Aggression

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Branches of Science

- Psychology & psychiatry
- Medicine
- Ethology
- Sociology

Definition (Merriam-Webster)

- A forceful action or procedure (as an unprovoked attack) especially when intended to dominate or master
- The practice of making attacks or encroachments; *especially*: unprovoked violation by one country of the territorial integrity of another
- Hostile, injurious, or destructive behavior or outlook especially when caused by frustration

- Origin: Latin *aggression-, aggressio* attack, from *aggredi* to attack, from *ad-* + *gradi* to step, go

Synonyms (Merriam-Webster)

- Belligerence
- Aggressiveness
- Assaultiveness
- Bellicosity
- Belligerency
- Combativeness
- Contentiousness
- Defiance
- Disputatiousness
- Feistiness
- Fight
- Militance
- Militancy
- Militantness
- Pugnacity
- Quarrelsomeness
- Scrappiness
- Truculence

Definition

- Aggression: Behavior produced to cause physical harm or humiliation to another person who wishes to avoid it (Baron & Richardson, 1994).
- Aggression: Behavior intended to increase one's own dominance and, thus, reproductive success.

- Violence: The intentional use of **physical** force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation (WHO, 2002).

- Crime: intentional violation of criminal law.

- Hostility: A loosely defined term and can refer to aggression, irritability, suspicion, uncooperativeness, or jealousy.

Types of Aggression

- Persistent aggression implies serious aggressive behaviors occurring more than once per week on a regular basis.
- Episodic aggression implies periods with aggressive behavior dispersed between periods where no aggression in identified.
- Occasional aggression indicates a person who becomes hostile very few weeks to months.

Types of Aggression

Type	Frequency	Probable benefit from medication	Probable benefit from behavioral intervention	Likely etiology
Persistent	Weekly	High	High	Psychiatric & medical
Episodic	Every few months to every few weeks	Variable	High	Multiple
Occasional	Every few months or less	Low	High	Environmental

Aggression as Psychiatric Emergency

- Psychiatric emergencies can be divided into:
  - Impulsive behavior
  - Aggressive behavior
  - Assaultive behavior

❖ Assaultive behavior: The patient is physically attacking the staff or family through intentional behavior.

- Assaultiveness requires *immediate interventions* to safeguard patient and staff. *Pharmacological interventions* may be used as the first line of treatment when the patient's hostility threatens serious harm.

Aggression as Psychiatric Emergency

Type	Target of behavior	Form	Risk level
Impulsive	People. Objects	Physical / verbal / sexual	Variable
Aggressive	people., objects	Physical / verbal / sexual	Variable
Assaultive	People	Physical / sexual	High

Aggression as an Instinctive Behavior

- In his early writings, Sigmund Freud held that **all human behavior stems either directly or indirectly from Eros "the life instinct" whose energy, or libido, is directed toward the enhancement or reproduction of life**. In this framework, aggression was viewed simply as a reaction to the blocking or thwarting of libidinal impulses and was neither an automatic nor an inevitable part of life.
- After the tragic events of World War I, Freud gradually came to adopt a gloomier position about the nature of human aggression. He proposed the existence of a second major instinct **Thanatos "the death force"** whose energy is directed toward the destruction or termination of life. According to Freud, **all human behavior stems from the complex interplay of Thanatos and Eros and the constant tension between them**.
- Because the death instinct, if unrestrained, soon results in self-destruction, Freud hypothesized that through mechanisms, such as displacement, the energy of Thanatos is redirected outward and serves as the basis for aggression against others. Thus, in Freud's latter view, **aggression stems primarily from the redirection of the self-destructive death instinct away from the self and toward others**.

Lorenz's View

- According to Konrad Lorenz, aggression that causes physical harm to others springs from a fighting instinct that humans share with other organisms.
- The energy associated with this instinct is produced spontaneously in organisms at a more or less constant rate.
- The probability of aggression increases as a function of the amount of stored energy and the presence and strength of aggression-releasing stimuli.
- Aggression is inevitable, and, at times, spontaneous eruptions occur.

- **Aggressionism**: The only real cause of war is human aggressiveness

Frustration-Aggression-Displacement Model

- To explain why people scapegoat.
- By John Dollard and colleagues
- Frustration causes aggression, but when the source of the frustration cannot be challenged, the aggression gets displaced onto an innocent target.
- Frustration is the "condition which exists when a goal-response suffers interference," while aggression is defined as "an act whose goal-response is injury to an organism (or organism surrogate)."
- However, aggression is not always the response to frustration. Rather a substitute response is displayed when aggressive response is not the strongest on the hierarchy.
- There is little empirical support for it, even though researchers have studied it for more than sixty years.
- This theory suggests frustrated, prejudiced individuals should act more aggressively towards out-groups they are prejudiced against, but studies have shown that they are more aggressive towards everyone.
- The theory also has limitation, for example it cannot say why some out-groups are chosen to be scapegoats and why others are not.

Learning Behavior

- From another perspective, aggression is primarily a learned form of social behavior, one that is acquired and maintained in much the same manner as other forms of activity.
- According to Albert Bandura, neither innate urges toward violence nor aggressive drives aroused by frustration are the roots of human aggression. Rather, persons acquire aggression, much like other forms of social behavior, through either personal experience or by observation of others.
- These learned behaviors vary between cultures, depending on experience.
- At the same time, people also learn through experience which persons or groups, behaviors, and situation warrant aggression.

Genetics

Gene	Functionality	Types of antisocial behaviors
Dopamine transporter gene	Codes for the production of a transporter protein that is implicated in the reuptake of dopamine	Crime, delinquency, violence
Dopamine receptor genes	Involved in the detection of dopamine at the postsynaptic neuron	Alcoholism, crime, delinquency, drug use, gambling
Serotonin transporter gene	Codes for the production of a transporter protein that is implicated in the reuptake of serotonin	ADHD, aggression, conduct disorder, nicotine dependence, violence
Catechol-O-methyltransferase gene	Codes for the production of the COMT enzyme, which is partially responsible for breaking down neurotransmitters	Aggression, violence
Monoamine oxidase A gene	Codes for the production of the MAOA enzyme, which is partially responsible for metabolizing neurotransmitters	Aggression, conduct disorder, violence

Neurotransmitters

- Cholinergic and catecholaminergic mechanisms seem to be involved in the induction and enhancement of predatory aggression.
- Serotonergic systems and GABA seem to inhibit such behavior.

✓ The catecholaminergic and serotonergic systems evidently modulate affective aggression.

- Dopamine seems to facilitate aggression.
- Norepinephrine and serotonin appear to inhibit it.

Sex

- For aggression classified as homicide, battery, assault with a weapon, or rape, the frequency among males clearly exceeds that among females.
- In domestic violence, when one marital partner acts to hurt another, the frequency among men and women is about equal.
- Studies of persons who are hospitalized in psychiatric facilities for long periods indicate that the prevalence of male and female aggression is about equal.

Media & Violence

- Media may influence behavior through modeling, disinhibition, desensitization, the arousal of aggressive feelings, and the encouragement of risk taking.
- Exposure to violent material reportedly increases violent fantasies, especially in men; youth are very vulnerable to such exposure.
- Whereas young children may persist in acting aggressively despite a victim's pain and young abused children seem to have special difficulties empathizing, older children and adults are usually more inhibited by the victim's suffering.
- An extensive review of violence and television reported a concomitant rise in violence and in television viewing in the United States and noted that American children spend more time watching television than they spend in school.
- The influence of television violence on societal violence is reportedly less in countries in which societies are more “rigid” (e.g., Japan, Singapore).

Media & Violence

- ✓ Observational learning: Viewers acquire new means of harming others not previously present in their behavior repertoires.
- ✓ Disinhibition: Viewers' restraints or inhibitions against performing aggressive actions are weakened as a result of observing others engaging in such behavior.
- ✓ Desensitization: Viewers' emotional responsivity to aggressive actions and their consequences -signs of suffering on the part of victims- is reduced. As a result, they show little, if any, emotional arousal in response to such stimuli.

Media & Violence

- It has a short-term stimulating effect on aggressive behaviors in all ages.
- It portrays the world as a more hostile place than it is.
- It justifies violence (e.g., 40 percent of violent television acts are performed by heroes).
- It cues aggressive ideas in children.

Sexual Arousal

- The effects of sexual arousal on aggression depend strongly on the erotic materials used to induce such reactions and on the precise nature of the reactions themselves.
- When the erotica viewed are mild, such as photos of attractive nudes, aggression is reduced. When they are explicit, such as films of couples engaged in various sex acts, aggression is enhanced.

Pain

- Physical pain may arouse an aggressive drive - the motive to harm or injure others.
- This drive, in turn, may find expression against any available target, including those not in any way responsible for the aggressor's discomfort.
- This hypothesis may partly explain why persons exposed to aggression act aggressively toward others.

Physical Arousal

- Heightened arousal stemming from such diverse sources as participation in competitive activities, vigorous exercise, and exposure to provocative films enhances overt aggression.

Crowding

- Some studies indicate that overcrowding may produce elevated levels of aggression, but other investigations have failed to obtain evidence of such a link.
- Crowding may enhance the likelihood of aggressive outbursts when typical reactions are negative (e.g., annoyance, irritation, and frustration).
- The crowding of airline passengers in coach class has been suggested as contributing to violent incidents among passengers.

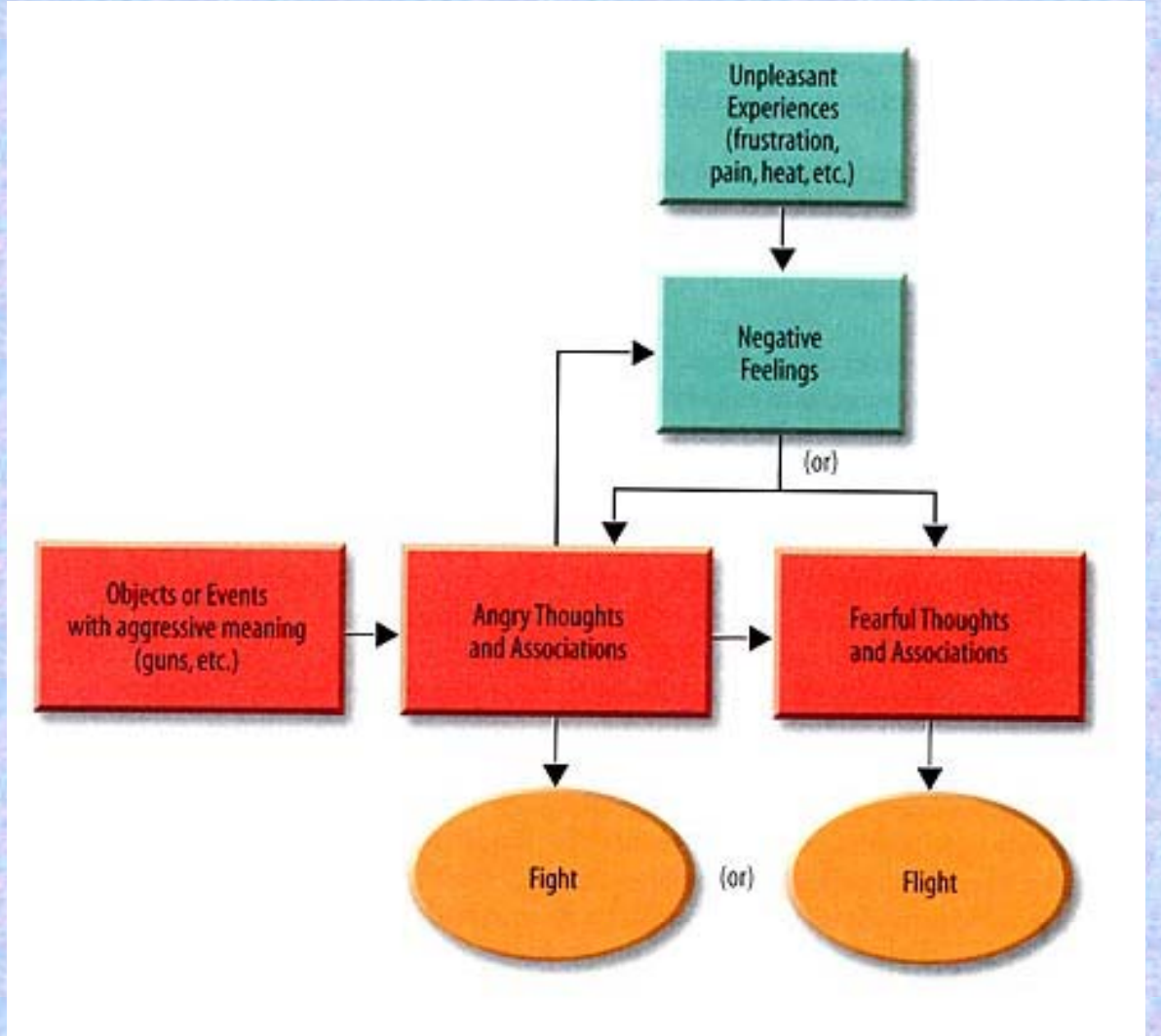
Noise

- Several studies have reported that persons exposed to loud, irritating noise direct stronger assaults against others than those not exposed to such environmental conditions.

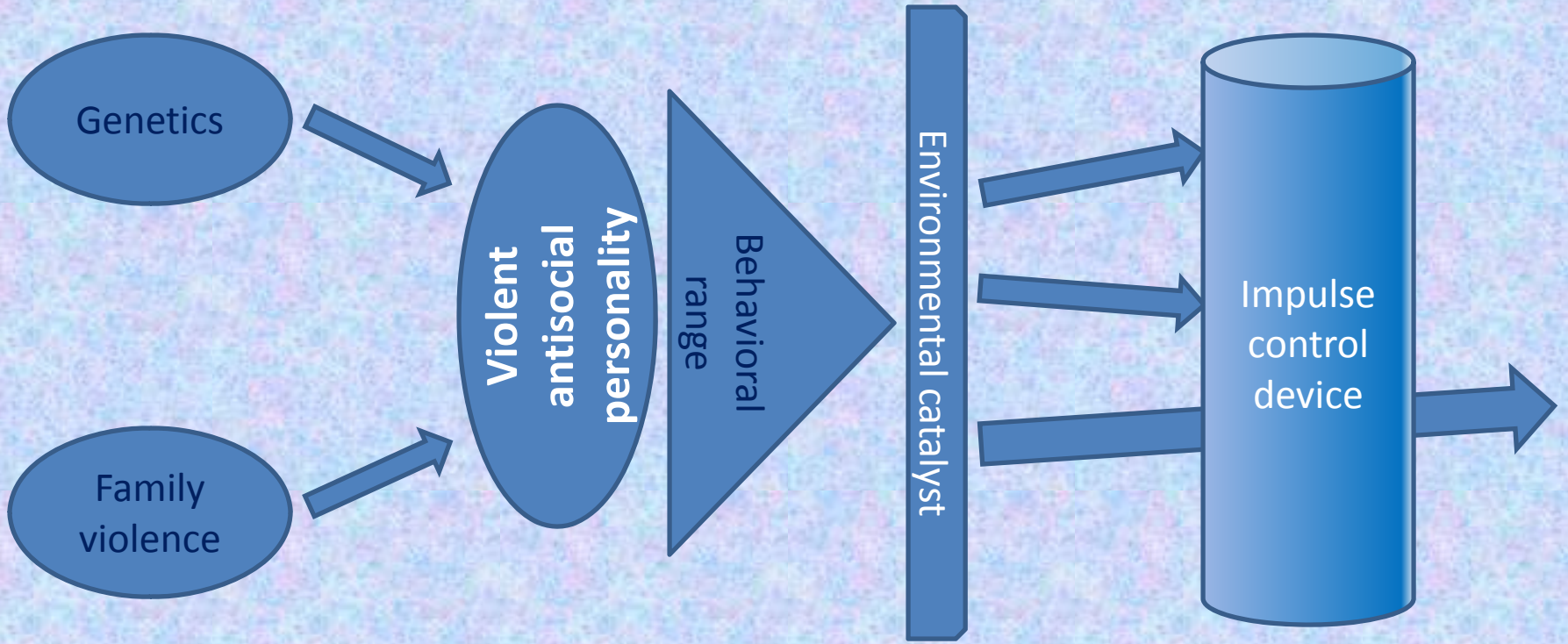
Air Pollution

- Exposure to noxious odors, such as those produced by chemical plants and other industries, may increase personal irritability and, therefore, aggression, although this effect appears to be true only up to a point.
- If the odors in question are truly foul, aggression appears to decrease perhaps because escaping from the unpleasant environment becomes a dominant goal for those involved.

Fight and Flight



Putative Model of Aggression



Predictors of Dangerousness to Others

High degree of intent to harm
Presence of a victim
Frequent and open threats
Concrete plan
Access to instruments of violence
History of loss of control
Chronic anger, hostility, or resentment
Enjoyment in watching or inflicting harm
Lack of compassion
Self-view as victim
Resentful of authority
Childhood brutality or deprivation
Decreased warmth and affection in home
Early loss of parent
Fire-setting, bed-wetting, and cruelty to animals
Prior violent acts
Reckless driving

Differential Diagnosis: Psychiatric Causes

- Mental retardation
- Attention-deficit/hyperactivity disorder
- Conduct disorder
- Cognitive disorders
  - Delirium
  - Dementia
- Psychotic disorders
  - Schizophrenia / catatonic schizophrenia
  - delusional disorder
  - Psychotic disorder not otherwise specified
- Mood disorders
  - Mood disorder because of a general medical condition
  - Substance-induced mood disorder
- Impulse control disorder
  - Intermittent explosive disorder
- Dissociative disorder
- Adjustment disorder with disturbance of conduct
- Substance intoxication and withdrawal
  - Alcohol, amphetamine, cocaine, inhalant, PCP intoxication
  - Alcohol withdrawal (delirium tremens)
  - Sedative/hypnotic withdrawal
- Personality disorders
  - Paranoid personality disorder
  - Antisocial personality disorder
  - Borderline personality disorder
  - Narcissistic personality disorder
  - Decompensated obsessive compulsive personality disorder
- Axis V conditions
  - Childhood, adolescent, or adult antisocial behavior
- Social maladjustment without psychiatric disorder
- Uncontrollable violence due to interpersonal stress

Differential Diagnosis: Medical Causes

Cerebral infarction

Cerebral neoplasm

Electrolyte imbalance

Hepatic disease

Hypoglycemia

Hypoxia

Infection

Renal disease

Temporal lobe epilepsy

Vitamin deficiency

Mnemonic for Causes of Abnormal / Agitated Behavior

- **Move Stupid**
- ✓ **M**etabolic: Renal / liver failure; electrolyte abnormalities; abnormal glucose;
- ✓ **O**xygen: Hypoxemia
- ✓ **V**ascular: Stroke, sub-arachnoid bleed or vasculitis
- ✓ **E**ndocrine: Abnormal thyroid hormones; abnormal cortisol
- ✓ **S**eizures: Post-ictal state
- ✓ **T**rauma: Concussion; sub-dural or extra-dural bleed
- ✓ **U**remia: Renal failure
- ✓ **P**sychiatric: Primary psychiatric disorder
- ✓ **I**nfections: Pulmonary, urinary, cellulitis, meningitis, sinusitis, cholecystitis, osteitis
- ✓ **D**rugs: Alcohol withdrawal, recreational, non-adherence to psychiatric treatment

Admission

- ✓ **Voluntary**: the patient agrees to admission for assessment and sedation.
- ✓ **Assisted**: the patient does not agree to admission but a family member is able agree to admission. Forms **MHCA 04** (signed by any family member) and two **MHCA 05** (signed by the admitting doctor and another healthcare worker who need not be a doctor) and **MHCA 07** must be completed at the time of admission.
- ✓ **Involuntary**: the patient does not agree to admission and is sedated for the safety of him/herself and the community. Forms **MHCA 01**, **MHCA 04** (signed by any healthcare professional) and two **MHCA 05** (signed by the admitting doctor and another healthcare worker who need not be a doctor) and **MHCA 07** must be completed at the time of admission. The ward doctor must complete form **MHCA 06** after 72 hours and **MHCA 03** at the time of discharge.
- ✓ **Emergency**: the patient requires immediate specialised psychiatric care and is transferred to Town Hill Hospital after discussion with the psychiatrist on call. Complete forms **MHCA 01, 04, 05** (signed by two healthcare workers)**, 07, 06** and **11**.

- From:

✉ **EDENDALE HOSPITAL**
✉ **DEPARTMENT OF MEDICINE**
✉ **APRIL 2007 PROTOCOL:**
✉ **MANAGEMENT OF AGGRESSIVE AND DISRUPTIVE PATIENTS**

Management of Agitation and Aggression in Psychiatric Emergency Service

- Definition of clinically significant agitation:

✓ Abnormal and excessive verbal or physical aggression
✓ Purposeless motor behaviors
✓ Heightened arousal
✓ Significant disruption of patient's functioning

- Most typical behaviors in clinically significant agitation:

➢ Explosive and/or unpredictable anger
➢ Intimidating behavior, restlessness, pacing, or excessive movement
➢ Physical and/or verbal self-abusiveness
➢ Demeaning or hostile verbal behavior
➢ Uncooperative or demanding behavior or resistance to care
➢ Impulsive or impatient behavior
➢ Low tolerance for pain or frustration

Management of Agitation and Aggression in Psychiatric Emergency Service

- Interventions for agitation should be conceptualized as hierarchal, beginning with the least restrictive and least intrusive interventions and only using the most restrictive interventions when all other treatment approaches have failed.
- The core clinical strategy for managing agitation is the use of interpersonal strategies that emphasize verbal intervention techniques.
- It is important for the clinician to reduce the patient's anxiety and fear by maintaining a humane and respectful disposition.
- A patient who is treated with honesty, dignity, and respect is likely to believe that they will be helped.
- Affect management is central to any effective aggression management technique. It involves:
  - Acknowledging the patient's affect
  - Validating it when appropriate
  - Encouraging the patient to talk about his or her feelings

Management of Agitation and Aggression in Psychiatric Emergency Service

- **Attempting to use logic and rational thought with a patient who is flooded with affect will only lead to a further increase in agitation.**
- An emotionally distraught patient requires an active response from the clinician. Use of active listening techniques, such as paraphrasing to the patient a brief encapsulated form of his or her statements, helps to convey that the clinician understands what the patient is experiencing.
- Offering food or drink may help to facilitate a therapeutic alliance and reduce a patient's agitation.
- Management of aggressive patients may be compromised when they evoke feelings of fear, anger, or rejection and thoughts of retaliation in a clinician. In such instances the clinician should stop the interview and ask another staff member to continue the intervention.

Management of Agitation and Aggression in Psychiatric Emergency Service

- Assaultive patients have a larger body buffer zone and a rule of thumb is to keep two quick steps or at least an arm's distance from the patient.
- Personal space can be visualized as an oval zone extending four to six feet all around.

- If the patient is standing, then the clinician should stand.
- If the patient is sitting, then the clinician should also sit down, preferably at the same level as the patient.
- The clinician should never stand over the patient during the interview.
- If the patient is pacing, then the clinician can model for the patient by walking with the patient but at a much slower pace.

- The clinician should take a posture that makes him or her appear small and thus less threatening. This can be done by assuming the "Thinker" stance (one forearm crosses the chest, and the opposite elbow rests on it with the index finger on the cheek or chin).

- Some patients may not respond or only partially respond to verbal intervention and will require psychotropic medication.

Pharmacological Management of Agitation and Aggression in PES

- In the PES, a high priority is given to the treatment of agitated patients in order to reduce the incidence of patient and staff injuries and to reduce the patient's psychological discomfort.
- Management of agitation and aggression is complex because these nonspecific symptoms can occur in a wide variety of clinical conditions. These may include delirium, dementia, alcohol and drug intoxication or withdrawal, personality disorders, and psychosis secondary to psychotic illnesses.
- At times, patients are so agitated that they are unable to cooperate with a psychiatric or medical evaluation and are incapable of providing any relevant information.
- Pharmacological management may initially serve as the primary therapy or as an adjunct to a verbal intervention.
- The goal of pharmacological intervention is **to calm the patient without sedation** so that he or she can participate in the evaluation and treatment plan.
- Whenever possible, the patient should be given the option of the route of administration as this can facilitate his or her sense of having some measure of control.
- The use of oral liquid or dissolving tablets is the least threatening and coercive pharmacological intervention and allows the patient to have a feeling of control and participation in treatment.

Pharmacological Management of Agitation and Aggression in PES

- First line:
- ✓ Orally disintegrating or liquid risperidone (2mg) + oral lorazepam (2mg) or
- ✓ Orally disintegrating olanzapine (5–10mg)

- If oral medication not appropriate because of the severity of the agitation:
- ✓ IM lorazepam (2mg) for delirium, substance withdrawal, and unknown causes or conditions not associated with psychosis

- For severe agitation secondary to psychosis:
- ✓ First line: IM ziprasidone (20mg) ± IM lorazepam (2mg)
- ✓ Second line: IM haloperidol (5mg) + IM lorazepam (2mg) or IM olanzapine (5–10mg).
- 💣 Lorazepam should not be used in combination with olanzapine because of the risk of cardiorespiratory depression.

Example

- A young man, with acute manic feature and agitation:

✍ Amp Haloperidol 5mg, IM, stat
✍ Amp Biperiden 2.5mg, IM, stat
✍ Repeat Haloperidol injection, if necessary, after 30-60min. No need to repeat Biperiden.
✍ Maximum injections: 4 times a day
✍ Tab Lorazepam 2mg; PO; q6h
✍ Control of vital signs; q4h

✍ Amp Chlorpromazine 25mg, IM, stat

Pharmacological Management of Agitation and Aggression in PES

- Medication may be given every hour, up to three or four doses every 24 hours, though most patients will respond to a single dose of medication.
- The most common side effects with antipsychotic medications are dystonic reactions or akathisia, which can be effectively, treated with IM benztropine (2mg). The most common side effects with benzodiazepines are sedation and ataxia.

- ✓ There are no studies that have addressed the pharmacological management of agitation in children and adolescents in the PES setting.
- ✓ However, in emergency situations, a consensus of PES medical directors responded that risperidone or lorazepam are their preferred medications.

- ✓ There are also no outcome studies of or recommendations for treating the agitated pregnant patient.
- ✓ In the absence of safety data, clinicians should use the minimal amount of medication necessary to reduce agitation and aggression in these two groups of patients.

Medication to Control Agitation: Haloperidol

- Typical antipsychotic, D_2 antagonist
- Amp Haloperidol 1-5mg, IM (IV injection is not confirmed by FDA)
- Repeat every 1 hour, if necessary. Maximum 4 times a day.
- Maximum dose: 60mg
- May cause akathisia, acute dystonia & neuroleptic malignant syndrome
- Tab Haloperidol 0.5mg & 5mg

Medication to Control Agitation: Haloperidol; Management of Akathisia

- Tab Benztropine 0.5-2mg tid
- Amp Benztropine 1-2mg; IV or IM
- Generic: Tab 2mg / Inj 2mg/2ml

- Tab Biperiden 2-6mg; tid
- Amp Biperiden 2mg; IV or IM
- Generic: Tab 2mg / Tab ER 4mg / Inj 5mg/1ml

- Tab Trihexyphenidyl 2-5mg; tid
- Generic: Tab 2mg / Tab 5mg

- Tab Diphenhydramine 25mg; qid
- Amp Diphenhydramine 25mg; IV or IM
- Generic: Tab 25mg / Sol 12.5mg/5ml

- Cap Amantadine 100-200mg; bid
- Generic: Cap 100mg

- Tab Propranolol 20-40mg; tid
- Generic: Tab 10mg / Tab 20mg / Tab 40mg

- Tab Clonidine 0.1mg; tid
- Generic: Tab 0.2mg

- Tab Clonazepam 1mg; bid
- Generic: Tab 1mg / Tab 2mg

- Tab Lorazepam 1mg; tid
- Generic: Tab 1mg / Tab 2mg
- Non-generic: Inj 2mg/1ml / Inj 4mg/1ml

Medication to Control Agitation: Haloperidol; Management of Acute Dystonia

- Tab Benztropine 0.5-2mg tid
- Amp Benztropine 1-2mg; IV or IM
- Generic: Tab 2mg / Inj 2mg/2ml

- Tab Biperiden 2-6mg; tid
- Amp Biperiden 2mg; IV or IM
- Generic: Tab 2mg / Tab ER 4mg / Inj 5mg/1ml

- Tab Trihexyphenidyl 2-5mg; tid
- Generic: Tab 2mg / Tab 5mg

- Tab Diphenhydramine 25mg; qid
- Amp Diphenhydramine 25mg; IV or IM
- Generic: Tab 25mg / Sol 12.5mg/5ml

- Cap Amantadine 100-200mg; bid
- Generic: Cap 100mg

- Tab Clonazepam 1mg; bid
- Generic: Tab 1mg / Tab 2mg

- Tab Lorazepam 1mg; tid
- Generic: Tab 1mg / Tab 2mg
- Non-generic: Inj 2mg/1ml / Inj 4mg/1ml

Management of Agitation and Aggression in Psychiatric Emergency Service

- When both interpersonal and pharmacological interventions fail to reduce agitation and the patient remains uncooperative with treatment efforts, a show of force with five or more staff and/or security guards will frequently encourage the patient to cooperate with treatment. The presence of additional staff supporting the clinician conveys to the patient that his or her aggressive impulses will need to be controlled. A show of force should not be implemented in a way that threatens or humiliates the patient.
- When these interventions fail to reduce a patient's agitation, physical restraints may be used to prevent imminent harm to the patient or staff or to prevent serious disruption of the treatment setting or significant damage to property.
- Once the decision is made to restrain a patient, the restraint process should be implemented immediately and without negotiation but with rigorous attention to the patient's safety.
- **Restraints are contraindicated in the patient with an unstable medical condition including infection, cardiac illness, body temperature instability, metabolic illness, or orthopedic problems.**
- Patients with delirium or dementia may experience a worsening of symptoms secondary to the sensory isolation induced by restraints and seclusion.

Management of Agitation and Aggression in Psychiatric Emergency Service

- In all restraint episodes, documentation should clearly outline the behavior requiring restraint, the interventions that were made to reduce the patient's agitation prior to restraints, and all efforts to remove the patient from restraints.
- While a patient is in restraints, continuous monitoring of the patient should occur to prevent injury:

✓ 15 minute checks of extremities to insure adequate circulation

✓ Adequate hydration

✓ Limb exercise when appropriate

Management of Agitation and Aggression in Psychiatric Emergency Service

- All clinical efforts should focus on removing the patient from restraints as quickly as is clinically possible.
- All clinicians should review and thoroughly understand the restraint guidelines, polices, and procedures of their institution.
- Patients should be evaluated and treated in areas that have adequate space, appropriate lighting and alarm systems, and the ready availability of security officers.
- Interviewing rooms should have multiple exits and a minimum of materials and furniture that could be used as weapons.

Pharmacotherapy

- Affective aggression (hot temper with normal EEG)
- Predatory aggression (hostility and cruelty)
- Organic-like aggression
- Ictal aggression (abnormal EEG)

Affective aggression

- The most common form of aggression occurs when a quick-tempered person is provoked by frustration or threats. This is called affective aggression and is frequent in impulsive-aggressive individuals.
- Biological correlates:
  - Low CSF 5-hydroxyindoleacetic acid (5-HIAA)
  - Altered serotonin neurotransmission

Affective aggression

- Lithium
  - Tab Lithium 300mg; TDS
- Serotonergic antidepressants
  - Cap Fluoxetine 20 mg; Once daily (morning, with breakfast)
- Anticonvulsants
  - Tab Valproate Sodium 200mg; BD
- Atypical Neuroleptics
  - Tab Olanzapine 5mg; HS
- Contraindicated:
  - Benzodiazepines

Predatory aggression

- Predatory aggression or cruelty involves hostile revengefulness and taking pleasure in victimizing others, often with intact impulse control; such predatory aggression is most frequent in individuals who are low in cooperativeness, which is most likely in antisocial and borderline personalities.

Predatory aggression

- Atypical Neuroleptics
  - Tab Olanzapine 5mg; HS
- Lithium
  - Tab Lithium 300mg; TDS
- β-blockers
  - Tab Propranolol 20mg; TDS (with control of blood pressure and pulse rate)
- Contraindicated:
  - Benzodiazepines

Organic-like aggression

- Organic-like impulsivity and aggression are often accompanied by poor social judgment.
- It is distinguished from other impulsive-aggressive syndromes by prominent distractibility, inattention, emotional lability, and high somatic anxiety with panic and cardiorespiratory symptoms, often seen in patients with frontal lobe lesions.

Organic-like aggression

- Imipramine
  - Tab Imipramine 25mg; HS (titer-up)
- Cholinergic agonists
  - Tab Donepezil 5mg; Once daily
- Dopaminergic psychostimulants
  - Tab Methylphenidate 10mg; (Adjusting doses)
- Anticonvulsants
  - Tab Valproate Sodium 200mg; BD
- Contraindicated:
  - ?

Ictal aggression

- Unprovoked aggression can occur in patients with cerebral instability documented by an abnormal electroencephalogram (EEG) (so-called ictal aggression), regardless of any associated personality traits.

Ictal aggression

- Carbamazepine
  - Tab Carbamazepine 200mg; BD
- Phenytoin
  - Cap Phenytoin 100mg; TDS
- Valproate
  - Tab Valproate Sodium 200mg; BD
- Benzodiazepines
  - Tab Lorazepam 1mg; TDS
- Contraindicated:
  - Neuroleptics

Lithium

- Lithium reduces affective display and aggression in normal subjects and impulsive-aggressive individuals.
- lithium should not be given to antisocial persons without aggression and impulsivity; it does not diminish nonaggressive antisocial behaviors (such as lying or stealing).
- It is also poorly tolerated by anxious schizoid individuals.

Anticonvulsants

- ✓ Carbamazepine
- ✓ Valproates
- ✓ Lamotrigine
- ✓ Gabapentin
- ✓ Tiagabine
- ✓ Topiramate
- Anticonvulsant mood stabilizers reduce the intensity and the frequency of unprovoked angry outbursts, improve behavior dyscontrol, and reduce anxiety and suicidal tendency in some patients, regardless of normality of their EEG.
- Note the nonspecific effect of anticonvulsant mood stabilizers, which, in addition to their target symptom domain of impulsivity, also affect other chronic symptom domains and acute manifestations.
- Anticonvulsants are recommended for ictal aggression because of frequent tolerance to anticonvulsive effects of benzodiazepines.
- In some borderline patients, carbamazepine has been considered to be behaviorally toxic, because it seemed to precipitate melancholic depression.

Psychostimulants

- Double-blind trials have shown that dopaminergic psychostimulants, such as methylphenidate, are beneficial in the treatment of inattentive and hyperactive adults who are aggressive, especially when the symptoms have begun in early childhood.

Antidepressants

- Consistent with the postulated serotoninergic mechanisms in impulsive aggression, antidepressants (mostly SSRIs) are beneficial for some chronically impulsive subtypes of personality disorder (e.g., borderline).
- In many cases, SSRIs, in addition to expected improvements in depressed mood and impulsivity, also nonspecifically improve affective lability, rejection sensitivity, impulsiveness, self-mutilation, and psychosis.
- Monoamine oxidase inhibitors (MAOIs), such as tranylcypromine (Parnate), are effective in some cases of hysteroid dysphoria with somatic anxiety, hostility, and destructive impulsivity.
- The organic aggression may respond to imipramine, psychostimulants (e.g., methylphenidate), and some of the novel cholinergic agonists (donepezil or galantamine.

β-blockers

- β-lockers have also been shown to reduce aggression and violence in patients with dementia, brain injury, schizophrenia, mental retardation, and organic brain syndrome.

Neuroleptics

- Low-dose new neuroleptics may be useful in modifying affective or predatory aggression in some cases.
- A variety of neuroleptics, from thioridazine to haloperidol, have been used in doses that are much lower than those for psychoses (full antipsychotic dosages have generally not proven useful).
- The usefulness of new atypical neuroleptics for aggressive behaviors has yet to be established.
- In general, neuroleptics are used with caution and for a short term to avoid potentially irreversible movement side effects.
- Dose adjustment is crucial to maintain compliance, because patients with personality disorder poorly tolerate side effects.

Benzodiazepines

- Benzodiazepines are useful in ictal aggression.
- Benzodiazepines and alcohol have disinhibiting effects on violence, reduce conditioned avoidance behavior (loosen inhibitions), and further impair passive avoidance learning in impulsive antisocial persons.
- The use of benzodiazepines seems appropriate only in nonaggressive, dyssocial behaviors—for example, schizoid personalities.