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## Epidemiology of Attention Problems Among Turkish Children and Adolescents:

### A National Study

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### Abstract

**Objective**—To evaluate the epidemiology of attention problems using parent, teacher, and youth informants among a nationally representative Turkish sample.

**Method**—The children and adolescents, 4 to 18 years old, were selected from a random household survey. Attention problems derived from the Child Behavior Checklist (CBCL) ( $N = 4,488$ ), Teacher Report Form (TRF) ( $N = 2,360$ ), and the Youth Self Report (YSR) ( $N = 2,206$ ) were examined.

**Results**—The CBCL and TRF attention problems scores were higher among young male children, whereas the YSR reported scores were higher among older adolescents without a gender effect. The CBCL and YSR scores were also higher by urban residence.

**Conclusion**—Compared with other European samples, our national sample had higher mean attention problems scores than the Scandinavian but lower mean scores than the former Soviet Union samples. In addition to elucidating the profile of attention problems in Turkey, our results also contribute to understanding the comparative global epidemiology of attention problems.

### Keywords

attention problems; children; adolescents; CBCL; YSR; TRF; epidemiology

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Most data pertaining to our understanding of the epidemiology of attention problems among children and adolescents have been derived from community- or school-based studies among youth living in European or North American countries. These studies indicate that

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attention problems as reported by parents, teachers, or youth show significant stability over time (Achenbach, Howell, McConaughy, & Stanger, 1995). Attention problems tend to be more common among young male children. Furthermore, whereas effect sizes have been small, children and adolescent living in urban settings experience higher attention problems than rural youth (Achenbach et al., 1995; Broberg et al., 2001; Crijnen, Achenbach, & Verhulst, 1999; Munroe-Blum, Boyle, Offord, & Kates, 1989; Slobodskaya, 1999).

Comparative global epidemiology of attention problems from developing countries is also very useful in addressing regional and cultural variations in observed rates. This task has been difficult due to limited availability of representative data across cultures and from developing countries, especially using standardized translations of validated instruments and using different informant sources. There have been a handful of studies comparing Turkish children and adolescents with European and North American counterparts. One major study that compared the Attention Problems scores obtained from the Child Behavior Checklist (CBCL) from 12 different countries found that cultural differences accounted for about 6% of the total variance (Crijnen et al., 1999). A Turkish study involving adult ADHD assessments showed that 12.7% of the Turkish sample, compared to 10.5% of the U.S. sample, exceeded symptom thresholds (Aycicegi, Dinn, & Haris, 2003).

Studies investigating parent (Beiser, Dion, & Gotowiec, 2000) and teacher ratings (Wolraich et al., 2003) among multinational diverse school samples have shown that *hyperactivity-impulsivity* and *inattention* dimensions of *Diagnostic and Statistical Manual of Mental Disorders* (4th edition [DSM-IV]; American Psychiatric Association, 1994)-based ADHD have consistently emerged through confirmatory factor analysis. Consistency among factor structures across cultures has also been evident in adolescent self-reports of ADHD (Rasmussen et al., 2002). Differences in mean scores between groups, however, suggest that variations may exist among ethnic and racial groups (Epstein et al., 2005). It is not clear whether the comorbidity pattern of ADHD is similar between cultures (Rohde et al., 2003) or discrepant as among ethnic groups (Samuel et al., 1998). After reviewing studies that investigated various aspects of ADHD in a diverse society such as Brazil, Rohde et al. (2005) concluded that ADHD is a stable disorder across cultures. However, it can be concluded that cultural influences in terms of informant reports of attention problems and diagnosis of ADHD have not yet been resolved.

The parental education and cultural factors influence not only the environment in which a child resides but also determine the norms, expectations, explanatory models, and tolerance of attention problems in children and adolescents (Bussing, Gary, Mills, & Garvan, 2003; Mann et al., 1992; Reid et al., 1998). Obtaining epidemiological data on attention problems from developing countries, as in Turkey, is an important priority because representative data sets can help appraise, not only the stability of diagnostic constructs across cultures but the difficulties facing children in unique settings and circumstances. This is important for development of a national mental health policy and programs to promote the mental health of children and adolescents, but also for establishment of collaborative international networks understanding the global epidemiology of attention problems among the youth.

The aims of this study were (a) to evaluate the Attention Problems continuous mean scores and their standard deviation using validated standardized measures involving parent and teacher informants and youth; (b) to investigate the relation between Attention Problems scores by means of the age, gender, and urban/rural and geographical region of residence; and (c) to estimate the prevalence of Attention Problems in the clinical range based on discrete cutoff scores in a nationally representative sample. This study was part of the youth component of the Mental Health Profile Study epidemiological surveys in Turkey (Erol & Simsek, 2000; Erol, Simsek, Öner, & Munir, 2005a, 2005b) designed to generate baseline

systematic data for development of a national mental health policy and programs promoting mental health. This particular study adds to the existing research by providing the only nationally representative epidemiological data collected to date on attention problems among children and adolescents in Turkey.

## Method

Participants were from the Turkish Mental Health Profile Study involving a nationally representative epidemiological sample. The selection of the sample and the procedures have been previously described elsewhere (Erol et al., 2005a, 2005b; Erol & Simsek, 2000). Briefly, the sample was selected by a self-weighted, multistage, random, stratified, and clustered sampling plan. Two stratification criteria were used: One was the region (West, South, Central, North, East; five categories), and the other was residence (urban, suburban, and rural; three categories). Cluster selection was done from the household records of the Ministry of Health and a sampling list was created. Systematic random selection was used at each stage. The response rates were 83.9%, 87.7%, and 79% for CBCL, Teacher Report Form (TRF), and Youth Self Report (YSR) scales, respectively. Information was gathered from multiple informants (mothers, teachers, adolescents): CBCL  $N = 4,488$ , TRF  $N = 2,360$ , and YSR  $N = 2,206$ , respectively. The fewer number of TRF reports compared to the CBCL is due to (a) the low rate of enrollment among school-aged children, 5 to 7 years, in preschool and kindergarten grades in Turkey (first grade traditionally begins at age 7); and (b) the low enrollment rate in secondary schools beyond age 12 years, as only a duration of 5-years public school education was mandatory at the time of the study—thus limiting the age range for which TRF reports could be available. The YSR reports were available on age-eligible youth, but the smaller numbers in this case compared to the parent CBCL reports likewise reflects the lower number of eligible adolescents (12–18 years) available to complete this measure.

The numbers of each scale obtained in the seven age groups for males and females separately are summarized in Table 1. All three scales were obtained from a total of 886 adolescents over 11 years of age. Age, gender, gender ratio, and the ratio of individuals from different regions in this group were compared with the 1990 Turkish General Census, the 1989 Demographic Survey of Turkish State Planning Organization, and the 1993 Turkish Demographic and Health Survey of Hacettepe University Institute of Population Studies and were also found to be consistent with the above-mentioned surveys (Ulusoy, 1998).

Data collection was carried out by 171 field staff of the Ministry of Health under the supervision of the investigators; the field personnel included psychologists, social workers, nurses, and midwives. The field staff had a 1-week-long theoretical and practical training course in Ankara before the study. A letter describing the survey and a copy of the CBCL was presented to each parent, and the field interviewer asked the items on the CBCL and recorded the answers of the consenting parents. Most encounters occurred on weekdays. To avoid biasing the sample against working parents, interviews were conducted after 5:30 p.m. on weekdays or weekends. The parental permission letters were presented to teachers before eliciting TRF responses; likewise, assent was obtained from all eligible youth, age 12 to 18, prior to presentation of the YSR reports.

## Materials

**1. CBCL**—The CBCL was used to obtain standardized parental reports of children's problem behaviors and competencies (Achenbach & Edelbrock, 1983). The CBCL includes 118 problem items. The 118 problem items describe a wide array of problems that are rated on a 3-point scale. There are eight syndrome scales based on the problem items: Withdrawn, Somatic Complaints, Anxiety/Depression, Thought Problems, Attention Problems, Social

Problems, Aggressive Behavior, and Delinquent Behavior. The total score obtained from Withdrawn, Somatic Complaints, and Anxiety/Depression scales give broadband syndrome Internalization Problems scores. The sum of Aggressive Behavior and Delinquency scores give broadband syndrome Externalization Problems scores. Back translation, bilingual retest method, and pretest field study were used for the translation of the CBCL (Erol & Simsek, 2000). The test–retest reliability of the Turkish form was .84 for the Total Problems, and the internal consistency was adequate (Cronbach's  $\alpha = .88$ ; Erol, Arslan, & Akçakin, 1995; Erol & Simsek, 2000). The Attention Problems subtest consists of 11 items and also has an adequate internal consistency (Cronbach's  $\alpha = .84$ ).

**2. TRF**—The TRF includes items for 118 specific behavioral/emotional problems. Ninety-three TRF items have counterparts on the CBCL. The syndrome scales and broadband syndromes are identical with the CBCL. The same translation methods were used for the translation of TRF. The test–retest reliability of the Turkish form was .88 for Total Problems, and the internal consistency was adequate (Cronbach's  $\alpha = .87$ ). The TRF Attention Problems subtest includes 20 items, with good internal consistency (Cronbach's  $\alpha = .81$ ).

**3. YSR**—The YSR includes 112 items for behavior and emotional problems. Eighty-nine of the problem items are the same as CBCL items. The YSR Attention Problems subtest includes 9 items (Cronbach's  $\alpha = .83$ ). The same translation methods were used for the translation of YSR. The test–retest reliability of the Turkish form is .82 for Total problems, and the internal consistency was also adequate (Cronbach's  $\alpha = .89$ ).

## Data Analysis

Multiple regression analyses were used to evaluate the effects of age (continuous), gender (male/female), region (South, West, East, North, and Central regions, as dummy variables), and residence (urban, suburban, rural, as dummy variables) on Attention Problems scores obtained from the CBCL, TRF, and YSR. Model fit in the regression analysis was evaluated by Durbin-Watson test. The correlations of CBCL, TRF, and YSR Attention Problems with other subscales were computed by Pearson correlation coefficient. Two-tailed significance tests ( $p < .05$ ) are reported throughout. SPSS 10.0 statistical package was used for the analysis.

## Results

Gender, region, and residence and mean and standard deviation of CBCL, TRF, and YSR Attention Problems scores are summarized in Table 2. Most of the sample are from cities in the West, consistent with the higher population density of this region.

Multiple regression results indicating the effect of gender, age, urban/suburban/rural and geographic residence on the CBCL, TRF, and YSR Attention Problems scores are summarized in Table 3. These models fit Durbin-Watson analysis and linear models according to  $F$  analysis. The results of regression analysis indicate that a higher CBCL Attention Problems was predicted by the younger child age, male gender, urban, and southern region of residence,  $F(8, 4,479) = 26.585, p = .001$ . This model explained 4% of the total variance. Higher TRF Attention Problems score was predicted by the younger child age, male gender, and eastern and western regions of residence. This model explained 3.4% of the total variance,  $F(8, 2,279) = 10.151, p < .001$ . Higher YSR Attention Problems score was predicted by the older adolescent age, urban, and western region of residence. This model explained 4.7% of the total variance,  $F(8, 2,197) = 15.484, p < .001$ .

### Prevalence of clinical attention problems

The participants who had CBCL, TRF, or YSR scores higher than the 98th percentile using the cutoff scores obtained from the U.S. population (Achenbach & Rescorla, 2001) have previously been reported as being in the clinical range for symptoms. Our results showed that 1.6%, 2.4%, and 1.0% of CBCL, TRF, and YSR Attention Problems scores, respectively, were over the 98th percentile cutoff scores (see Table 4).

### Correlation of CBCL, TRF, and YSR Attention Problems with other subscales

The correlation of the CBCL, TRF, and YSR Attention Problems scores with other subscale scores and Internalization Problems, Externalization Problems, and Total Problems scores are summarized in Table 5. The correlations between CBCL Attention Problems scores and other CBCL, TRF, and YSR subscale scores changed from .37 to .69, .29 to .70, and .46 to .69, respectively. The CBCL, TRF, and YSR Attention Problems had significant correlations with Total Problems scores ( $r = .77$ ,  $r = .80$ , and  $r = .87$ , respectively) and with Externalization Problems ( $r = .67$ ,  $r = .68$ , and  $r = .67$ , respectively) and Internalization Problems ( $r = .55$ ,  $r = .69$ , and  $r = .53$ ) scores, respectively. These results showed that whereas the TRF and CBCL Attention Problems scores had higher correlations with Externalization Problems scores than with Internalization Problems scores, YSR Attention Problems scores had similar correlations with both of these domains. All three checklist derived scores had significant correlations with Social Problems scores (.61–.70) and moderate correlations with Thought Problems scores (.42–.51).

### Discussion

The results of this study showed that gender, age, and urban residence explained 4%, 4.7%, and 3.4% of the total variance in CBCL-, YSR-, and TRF-derived Attention Problems scores, respectively. Characteristically, epidemiological studies have indicated that both teacher- and, to a lesser extent, parent-reported rate of attention problems are higher among males and younger children. Our findings, therefore, are consistent with the results of former epidemiological studies (Achenbach et al., 1995; Roussos et al., 1999; Slobodskaya, 1999; Zukauskienė, Ignataviciene, & Daukantaite, 2003). This finding has been similar across cultures (Crijnen et al., 1999). Previous studies among both referred and nonreferred subjects confirmed the higher frequency of *DSM* diagnosis of ADHD in males, incorporated as a prototypical presentation in *DSM-IV* (APA, 1994). An interesting aspect of our study is that adolescents did not exhibit gender differences in YSR Attention Problems by self-report. Although there is a need to pursue further epidemiological research among adolescents with respect to prevalence of disorders onset earlier in childhood, this finding may also underscore the possibility that the prevalence of Attention Problems scores may indeed vary with age and gender. In this regard, the Internalization Problems that correlated with Attention Problems are certainly more frequent among female adolescence and augmented by self-report.

The CBCL- and YSR-reported Attention Problems scores were higher among youth living in urban areas. This is also consistent with previous studies (Larsson & Frisk, 1999). Whereas the effect sizes were small, it has been shown that the Externalization Problems tend to be higher in urban areas (Broberg et al., 2001; Larsson & Frisk, 1999; Munroe-Blum et al., 1989).

We have also observed a variation by geographic region in the rates of Attention Problems scores. Although the unique aspects of this finding may be difficult to explain, it is noteworthy that a previous study by our group showed that CBCL-, TRF-, and YSR-reported Total Problems, Internalization and Externalization scores were highest in the



western part of Turkey (Erol & Simsek, 1997), a highly dynamic region with an influx of families due to effects of internal migration. This may suggest that the higher TRF- and YSR-reported Attention Problems scores among youth in the western region might reflect a higher degree of turmoil that may in turn translate into higher levels of symptomatology among youth residing in this region. The differences, of course, might also reflect differences in regional expectations or variations in cultural backgrounds; nevertheless, data were not collected relating to these issues.

The CBCL-, TRF-, and YSR-reported Attention Problems scores had significant correlations with Externalization Problems as compared to Internalization Problems scores. Results of former studies indicate that Externalization Problems are easier to observe and to be endorsed (Achenbach, Howell, McConaughy, & Stanger, 1998; Cantwell, Lewinsohn, Rohde, & Seeley, 1997). Also, ADHD typically co-occurs with both oppositional defiant and conduct disorders (Biederman, Munir, & Knee, 1987; Munir, Biederman, & Knee, 1987) and are correlated with higher Externalization Problems scores (APA, 1994). All informants in our study reported significant correlations with Social Problems as well as Attention Problems. Furthermore, Social Problems do not uniquely reflect correlation with Attention Problems, but are also prominent among participants with both Internalization and Externalization Problems. Individuals with ADHD have significant social and adverse events (Greene et al., 1999, 2001). Similarly, social problems have been reported in cases with anxiety disorders or depression (Puig-Antich et al., 1985, 1993).

We found the overall prevalence of Attention Problems based on a clinical threshold cutoff scores to be between 1.0% and 2.4% with significant variation depending on informant. Whereas the teacher-reported prevalence rate of Attention Problems based on a clinical threshold is high among our Turkish sample and compares with the U.S. reported rates, the YSR self-report-based clinical cutoff threshold prevalence rate was considerably lower among Turkish adolescents. This reflects that self-report scales may be insufficient on deciding clinical caseness for a given subject and underscores the importance of using structured or semistructured clinical epidemiological interviews. It is also not clear whether self-report scales for adolescents act differentially in eliciting Attention Problems across gender. Our findings also underscore the need for importance of conducting future “self-report” epidemiological studies with adolescents involving use of diagnostic questionnaires as well as dimensional checklists, not only in developing, but developed country contexts.

In our study, the mean CBCL Attention Problems score was 3.8 ( $SD = 2.9$ ) for males, which is comparable to that reported by a study in the former Soviet Union (mean = 3.8,  $SD = 3.0$ ; Slobodskaya, 1999). Our figure, however, was higher than those reported by studies in Sweden (mean = 1.8,  $SD = 2.3$ ) and Norway (mean = 2.9,  $SD = 3.0$ ; Javo, Heyerdahl, & Rønning, 2000; Larsson & Frisk, 1999), but lower than that reported by studies in Lithuania (mean = 4.6,  $SD = 3.3$ ) and Greece (mean = 4.2,  $SD = 3.2$ ; Roussos et al., 1999; Slobodskaya, 1999; Zukauskienė et al., 2003). Our mean CBCL Attention Problems score was 3.1 ( $SD = 2.8$ ) for girls, which was same as that reported in the Greek sample (mean = 3.1,  $SD = 2.8$ ). This finding for girls, however, was higher than Swedish (mean = 1.4,  $SD = 1.9$ ) and Norwegian (mean = 1.2,  $SD = 1.3$ ) samples, but lower than the Lithuanian (mean = 3.8,  $SD = 2.6$ ) and Russian (mean = 3.9,  $SD = 3.0$ ) samples. The mean TRF Attention Problems scores were 8.8 ( $SD = 7.7$ ) for males, and 6.8 ( $SD = 6.8$ ) for females. These values were higher than the Greek male and females samples (mean = 7.3,  $SD = 8.2$  for males; mean = 4.4,  $SD = 6.2$  for females; Roussos et al., 1999) and higher than the Soviet female sample (mean = 5.4,  $SD = 4.3$ ), but lower than the Soviet male sample (mean = 9.4,  $SD = 5.3$ ; Slobodskaya, 1999). These comparisons suggest that not only cultural context but gender and informants are important considerations in cross-national comparisons.

Weisz, McCarty, Eastman, Chaiyasit, and Suwanlert (1997) suggested that cultural acceptability of behaviors may play a direct role in assessment of childhood problems by either mitigating or facilitating the direction of informant or clinician judgment. Standards of typical and deviant behavior are inevitably related to culture (Bussing et al., 2003; Mann et al., 1992; Reid et al., 1995). We therefore chose to use highly structured and standardized scales to counteract these effects. Nevertheless, our study did not collect specific data to directly assess cultural factors, and these issues need to be evaluated within the context of well-designed cross-national research.

The major limitation of the present study was that the children and adolescents were not evaluated by means of clinical interviews. We recognize that this is an important point because the CBCL-, TFR-, and YSR-derived Attention Problems scores do not necessarily completely overlap with the construct of inattention or hyperactivity-impulsivity symptom domains explicit in the *DSM-IV*. Therefore, the findings of our research do not reflect to categorical ADHD diagnosis but rather the Attention Problems subscale scores derived from the CBCL, TRF, and YSR checklists. Nevertheless, this study has a number of important strengths. First, it involved a nationally representative and large sample with data collected from multiple informants allowing cross comparisons. Second, the raters were well trained in use of highly standardized scales and worked rigorously in obtaining the checklist information by directly circumventing any difficulties with the educational level and misperceptions of the checklist items by the parents. There was, therefore, little room for misunderstanding of the item content. The teachers likewise were highly motivated and the study was conducted with the cooperation and approval of the appropriate authorities and consent of the families involved within a national research framework. This is, therefore, a successful and unique effort for in a developing country context. In summary, the results obtained from this national epidemiological study therefore reliably endorsed observations from previous research that indicate that Attention Problems scores are higher in male and young children, are higher in both children and adolescents residing in urban areas, and are significantly associated with Externalization and Social Problems scores, and also show within-country geographic variation by region. Given the consistency of these data, it is also likely that our observations represent an important contribution highlighting the possibility of more even gender ratio of Attention Problems among older adolescents. This may reflect attenuation of higher rate of Attention Problems among males by age and/or may indeed reflect cultural forces in terms of increasing rates of Internalizing Problems among Turkish adolescent girls.

Finally, the results of this research providing data from a developing country extend the previous research on Attention Problems in youth, within a unique set of cultural circumstances different from Western Europe and North America. The lack of research data and imbalance of knowledge on global child mental health issues create a serious shortcoming that may decrease our understanding of contextual, cultural, and regional variations underlying psychological problems (Tomlinson & Swartz, 2003; Weisz et al., 1997). Representative studies using detailed diagnostic questionnaires directly comparing the epidemiology of psychological problems in different countries are necessary not only to identify but, in the future, perhaps to help intervene to overcome these issues.

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**Table 1**

Gender Distribution by Age Group Across the Three Scales

Age Group	CBCL		TRF		YSR	
	Male	Female	Male	Female	Male	Female
4–6	471	430	29	24	—	—
7–10	860	809	708	642	—	—
11–15	614	586	353	317	756	713
16–18	348	370	126	89	353	384
Total	2,293	2,195	1,216	1,072	1,109	1,097

Note: CBCL = Child Behavior Checklist; TRF = Teacher Report Form; YSR = Youth Self Report.

**Table 2**  
Attention Problems Scores by Gender, Settlement, and Geographic Regions Across the Three Scales

Variable	CBCL		YSR		TRF	
	<i>n</i> (%)	Mean $\pm$ SD	<i>n</i> (%)	Mean $\pm$ SD	<i>n</i> (%)	Mean $\pm$ SD
Gender						
Male	2,293 (51.2)	3.8 $\pm$ 2.9	1,109 (50.3)	3.7 $\pm$ 2.9	1,216 (53.2)	8.8 $\pm$ 7.7
Female	2,195 (48.8)	3.1 $\pm$ 2.8	1,097 (49.7)	3.8 $\pm$ 2.9	1,072 (46.8)	6.8 $\pm$ 6.8
Settlement						
Urban	1,908 (42.5)	3.9 $\pm$ 3.1	932 (42.2)	4.2 $\pm$ 3.0	974 (42.6)	8.1 $\pm$ 7.7
Suburban	1,208 (27.0)	3.0 $\pm$ 2.7	621 (28.2)	3.7 $\pm$ 2.9	671 (29.3)	7.3 $\pm$ 7.0
Rural	1,370 (30.5)	3.1 $\pm$ 2.5	653 (29.6)	2.9 $\pm$ 2.7	643 (28.1)	8.0 $\pm$ 7.3
Geographic region						
West Anatolia	1,615 (36.0)	3.6 $\pm$ 3.1	819 (37.1)	4.0 $\pm$ 3.1	846 (36.9)	8.5 $\pm$ 8.0
South Anatolia	665 (14.8)	3.6 $\pm$ 2.9	350 (15.9)	3.7 $\pm$ 3.0	358 (15.6)	7.5 $\pm$ 7.3
Central Anatolia	846 (18.8)	3.4 $\pm$ 2.7	368 (16.7)	3.7 $\pm$ 2.9	505 (22.1)	7.0 $\pm$ 6.5
North Anatolia	434 (9.7)	3.0 $\pm$ 2.5	226 (10.2)	3.3 $\pm$ 3.0	265 (11.6)	6.6 $\pm$ 6.5
East Anatolia	928 (27.7)	3.3 $\pm$ 2.6	443 (20.1)	3.3 $\pm$ 2.6	314 (13.8)	9.0 $\pm$ 7.6
Total	4,488 (100.0)	3.4 $\pm$ 2.8	2,206 (100.0)	3.7 $\pm$ 2.9	2,288 (100.0)	7.9 $\pm$ 7.4

Note: CBCL = Child Behavior Checklist; TRF = Teacher Report Form; YSR = Youth Self Report.

**Table 3**  
Risk Factors Significantly Associated With Attention Problems Scores by Multiple Regression Analyses

Variable	CBCL			YSR			TRF				
	B	t	p	Variable	B	t	p	Variable	B	t	p
Age	-0.302	-3.245	.001	Age	0.135	4.613	.001	Age	-0.142	-2.778	.006
Gender (male)	0.650	7.815	.001	Region (West Anatolia)	0.422	2.409	.027	Gender (male)	1.955	6.418	.000
Region (South Anatolia)	0.421	3.119	.002	Urbanization (cities)	1.222	7.845	.001	Region (West Anatolia)	1.972	3.691	.000
Urbanization (cities)	0.746	7.217	.001					Region (East Anatolia)	1.541	3.653	.000

Note: CBCL = Child Behavior Checklist; TRF = Teacher Report Form; YSR = Youth Self Report.



**Table 4**

Prevalence of Attention Problems Threshold Scores Higher Than 98th Percentile U.S. Cutoff Scores in CBCL, YSR, and TRF

Variable	CBLC (%)	TRF (%)	YSR (%)
Gender			
Male	1.4	2.2	1.2
Female	1.8	2.6	0.8
Total	1.6	2.4	1.0

Note: CBCL = Child Behavior Checklist; TRF = Teacher Report Form; YSR = Youth Self Report.

**Table 5**

Correlations Between Attention Problems Scores and Other Problem Scales in CBCL, YSR, and TRF

<b>Problem Scale</b>	<b>CBCL</b>	<b>YSR</b>	<b>TRF</b>
Withdrawn	.473	.517	.586
Somatic complaint	.368	.455	.291
Anxious/depressed	.600	.693	.433
Social problems	.628	.615	.703
Thought problems	.510	.504	.418
Delinquent behavior	.561	.506	.634
Aggressive behavior	.687	.675	.630
Internalizing	.551	.688	.532
Externalizing	.667	.683	.665
Total problems	.772	.804	.868

Note: All correlation coefficients were significant at  $p = .0001$ . CBCL = Child Behavior Checklist; TFR = Teacher Report Form; YSR = Youth Self Report.