

Sheppard Pratt & Professional Education

Registration is open on ETHOS for:

Social Work Lecture Series: Do No Harm: Working with Survivors of Sexual Violence

Friday, October 23, 2020, 9:00 am – 12:15 pm, Online Broadcast. Presented by: Mothyna James-Brightful, M.S. & Elisabet Martinez, MSW, LCSW-C, LICSW

Social Work Lecture Series: Clinical Supervision: The Tool for Enhancing the Ethical Practice of Those You Supervise

Friday, November 13, 2020, 9:00 am – 12:15 pm, Online Broadcast. Presented by: Gisele Ferretto, MSW, LCSW-C

REGISTRATION FEES: General Registration: \$40 for one activity, \$70 for both. Fees for employees of Sheppard Pratt and its affiliate agencies are \$20 for one activity, \$30 for both.

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Addressing Agitation in Patients with Dementia

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Learning Objectives

After attending this program, participants will be able to:

1. Identify common causes of agitation.
2. Evaluate medications that are appropriate for the treatment of delirium.
3. Discuss the role of non-pharmacologic interventions in the treatment of agitation in demented elderly patients.

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Review of the problem

- There are many patients with dementia
- A large percentage of people with dementia become patients with agitation
- Agitation is a source of distress and often injury for patients and caregivers
- The sources of agitation are many and there is no easy resolution to the problem in individual cases
- COVID-SARS-2 makes the problem more dangerous and more urgent

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Overview

- Define the problem
- Review common precipitants and causes
- Establish a rational approach to treatment
- Examples of specific medications and behavioral interventions that are in common use
- Vignettes to illustrate treatment approaches
- SARS-CoV-2

Dementia is Common

- Alzheimer's is estimated to account for 60% to 70% of dementia
- An estimated 5.8 million Americans over the age of 65 are living with dementia due to Alzheimer's disease. That number is projected to reach 13.8 million by 2050.
- 110,000 Alzheimer's disease patients in Maryland

Neuropsychiatric Symptoms of Dementia

- Delusions
- Hallucinations
- Agitation or aggression
- Depression or dysphoria
- Anxiety
- Elation or euphoria
- Apathy or indifference
- Disinhibition
- Irritability or lability
- Motor disturbance
- Night-time behavior
- Appetite and eating

Agitation

- (a) Excessive motor activity (examples include: pacing, rocking, gesturing, pointing fingers, restlessness, performing repetitious mannerisms).
- (b) Verbal aggression (e.g. yelling, speaking in an excessively loud voice, using profanity, screaming, shouting).
- (c) Physical aggression (e.g. grabbing, shoving, pushing, resisting, hitting others, kicking objects or people, scratching, biting, throwing objects, hitting self, slamming doors, tearing things, and destroying property).

Treatment Approach

- Patients with dementia
- Agitation typically is the result of a complex interplay of underlying neurodegenerative disease and environmental/interpersonal stressors
- A clinician must account for a broad range of often obscure sources of distress and be prepared to implement creative interventions, honing as closely as possible to evidence based practice.

Common Precipitants of Agitation

- Confusion
- Fear/Anxiety
- Pain
- Irritability
- Akathisia
- Impulsivity
- Depression
- Paranoia

The first hypothesis is that at least three frontal-subcortical circuits (dorsolateral prefrontal circuit, orbitofrontal prefrontal circuit, and circuit involved in motivated behavior) mediate human behavior.

The second hypothetical model posits that cortico-cortical networks, of which five have been frequently cited, mediate emotional as well as cognitive processing. Finally, the third model suggests that the monoaminergic system involving such neurotransmitters as serotonin, norepinephrine, and dopamine along white matter projections from rostral to caudal brain regions mediate complex behavior.

Certainly, modulation of glutamatergic [36], neurotrophic (for example, brain-derived neurotrophic factor) [37], and other neurochemical and neuroendocrine systems has also received attention as related mechanisms of action [38]

Aggression associated with deficits in cholinergic neurotransmission (over and above those seen in AD itself) and with increased D2/D3 receptor availability in the striatum

When the biological evidence is fully considered, it appears that agitation/aggression in AD is associated with cortical dysfunction in anterior cingulate, insula, lateral frontal, and lateral temporal regions, many of which are associated with the anterior salience network thought to direct brain resources toward specific cognitive activities [68].

Medical Interventions

Sources of Distress

- Confusion
- Fear/Anxiety
- Pain
- Irritability
- Akathisia
- Impulsivity
- Depression
- Paranoia

Interventions

- Reduce Medication Burden
- Identify underlying Medical Conditions that might be driving the problematic behaviors
- Identify Medications to address target symptoms

Reduce Medication Burden

Symptoms

- Confusion
- Fear/Anxiety
- Pain
- Irritability
- Akathisia
- Impulsivity
- Depression
- Paranoia

Medications

- First Generation Antihistamines
- Antispasmodics (oxybutynin, etc)
- Anticholinergic Parkinson agents
- Muscle relaxants (carisoprodol, etc.)
- Benzodiazepines
- Non-Benzodiazepine hypnotics
- Tricyclic Antidepressants

Identify Medical Conditions

Symptoms

- Confusion
- Fear/Anxiety
- Pain
- Irritability
- Akathisia
- Impulsivity
- Depression
- Paranoia

Medical Causes -VINDICATE

- Vascular
- Infectious
- Neoplasm
- Degenerative
- Iatrogenic-- Infectious
- Congenital
- Autoimmune
- Traumatic
- Endocrine -- Metabolic

Neuroanatomy of Agitation in Dementia

- There are close to a dozen credible models
- None give us a reliable treatment approach

Neurochemistry of Agitation

Neurotransmitters Implicated

- Dopaminergic
- Noradrenergic
- Serotonergic
- Acetylcholinergic
- Other systems

Medications

- Citalopram, other ssri
- Amantadine, others
- Atypical Antipsychotic agents
- Memantine (NMDA inhibitor)
- Valproic Acid
- Prazosin

Non-Specific Elimination of Behavior



Medications to Address Agitation

- Risperidone
- Quetiapine
- Aripiprazole
- Citalopram
- Sertraline
- Paroxetine, Fluoxetine, Escitalopram

Neuroleptics

- increased mortality and risk of cerebrovascular accidents
- cardiovascular events
- obesity/diabetes
- extrapyramidal motor symptoms
- cognitive worsening
- Infections
- falls

Neuroleptics

- Avoid When Possible.
- Taper and Discontinue As Tolerated
- No One Antipsychotic is Clearly Superior
- Individualized Choices Based on Side Effects
- CATIE-AD: When comparing efficacy across groups, Risperidone and Olanzapine are superior to Quetiapine and Placebo in addressing anger/aggression/paranoid ideation. Olanzapine was associated with worsening function.

Risperidone

- dopamine, serotonin, noradrenaline receptor antagonist
- Strongest evidence for effectiveness: (De Deyn et al., 1999; Brodaty et al., 2003; Durán et al., 2005; Schneider et al., 2006; Suh et al., 2006)
- CATIE-AD: effective for aggression/agitation/paranoid ideation
- Number Needed to Harm- 27, similar to olanzapine and quetiapine (Maust et al., 2015)

Quetiapine

- Dopamine and serotonin receptor antagonist and noradrenaline reuptake inhibitor
- The evidence is much weaker than for Risperidone
- Lewy Body Dementia, Parkinson's dementia, Risperidone failure
- a meta-analysis combining five randomized trials reported a statistically significant effect relative to placebo on neuropsychiatric symptoms and an overall improvement on CGI. (Cheung and Stapelberg, 2011)

Ariprazole

- Dopamine, serotonin receptor partial agonist
- Evidence of efficacy is supported in meta-analysis (Schneider et al., 2006)
- Different mechanism of action makes it an interesting alternative to other antipsychotic medications

Serotonin Re-Uptake Inhibitors

- Depression
- Anxiety
- Apathy: A state of indifference. Blunted emotional response.

Citalopram

- Serotonin re-uptake inhibitor
- Most extensively studied SSRI in this population
- Effective at 30mg/day (Porsteinsson et al., 2014); (Pollock et al., 1997, 2002, 2007)
- Dose limited to 20mg/day in patients over 65yo due to QTc prolongation

Sertraline

- Serotonin re-uptake inhibitor
- Extensively used, less support in the literature.
- Benefits: half life 26hrs, moderate effect on 2D6, well tolerated

Other SSRI

- Paroxetine: side effect profile similar to nortriptyline, anticholinergic
- Fluoxetine: long half life is ill-suited to acute management, effects on 2D6 are problematic in elderly patients on multiple medications
- Escitalopram: dosage limited to the starting dose of 10mg

Medications to Address Agitation

- Risperidone
- Quetiapine
- Aripiprazole
- Citalopram
- Sertraline
- Paroxetine, Fluoxetine, Lexapro

Non-Pharmacologic Interventions

- Non-Pharmacologic Interventions
- Often not part of treatment plan

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Non-Pharmacologic Interventions

- Acupuncture
- Aromatherapy
- Massage Therapy
- Light Therapy
- Sensory Garden
- Singing and dance therapy
- Pet therapy
- Transcutaneous electrical stim
- Exercise
- Music
- Snoezelen


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Music Therapy

- Bypass Language Impairments
- Alternative mode of Communication
- Potential to Hum or Play along

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Music Therapy



- ↓ Depressive symptoms
- ↓ Behavioral Problems
- ↓ Anxiety
- ↑ ?Emotional Well-being, Quality of life

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Music Therapy

- No effect on Agitation or Aggression

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Standardized Non-Pharmacologic Interventions

- Familiarize Environment
- Music
- Physical Activity
- Pet Therapy
- Environmental Interventions for Delirium

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Environmental Interventions for Delirium

- Avoid disrupting patient at night
- Promote night sleep
- Well-lit environment during the day
- Minimize the number of care givers
- Provide frequent reorientation
- Avoid complex repeating patterns in wallpaper and rugs and furniture
- Engagement without over-stimulation
- Exercise
- Regular schedule

Individualized Interventions

Identify Triggers

- Physical
- Environmental
- Psychological
- Psychiatric
- Pain, infection, hunger, thirst
- Noise, Understimulation
- Loneliness, Boredom
- Depression, Anxiety, Paranoia, etc

Eliminate Triggers

- Pain, infection, hunger, thirst
- Noise, Under-stimulation
- Loneliness, Boredom
- Depression, Anxiety, Paranoia, etc
- Analgesics, Abx, Food, Fluids
- Environmental interventions
- Attention
- Psychiatric interventions

Then Go Deeper: Who is this person?

- Cognitive
- Physical function
- Personality, premorbid and current, Interests
- Preferred routines
- Resources within family and community

Adapt Approach to the Person

- Language: Verbal and Non-Verbal
- Tend toward "Yes"
- Simple routines that utilize long-standing habits
- Focus on the person's interests, personalize their environment

Vocal Perseverations

- Typically seen as hopeless
- Often leads to non-specific sedation
- Determining the level of distress is helpful
- Determining awareness of the content of the vocalization is helpful

Vocal Perseveration: Mary V

- 89 year old woman
- Vascular Dementia
- Alzheimer's Disease
- Compression Fractures
- Oxycodone 120mg/day
- Screaming vowels
- Assaulting caregivers
- Refusing medications

Mary V

- Fentanyl 100mcg/hr
- Talking in paragraphs (confused)
- Compliant with medication
- No disruptive vocalizations
- Re-established relationship with daughter

KM

- 86 year old
- Alzheimer's disease
- "Bang-Tree" "Bill-a-Tree" etc
- Assaultive toward staff
- Loud through the day and night
- Sleeps 1-2 hours per night

- Risperidone
- Trazodone
- Neurontin
- Quetiapine
- Valproic Acid

KM

- Perseverations: a failure inhibition within the pre-frontal cortex

- Discontinuation of psychotropics
- Bromocriptine
- Loxapine
- Clozapine
- Sinemet

Physical Aggression

- Common precipitant to hospitalization
- There is no specific treatment

- Confusion
- Anger that is reasonable from patients perspective vs paranoia
- Impulsivity
- Pain
- Akathisia

Miss Mabelle

- 74 year old woman
- Vascular Dementia
- Random outbursts of severe violence toward staff and peers

- Haldol
- Ativan
- Perphenazine
- Thorazine
- Valproic Acid

Miss Mabelle

- Remember to Say Please



Antonio

- Macerated Perineum
- Moderate language deficits
- Oriented to self only

- Generally pleasant
- Extremely violent during toileting/perineal care

Antonio2

- "That's where it hurts"

Motor Restlessness

- Excessive motor restlessness
- Rocking
- Pacing
- Pain
- Akathisia
- Anxiety
- "Agitated Depression"
- "Psychosis"

Anna R

- 85 year old woman
- Advanced Dementia
- Language deteriorated
- Oriented to Self
- Severe restlessness
- Loud vocalizations
- Could not be contained in a bed or a chair
- Sertraline

Summary of Vignettes

<p>Manifestation</p> <ul style="list-style-type: none"> • Pain manifesting in vocalizations • Neurochemical imbalance in pre-frontal cortex • Impulsivity/Poor frustration tolerance addressed • Aggression during care • Restlessness/resistiveness 	<p>Intervention</p> <ul style="list-style-type: none"> • Pain manifesting in vocalizations • Neurochemical imbalance in pre-frontal cortex • Impulsivity/Poor frustration tolerance addressed • Aggression during care • Restlessness/resistiveness
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SARS-CoV-2

<ul style="list-style-type: none"> • Increased urgency of containing patients who may be infected • Increased urgency of containing patients who may become infected • Risk to staff in direct care increases. PPE is ineffective if torn or removed by patient. 	<ul style="list-style-type: none"> • Decreased Visitation • Inability to utilize technology • Social Distancing • Masking/PPE • Isolation
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Discussion/ Questions
