PTSD in the Elderly

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“Lifespan Perspective” on Aging

Modern gerontological theories take a “lifespan perspective” on aging (Coleman, 1986; 1996) that individual reactions to the many challenges of aging differ according to personal life histories.

“The way in which we grow old and experience this process, our health and functional ability all depend not only on our genetic makeup but also on what we have done during our lives; what sort of thing we have encountered in the course of our lifetime, on how and where we have lived our lives” (Heikkinen, WHO Geneva, 1998).
Dual Reality

- Inconceivable experiences
- Incongruent with the here and now
- Continuous foreground/background interplay
Scene from “Because of That War”

Providing Healthcare for the Elderly

- Growing old involves reckoning with the finality of time and of the choices we made
- This view can present a difficulty to the elderly individual, as well as to the healthcare provider’s sense of effectiveness and purpose (Knight, 1998)
PTSD: revision in the DSM-V 2013

- Diagnosis requires exposure to death, threatened death, actual or threatened violence or sexual violence (1 required)
  - Direct exposure
  - Witnessing in person
  - Indirectly, hearing a close relative or friend was exposed in such an event
  - Repeated or extreme indirect exposure to aversive details of the events in the course of professional duties (does not include non-professional exposure through the media)

Criterion B: intrusive symptoms (1 required)

- Recurrent, involuntary and intrusive memories
- Traumatic nightmares
- Dissociative reactions (flashbacks) which can occur on a continuum from conscious episodes to complete loss of consciousness
- Intense or prolonged distress after exposure to traumatic reminders
- Marked physiologic reactivity after exposure to trauma-related stimuli
Criterion C: avoidance

Persistent effortful avoidance of distressing trauma related stimuli after the event (1 required)

• Trauma-related thoughts or feelings
• Trauma-related external reminders (e.g. people, places, conversations, situations).

Criterion D: negative alterations in cognitions and mood (2 required)

• Inability to recall key features of the traumatic event
• Persistent and often distorted negative beliefs and expectations about the world
• Persistent distorted blame of self or others for causing the trauma and its consequences
• Persistent trauma-related emotions
• Markedly diminished interest in significant activities
• Feeling alienated from others (detachments)
• Constricted affect, persistent inability to experience positive emotions.
Criterion E: alterations in arousal

2 required:

• Irritability or aggressive behavior
• Self-destructive or reckless behavior
• Hypervigilance
• Exaggerated startle response
• Problems in concentration
• Sleep disturbance

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• Criterion F: duration, Persistence of symptoms in criteria A, B, C, D, and E for more than one month
• Criterion G: functional significance, significant symptom-related distress or functional impairment (social, occupational)
• Criterion H: exclusion, Disturbance is not due to medication, substance use or other illness.
Specifications

• Specify if: with dissociative symptoms, depersonalization or derealization.
• Specify if: with delayed expression when full diagnosis in not met until at least 6 months after the trauma(s).

American Psychiatric Association, 2013, Diagnostic and Statistical manual of mental disorders, fifth edition, Washington, DC

The Response to Trauma

• Over the last few decades, it has become known that shocking events cause serious damage to physical and mental health.
• There is great individual variability in the response to trauma
• Only 10% of trauma-exposed individuals respond with PTSD
• One third of those recover spontaneously and one third show lasting post-traumatic effects (Kessler et al, 1995)
Course of PTSD

- The course of PTSD over the lifetime can be highly variable
- Accumulation of evidence suggests late onset in old age (Bramsen, 1995; Aarts et al, 1996; Yehuda, 2009; Lapp, Agbokou and Ferreri, 2011)

PTSD Well Described in General Population

- Estimated lifetime prevalence in USA population- 8% (Breslaw, 2009)
- 9%-15% of Vietnam vets exhibited PTSD 15 years later (National Vietnam Veterans Readjustment Study, 1990)
- Gulf War veterans- 12.1% suffering from PTSD
- Operation Enduring Freedom/Operation Iraqi Freedom- 19% of veterans suffering from PTSD or depression (Gradus, 2007), other surveys observed 30%.
- In another study, 24% in WWII vets, Korean War and Vietnam (Rand Report, 2010)
- Higher for Holocaust survivors (Barack, 2005)
- Many others suffer from sub-threshold symptoms (Spiro, Schnurr & Aldwin, 1994; Qureshi et al, 2010)
PTSD in Elderly Scarcely Researched

• No population-based information
• Netherlands: 1% of the population
  13% sub-threshold
• Growing public health issue as the number of persons living into older adulthood drastically increases (US Dep. Of Health and Human Services, 1995)

PTSD Comorbidity

• PTSD strongly comorbid with other disorders (Breslau, 2009)
• Anxiety in older adults is common (Kessler et al, 2005)
• Depression in older adults is not “normal” (Blazer, 2009) and can be treated
• Depression with PTSD is more difficult to treat (Chan, Ming-Yu and Unutzer, 2001)
PTSD is a Significant Issue for Older Adults

Elderly suffering full or sub-syndromal PTSD

Show:

• Greater impairment in functioning
• Less satisfied
• Receive less optimal care (Marshall, Olfson, Helmann, Blanco, Guardino, Struening, 2001)

Sub-Threshold PTSD

• Large sample of community-dwelling, older survivors of WWII, including survivors of bombardments, persecution, resistance and combat who did not meet full criteria for PTSD were suffering long-term negative effects (Bramsen and van der Ploeg, 1999)
• Other studies of various trauma survivors render similar results, even 45, 50, and 60 years after the trauma (Falk et al, 1994; Trappler et al, 2007; Marshall et al, 2001)
Types of PTSD

• Due to a recent trauma in old age
• Chronic course of fluctuations of symptoms
• Delayed onset after years of no symptoms or low symptoms

____________________________________

• Chronic with enduring personality changes
• Chronic complex PTSD with multiple psychiatric disorders

Delayed Onset has been Observed in Elderly Survivors

• Explanations for delayed onset:
  – Decrease of physical and mental resilience- less able to “ward off”
  – Decrease of financial and social resources- less support
  – Interaction of trauma with normative processes of aging
Trauma and Normative Aging

- Ego Integrity versus Despair (Erikson, 1994)
- Life review: reminiscing, making meaning
- Continuity in the sense of self
- Coherence in the sense of self
- Accepting one’s unique path in life
- Awakening of earlier losses
- Longing for lost loved ones

Older Adults at Risk

- Victims of interpersonal violence, domestic abuse, childhood abuse, hate crimes, rape, assault, relatives of homicide victims
- Combat veterans and POWs, immigrants from conflict zones
- Victims of natural disasters and accidents
Risk factors for PTSD

• Severity of trauma
• Perceived support (Smid, van der Velden, Gersons and Kleber, 2012; Tummala-Nara, Dallivayalil, Singer and Andreini, 2012)
• Peri- and post-traumatic factors are very important for outcome prediction
• Prior adjustment, prior history of trauma, family psychopathology also important
  • Brewin et al, 2000; Ozer et al, 2003

Additional Risk Factors

• Female gender
• Lower social support
• Current level of PTSD in spouse
• Adverse events in childhood
• Attachment style
• Cognitive status
Inoculation or Vulnerability

- Inoculation hypothesis
- Vulnerability hypothesis
- Crisis-Resolution hypothesis
  - Hantman and Soloman, 2007
- Cognitive Aging
  - Floyd et al, 2002
- Neurodegenerative decline
  - Ruzich et al, 2005

Recognition of PTSD

- PTSD is often under-diagnosed
- Presents disguised as somatic/medical concerns
- Associated with real medical conditions and medication side effects
- PTSD is highly comorbid with depression and anxiety, which are also underrecognized and undertreated in the elderly (Davidson, 2001)
Assessment of PTSD

- Use mini-mental status exam when indicated
- Routinely include questions about trauma-related experiences and behaviors
- Follow up on physiological and medical complaints with questions about changes in mood and activities
- Use brief measures of PTSD, geriatric depression inventory, and geriatric anxiety inventory (Mehta et al, 2003; Davidson, 2001; Blazer, 2009)
- Use lower cutoff scores to diagnose older adults on the various screening measures
- Assess for suicidality

Treatment Indications

- Treatments of choice for PTSD include CBT, prolonged exposure, psychodynamic psychotherapy, and EMDR.
- Dementia does not need to be a barrier to implementation of Prolonged Exposure for PTSD (Duax, Waldron-Perrine, Rauch and Adams, 2013).
- Trauma-focused treatments: processing of traumatic memories versus supportive treatments
- Supportive treatments develop coping skills for here-and-now stressors
- Assess competence for treatment of choice for PTSD- CBT (modified) (Friedman, 2003). No evidence that older adults cannot benefit from it.
- Assess for cardiac and respiratory problems if prolonged exposure is considered
- Modified delivery of treatments according to cognitive capacity
- Assess need for pharmacologic treatment
- Engage caregivers in psychoeducation and therapy
- Provide resources
  - www.mindingourelders.com
  - www.theconversationproject.com
  - National Center for PTSD Research, www.ptsd.va.gov
PTSD as Risk Factor for Dementia

- The odds for dementia diagnosis for patients with PTSD are two times as high as for those without PTSD
- Regardless of combat-related trauma, comorbid physical disorders and substance abuse
  - Qureshi et al, 2010
PTSD and Dementia

• Mild cognitive decline was associated with delayed onset of PTSD in war veterans (Mitall, 2001; Johnson, 2000) and in Holocaust survivors (Grossman et al., 2004; Dasberg, 1989)
• PTSD worsened cognitive impairments
• Bidirectional pathways: neurodegenerative decline can disinhibit trauma memories
  • Dallan, Mellman et al., 2011

PTSD is Associated with Cognitive Impairments

• Including:
  – Attention
  – Memory
  – Other executive functions (Moore, 2009)
• Altered stress hormones
• Neuro-anatomical changes in brain structure
  (Sutker, Vasterling, Brailey & Allain, 1995; Burns and Zaudig, 2002)
### Presentation of Posttraumatic Symptoms in Old Age

- While trauma can occur at any time in life, its presentation is different in old age due to developmental processes and cohort effects.
- PTSD in the elderly can be disguised by health-related complaints, comorbid health conditions, medication side effects, cognitive impairment.
- Dissociative phenomena are less common in older adults.
- Connection to index trauma might be lost.
Behavioral Problems in the Elderly

- More harmful than symptoms of cognitive decline (Gitlin, Kales and Lyketsos, 2012)
- Repetitive speech
- Wandering
- Sundown restlessness and anxiety
- Sleep disturbances (see video on next slide)
- Belligerence, enactment of trauma memories and flashbacks (Dallan, Melman, Bhatnagar et al, 2011)

http://www.youtube.com/watch?v=9Ak1tgzv_0Q
Small Group Activities

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Word Association

An index card is given to each participant, with a single word on it (e.g., cat, dog, tree, etc.). The patient is asked to tell the person sitting next to him/her the first four words (e.g., a story) that come to his/her mind when he/she sees the word. Each card is passed around the table in a similar manner. The associations are then written on a large sheet of paper and discussed by the group.

Drawings of “Happy” and “Sad” Faces

Each member of the group is asked to draw a “happy” and a “sad” face on a piece of paper. The faces are then displayed on a large sheet of paper and discussed by the group.

[Diagram of happy and sad faces]

Small Group Activities

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Strategies for Therapy with the Elderly

Drawings of “Male” and “Female” Heads

A page with schematic drawings (male head with a beard, female head without a beard) is presented. The participants are asked to draw the names of the heads on the page. They are then asked to discuss the differences and similarities between the two head types.

[Diagram of male and female heads]

A schematic drawing of a whole human figure, without any features, is given to each member of the group (see Figure 6.9). With the instructions, “Please draw a likely figure as you would like to have it. When all members have finished, the figures are shown to each other and the group is asked to discuss their similarities and differences.

[Diagram of a whole human figure]
Nonpharmacologic Approaches

- Non-pharmacologic management recommended because pharmacologic treatments are only modestly effective, have risks and do not treat some of what caregivers find most distressing.
- Behavioral symptoms as expression of unmet need:
  - Attempt to get stimulation
  - Inadvertent reinforcement of wrong behavior
  - Mismatch between the patient and the physical and social environment (Pelletier and Landreville, 2007)

### Table 1. Potential Nonpharmacologic Strategies Targeting Mr P’s Behaviors

<table>
<thead>
<tr>
<th>Targeted Behavior by Presenting Dementia Stage</th>
<th>Select Nonpharmacologic Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild cognitive impairment</td>
<td>Evaluate capacity for taking medications independently.</td>
</tr>
<tr>
<td>Forgetfulness about taking medication</td>
<td>Use assistive aids, calendar to remind of time for medication, checklists, pill dispenser.</td>
</tr>
<tr>
<td>General forgetfulness; disorientation to time</td>
<td>Use memory aids, calendar or white board showing current data.</td>
</tr>
<tr>
<td>Moderate dementia</td>
<td>Simplify daily routines.</td>
</tr>
<tr>
<td>Falling and poor balance</td>
<td>Use a fall alert system if patient can remember to activate.</td>
</tr>
<tr>
<td>Hearing voices or noises (especially at night)</td>
<td>Evaluate hearing and adjust amplification of hearing aids.</td>
</tr>
<tr>
<td>Inability to respond to emergency (difficulty calling for help)</td>
<td>Evaluate quality and severity of auditory disturbances.</td>
</tr>
<tr>
<td>Losing the home; wandering outdoors</td>
<td>If hallucinations are judged to be present, evaluate whether they present an actual threat to safety or function in deciding whether or not to use antipsychotic treatment.</td>
</tr>
<tr>
<td>Memory-related behavior (eg, disorientation or confusion with object recognition)</td>
<td>Educate caregiver about need to supervise patient.</td>
</tr>
</tbody>
</table>

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**Pharmacologic Treatment of PTSD in the Elderly**

- Pharmacologic treatment of PTSD in the elderly not sufficiently studied
- Clinical experience suggests up to 60 mg/day Fluoxetine or 200 mg/day Sertraline for optimal effect
- Trazadone may be effective but can cause sedation
- Mirtazapine/Venlafaxine/Duloxetine might be useful, but not enough studied in geriatric population for this indication
- Only modestly effective and have side effects
- (Jacobson et al, 2007)
Consensus Treatment for Depression in the Elderly
• Dan Blazer, 2003

Table 2. Diagnostic Workup of the Depressed Older Adult

<table>
<thead>
<tr>
<th>Routine</th>
<th>Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening for significant depressive symptoms (using a standardized screening scale such as the CES-D or GDS)⁷</td>
<td>MRI to establish the diagnosis of vascular depression</td>
</tr>
<tr>
<td>Present and past history, including history from a family member—include assessment of nutritional status and functional status and current medications⁵</td>
<td>Vitamin B₁₂ and folate assays when vitamin deficiency is suspected</td>
</tr>
<tr>
<td>Screen for cognitive functioning⁴</td>
<td>Polysomnography if significant sleep abnormalities cannot be explained</td>
</tr>
<tr>
<td>Routine laboratory tests, esp. chemistry screen and electrocardiogram if antidepressants are to be prescribed⁴</td>
<td>T₃ and T₄, TSH to screen for undiagnosed thyroid dysfunction</td>
</tr>
</tbody>
</table>

Notes: CES-D = Center for Epidemiologic Studies Depression Scale; GDS = Geriatric Depression Scale; MRI = magnetic resonance imaging; TSH = thyroid-stimulating hormone.

Consensus Treatment for Depression in the Elderly
• Dan Blazer, 2003

Table 3. Consensus Treatments of Late-Life Depression

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major depression</td>
<td>SSRIs plus psychotherapy. Citalopram (20–30 mg) first choice, followed by sertraline (50–100 mg) and paroxetine (20–30 mg); 1-y continued therapy if treatment successful; ECT if the depression is severe and unresponsive to antidepressant medications</td>
</tr>
<tr>
<td>Unipolar psychotic major depression</td>
<td>SSRIs plus an antipsychotic agent (risperidone and olanzapine); move quickly to ECT if therapy not effective</td>
</tr>
<tr>
<td>Dysthymic disorder</td>
<td>SSRIs plus psychotherapy</td>
</tr>
<tr>
<td>Minor depression</td>
<td>Education plus watchful waiting for depression lasting &lt;2 wk; SSRIs plus psychotherapy if symptoms persist</td>
</tr>
</tbody>
</table>

Note: From Axelopoulos et al. (239). SSRI = selective serotonin reuptake inhibitor; ECT = electroconvulsive therapy.
PTSD at End of Life

• Virtually no research addresses PTSD at the end of life
• Psychiatric symptoms highly prevalent in patients near the end of life
• 25% develop PTSD, often comorbid with depression and anxiety
• Specific strategies of pharmacotherapy according to the expected lifespan of the patient
• Physicians might respond to the patient’s impending death with their own avoidance

(Feldman and Periyakoil, 2006)
### Testimonies of Trauma Survivors

- [http://www.youtube.com/watch?v=sCvQpSpfb0](http://www.youtube.com/watch?v=sCvQpSpfb0)
- [http://www.youtube.com/watch?v=RKUvRZOiqc](http://www.youtube.com/watch?v=RKUvRZOiqc)
- [http://www.youtube.com/watch?v=NHtRr7O9C_A](http://www.youtube.com/watch?v=NHtRr7O9C_A)
- [http://www.youtube.com/watch?v=h9IdSEsECQU](http://www.youtube.com/watch?v=h9IdSEsECQU)
- [http://www.library.yale.edu/testimonies/](http://www.library.yale.edu/testimonies/)