

BEYOND PSYCHOPATHOLOGY: ASSESSING SERIOUSLY DISRUPTIVE STUDENTS IN SCHOOL SETTINGS

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Objective To obtain a demographic profile of aggressive students in an urban setting and discern psychiatric diagnoses, functional impairment, and psychosocial stressors.

Study design Participants were 33 students in an urban public school district referred for comprehensive psychiatric evaluation by school staff because they were viewed as a threat to school safety. Evaluations included a review of records, interviews with school and mental health professionals, and student and parent interviews.

Results Students were characterized by severe and untreated or undertreated psychopathology together with high levels of psychosocial stressors and learning disorders. Thirty-two students received at least one Axis I diagnosis, and the mean number of diagnoses for each student was 3; 33% had substance abuse problems, and 30% had nonpsychiatric medical conditions.

Conclusions The sample is a chronically impaired group of students confronting serious adversity in their daily lives, whose psychosocial and psychiatric needs are not met by current educational and mental health programming. Necessary interventions include prevention and early identification, substance abuse and family treatment, and appropriate psychopharmacological treatment. A comprehensive psychiatric assessment can help change the outcomes for this group of aggressive students. (*J Pediatr* 2006;149:252-6)

Violence and aggressive behavior in schools is an ongoing concern for school, health, and mental health professionals. Although students who make threats or assaults are subject to expulsion,¹ those whose behavior is related to an unrecognized or inadequately treated disability must be offered appropriate services. Crucial educational decisions pivot on determination of disability, and incomplete or superficial assessments can lead to denial of services.^{2,3}

Clinical evidence and the few extant studies reveal that aggressive students subject to school disciplinary action are severely dysfunctional, especially those in special education programs for severe emotional and behavioral disturbances.⁴⁻⁸ These studies characterize disruptive students primarily in descriptive terms. Contexts of problem behaviors are rarely studied, nor are disruptive students' perceptions of their actions. The design of optimal interventions for these multiproblem students depends in large part on accurate identification of underlying precipitants and their contexts, which lead to disruptive behaviors.

As important as phenomenology and social context are to understanding violent behavior, neither explains why certain students are more vulnerable than others. In this pilot study, we examine and then consider implications of new exploratory analyses of psychiatric diagnoses, level of functional impairment, and stressful experiences of 33 aggressive students referred for psychiatric evaluation.

Given the known undertreatment of special education students, a primary aim of this project was discovering psychological and environmental dimensions associated with an adolescent's assignment to specific treatment interventions and identifying barriers to appropriate psychiatric treatment.^{9,10} Multiple, often related, stressors are important in the development of problem behaviors. Consequently, we focused on the varied significant stressors experienced by these students.¹¹ Two central questions guiding our analyses were (1) How do we better delineate developmental trajectories of violent students? (2) How do the social and school contexts of these students influence the trajectories?

METHODS

Study Sample

The urban school district from which our sample was drawn had 6437 students enrolled in grades Kindergarten through 12 in 2004; 50% of the students are from low-income families, and 33% come from homes where English is not the first language.

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The proportion of special education students in this district, 22%, is among the highest in the state; and 67% of the students receiving special education services are racial minorities. The study sample of 28 boys and 5 girls are students who were sequentially referred for comprehensive psychiatric evaluations by the Special Education Office to determine if the student's aggressive behavior was the consequence of a psychiatric disorder. These students had all been suspended for at least 10 days during the current school year (the point at which an administrative review must occur). Each year we evaluated 23% of the special education students in the district who were suspended for this 10-day period. This was an intensive study of a special clinical group intended to generate hypotheses that we then planned to examine subsequently in a more rigorously designed study, which would include appropriate control subjects. Excluded from the study sample were students expelled for seriously violent behavior or possession of drugs or a gun. When there is an incident of student drug or gun possession on campus, there is a policy to exclude the student from school and to pursue legal felony charges. The number of students in the district expelled averaged about 28 per year (none for gun possession). The school did not refer the expelled students for psychiatric assessments because they would not have altered the school's set policy of management.

Reasons for referral included threats or assaults without a weapon, most commonly against school staff ($n = 28$) or peers ($n = 20$). Several of the referred students had also threatened or assaulted parents and siblings. Behaviors in the referred group varied from chronic escalating explosiveness (eg, yelling at teachers followed by posturing), to destroying property in classrooms, to fighting with peers or assaulting staff (eg, pushing or throwing an object at a staff member). The categories for referral were not mutually exclusive. Thirty-one of these students were already classified as having a disability, under the Individuals with Disabilities Educational Act (IDEA), and were therefore given special disciplinary consideration to determine the appropriateness of their current placement.

The 33 students ranged from 5 to 18 years old, with the mean student age at evaluation 13.6 years. The sample composition included 11 African-American, 9 Latino or Latina, 5 Caucasian, 4 Haitian, 3 biracial, and 1 Asian. Twenty-nine of the students were minority students. More than half of the students evaluated were eligible for free school lunches (about the same as in the district as a whole). Most students ($n = 24$) were living with one parent (mother), and only three students were living with two biological parents at the time of the evaluation. About half spoke a language other than English at home.

Educational Status

Thirty-one of the students were in the appropriate grade for their age, but this grade placement did not reflect their academic competency. Twenty-five students who received grades performed marginally in at least two classes per semester (an average grade between 60 and 68). Standardized state test scores were available for 9 of the 33 students, and

only 1 student passed this test. Twenty-five students were in self-contained classrooms with small student-to-teacher ratios. Subclassifications of these special education students were behavioral disorders ($n = 5$); learning-disabled ($n = 15$); learning and behavioral disorders ($n = 5$). Six other special education students were not in self-contained classrooms at the time of the evaluations, and their subclassifications were learning-disabled ($n = 4$) and behavioral disorders ($n = 2$).

Assessment Procedures

The Cambridge Health Alliance Institutional Review Board approved a retrospective review of clinicians' evaluation reports. Psychiatrists completed evaluations in accordance with a previously described series of procedures.³ The student and family were interviewed separately. The psychiatrists talked to the teachers and administrators to identify school concerns; psychological testing was reviewed when available and pertinent records (attendance, suspensions, incident reports) and mental health collaterals were contacted. The interviews used were clinical interviews that were designed to elicit sufficient data to formulate a DSM diagnosis as well as to understand the psychosocial context of the child's symptoms. During the interview, the evaluators assessed the presence of the DSM multi-axial system, past behaviors and the contexts of aggressive behaviors, general functioning of the student, family conflict and aggression, social stressors, peer relationships, substance use, personality traits (eg, anger, impulsivity), mental disorders and treatment history, and availability of weapons. The evaluators also identified service needs and gaps. The lead author supervised the psychiatrists to ensure consistency of collecting data.

Reports included diagnostic formulations in accordance with Axes 1 through 5 of the DSM-IV, which specifies psychiatric diagnoses, medical conditions, psychosocial stress factors, and level of functioning.¹² Also included was the Children's Global Assessment Scales, CGAS).¹³ The CGAS has been widely used by clinicians as a measure of overall severity of disturbance. It has demonstrated reliability between raters as well as discriminant validity. The research team of three psychiatrists reviewed all the written reports to confirm that the diagnosis was supported by the data. The team agreed with the original diagnosis in 30 cases. In cases where there was disagreement among the team (which only occurred in three cases) the team discussed the case until a consensus was reached. Thus, we used a combination of multiple informant reports, behavioral observations gathered across diverse settings, and face-to-face interviews. This is the "best estimate" method, which has been shown to have good reliability and validity in psychiatry.¹⁴ The cases that had diagnostic disagreement were associated with the presence of mixed affective and psychotic symptoms (two students). Diagnostic uncertainty is common in children whose psychiatric disorders are evolving.^{15,16}

Adversity was noted when the evaluator rated specific circumstances (eg, recent immigration) as problematic for the student or his family. Intensity ratings of these adversities were not given. Adversities were analyzed after reviewing the

psychiatric records; we compiled a list of all the stressors (eg, medical condition, legal involvement) described in the evaluations. We next coded specific stress dimensions, including problems (1) with primary support group; (2) related to the social environment; (3) in educational settings; and (4) with access to health care. If a problem did not fit these categories of problems, it was placed into a larger category of unclassified, similar to the strategy in adult attachment interviews.¹⁷ Among the issues in these categories were death of a parent, domestic violence, and gang membership.

Substance abuse was coded as present if a parent or other informant reported knowledge of the student's use of substances. This multi-informant approach is recommended in light of known underdetection of substance abuse.¹⁸

RESULTS

Impaired Functioning

The most common psychiatric diagnoses are shown in the Table. Comorbidity was common; the median number of diagnoses for each child was three. Current substance abuse was identified in 11 students, and in all cases the substance involved was alcohol or marijuana. The 11 students who had substance abuse problems significantly differed from those who did not with respect to being older and having legal problems and problems with primary support group but not with respect to psychosocial or medical treatment. At least 1 medical problem was reported by 13 of the students. Asthma was present in 6 students, followed by hearing loss (n = 2), obesity (n = 2), hydrocephalus (n = 1), and sickle cell anemia (n = 1) (Table).

The mean CGAS score was 50.4 (the severely impaired range is between 45 and 55). Only one student scored above 70, the usual cutoff for normal functioning. Low verbal IQ or language-based learning disabilities with a reading disorder were present in 70% of the special needs students.

Adversities

Medical conditions, educational concerns, and father absence were the most frequent adversities identified by 25 students; 28 of 33 students had a significant family stressor (such as parental sickness or death) (Figure).

An example of a child's disability and behavior in the context of such adversities is a student who was volatile in school. When the evaluator arrived for a home visit, his mother, diagnosed with HIV was shouting at him, "I could die tomorrow." The student's father had died 5 years before and his stepfather had died 4 months ago from this same diagnosis. This student was absent 28 days that year and was referred for evaluation when he became agitated and confrontational on the school bus. A second example, illustrating cumulative stressors triggering violence in school, is the case of a 12-year-old girl, who assaulted another girl and was seen by the school as "not accepting authority." She was described as "selectively choosing to do work." She told us that when she was younger her mother used crack cocaine for days at a time, and she would prepare her own TV dinners and play unsu-

Table. Psychopathology and treatment history

Treatment history	Number
Current treatment	17
Past treatment	15
Current or past medication	16
Court involvement	10
Diagnoses	
ADD or ADHD	18
Prior trial with stimulant	12
Current treatment with stimulant	8
Oppositional defiant disorder	13
Conduct disorder, possible	13
Conduct disorder, definite	4
Substance abuse	11
Depression	8
Bipolar disorder, possible	5
Post-traumatic stress disorder	5
Other*	1
Comorbidity	
ADD and OD	10
ADD and CD	2
Substance abuse and CD	1
Substance abuse and OD	2
ADD and major depression	2
ADD and dysthymia	1

ADD, Attention deficit disorder; ADHD, attention deficit hyperactivity disorder; OD, oppositional defiant disorder; CD, conduct disorder.

*Includes one each psychotic disorder not otherwise specified (nos), anxiety disorder, panic disorder, autism.

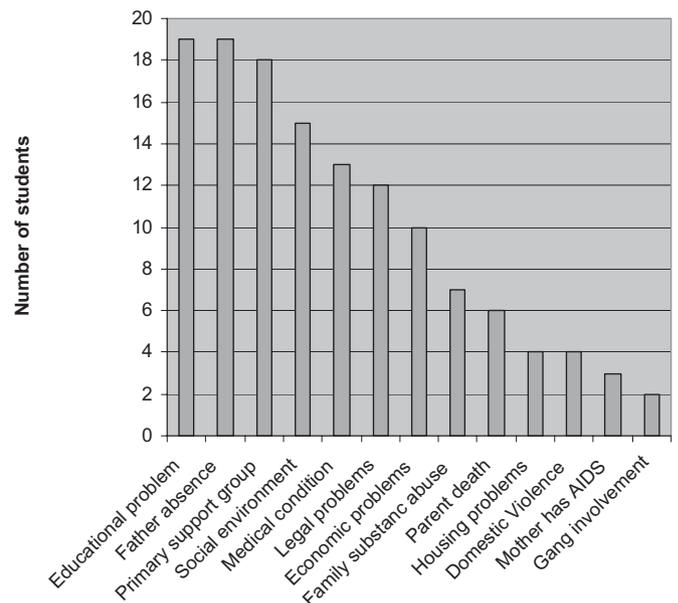


Figure. Stress factors.

pervised in the street. She once saw her mother's former boyfriend smash a beer bottle over her mother's head. Adding further turbulence, she was removed from her home after

school administrators reported her mother to the state department of social services following her revelation that her mother was using crack cocaine.

Psychiatric Treatment History

Twenty-three of 33 students participated in psychosocial interventions (eg, seeing a school counselor or outside agency therapist for individual therapy) currently or in the past. Five students had been psychiatrically hospitalized; of those students, three had repeated hospitalizations. Three students received home-based family therapy services. The therapy was generally nonspecific, brief, or very inconsistent. High rates of therapist turnover and parents' canceled appointments were key reasons for inconsistent treatment. For example, a 9-year-old boy, who, before placement in a self-contained classroom, was suspended from class frequently for dangerous behavior (including trying to harm a teacher with scissors) and required two psychiatric hospitalizations for threatening self-harm. He had missed 84 school days during the previous academic year. His father was an incarcerated drug addict with a violent history. Both he and other children in the neighborhood had been shot at with pellet guns by older children. His grandmother lamented that he had three counselors leave when their training rotations ended.

Less than half of the group had ever been treated with a psychotropic medication, and 14 students were currently taking a psychotropic medication. Medications prescribed, in order of frequency, were stimulants, antidepressants, and mood stabilizers. Of the 18 patients with diagnosed attention deficit hyperactivity disorder (ADHD), 6 students never had a stimulant trial; 8 students were currently taking a stimulant, and 1 student was taking bupropion for ADHD and dysthymia. Many parents were reluctant to use medication.

We found no associations between students receiving past or present (psychosocial or medication) treatment and age, diagnosis, presence of a medical condition, CGAS, number or severity of psychosocial stressors, ethnicity, or eligibility for free lunch.

Consultants' Treatment Recommendations

Other than medication changes, the most frequent recommendations were for cognitive behavioral therapy, home-based family treatment, and substance abuse treatment. Treatment recommendations also specified alternative school or class placement, monitoring by probation, after-school monitoring and supervision, and case management. In 28 of the 33 cases, there was a suggestion to intensify the services.

DISCUSSION

These students had varied and comorbid psychiatric disorders, CGAS scores in the severely impaired range, and severe psychosocial stressors (such as death of a parent or a mentally ill parent). Classification of students as severely emotionally disturbed or behaviorally disordered (eg, ADHD, bipolar disorder) did not increase the likelihood of adequate treatment. In light of

our findings that nearly all of the referred youngsters had serious yet undertreated psychopathology, a possible unintended result of fragmented and inconsistent treatment may have been the placement of some of them into special education services.⁴ One explanation for this overrepresentation, then, may be their undertreatment for psychiatric disorders, both with regard to medication and psychosocial services.⁷ Our findings that only 11 of the 28 minority students whom we evaluated received any form of mental health services at the time of the evaluation are consistent with other studies.^{4,19} Children in poverty are less likely to receive necessary treatment, and, when they do receive it, are more likely to drop out and have a shorter duration of treatment. The 1999 Surgeon General's Report on Mental Health highlighted the underutilization of mental health services by children in general and the particular effects of poverty and minority status on treatment.²⁰ In addition to barriers such as lack of availability of services and lack of insurance, cultural attitudes and beliefs affect treatment seeking.^{21,22} The narratives of our families and students revealed how stigma, poor experiences with the mental health system, and a lack of understanding of the child's psychiatric condition probably contributed to major barriers to care. Even when families were involved in treatment, it was often fragmented and thereby limited in meeting their needs.

The 33 youngsters and their families in this study were confronting many diverse and serious adversities. Cumulative risk factors (such as poverty and parental mental illness) are linked to deterioration of youth outcomes, in terms of academic performance and overall psychological adjustment.¹¹ The high prevalence of medical conditions among the evaluated students is also noteworthy, as children and adolescents with chronic medical illness are known to be at risk for psychiatric disorders.²³ Moreover, extant studies suggest that children with psychiatric disorders are at risk for physical health problems.²⁴ Their medical problems could be related to their behaviors or to stress associated with their disorders or could result from the same psychosocial adversity that puts them at risk for psychiatric disorders. In future studies now being planned, we intend to study the medical health status of school-referred students as well as the degree to which their primary health care needs are unmet.

The Value of a Comprehensive Psychiatric Evaluation

The comprehensive evaluations took at least 6 hours. Although this may seem expensive and labor-intensive, the school district was willing to allocate the resources because the alternative could be an out-of-school-district placement at a cost of over \$50,000 per year.²⁵ Although some researchers have suggested that special education students are being singled out unfairly for suspensions,² it appears that for this group of youngsters, the school's increased vigilance had a beneficial effect in that it facilitated a referral and access to treatment.

Clinical Implications

This study highlights the complexity of students with disruptive behavior and special education status/needs in school

settings and the challenges and opportunities for clinicians. Closely analyzing these aggressive students will contribute to our understanding of their complicated developmental pathways and to our understanding of the combination of child health and neurological status, early academic skill, and family functioning/parenting style and school context that need to be optimized for these vulnerable students.

Limitations

The generalizability of this exploratory study is limited by our small nonrandom number of impaired subjects and the fact that it was carried out within a single community. Indeed, it is likely that this community is unusual in its commitment to identifying and helping students with psychiatric disorders instead of addressing them primarily through disciplinary strategies. The limitation of the referral process in place is that it depends on the complex judgments of Office of Special Education administrators. We know that the number of aggressive students that this school system handled solely in a disciplinary fashion through suspensions was three times the number referred.

Future Directions

In our future studies of these problems, we intend to use a blend of conceptually relevant standardized instruments, guided by new questions and speculations from this study, and related research.⁸ We plan to obtain additional life history and current experiences through semistructured interviews,^{26,27} with larger samples of these students and appropriate control subjects, to more fully elucidate contextual and experiential dimensions. We need to explore techniques and processes for collaborative psychiatric evaluations and assessments that bring together professionals from the many disciplines who are working with problematic students. Further exploration of methods and processes for collaboration among pediatricians, school nurses and administrators, teachers, and mental health professionals will help establish vehicles for early identification, prevention, and treatment.

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