Uncovering the “Silent” Epidemic of Psychological Distress in Critical Care Healthcare Professionals

National Academy of Medicine Collaborative on Clinician Well-being

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Outline and Disclosures

• **Outline:**
  - What is different in the intensive care unit (ICU)
    - Highlight ICU nurses
  - Specific ICU-related consequences on well-being
  - Potential interventions
  - My thoughts on future directions
  - Thanks to Lotte Dyrbye, Patricia McGaffigan, and Pamela Cipriano

• **Disclosures:** The following relationships with commercial interests related to this presentation existed during the past 12 months: None
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Historical Tenets of a Healthcare Profession: Help People

- Committed to the overall public good
- Not focused on financial gains
- Dedicated to patient care above all other considerations

- As a result, expected to enjoy:
  - Autonomy at work
  - Public respect and trust

- Most delighted with their profession
Is our profession out of balance?

“With altruistic intent, healthcare professionals may place professional responsibilities above personal responsibilities. Though admired, this may be self-defeating in the long run.”

“Role models range from academic superstars with impressive research credentials and international acclaim to committed clinician-teachers who are at the hospital seven days a week...their heroes lead lives that are desperately out of balance.”
Changing healthcare paradigm: What happened?

- Less autonomy in work
  - Increase focus on documentation
  - Increase shift work

- Focus on quality measures and cost issues

- Patients are sicker
  - More chronic diseases and critical illness

- Increased patient/family expectations

- Decreased patient trust
  - 1966: 73% Americans has great confidence in medical profession
  - 2012: decreased to 34%

Added stress in academic centers:
- Decreased research funding
- Resident work hour limitations
The ICU is a stressful environment

- High morbidity and mortality
- Ethical dilemmas
  - End of Life issues
- Tension-charged atmosphere
- Experience difficult situations

- Yin/Yang of the ICU
  - Adrenaline rush
  - Takes its toll
Burnout Syndrome (BOS)

- Discrepancy between:
  - Employee expectations and ideals
  - The actual requirements of the position

- Work-related problem
  - Do not start a job with symptoms of burnout
  - Occurs gradually over time

- Best and idealistic employees
  - No prior psych history
  - Ones who care
  - Want to help people
Three Core Components of BOS

1. Emotional Exhaustion
   - Devoting excessive time and effort to a task that is not perceived to be beneficial
   - Continuing to care for a patient who has a poor chance of recovery

2. Depersonalization
   - Put distance between oneself and patients/families
   - Ignore qualities that make people real
   - Negative, callous, cynical, inability to express empathy or grief when a patient dies

3. Reduced personal accomplishment
   - Negatively evaluate the worth of one’s work, feeling insufficient about abilities
“Silent” BOS Epidemic in the ICU

“When burnout was seen as a crisis of wellbeing – affecting healthcare workers personal lives and work satisfaction – it garnered little public sympathy and could be dismissed as the whining of the privileged class”

Epstein and Privieria: Lancet 2016
Critical Care Physicians: Among Highest Burnout Rates

What Percentage of Physicians Are “Burned Out?”

- Emergency Medicine
- Critical Care
- Family Medicine
- Ob/Gyn & Women's Health
- Internal Medicine
- Anesthesiology
- General Surgery
- Neurology
- Urology
- Nephrology
- HIV/Infectious Diseases
- Orthopedics
- Oncology
- Diabetes & Endocrinology
- Pulmonary Medicine
- Cardiology
- Gastroenterology
- Radiology
- Dermatology
- Rheumatology
- Pediatrics
- Ophthalmology
- Psychiatry & Mental Health
- Pathology

Burnout = loss of enthusiasm for work, feelings of cynicism, and a low sense of personal accomplishment

Medscape survey 2013
A Critical Care Societies Collaborative Statement: Burnout Syndrome in Critical Care Health-care Professionals
A Call for Action

Marc Moss, Vicki S. Good, David Gozal, Ruth Kleinpell, and Curtis N. Sessler

This official statement of the American Association of Critical-Care Nurses (AACN), the American College of Chest Physicians (CHEST), the American Thoracic Society (ATS), and the Society of Critical Care Medicine (SCCM) was approved by the AACN, September 2015; CHEST, October 2015; the ATS, November 2015; and the SCCM, September 2015.
Post Traumatic Stress Disorder

- Most common psychopathological consequence of trauma
  - Physical/sexual assaults, accidents/disasters
- Acute or chronic exposure
- Direct or indirect trauma
  - Direct events: Verbal abuse from patients, families, or other healthcare workers.
    “Speak Up” Merrill DG, JAMA 2017; 317: 2373-4
  - Indirect events: Seeing patients die, performing CPR, massive bleeding, and performing post-mortem care

PTSD Symptoms in ICU Nurses

- Being an ICU nurse remained associated with symptoms of PTSD: primary hospital, gender, marital status, primary shift, primary responsibility for household income
  - $P = 0.02$, OR = 1.45, 95% CI = 1.24-1.72
- Similar to rates after physical assault

Mealer M. AJRCCM 2007; 175: 693-697
Epidemic of Distress in ICU Nurses


Turnover and ICU nursing shortage

- 4-500,000 US ICU nurses
  - High vacancy rates

- Turnover associated with:
  - Lower quality of care
  - Lower patient satisfaction
  - Increased number of medical errors
  - Increased rates of health-care associated infections
  - Higher 30-day mortality rates

### Hospital Turnover Rates

<table>
<thead>
<tr>
<th>Hospital</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>3 year rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hospital A</td>
<td>11%</td>
<td>12%</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>2. Hospital B</td>
<td>16%</td>
<td>20%</td>
<td>13%</td>
<td>49%</td>
</tr>
<tr>
<td>3. Hospital C</td>
<td>31%</td>
<td>10%</td>
<td>15%</td>
<td>56%</td>
</tr>
<tr>
<td>4. Hospital D</td>
<td>12%</td>
<td>27%</td>
<td>14%</td>
<td>53%</td>
</tr>
<tr>
<td>5. Hospital E</td>
<td>5%</td>
<td>16%</td>
<td>16%</td>
<td>37%</td>
</tr>
<tr>
<td>6. Hospital F</td>
<td>29%</td>
<td>80%</td>
<td>42%</td>
<td>151%</td>
</tr>
<tr>
<td>7. Hospital G</td>
<td>17%</td>
<td>16%</td>
<td>10%</td>
<td>43%</td>
</tr>
<tr>
<td>8. Hospital H</td>
<td>15%</td>
<td>13%</td>
<td>15%</td>
<td>43%</td>
</tr>
<tr>
<td>9. Hospital I</td>
<td>8%</td>
<td>6%</td>
<td>16%</td>
<td>30%</td>
</tr>
<tr>
<td>10. Hospital J</td>
<td>19%</td>
<td>17%</td>
<td>19%</td>
<td>55%</td>
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Economic Impact of Turnover on ICU Nursing

- Cost of replacing ICU nurse
  - $85,000 per nurse

- Annual ICU nursing turnover of:
  - 17-20% per year

- A moderate sized hospital
  - 40 ICU Beds with 100 nurses
  - Cost > $1,500,000/hospital/year
So What can be Done?

- Multi-faceted interventions that enhance:
  - Organizational: Work environment
  - Individual: Teach individuals to better cope with their environment
- Focused on building resiliency: non-modifiable environment
What is Resiliency?

- A dynamic process in which individuals exhibit positive behavioral adaptation in times of significant adversity, stress, trauma, or tragedy.
- The capacity to bounce back after disruption.

<table>
<thead>
<tr>
<th>Domains</th>
<th>Exemplars Resilience</th>
<th>Exemplars PTSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worldview</td>
<td><strong>&quot;I also believe that I am not meant to understand why certain people die and certain things happen to people. I have to accept it, but I don’t have to understand it&quot;.</strong></td>
<td><strong>&quot;Often times I do think, what could I have done differently? Did I miss something? Was there a better way to have handled the situation? I think I do play it over in my head, after the crisis has passed&quot;.</strong></td>
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<tr>
<td>Social Network</td>
<td><strong>&quot;It was really good to sit down and talk about it rather than keep it to yourself and keep wondering what if&quot;.</strong></td>
<td><strong>&quot;I think one of the job hazards we have is accumulated grief&quot;.</strong></td>
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<td></td>
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<td><strong>&quot;My assignment was too much for one person and when I appealed for help from the manager she continued to berate me over my lack of expertise. At one point I just said, what I’m looking for is a mentor that I can feel comfortable going to for help. She just chided me and said you should really be beyond that point&quot;.</strong></td>
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Resiliency can be learned

- Interviewed resilient ICU nurses
  - How they cope with their work environment?
  - Developed a multi-modal intervention
- Pilot tested the intervention
- 3 month clinical trial
  - Critical care nurses
    - > 20 hours/week

Multi-modal intervention
1. Two day informational session
2. Cognitive behavioral therapy (CBT) sessions
3. Expressive writing exercises
4. Exercise program: 30 minutes; 3 x a week
5. Mindfulness training: 15 minutes; three x a week

- Control: pre/post surveys
- Outcomes:
  - Feasibility: YES
  - Acceptability: YES
  - Change in PTSD and Resiliency: Trends toward helping

NCCIH: Mindfulness Based Cognitive Therapy (MBCT) for Critical Care Nurses

- 8 week, one 2 hour session/week
  - Mindfulness skills
    - to help awareness of negative thoughts and feelings that are activated by stress
  - CBT techniques
    - to develop different relationship between thoughts and feelings
  - Interrupt negative thought patterns
    - “Thoughts are not facts”
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NCCIH
AACN

AMERICAN ASSOCIATION of CRITICAL-CARE NURSES
Potential Next Steps & Concerns

1. Different disorders necessitate different interventions
   - PTSD vs. BOS
   - Doctors vs. nurses (different triggers)
   - ICU vs. other settings

2. Implementing vs. research
   - Determine what needs to be studied

3. Multimodal vs. specific interventions
   - Positive evidence for multimodal
   - Educate reviewers

4. Need large prospective cohort studies
   - Define temporal and causal relationship