

Scale Scores	Group	Mean (SS) / Median	U	P*
Beck Depression Inventory	Mother (1)	13.12 (8.99)/33.12	122.00	0.00
	Mother (2)	5.24 (2.95)/17.88		
	Father (1)	11.88 (8.99)/31.78	155.50	0.00
	Father (2)	4.96 (4.70)/19.22		
Beck Anxiety Inventory	Mother (1)	16.56 (10.14)/33.52	112.00	0.00
	Mother (2)	6.20 (4.19)/17.48		
	Father (1)	10.52 (10.52)/30.96	176.00	0.00
	Father (2)	3.76 (4.05)/20.04		
Liebowitz Social Anxiety Scale	Mother (1)	25.60 (16.53)/31.02	174.5	0.07
	Mother (2)	15.92 (8.15)/19.38		
Total Score	Father (1)	23.28 (17.29)/30.52	187	0.15
	Father (2)	11.04 (7.62)/20.48		
Fear/Anxiety Subscale	Mother (1)	15.44 (9.41)/32.10	147.50	0.00
	Mother(2)	8.68 (4.34)/18.90		
	Father (1)	13.60 (9.46)/31.24	169.00	0.00
	Father (2)	5.96 (3.78)/19.76		
Avoidance Subscale	Mother (1)	10.16 (7.39)/28.12	247.50	0.20
	Mother (2)	7.24 (4.26)/22.88		
	Father (1)	9.68 (8.08)/29.26	218.50	0.00
	Father (2)	5.04 (4.45)/21.74		

*Mann-Whitney U Test.

(1) = Study Group, (2) = Control Group.

of the mothers and fathers in the control group. There was no significant difference between the LSAS total scores among mothers and fathers of the groups. While the scores of fear/anxiety subscale were significantly different for mothers and fathers in the control group, the difference of the scores on the avoidance subscale were significant only for the fathers. BDI, BAI, and LSAS mean scores of the parents in group comparisons are presented in Table 3.

DISCUSSION

Supporting the hypothesis of the study, all chil-

dren with school phobia had additional depressive disorders and various anxiety disorder diagnoses. Among these diagnoses, the prevalence of SAD was found to be 76%. At the same time, in the parents of children with anxiety disorders, the rate of psychopathology was significantly different in comparison to the control group. Although the size of the sample does not permit further arguments, it was determined that psychopathology was high in both the mothers and fathers of children with school phobia (See Tables 1 and 2).

In a study conducted by Borchardt et al. (1994), the prevalence of anxiety disorders in children with

school avoidance was 80%. In another study, which evaluated 63 children with school refusal between the ages of 7 and 17, 38% of the children had a SAD diagnosis, 30% had SP, and 22% had simple phobia (Last and Strauss 1990). The frequency of psychopathologies in Martin et al.'s (1999) study conducted with 51 school refusal cases was 49% SAD, 32% depression, 31.4% SP, 19.6% simple phobia, 9.8% excess anxiety disorder, 7.8% panic disorder (PD) (panic disorder) and/or agoraphobia, and 3.8% OCD. In our study, the finding of anxiety disorders in all cases in the sample, with 76% of them being SAD, was thought to be related to the fact that the sample included children who were in the pre-adolescent period. Previous studies conducted show that there are age-related differences in the frequency of anxiety disorders, and SAD is more frequent during the primary school years and other phobias appear after the age of 12 (Last and Strauss, 1990). On the other hand, while the main psychological problem in primary school children with school phobia is explained by separation anxiety (Berstein et.al. 1997), in later school years, crime-related behavior and domestic violence are more frequent (Borchardt et al., 1994).

In general, studies aiming to determine the relationship between parental psychopathology and childhood anxiety disorders are divided into 2 groups. While the children of parents with anxiety disorders are evaluated in the first group, in the second group, the parents of children with anxiety disorders are examined (Klein and Pine, 2002).

Hayward et al. (2004) proposed that panic attacks in adults are related to negative affect in childhood SAD, chronic illness, and panic disorder or agoraphobia in parents. It has been proposed that the frequency of a history of SAD is high in adults with panic disorder and that the respiratory physiologies of PD and SAD are similar (Battaglia et al., 1995; Pine et al., 1998a, 1998b). On the other hand, there are also studies that failed to find a relationship between SAD and PD (Lipsitz et al., 1994; Aschenbrand et al., 2003). In another study, children with school phobia are divided into 2 groups, phobia and SAD, and parental psychopathology was examined. Fifty percent of the parents in the phobic group had simple and/or social phobia and 65% of the parents in the SAD group had panic disorder and/or agoraphobia (Martin et al., 1999). In our study, 4 (21%) out of 19 mothers of children diagnosed with SAD had PD. Although

this finding suggests a relationship between SAD and PD, longitudinal studies with a larger sample are needed. In addition, in this study it was found that anxiety and depressive disorders were comorbid in parents in the study group. Mufson and Weissman (1992) also proposed that SAD in childhood is a predisposing factor for mood disorders rather than for PD in adulthood. Based on these findings and our research findings, it was thought that there might be a relationship between both the existence of PD and MD in parents, and development of SAD in their children.

Scales administered to the parents showed that both the mothers and the fathers in the study group had higher levels of anxiety and depression than the mothers and fathers in the control group. While the scores on the fear/anxiety subscale were significantly different for mothers and fathers in the control group, the difference of the scores on the avoidance subscale displayed differences only for the fathers. In another study conducted in Turkey, depressive symptom scores of mothers of cases with school phobia were also found to be high (Yurtbay 1997).

In a study that found a similarity between the fears of children and the fears of their mothers, it was proposed that the observed phenomenon was the result of modeling behavior (Muris et al., 1996). In their study, Whaley et al. (1999) found that mothers with anxiety disorders form more strict and criticizing relationships with their children than healthy mothers do and provide them less autonomy. In this regard, it was proposed that parents might transfer their anxious thinking patterns and avoidant and overprotective behavior by modeling (Moore et al., 2004; Whaley et al., 1999). In a study conducted in Turkey, parents of children with SAD had high scores on the neurotic characteristic and psychosis axes of the Eysenck Personality Inventory. It was found that these mothers were more anxious, sensitive, reactional, and had lower self-esteem and higher somatic complaints (Türkay and Söhmen 2001).

The treatment of anxiety disorders necessitates a multidimensional approach, which includes family psychoeducation, behavioral or cognitive-behavioral psychotherapy, and psychopharmacology (AACAP 1997). Although there are studies that report the inclusion of parents in a child's treatment plan increases the success of the treatment (Barrett et al., 1996; Mendlowitz et al., 1999), there are also

studies that have failed to find such a relationship (Heyne et al., 2002; Nauta et al., 2003). However, in the studies that failed to find a relationship between inclusion of parents and treatment success, it was found that children whose parents were included in treatment had lower levels of treatment drop-out and more rapid returns to school.

Literature findings and our research findings point out that the treatment of anxiety disorders in children should include both the mother and the father. In addition to individual treatments of mothers and fathers with anxiety disorders, the abilities of parents to cope with anxiety should be developed in order for them to play an active role in their child's treatments. In a recent study, significant improvements were observed after a group process that included only the mothers in the treatment of anxiety disorders in children (Thienemann et al., 2006). Furthermore, it was found that the

group that reported improvements in their children were composed of mothers who themselves had anxiety disorders.

The limitation of this study was the low number of participants. In addition, conducting the study only with parents who presented with their children limits the generalizability of the study. On the other hand, this study is the first study that evaluated both the mothers and the fathers of children with anxiety disorders using scales that determine mood and anxiety levels, as well as structured interviews.

In addition to genetic/familial studies that should be done with larger samples, there is also a need for studies that include environmental and preventative factors in this area, in particular, identification of the most effective and economic treatment of SAD, in the context of parent-child interaction, is open to investigation.

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