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Burden of Unmet Mental Health Need in Assault-Injured Youth Presenting to the Emergency Department

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Abstract

Objectives—To determine if there is a gap between behavioral symptoms and previously recognized mental health conditions in youth victims of peer assault injuries and to describe gender differences in psychological symptoms.

Methods—A cross-sectional comparison of rates of previously diagnosed mental health conditions and clinical range behavioral symptoms as measured by the Child Behavior Checklist (CBCL) in 168 youth (10-15 years old) presenting to the emergency department (ED) after an interpersonal assault injury. Fisher's exact test was used for comparisons.

Results—Mental health symptoms were common among assault-injured youth. More than half of youth demonstrating clinical range symptoms on the attention problems or anxious / depressed scales of the CBCL had no prior diagnosis of these conditions. Females were more likely than males to exhibit clinical range aggressive behavior symptoms (OR 3.61, 95% CI 1.64-7.97). Aggressive behavior was associated with clinical range scores on the other problem scales of the CBCL.

Conclusions—After an ED visit for an assault-related injury, less than half of 10-15 year olds with significant symptoms of common mental conditions reported having a previously diagnosed disorder, reflecting a burden of unmet psychological needs. An ED visit for an assault injury provides an opportunity to screen for emotional / behavioral symptoms and to refer to appropriate follow-up mental health care.

What's New—Assault-injured youth are likely to have unmet mental health needs. This study compares mental health symptoms after an assault injury to previously diagnosed mental health conditions and describes differences in mental health characteristics of assault-injured youth by gender.

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Keywords

mental health; assault; gender; aggression; emergency department

Introduction

A visit to an emergency department (ED) for an assault injury provides an opportunity to link high-risk youth to needed psychosocial services. More than 656,000 youth between the ages of 10 and 24 years were treated in an ED for injuries caused by violence in 2008.¹ Young victims of interpersonal violence report a need for many psychological and social services, with mental health care being one of the greatest areas of need.²

Adolescent exposure to violence has been associated with symptoms of psychological trauma including depression, anger, anxiety, dissociation, and posttraumatic stress.³ Youth victims of assault injuries report concerns about their own levels of aggressive behavior (78%) and anger (12%) in addition to symptoms of posttraumatic stress (47%).⁴ Symptoms of anger and aggression are particularly concerning because they have been found to predict future fighting behavior⁵ and frequent fighting is a risk factor for repeat injury⁶, potentially leading to a vicious cycle of violence.

While assault-injured youth, as both victims and possible aggressors of violence, are clearly at risk for having mental health problems, less is known about whether these youth have symptoms that have been previously recognized, diagnosed, and treated. The primary objective of this study was to determine the burden of unmet mental health care need in youth between the ages of 10 and 15 years presenting to the ED with peer assault injuries. We hypothesized that youth with peer assault injuries are likely to have clinical range mental health symptoms without an identified diagnosis of a mental health condition and without enrollment in current treatment services.

A secondary objective of this study was to describe gender-related mental health characteristics of assault-injured youth. Youth violence statistics show that females have been “closing the gap” with males. Both assault injuries and fighting behavior in females have increased in prevalence since the 1990’s.^{7,8} Since physical aggression typically occurs less frequently in females than males in the population, it has been theorized that this type of behavior may represent a greater level of pathology when it occurs in females.⁹ Therefore, in this study, we also examined behavioral characteristics of assault-injured youth by gender and the association between aggression and other mental health symptoms, particularly in females.

Methods

Study Design and Population

This study was a cross-sectional analysis of initial study visit data collected as part of a randomized trial of a violence prevention intervention.¹⁰ Participants were identified from a consecutive sample of youth presenting to two urban pediatric EDs with assault injuries. Eligibility criteria for participation in the study included: age (10-15 years), type of presenting injury (interpersonal peer assault), place of residence (within a 20-mile radius of the ED study sites), and the ability of parent and child to answer study assessment questions. The violence prevention study focused on 10-15 year olds with the goal of intervening at a young age to prevent further violence in older adolescence. An interpersonal assault injury was defined as an injury caused by another youth excluding sexual assault, child abuse, sibling fights, or legal intervention (i.e. being injured by the police). Peer assault injuries

were classified by the following ICD_9 E-codes: E960, 961-966, 968-969. The E-codes chosen for inclusion represent a variety of assault injuries including unarmed and weapon-related injuries.

Families were recruited between August 2001 to August 2004 from the EDs of Children's National Medical Center in Washington, DC and Johns Hopkins Hospital in Baltimore, MD. The study protocol was approved by the Institutional Review Boards of the two participating institutions. Parental consent and youth assent were obtained from participants.

Study Procedures

Youth presenting to the ED or hospitalized for assault injury were identified by review of ED and hospital patient logs. In cases where the ED record did not contain enough information to determine injury intent (i.e. cut arm) patients were contacted by phone to clarify. Eligible injuries were determined using E-codes ascertained by the research team based on the patients' descriptions of the injury. Families were recruited in the ED, from the hospital ward, or by telephone. Eligible youth and parents were independently interviewed during a home visit soon after the ED visit. Interviews were conducted both face-to-face and by audiotape walkman for more sensitive questions. The mean time between the ED visit and initial study interview in the participant's home was 2.9 months (88 days), with a median of 54 days and an interquartile range of 25-98 days. Families were compensated \$20 for the completion of the initial assessment.

Measurements

The study's initial visit interview questions were developed to acquire information about the assault event and to capture information about factors possibly related to the risk of an assault injury. Questions about demographics and use of health services were taken from the National Health Interview Survey. Data collected from the parent interview including previously diagnosed mental health conditions in the child, mental health service use, and parent ratings of youth behavior were analyzed.

The parent-report Child Behavior Checklist (CBCL) for ages 4-18 (Achenbach, 1991 Profile) was used to assess the youth's behavioral functioning at the time of the initial study interview with regard to the following domains: withdrawn, somatic complaints, anxious / depressed, social problems, attention problems, delinquent behavior, and aggressive behavior, as well as composite scales for internalizing and externalizing behavior problems.¹¹ Although a more recent version of the CBCL is now in common use (Achenbach, 2001 Profile)¹², our study protocol was designed and initiated prior to the publication of this instrument. The protocol did not include use of the Achenbach Youth Self-Report Scale¹¹, therefore behavioral symptoms were identified only through parent report.

The CBCL is a standardized instrument that asks parents to report on their child's behavior and emotional state during the preceding 6 months.¹¹ It has been widely used in both the clinical and research settings. Questions about the child's behavior were answered on a 3-point scale. Raw subscale scores were converted to T-scores based on a normalized population for age and gender. Our analyses were conducted using T-scores. Clinical range subscale scores were defined as those $\geq 95^{\text{th}}$ percentile for age and gender, corresponding to a T score ≥ 67 .¹¹

Information was also obtained about participants' mental health histories. Parents reported whether their child had ever been diagnosed with a list of mental health conditions and on their child's use of mental health services, including psychiatric medications and visits to mental health professionals.

Data Analysis

Data analyses were performed using Stata 9 software (College Station, TX).¹³ Descriptive statistics were performed on demographic variables using the independent student's t-test for continuous data and the chi-square and Fisher's exact test for categorical data. Bivariate analyses comparing rates of prior mental health diagnosis with clinical range symptoms on the CBCL were conducted using the Fisher's exact test. Statistical significance was defined as $p < 0.05$. Odds Ratios were calculated to compare rates of clinical range mental health symptoms on the subscales of the CBCL in female versus male youth participants.

Results

Descriptive data

A total of 4550 youth presenting to the ED with injuries were assessed for study eligibility, but inclusion criteria were not met for 4323 based on injury type (non-peer assault injuries). A total of 227 families were eligible to participate in our study. Of those, 168 (74%) consented to be in the study and completed the initial study interview, 8 (4%) completed only partial interviews, and 51 (23%) refused to participate. Reasons given for refusal to participate included lack of interest, lack of time, or feeling too ill.

Demographic characteristics are shown in Table 1. About two-thirds of the injured youth were male and the participants were predominantly Black (97.6%). Most participants came from low-income families. The most common type of presenting injury to the ED was unarmed assault. Males were significantly more likely than females to have sustained an injury through unarmed assault, whereas, females were more likely than males to have been assaulted by "other weapon". This category includes injuries from objects other than guns and knives, such as rocks. While study participants could have been recruited from both inpatient and outpatient settings, none of the participants required hospitalization for the assault injury, as this was a rare outcome. Therefore, the study population represents youth with less severe injuries.

Rates of parent-reported diagnoses of mental health conditions or learning problems are summarized in Table 1. The most common diagnosis reported in males was a learning disability. This was the only diagnosis for which there was a significant difference in frequency between males (30.9%) and females (13.8%). For both genders, Attention-Deficit / Hyperactivity Disorder (ADHD) and depression were the most commonly reported mental health conditions. A diagnosis of at least one mental health condition (excluding learning disability) was present in 28.0% of participants with 9.6% reporting multiple diagnoses. A minority of youth (12.5%) was receiving care from a psychologist or psychiatrist at the time of interview.

CBCL problem subscale scores by gender

Rates of assault-injured youth scoring in the clinical range on the problem subscales of the CBCL are shown in Table 2. Males and females had similar rates of clinical symptoms on most scales. However, females were significantly more likely than males to score in the clinical range on the aggressive behavior scale, with 41.4% of females scoring in the clinical range as compared to 16.4% of males (odds ratio 3.61; 95% confidence interval 1.64-7.97).

Comparison of CBCL scores with mental health diagnosis and treatment status

More than half of the youth who scored in the clinical range on the attention problems scale (22/38, 57.9%) and the anxious / depressed scale (14/27, 51.9%) of the CBCL did not have a prior known diagnosis of ADHD or anxiety/ depression, respectively. This could indicate either that many assault-injured youth with clinically significant mental health symptoms

were previously undiagnosed or that they developed symptoms related to the assault injury event. Only 27% (10/38) of youth scoring in the clinical range for attention problems and 52% (14/27) scoring in the clinical range on the anxious / depressed scale reported currently receiving mental health care from a psychologist or psychiatrist.

Time from assault injury to collection of CBCL data

Since the mean length of time between the assault-injury and the collection of CBCL data at the initial interview was 2.9 months, we conducted analyses to determine possible differences in rates of reported symptoms with increased time after the event. There were no significant differences in rates of clinical range symptoms on any of the CBCL subscales for participants who completed the initial interview within one month of the assault injury as compared to those who completed their interviews more than a month after the event. However, when analyzed by gender, there was a higher rate of clinical range scores on the anxious / depressed scale for males completing the initial interview within the first month after injury (26%) as compared to those surveyed after 31 days (9%) ($p=0.04$).

Prior assault injury history and mental health service use

Youth participants were asked to report how many times in the prior 30 days and in the prior 12 months they had been in a physical fight in which they were injured and needed to be treated by a doctor or nurse, not including the fight that brought them into the study. Forty-two percent of youth reported one or more fights associated with injury requiring medical attention within the past 30 days and 65% within the past 12 months. There were no significant associations between having had a fighting-related injury in either time frame and the following variables: gender, rates of previously diagnosed mental health conditions (ADHD, anxiety, depression, bipolar disorder, ODD, CD, and LD), clinical range CBCL subscale scores, current receipt of mental health services or report of ever having received counseling services, and use of psychiatric medication.

Gender-related characteristics of mental health symptoms in “aggressive” versus “non-aggressive” youth

Female assault-injured youth demonstrated significantly higher rates of clinical range aggressive behavior compared to males. We compared the emotional / behavioral profiles of youth who were categorized as “aggressive” (scoring $\geq 95^{\text{th}}$ on the aggressive behavior scale) and those who were “non-aggressive” (not in the clinical range on this CBCL scale) within each gender.

As seen in Figure 1, rates of clinical range symptoms on all of the CBCL subscales were higher for aggressive than for non-aggressive youth. A similar pattern of increased behavioral co-morbidity for more aggressive youth occurred for both males and females. Within each gender, there was a significant association between aggression and clinical range symptoms on the following CBCL subscales: withdrawn behavior, anxious / depressed, social problems, attention problems and delinquent behavior. There was also a significant association between aggression and clinical range scores on the aggregate internalizing and externalizing problems scales for both genders. However, the externalizing scale is made up of the aggressive behavior scale combined with the delinquent behavior scale, and therefore, the externalizing scale is not independently associated with aggressive behavior.

Discussion

Youth victims of peer assault injuries demonstrated high rates of problematic behavioral symptoms on the CBCL. Externalizing behavioral symptoms including aggression and

delinquency were common as might be expected. Also many youth scored in the clinical range for attention problems and anxiety / depression. More than half of youth with symptoms suggestive of common mental health conditions including ADHD, anxiety, and depression had no formal diagnosis of these conditions. Only 27-52% of symptomatic individuals were currently receiving mental health treatment.

The design of this study does not allow us to determine if behavioral symptoms were present before the assault injury or developed in the days-to-weeks after the event. However, a history of past fighting-related injuries was common in our study population with 65% having been in one or more fights in the past 12 months requiring medical attention, not including the fight that brought them into the study. Rates of previously diagnosed mental health conditions, clinical range CBCL subscale scores, and mental health service use were not significantly different for youth who had received medical treatment for at least one other fighting-related injury in the prior 12 months as compared to those who had not. This pattern suggests peer assault injuries are a chronic problem, that youth who have had prior contact with the medical system for treatment of assault injuries are not any more likely to have been identified with and treated for a mental health problem than those with no prior contact, and that problematic mental health symptoms, whether they precede or follow assault-injury, should be identified and treated.

Other studies have also described the chronic nature of violence in assault-injured youth with rates of recurrence reported to be as high as 44%.^{14,15} Exposure to violence has been associated with psycho-emotional symptoms that are further associated with increased risk of injury. Specifically, the presence of depression symptoms at the time of an assault injury has been associated with subsequent engagement in risk behaviors for violence 6-18 months after injury,¹⁶ underscoring the importance of recognizing mental health symptoms at the time of injury as a potential mechanism for reducing rates of re-injury in the future.

It is important to note that the CBCL is a dimensional mental health screening tool that does not map directly onto DSM-IV diagnoses. When used in isolation the CBCL is not diagnostic for specific mental health conditions, such as ADHD, anxiety, and depression. However, the presence of clinical range symptoms should raise suspicion for a mental health problem and warrants further evaluation. While some may argue the validity of comparing our sample of largely minority, inner-city youth living in poverty to the U.S. population-normed samples on which the 1991 CBCL was developed, this is a commonly accepted research approach in behavioral medicine¹¹ and one that has been used in studies of behavioral characteristics of youth exposed to violence.¹⁷ Other studies that have used the CBCL to measure behavioral symptoms in high risk, low-income, minority youth exposed to family interpersonal or community violence have found that rates of problem behaviors in youth in the community not exposed to violence (community controls) are similar to the CBCL's non-referred normed population while victims of violence in these communities have higher rates of behavioral symptoms^{17,18}.

Since aggressive behavior was prevalent in the study population, analyses were conducted to evaluate the association between elevated scores on the aggression scale and scores on the other mental health symptom domains of the CBCL. Both males and females with elevated scores on the aggressive behavior scale were significantly more likely than their non-aggressive, same gender peers to score in the clinical range on the withdrawn, anxious / depressed, social problems, attention problems, and delinquent behavior scales. This finding suggests that high levels of aggression are associated with mental health co-morbidity.

This study also sought to describe gender differences in the mental health symptoms of assault-injured youth. Our study population was about two thirds male, which is similar to

other studies. Assault injuries tend to occur more frequently in males than females, although the prevalence of female assault injuries has been increasing.^{7,8} Within our study population, the most notable gender difference was that females had significantly higher rates of clinical range aggressive behavior on the CBCL as compared to males. Since aggression problems were significantly associated with co-morbid mental health symptoms across domains for both genders, but females in our sample had a higher prevalence of clinical range aggression than males, we suggest that assault-injured females may be a particularly vulnerable group. This finding is consistent with a study by Moskowitz et al. who analyzed serious injuries and deaths from interpersonal violence and found that assault-injured females were more likely to have had pre-existing psychosocial impairments, such as problems with social interactions and violent or physically aggressive behaviors, as compared to assault-injured males.¹⁹ While all assault-injured youth should be assessed for mental health concerns, it is particularly important that female victims do not fall through the cracks as they have a higher prevalence of aggression and are therefore at increased risk for also having greater behavioral symptom co-morbidity.

The limitations of this study include the length of time between the ED visit and the collection of mental health data, the possibility of selection bias and recall bias, and the validity of parent-report data. There is a possibility that there was selection bias in recruitment for the study, as none of the participants had been hospitalized for their injuries. This is likely due to hospitalization being a rare outcome, but also sicker patients may have been more likely to refuse to participate in interviews. Our study protocol was to schedule the initial study interview with participating families as soon as possible after the assault injury, but due to complex social circumstances, it was difficult to schedule the interview promptly after the injury in some cases. Therefore, the CBCL data were collected an average of 2.9 months after the ED visit. Rates of clinical range CBCL subscale scores were not significantly different for participants in our study who were interviewed within 1 month of the event as compared to those who were interviewed later, suggesting that time was not a factor in reporting of symptoms. However, CBCL responses may more heavily reflect recent behaviors after the assault injury and may be influenced by the parent reporter's emotions related to the assault event. Relying only on parent report CBCL data can underestimate internalizing symptoms compared to having both parent and youth self-report ratings. Finally, it is possible that parents may have demonstrated a gender bias when reporting on their children's behavior. Parents of girls requiring an ED visit for an assault injury may view their daughters' behavior as highly aggressive, whereas, parents of boys may describe the same behavioral traits as more normative in their sons.

The American Academy of Pediatrics (AAP) Task Force on Adolescent Assault Victim Needs emphasized the integral role of mental health care, along with medical care, in the treatment of assault-injured youth.¹⁴ The findings of this study strongly support this approach to care. An ED visit for an assault injury provides an important intervention opportunity to screen patients for mental health symptoms and link them to appropriate mental health services. Treatment of underlying mental health conditions may help to reduce the risk of future violence and injury.

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References

1. [October 10, 2010] Youth Violence: Facts at a Glance. 2010.
<http://www.cdc.gov/ViolencePrevention/youthviolence/index.html>
2. Zun LS, Rosen JM. Psychosocial needs of young persons who are victims of interpersonal violence. *Pediatr Emerg Care*. Feb; 2003 19(1):15–19. [PubMed: 12592107]
3. Singer MI, Anglin TM, Song LY, Lunghofer L. Adolescents' exposure to violence and associated symptoms of psychological trauma. *Jama*. Feb 8; 1995 273(6):477–482. [PubMed: 7837366]
4. McCart MR, Davies WH, Phelps LF, Heuermann W, Melzer-Lange MD. Psychosocial needs of African American youth presenting to a pediatric emergency department with assault-related injuries. *Pediatr Emerg Care*. Mar; 2006 22(3):154–159. [PubMed: 16628096]
5. Song LY, Singer MI, Anglin TM. Violence exposure and emotional trauma as contributors to adolescents' violent behaviors. *Arch Pediatr Adolesc Med*. Jun; 1998 152(6):531–536. [PubMed: 9641704]
6. Cheng TL, Schwarz D, Brenner RA, et al. Adolescent assault injury: risk and protective factors and locations of contact for intervention. *Pediatrics*. Oct; 2003 112(4):931–938. [PubMed: 14523188]
7. [October 10 2010] Youth violence: a report of the Surgeon General [online]. 2001.
<http://www.surgeongeneral.gov/library/youthviolence/toc.html>
8. Mollen CJ, Fein JA, Vu TN, Shofer FS, Datner EM. Characterization of nonfatal events and injuries resulting from youth violence in patients presenting to an emergency department. *Pediatr Emerg Care*. Dec; 2003 19(6):379–384. [PubMed: 14676485]
9. Underwood, M. *Social Aggression among Girls*. New York: The Guilford Press; 2003.
10. Cheng TL, Haynie D, Brenner R, Wright JL, Chung SE, Simons-Morton B. Effectiveness of a mentor-implemented, violence prevention intervention for assault-injured youths presenting to the emergency department: results of a randomized trial. *Pediatrics*. Nov; 2008 122(5):938–946. [PubMed: 18977971]
11. Achenbach, TM. *Manual for the Child Behavior Checklist / 4-18 and 1991 Profile*. Burlington, VT: University of Vermont Department of Psychiatry; 1991.
12. Achenbach, T.; Rescorla, L. *Manual for ASEBA School-Age Forms and Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth and Families; 2001.
13. Stata Statistical Software: Release 9.0 [computer program]. College Station, TX: StataCorp; 2005.
14. Adolescent assault victim needs: a review of issues and a model protocol. American Academy of Pediatrics Task Force on Adolescent Assault Victim Needs. *Pediatrics*. Nov; 1996 98(5):991–1001. [PubMed: 8909504]
15. Sims DW, Bivins BA, Obeid FN, Horst HM, Sorensen VJ, Fath JJ. Urban trauma: a chronic recurrent disease. *J Trauma*. Jul; 1989 29(7):940–946. discussion 946-947. [PubMed: 2746704]
16. Pailler ME, Kassam-Adams N, Datner EM, Fein JA. Depression, acute stress and behavioral risk factors in violently injured adolescents. *Gen Hosp Psychiatry*. Jul-Aug; 2007 29(4):357–363. [PubMed: 17591513]
17. Purugganan OH, Stein RE, Silver EJ, Benenson BS. Exposure to violence and psychosocial adjustment among urban school-aged children. *J Dev Behav Pediatr*. Dec; 2003 24(6):424–430. [PubMed: 14671476]
18. McFarlane JM, Groff JY, O'Brien JA, Watson K. Behaviors of children who are exposed and not exposed to intimate partner violence: an analysis of 330 black, white, and Hispanic children. *Pediatrics*. Sep; 2003 112(3 Pt 1):e202–207. [PubMed: 12949313]
19. Moskowitz H, Griffith JL, DiScala C, Sege RD. Serious injuries and deaths of adolescent girls resulting from interpersonal violence: characteristics and trends from the United States 1989-1998. *Arch Pediatr Adolesc Med*. Aug; 2001 155(8):903–908. [PubMed: 11483117]

Figure 1. Comparison of aggressive and non-aggressive youth by gender with respect to clinical range CBCL problem scale scores. * Denotes statistically significant difference within each gender ($p < 0.05$).

Table 1

Sample Characteristics, N= 168

	Males (n=110)	Females (n=58)
Demographic Characteristics	%	%
Age (mean 12.9 ± 1.5 yr)	12.8 ± 1.6	13.0 ± 1.4
10-12 years	37.3	39.7
13-15 years	62.7	60.3
Race		
Black	98.2	96.6
Caucasian	0.9	1.7
Multiracial/ Other	0.9	1.7
Household Income (\$/ year)		
<10,000	30.0	31.0
10,000-24,999	30.9	22.4
25,000-49,999	26.4	29.3
>50,000	9.1	12.1
Missing	3.6	5.2
Injury type (E-Code)		
Unarmed assault (960)*	70.0	50.0
Gun shot wound (965)	2.7	1.7
Stab wound (966)	10.9	6.9
Other weapon (968.2)*	11.8	27.6
BB gun shot (968.6)	1.8	3.5
Intentional human bite (968.8)	2.7	10.3
Mental Health Characteristics		
Diagnosis (parent-reported)		
ADHD	16.4	13.8
Anxiety Disorder	2.7	1.7
Depression	16.4	13.8
Bipolar Disorder	1.8	3.5
Oppositional Defiant D/O	3.6	5.2
Conduct D/O	7.3	5.2
Learning Disability (LD)*	30.9	13.8
Treatment		
Receiving psych treatment	13.6	10.3
Taking psychiatric med	10.0	8.6
Ever received counseling	32.7	25.9
Ever hospitalized for behavior	5.5	8.6
Mental Health Co-Morbidity (excludes LD)		
No mental health diagnosis	68.2	79.3

	Males (n=110)	Females (n=58)
Demographic Characteristics	%	%
Single diagnosis	21.9	12.1
Two diagnoses	6.4	3.5
Three or more diagnoses	3.6	5.2

* Denotes gender difference ($p < 0.02$)

Table 2Percentage of Youth Scoring in the Clinical Range ($\geq 95^{\text{th}}$ percentile) on CBCL Problem Scales, N=168

	Males (n=110)	Females (n=58)	P-value	Odds Ratio (95% CI)*
Problem Scale	%	%		
Attention Problems	22.7	22.4	1.00	3.61 (1.64-7.97)
Anxious / Depressed	14.6	19.0	0.51	
Aggressive Behavior	16.4	41.4	<0.01	
Delinquent Behavior	33.6	34.5	1.00	
Withdrawn	15.5	20.7	0.40	
Somatic Complaints	14.6	12.1	0.81	
Social Problems	23.6	19.0	0.56	
Internalizing	40.0	32.8	0.40	2.36 (1.17-4.80)
Externalizing	40.9	62.1	0.01	

* OR comparing females to males for significantly different subscales