Guns, Schools, and Mental Health

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Disclosures

• No relevant financial disclosures
• I am a clinical and forensic psychiatrist
• I have worked as an expert witness on cases of violence and shootings in the past (no current involvement with a school shooting case)
• General member of NRA (Thanks mom . . . received no support or information from them)
• Have been robbed at gunpoint
• Have soon-to-be school aged child

This topic makes one think of disclosures in new ways
Do We Agree With This Statement?

“Violence of the kind perpetrated by Chris Mercer (Oregon mass school shooter) is always preventable through a combination of psychotherapy, proper medications and hospitalizations when needed. Period. There is no exception.”

Dr. Keith Ablow

http://www.foxnews.com/opinion/2015/10/02/if-president-obama-had-son-like-oregon-shooter-chris-mercer.html?intcmp=hphz04
Why I Don’t Believe That is True

Many factors involved in violence
  – Biology
  – Social
  – Economic
  – Political
  – Health
  – Developmental
  – Life experience
  – Substance use

Beslan School Hostage Crisis 2004

- **1100 taken hostage (777 were children)**
- **380 died, including 186 children**
  - Perpetrators – Chechen separatists led by Shamil Basayev.
  - Demand – For Russia to end the second Chechen War.
  - Day 3 – Russian security, using heavy weapons, stormed the school with troops, tanks, incendiary rockets, and other heavy weapons.
[Chief] Moose said: "Today it went down to the children. . . . Someone is so mean-spirited that they shot a child. . . . Now we're stepping over the line. Shooting a kid. I guess it's getting to be really, really personal now."
Also Why I Don’t Believe That is True

• Lisa Nowak – age 44 stalker
  packed latex gloves, a black wig, a BB pistol and ammunition, pepper spray, a hooded tan trench coat, a 2-pound drilling hammer, black gloves, rubber tubing, plastic garbage bags, approximately $585 (USD) in cash, her computer, an 8-inch (20 cm) Gerber folding knife

http://abc13.com/6-violent-love-triangles-that-shocked-houston/2270149/
No One Predicted This . . .

Graduation photo from Naval Academy
Gun Ownership

- What percentage of people in the USA own a gun? (varying number but roughly 25-40%)

- What percentage of mental health professionals own a gun? (no great number but some surveys say 1/10)

- Lack of knowledge may make it hard to assess risk or even raise topic with patients


Appelbaum PS, Swanson JW: Gun laws and mental illness: how sensible are the current restrictions? Psychiatric Services 61:652-4,2010

Areas Of Concern With Violence Research in General

• How to test for aggression/violence?
• What are we measuring?
• Are there different types of aggression?
• Are findings applicable to treatment?
• What to do with conflicting literature?
Important to Remember

Not all aggression and violence is pathologic
Ways to Look at Violence: Disease/Contagion Model

• Violence spreads like a disease
• Can use public health tools
  – Monitoring (population level)
  – Surveillance (population level)
• Identifiable risk factors
• Clear treatment interventions
  – Mental Health (individual)
  – Public health policies (population level)

“Werther Effect” Supports Aspects of Contagion

“There was a strong belief that *Die Leiden des Jungen Werthers (The Sorrows of Young Werther 1771)* was the impetus for many young men from all parts of Europe to dress in particular clothing (boots, a blue coat, and a yellow vest), sit at a desk with an open book, and shoot themselves over unattainable love, emulating the protagonist in the book.”

Day T, Hall R. Déjà Vu: From Comic Books to Video Games: Legislative Reliance on “Soft Science” to Protect Against Uncertain Societal Harm Linked to Violence v. the First Amendment. Oregon law review 2010; 89(2):415-452
Any Way To Prove Which Factor? Or Account For All Factors?

Confirmed: Navy Yard Shooter Was On Anti-Depressant Trazodone

Drug linked to previous mass shooting despite Washington Post declaring it “safe”

Paul Joseph Watson
Infowars.com
September 19, 2013

It has been confirmed that Navy Yard gunman Aaron Alexis was on the anti-depressant drug Trazodone, providing yet another example of a connection between psychiatric drugs and mass shootings.

In verifying that Alexis was prescribed Trazodone by the Veterans Affairs Office, the Washington Post published a brief article downplaying the danger of the drug, quoting Miami physician Gabriela Cora who stated (almost too eagerly), “Honestly, it’s a very safe drug to use.”

However, the drug has been linked to a number of murders, including one mass shooting.

Trazodone is sold under the brand names Desyrel, Oleptro, Beneficat, etc.

http://www.infowars.com/confirmed-navy-yard-shooter-was-on-anti-depressant-trazodone/

House Set To Examine Link Between Video Games, Culture Of Violence In Wake Of Navy Yard Shooting

WASHINGTON -- The revelation that the man who shot and killed 12 people at the Washington Navy Yard on Monday played violent games for up to 16 hours a day has reawakened a long-simmering debate on Capitol Hill over the potential link between such games and mass shootings.

http://www.huffingtonpost.com/2013/09/20/video-game-lobby_n_3957441.html
In Addition Anything May Become A Trigger

With movie Taxi Driver
With Beatle's music

Movie Old Boy. Also won Grand Prix prize at Cannes 2004
Have To Be Careful Of Hindsight Bias

“After Mark David Chapman shot and killed John Lennon, he calmly opened up **Catcher in the Rye** and proceeded to read it — before being apprehended.”

*Catcher in the Rye* has sold 65 million copies. Of the millions who have enjoyed the book, *perhaps three* [e.g. Hinkley, Lee Harvey Oswald] have become well-known assassins. **Still, we should ask: is there any merit to the book being an assassination trigger?**

http://atomicpoet.wordpress.com/2012/01/31/is-catcher-in-the-rye-an-assassination-trigger/
Types of Violence

**Impulsive aggression** (AKA emotional, defensive, affective) - activation of the autonomic nervous system involves

- Frontal lobes (top down)
- Temporal lobes
- Limbic system (bottom up)

Common in

- Low verbal skills (?)

Easy to study

- Animal models
- Functional lab studies

Types Of Violence (continued)

• **Premeditated aggression** (aka predatory)- Seen in antisocial personality
  – Planned
  – Goal directed
  – Emotional detachment (?)

• Harder to study
  – Multiple factors
  – Always pathologic? (affective aggression anyone can express)
  – Clean animal model?
    • Cat and mouse

Predicting the Future is Hard . . .

Clinical predictions of dangerousness by psychiatrists are “fundamentally of very low reliability.”

*Estelle V. Smith*, U.S. Supreme Court, 1981

“If it is not impossible for even a layperson sensibly to arrive at such a conclusion, . . . Neither petitioner, nor the APA suggests that psychiatrists are always wrong with respect to future dangerousness, only most of the time.”

*Barefoot V. Estelle*, US Supreme Court, 1983
Granted We Are Slowly Getting Better

Figure 1. Indices of effectiveness (IoE) of validated structured and clinical prediction studies 1970-2000 (see Buchanan and Leese, 2001, 64)

Standardized Instruments (Strongest Support For Use In Adults?)

• Psychopathy Checklist-Revised (PCL-R)

• Violence Risk Appraisal Guide (VRAG)

• Historical/Clinical/Risk Management 20 Item (HCR-20)

• Classification of Violence Risk (COVR)
Is This True?

• “It is well accepted that structured approaches outperform unstructured clinical judgments for the prediction of violence”

• From psychology journal looking at “forensic inpatients"

• However, “predictive validity of particular instruments may be moderated by settings, populations, and other factors”

• In other words, “context of situation” is important as well as just risk factors especially in school settings(?)
  – Recent or ongoing bullying
  – Relationship break up
  – Family strife/dynamics
  – Substance use
  – Other rejection (e.g. college or job)

If We Are Better, Is It Translating To A Clinical Improvement?

ANZJP Correspondence

Violence risk assessment has not been shown to reduce violence

Matthew M Large¹ and Christopher J Ryan²

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Large MM, Ryan CJ. Violence risk assessment has not been shown to reduce violence. Aust N Z J Psychiatry. 2015 Jan;49(1):91.
Some Literature Says No

One implication of these findings is that, even after 30 years of development, the view that violence, sexual, or criminal risk can be predicted in most cases is not evidence based. This message is important for the general public, media, and some administrations who may have unrealistic expectations of risk prediction for clinicians.

Fazel S, Singh JP, Doll H, Grann M. **Use of risk assessment instruments to predict violence and antisocial behaviour in 73 samples involving 24,827 people: systematic review and meta-analysis.** BMJ. 2012 Jul 24;345:e4692
The Over-prediction Problem

While research will continue to advance, the pervasive influence of base rates means that, at the base rates of violence seen in most clinical settings and for the foreseeable future, no technique will be available to identify those who will act violently that will not simultaneously identify a large number of people who would not.

How Common Or Uncommon Is Violence In Mental Health Patients

• ECA - 17% of the sample self-reported acting violently (no harm required) in the previous 12 months
• CATIE - 6-month prevalence of assault with a weapon or causing serious injury was 3.6%
• MacArthur Foundation Study - people with mental illness in treatment and compliant with medication no different level of dangerousness than baseline neighborhood population
• Harder to predict and prevent either:
  – Common low-severity events (e.g. aggressive shove)
  – Rare high-frequency events (e.g. murder)
• We know this from suicides and self-harm behaviors
The Under-prediction Problem Also Occurs: Eric Harris’ Early Termination Recommendation For Juvenile Diversion

• **Prognosis: Good**
  Eric is a very bright young man who is likely to succeed in life. He is intelligent enough to achieve lofty goals as long as he stays on task and remains motivated.

• **Recommendations: Successful termination**
  Eric should seek out more education at higher levels. He impressed me as being very articulate and intelligent. These are skills that he should grow and use as frequently as possible.

http://www.acolumbinesite.com/reports/ehjuvterm.gif
Although At Times Hard To Predict, I Do Believe In Common Sense And Good Clinical Judgment

Personal papers revealed an obsession with Giffords that may have dated to when Loughner confronted her during a visit to his high school, asking, "If words could not be understood, then what does government mean?" Agents pursued tips that Loughner had undergone mental health treatment. While those leads were not substantiated

Sample violence risk assessments note

- Risk factors identified and weighed (low, moderate, high)
- Including collateral source info if available
- Protective factors identified and weighed (low, moderate, high)
- Overall assessment rated (low, moderate, high, or range)
- Treatment and management intervention informed by the assessment
- Effectiveness of interventions evaluated
CDC’s Danger Assessment Tool - Think of Like a GAF For Homicide

<table>
<thead>
<tr>
<th>Key to Danger</th>
<th>ASSAULT &amp; HOMICIDAL DANGER ASSESSMENT TOOL</th>
<th>Typical Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Immediate Dangerousness to Others</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>No predictable risk of assault or homicide</td>
<td>Has no assaultive or homicidal ideation, urges, or history of same; basically satisfactory support system; social drinker only</td>
</tr>
<tr>
<td>2</td>
<td>Low risk of assault or homicide</td>
<td>Has occasional assault or homicidal ideation (including paranoid ideas) with some urges to kill; no history of impulsive acts or homicidal attempts; occasional drinking bouts and angry verbal outbursts; basically satisfactory support system</td>
</tr>
<tr>
<td>3</td>
<td>Moderate risk of assault or homicide</td>
<td>Has frequent homicidal ideation and urges to kill but no specific plan; history of impulsive acting out and verbal outbursts while drinking, on other drugs, or otherwise; stormy relationship with significant others with periodic high-tension arguments</td>
</tr>
<tr>
<td>4</td>
<td>High risk of homicide</td>
<td>Has homicidal plan; obtainable means; history of substance abuse; frequent acting out against others, but no homicide attempts; stormy relationships and much verbal fighting with significant others, with occasional assaults</td>
</tr>
<tr>
<td>5</td>
<td>Very high risk of homicide</td>
<td>Has current high-lethal plan; available means; history of homicide attempts or impulsive acting out, plus feels a strong urge to control and “get even” with a significant other; history of serious substance abuse; also with possible high-lethal suicide risk</td>
</tr>
</tbody>
</table>
STAMP Acronym For Assessment Of Imminent Aggression

- Five interconnected components
  - Staring and eye contact
  - Tone and volume of voice
  - Anxiety
  - Mumbling
  - Pacing

<table>
<thead>
<tr>
<th>Past history</th>
<th>Present circumstances and mental state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior violence</td>
<td>Male under 40</td>
</tr>
<tr>
<td>Prior arrest</td>
<td>Noncompliance with treatment</td>
</tr>
<tr>
<td>Young age at time of first arrest</td>
<td>Access to weapons</td>
</tr>
<tr>
<td>Drug and/or alcohol abuse</td>
<td>Role of significant other and/or caretaker (either provocative or not protective)</td>
</tr>
<tr>
<td>Cruelty to animals and people</td>
<td>Sees self as victim</td>
</tr>
<tr>
<td>Fire setting</td>
<td>Lack of compassion/empathy</td>
</tr>
<tr>
<td>Risk taking</td>
<td>Intention to harm</td>
</tr>
<tr>
<td>Behavior suggesting loss of control or impulsivity</td>
<td>Lack of concern over consequences of violent acts</td>
</tr>
</tbody>
</table>
Many Of These Factors are Weighed In Standardized Instruments

HCR-20

- Historical items
  1. Previous violence
  2. Young age at first violent incident
  3. Relationship instability
  4. Employment problems
  5. Substance use problems
  6. Major mental illness
  7. Psychopathy
  8. Early maladjustment
  9. Personality disorder
  10. Prior supervision failure

• Of note, many students may not have an extensive enough history or be old enough to result in meeting factors

• Also medical/legal marijuana may affect historic studies, or way people access risk factors(?)

Of note HCR-20 looks at problems resulting from using not just use
General Or Suggested Warning Signs For School Violence?

• Impulsive
• Obsessive nature
• Low frustration tolerance
• Inability to tolerate criticism
• Project blame on others
• Repetitive anti-social acts
• Reckless driving
• Bullied/picked on

• Egocentricity and entitlement
• Superficial relationships/few friends
• Quiet/socially awkward (? conflicting findings)
• Poor grades or drop in grades (conflicting findings)
• Financial difficulty (more of a college concern?)
• Recently asked to leave school or withdrawn but still in housing
Unfortunately, School-Specific Signs Are Not Specific Enough

Per both the National Research Council study and the U.S. Federal Bureau of Investigation's (FBI) National Center for the Analysis of Violent Crime: there is no accurate way to develop a profile of a school shooter and no checklist of danger signs pointing to the next perpetrator of lethal violence in an educational environment. Further, the potential predictive factors are so common that it would be impossible to avoid over-prediction by simply considering warning signs.

For Example

- A study by Kenrick and Sheets found 73% of males undergraduates and 66% of female undergraduates reported having at least one homicidal fantasy in their lifetime.

- This is why asking follow-up questions and clinical judgment is important.

Schizophrenia & Violence

• Positive symptoms ↑ violence
• Negative symptoms ↓ violence
• Serious violence
  – Persecution/suspiciousness
  – Grandiosity
  – Hallucinations

Swanson et al. A national study of violent behavior in persons with schizophrenia, Arch Gen Psychiatry 63:490-99, 2006
Symptom Of Mental Disorder: Command Hallucinations

“The weight of the evidence is that some individuals who hear commands will act on them. However, some studies show no link or only a weak link.”

- Suicide ~50%
- Homicide ~5%
- Injury to self or others ~10%
- Non-violent acts ~15%
- Unspecified ~15%

Substance Risk: Mental Illness(?)

• In the United States, 34% of violent acts are directly attributed to substance use.

• **Urine tests were positive for illicit drugs in 37% to 59% of males arrested for violent crimes.**

• Among Finnish males, 40% of the risk for homicide was attributable to alcoholism.

• **Some studies claiming 90% of gun violence perpetrators have a mental illness (may include suicide) or is it “just substances and antisocial”**

Gun-Specific Mental Illness And Violence towards others

• Substance use is one of the most common mental illnesses associated with gun violence.

• Casiano et al. The mental illness actually most likely to result in increased threatening behavior with a gun:
  - Bipolar Disorder type I (AOR 8.46; 95% CI 4.01–17.88)
  - Drug dependence (AOR 5.59; 95% CI 3.53–8.85)

Seminole Study in South California Regarding Adverse Childhood Experiences (ACE)

Persons who had experienced four or more categories of childhood exposure (~6%) had a:

– 4-to 12-fold increased risks for:
  • alcoholism
  • drug abuse
  • depression
  • suicide attempt

ACE Update (Larger National Sample)

- No ACEs were reported by 40.6% of respondents
- 1-3 by 44.1%
- 4-6 by 12.7% four to six ACEs
- 7-9 by 2.6% seven to nine ACEs

Violence On Campus

• Texas Bell Tower 1966 (50th anniversary recently passed)
• Montreal's Dawson College in 2006 (not just USA issue)
• Virginia Tech in 2007
• University of Iowa in 2008 (6 dead)
• Knife attack Texas CC
• UCF potential attack 2012

Why Schools

• Common required experience for many
• Age of individuals who attend
  – More likely to be impulsive
  – Age where mental illness often first presents
• Great impact on community
  – Community identity
  – Community pride
  – Will be noticed
• Location where people first encounter rejection or failure

High Profile Acts Of Violence At Schools

• Rare (yes are more common today, but rate same per capita)
  – Seven times more likely to be victim off campus than on campus

• However, disproportionate/more media coverage for on-campus events

Complicating Factors To Campus Violence

• Fear
• Contagion
• Mass media
• Social media
• Open nature of campuses
• Protection of rights of those involved

• Protection of rights of uninvolved students, especially with mental illness

Mental Health Survey In 2013 Based On Healthy Minds Data (College Based)

- 14,175 students completed the survey, (44% participation rate)
- Positive screens
  - 17.3% for depression
  - 4.1% for panic disorder
  - 7.0% for generalized anxiety
  - 6.3% for suicidal ideation
  - 15.3% for nonsuicidal self-injury

Guns Are Not The Only Weapon Of Mass Violence In Schools

• 2010 - rash of knife attacks at schools in China (~5 attacks)
• 68 children killed (?), more wounded
• Government action
  – Registration to buy knife
  – Trained school personnel
  – Executed first attacker

• 2012 - another attack ~20 children stabbed

• 2014 – Large-scale terroristic knife attack at train station. 10 attackers killed 29 and injured 130

http://www.cnn.com/2010/WORLD/asiapcf/05/02/china.attacks/index.html
Now Is The Time (?) (January 2013)

The President’s plan includes:

• Closing background check loopholes to keep guns out of dangerous hands
  – Encourage doctors to report to law enforcement
  – Expanding databases
  – Clarify HIPAA (Concerns on privacy)

• “Banning military-style assault weapons and high-capacity magazines, and taking other common-sense steps to reduce gun violence”

• Making schools safer

• Increasing access to mental health services (ACA already passed by this time)

http://www.whitehouse.gov/sites/default/files/docs/wh_now_is_the_time_full.pdf
Now Is The Time: Increasing Access To Mental Health Services

- Provide “Mental Health First Aid” training for teachers
- Make sure students with signs of mental illness get referred to treatment
- Support individuals of ages 16 to 25 at high risk for mental illness
- Help schools address pervasive violence
- Train more than 5,000 additional mental health professionals to serve students and young adults
Potential Concern

“The fear they engender can often drive radical policy change, in some cases leading to the implementation of bad policy”

https://www.washingtonpost.com/blogs/compost/wp/2013/03/05/pop-tart-gun-suspension-seriously-folks/?noredirect=on&utm_term=.b883c536ab23
What Universities Are Doing

• 80% now have some sort of threat assessment team

• 90% have emergency response plans in place and many have lockdown plans

Types of Threats Assessment Teams Are Usually Involved In

• Clearly-identified target (think Tarasoff)

• Random large-scale violence (think Colombine High School)

• Cyber threats (think Facebook post)
  – “I dreamed I killed everyone and my dreams have a tendency to come true”

• Usually Not looking at
  – random violence (e.g. locker room)
  – mob events (e.g. winning championship)
  – general crime
Teams Usually Consist Of

- Campus police/resource officer
- Student life professionals
- Administrators
- Mental health professionals

- Team’s purpose is to
  - determine level of risk
  - manage/mitigate strategies

Virginia Threat Assessment Model

• Identifying threats including communications that emerge from interactions with any members of the community

• Evaluating the seriousness of the threat on a continuum
  • Figure of speech or jokes
  • Concerning physical behavior (attention-seeking and/or thrill at causing a disruption)
  • Specific warning of impending violence

Virginia Threat Assessment Model

• Intervention including warning potential victims and taking protective action

• Follow-up monitoring of the safety plan

Questions

SCHOOL VIOLENCE

ariesgdim 2012©