Psychiatric Aspects of Student Violence

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School Shootings and Student Mental Health - What Lies Beneath the Tip of the Iceberg

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True
Youth Violence
Mass media tends to focus on dramatic, very rare events of youth violence such as mass murder school shootings.
In fact, most adolescent homicides are committed in inner cities and outside of school. They most frequently involve an interpersonal dispute and a single victim.
On average seven youths are murdered in this country each day. Most of these are inner-city minority youths.
From the National Youth Violence Resource Center:
Youth as Victims of Violence
1 in 5 victims of serious violent crime are between the ages of 12 and 17.
Youth aged 12-17 are three times as likely as adults to be victims of simple assault and twice as likely to be victims of serious violent crimes.
About 1 in 20 high-school seniors say they have been injured with a weapon in the past year, and almost 1 in 7 say someone has injured them on purpose without a weapon.
More than 1 in 3 high-school students say they have been in a physical fight in the past year, and about 1 in 9 of those students required medical attention for their injuries.
More than 1 in 6 sixth to tenth graders say they are bullied sometimes, and more than 1 in 12 say they are bullied once a week or more.
Youth Perpetrators of Violence
About 1 in 9 murders are committed by youth under 18. On average, about 5 youths are arrested for murder in this country each day.
Youth under 18 account for about 1 in 6 violent crime arrests
For every teen arrested, at least 10 were engaged in violence that could have seriously injured or killed another person.
A review of surveys found that between 30-40% of male teens and 16-32% of female teens say they have committed a serious violent offense by the age of 17.
Almost 1 in 20 high-school students say they have carried a gun in the past month.
Almost 1 in 4 teens report having easy access to guns at home.
School Violence
Almost 1 in 14 students (and more than 1 in 10 male students) said they had carried a weapon to school in the past month.
More than 1 in 13 students said they had been threatened or injured with a weapon such as a gun, knife, or club on school property in the past year.
However, less than 1% of all violent deaths of school-aged children and teens occur in or around school grounds or on the way to and from school.
Youth ages 12-18 were twice as likely to become victims of serious violent crimes when they were away from school.
Between 20 and 45% of boys who commit serious violent crimes by the age of 16 or 17 were violent as children.
45 to 69% of violent girls were violent in childhood
Teens who were engaged in serious violence before the age of 13 generally commit more crimes, and more serious crimes, than those teens who start later
They are also more likely to continue to engage in violence into adulthood.
The earlier the age of onset of antisocial behaviors, the more severe they tend to be and the more likely that they will persist into adulthood.
Only about 20% of all seriously violent teens continue to commit violent acts as adults.
Risk Factors for Youth Under Age 13
Early involvement in serious criminal behavior, early substance use, being male, a history of physical aggression toward others, low parent education levels or poverty, and parent involvement in illegal activities
Risk Factors for Youth Over Age 13:
Friendships with antisocial or delinquent peers, membership in a gang, and involvement in other criminal activity
So, multiple factors contribute to and shape antisocial behavior over the course of development.
Many of these are within the social environment. Peers, family, school, community and neighborhood contexts shape, enable and maintain antisocial behavior, aggression and related behavior problems.
Risk Factors for Violence in Parents
- Previous violence
- Young age at first violence
- Relationship instability
- Employment problems
- Substance use problems
- Psychopathy
- Early maladjustment
- Personality disorder
- Prior supervision failure at work
- Lack of insight
- Negative attitudes
- Active symptoms of major mental illness
- Impulsivity
- Unresponsive to treatment
So, risk factors in the home environment:

- Weak bonding
- Ineffective parenting (poor monitoring, inconsistent discipline, inadequate supervision)
- Exposure to violence in the home
- An environment that supports aggression and violence
Risk factors in the child or adolescent:
- Early conduct problems
- Attention-Deficit Hyperactivity Disorder and associated impulsivity and poor judgment
- Depression
- Anxiety disorders
- Lower cognitive and verbal abilities
External risk factors:
- Peer rejection
- Competition for status and attention
- Association with antisocial peers who are experiencing academic failure
- Peers who engage in violent activities
Life course persistent behaviors are correlated with neurological deficits, language deficits, cognitive deficits and are exacerbated by stressful home situations.
Youth with conduct problems plus a mental health disorder such as ADHD, Depression or Anxiety Disorders are more likely to engage in aggression than youth who only have conduct problems.
Research indicates that placing violent youth together in programs (e.g., Setting IV sites for Emotionally Disturbed delinquent students) increases the risk of violent behavior.
Although students with the characteristics outlined above tend to be at a higher risk of violence, there are also those who are not conduct disordered, but who suffer from mental health problems.
Some of these students have been victims of significant bullying. Their fragile mental health status and severe mental health symptoms may “push them over the edge” into committing violent acts.
Highly adaptive parenting, good verbal ability and success in school are protective factors against antisocial behavior.
Predicting Violence
“Prediction is very difficult-especially about the future.”

Niels Bohr
Danish Physicist
Nobel Laureate
The best predictor of future violence is past violence
The vast majority of people who are violent do not have psychiatric disorders.

The vast majority of people who have psychiatric disorders are not violent.
Issues that raise the risk of violence in an individual who has a mental health disorder:
  - Substance use disorder
  - A history of violence, juvenile detention or physical abuse
  - Recent stressors such as being a crime victim, getting a divorce or losing one’s job
In general, mental health disorders do not raise the risk of aggression. Exceptions include individuals who have paranoid delusions and those who have agitated Bipolar Mood Disorder. Highly impulsive conduct disordered youth who have ADHD are at increased risk, as are youth who are abusing chemicals such as alcohol and PCP.
Predicting Violence
False Positives and False Negatives
If, at any one time, in a large metropolitan area, there was one person in a million who was planning a mass murder, and you had a predictive test that was 99% accurate...
You would have to detain 10,000 individuals in order to identify the one who is planning the violence.
Screening tests are not nearly that accurate.
Clinical judgment has been shown to be worse than flipping a coin for predicting dangerousness beyond imminent danger.
Research-based screening tools have better predictive value, but are not infallible.
Is a youth’s violent behavior caused by “clinical” or by “behavioral” factors?

The issue is not “either/or”
The Clinical Behavioral Spectrum

Jan Ostrom and Will Dikel
Behavioral / Predominately / Mixed / Predominately / Clinical

Behavioral          Clinical
Treating Violent Youth
Aggression is a non-specific, serious symptom most associated with ADHD, Conduct Disorder, Oppositional Defiant Disorder. It is also associated with Autism Spectrum Disorder, mood disorders, PTSD and psychotic disorders.
When aggression is chronic in these conditions, treatment tends to be longer, more intensive and to have poorer outcomes.
Successful treatment depends on understanding the underlying contributors to the violence.
When clinical factors are at the root of the problem, e.g., irritability and agitation stemming from bipolar mood disorder.
Then clinical interventions that may include medication management are the treatment of choice.
Medication ideally is specifically focused on the nature of the mental health disorder. E.g., is the aggression due to impulsivity of ADHD? Due to mood swings? Due to auditory hallucinations?
Thus, typically, medication management would utilize stimulants, antidepressants, mood stabilizers, anti-anxiety medications and/or antipsychotics in the treatment of underlying pathology.
Note: Some clinical disorders (e.g., autism spectrum disorders, phobias, etc.) are also treated with behavioral interventions.
Behavioral interventions are generally more effective with violence stemming from behavioral factors.
And, for youth in the “predominately” or “mixed” categories, interventions that blend clinical and behavioral approaches work best
Much of the research on medication treatment of aggressive youth focuses on aggression as an associated factor to other disorders such as ADHD, mood disorders, etc.
Research studies are limited, and more research is necessary to clarify types of aggression and the treatments that work best for each type.
Research indicates that, in order of highest to lowest effect size for anti-aggression outcomes:
Highest effect size:

Stimulants for treating ADHD with associated aggression

Atypical antipsychotic medication (e.g., Risperidone) for persistent behavioral disturbance in youth with conduct disorder and sub-average I.Q.
Moderate effect size is found with mood stabilizers (e.g., Lithium, anti-seizure medications) and alpha-2 agonists (e.g., clonidine)
No major effect size for antidepressants, beta blockers (e.g., nadolol) and typical antipsychotics.
Aggression and violence are multi-factorial, and difficult to study as single variables.
There is evidence that “hot” aggression (e.g., highly impulsive) responds to medication treatment much better than “cold” aggression (volitional, planned, calm, etc.)
This suggests that “hot” aggression may be more on the clinical, biological end of the spectrum, and “cold” aggression on the behavioral end.
There are significant ethical implications to the use of medication for behavior control (e.g., the use of highly sedating antipsychotic medication for conduct disordered youth).
This is considered by many to be a form of “chemical restraint”.
Medications can have significant adverse side effects and the risks vs. the benefits need to be considered. If they are used, they should be part of a larger treatment plan.
Many aggressive youth have simply not yet learned the skills of self-management and self control, and have not learned pro-social alternatives to aggressive behavior.
They can benefit from skills training, including learning mindfulness techniques such as those taught in curriculums such as the “MindUP” program.
Lithium in the water supply?
Biological Trace Element Research


Lithium in drinking water and the incidences of crimes, suicides and arrests related to drug addictions.

Schrauzer GN1, Shrestha KP.
Results suggest that lithium at low dosage levels has a generally beneficial effect on human behavior, which may be associated with the functions of essential trace element.
Increasing the human lithium intake or the lithiation of drinking water is suggested as a possible means of reducing crime, suicide, and drug dependency at the individual and community level.
Addressing School Violence
In general, school districts’ most aggressive students are in self-contained Setting IV E.D. programs.
A review of records of one such program in a 5000 student district revealed that 85% of these students had already been diagnosed with a mental health disorder, but that only 5% were receiving treatment.
Co-locating mental health services from a community mental health clinic on-site in the district resulted in treatment of these students’ disorders, transition to less restrictive placements, significant reduction of aggression and savings of $800,000.00/year.
The services were voluntary, and were not IEP related services.
Special education “EBD” students, especially those in Setting 3 and Setting 4 placements, tend to have multiple mental health disorders, and many of them have issues of aggression. Many are in the Mixed category of the Clinical-Behavioral Spectrum.
Bullying
Recommendations re: violence perpetrated by students who have mental health disorders

Prevent violence through mental health procedures and guidelines that:
- Clarify the role of school professionals
- Increase access to mental health services through on-site, co-located clinics
- Maintain clear firewalls between the district and mental health providers
- Increase education for teachers regarding student mental health
- Coordinate with parents and community programs
- Provide skills training for students who have minimal coping skills
- Ensure safety in programs that have very high-risk students (e.g., metal detectors)
Conclusion:
-Violence in school and community settings is a real risk

-There are major problems with accurately predicting violent behavior

-Mental health disorders are generally not predictors of violence, but when they occur in the context of other behavior problems and significant stressors, they can lead to violent behaviors

-Proactively addressing youth’s mental health problems through collaborative efforts can improve behaviors, reduce the risk of violence and cut costs