aggressive patients

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This PDF is a supplement to the podcast "Psychiatry & Psychotherapy" found on iTunes, Google Play, Stitcher, Overcast, PlayerFM, PodBean, TuneIn, Podtail, Blubrry, Podfanatic



There are no conflicts of interest for this episode.

On this week's episode of the podcast, I interview Dr. Michael Cummings. Dr. Cummings works at a state psychiatric hospital for the criminally insane, so he has extensive experience in treating patients for aggression and violence.

The different types of aggression

The words "aggression" and "violence" are sometimes used synonymously, but in reality, aggression can be physical or non-physical, and directed either against others or oneself. Violence is more of a use of force with an intent to inflict damage.

One study looked at the principle types of aggression and violence that occur in psychiatric patients, and broke it down into three categories:

- Impulsive violence (the most common category)
- Predatory violence (purposeful and planned violence)
- Psychotically-driven violence (least common)

Within 5 state hospitals, 88 chronically or persistently violent patients with 839 assaults, the rate of impulsive violence was 54%, and predatory violence was 29%. Psychotically driven patients logged 17% of total violence (Meyers, M. Cummings et al., 2013). Studies show psychotically driven violence decreases the longer the patients are in care and medicated.

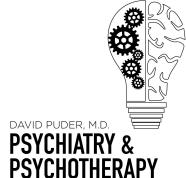
Predatory Violence

Predatory violence is what people typically think of when they think of psychopathy, or someone with antisocial personality disorder. It is violence with a purpose, and that purpose is usually to gain something. They typically show a lack of fear and very little

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autonomic arousal even when they are being violent. The amygdala and the temporal lobe is underactive and the communication between them has a weak signal. People with predatory violence also have lower affective empathy.



Some of the early research done by Adrian Reign measured blood pressure, galvanic skin response and heart rate when showing neutral, frightening or peaceful pictures to children. Of those who lacked effective response or autonomic response to those pictures, 75% percent of those individuals became violent criminals by age 18. Interestingly, 25% of them became prosocial and entered jobs as police officers, bomb disposal experts, and so forth.

True psychopaths are a very tiny part of the population. About 2% of women score significantly on the psychopathy checklist. About 2-4% of men have elevated scores on the psychopathy checklist. Not all of those individuals, however, are violent, and many persons who are psychopathic are more interested in profit. Some become the crime bosses (not actually doing the violence themselves) and others end up in politics.

Impulsive violence

Impulsive violence or aggression is actually the most common, and in many ways the most complex, form of violence that occurs in a variety of mental illnesses, including:

- psychosis
- mood disorders
- personality disorders
- anxiety disorders
- PTSD

It is essentially an imbalance in impulse generation and a failure of the prefrontal cortex to evaluate the impulse and weigh the consequences. All of us generate a variety of impulses, some good and some bad, including impulses driven by our irritability and anger.

In predatory aggression there is increased medial prefrontal cortex activity whereas in reactive aggression there is decreased activity.

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What can cause impulsive violence to be an issue:

- Traumatic brain injury
- Some of the dementias including frontotemporal dementias
- Anoxic brain injury
- Intellectual disability
- Personality disorders
- Drugs
- Drug detox



Psychotic aggression

Psychotically driven aggression is most often a result of delusional ideation or the belief the person holds that they are in some way being persecuted and being taken advantage of. Psychotic or mentally ill people do have an increased rate of violence compared to the general population. The mentally ill are responsible for around 5% violent crimes, meaning non mentally ill people are responsible for 95%.

Psychotic Delusions leading to violence

Ones study looking specifically at the first episodes of psychosis found that in about 458 patients, anger was associated with certain types of delusions that led to the violence (Coid. 2013).

The underpinnings of delusion-driven violence usually stems from when people have delusional beliefs that are persecutory in nature. When they believe that someone is out to get them, it removes inhibitions against acting out violently, because that person's view is they are protecting themselves. Typically, this violence comes from the belief they are being spied on or persecuted.

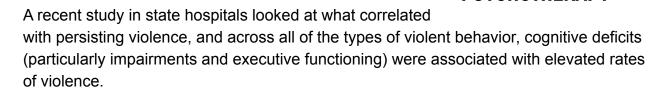
Persecutory delusions associated with a command hallucination is a particularly potent precursor to violent behavior. If your delusion tells you your neighbor is the devil, and your command auditory hallucination is that God is telling you to "kill him and save the world from destruction" it can lead to a very bad outcome.

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IQ and aggression

There is also an association between the IQ and aggression (Huesmann, 1987).



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Men are more violent than women

Men are likely more violent than women because they have historically been the hunters, which involves violence. Women were gatherers more often than not, and consequently, men have a standing evolutionary tendency toward more frequent use of violence. Women can be violent, but if you look at the rates of violence between men and women, men are clearly more violent.

The purpose of aggression

You could say the healthiest outcome for our aggressive and violent impulses is when we use our innate ability to be aggressive to engage in things like a healthy competition. Or even to provide motivation and drive to achieve.

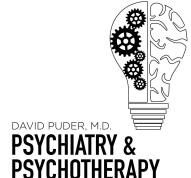
In the beginning, humanity formed tribes, and aggression allowed someone to climb up the dominance hierarchy within the tribe. It also allowed them to protect themselves from other tribes. It was basic for survival.

If we look at animal psychology, there is a lot we can learn about the aggression and dominance hierarchy, like how apes interact with each other, or form alliances. As a way of creating alliances, often an alpha ape will groom other males. The violence comes out when the clans come against each other. When one ape is wandering from its clan, two apes from another clan may attack one single ape viciously.

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In other circumstances, if a dominant ape is taken away from his clan for a couple of days and brought back into the clan, a couple of other apes may have formed a new alliance against the prior leader and attack him.



As human beings, we are also like this. Many of our social interactions and group structures have the same kinds of alliances and effects of absence can play out similarly. Of course as humans, we do have higher verbal centers, and philosophy or spirituality, that allows an individual to be less violent and to transcend their base instincts.

Aggression and autism

People with intellectual challenges most often exhibit impulsive violence, particularly those on the autistic spectrum. The person may have a greater difficulty processing or understanding their own emotions if there are significant intellectual deficits. They may also have elements of not being able to judge a response or to moderate a response. The general pathophysiology of the autistic spectrum disorder suggests that the connections between neurons and the autistic brain is not what it should be, and they are not differentiated so that information processing can be fragmented.

Treatment of aggression

Psychotic aggression treatment

Treating with an antipsychotic medication is helpful and decreases violent episodes. In one study, clozapine helped psychotic aggressive patients with executive dysfunction more, compared to using haldol or olanzapine (<u>Krakowski, 2011</u>).

Psychopathic aggression treatment

A predatory-violent individual needs to be contained in prison if there is a demonstrated past of persistent violence.

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There is evidence that by enhancing intellectual empathy, psychopaths will be less violent. There is also interesting research that by giving oxytocin, the hormone that increases affiliation and collaboration, may have a moderating effect on some psychopathic individuals.



However, in terms of psychopharmacology, we don't have any specific medications to control that behavior. Some medications, such as clozapine, can affect the underlying issues behind psychotic behavior and thereby reduce it, but there is no direct treatment for psychopathic violence pharmacologically.

Impulsive aggression treatment

Dr. Cummings discussed the use of Mood stabilizers helping in persons with borderline personality disorder, SSRIs and trazodone helping in dementing illness in the elderly and alpha 2 agonists in people with things like autism or TBI. Alpha 2 agonists (clonidine) can fool the brain stem into thinking enough norepinephrine has been released, then less norepinephrine is secreted, making the brain stem calm down.

Essentially, in an emotional disorder, if you change the affective (limbic) tone, you can decrease the likelihood of emotionally reactive aggression, for example, by using mood stabilizers lithium and divalproex.

Using an antipsychotic, and not just a mood stabilizer, doesn't show any benefit for traumatic brain injury patients. Antipsychotics have been used for people with autism spectrum disorder, and some evidence shows that drugs like risperidone can be helpful to control outburst issues. If there is evidence of sexual aggression (or aggression occurring at women after puberty), using an GnRH agonist—antiandrogen treatment—can sometimes be necessary).

Psychotherapy for aggression

There have been a number of anger management therapies that have been used over time. Therapists can help people be aware of their anger and manage their impulses, or push their anger and aggression toward a more prosocial response.

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For people with borderline personality disorder, dialectical behavioral therapy, mentalization based therapy or transference therapy are important. For schizophrenic patients, a good therapeutic alliance is important to create medication compliance. I have touched on how to process anger in my microexpression series and will have future



episodes focusing more on the psychotherapy approaches to anger.

Overall in therapy, we must assume that our patients will lie to us sometimes because they are afraid, and double check to insure they are following our prescribed protocol. We must also work hard to build trust and a therapeutic alliance.

Final Thoughts

Violence and aggression deserve much more attention as a specialty than we have given it in the past. It is a major burden for family members and friends.

Please <u>submit any questions you have</u> and we will submit them to Dr. Cummings and to answer.

(In the podcast details about specific medications are discussed for psychiatrists who are interested in advanced psychopharmacology.)

Further reading:

Link to Ideal blood levels are found in Resource Library

"California State Hospital Violence Assessment and Treatment (Cal-VAT) guidelines"