Mental Health in Patients and Families

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I have no conflict of interest to declare
Overview

• Impact of Chronic stress
• Mood Disorders in patients and families
• Bereavement
Higher re-experiencing scores on PTSD measures were associated with higher arousal ratings of negative pictures and reduced amygdala, thalamus and globus pallidus volumes.

Chronic re-experiencing of traumatic events may result in structural changes associated with autonomic arousal and acquisition of conditioned fear.
Brain Atrophy

Ischemic Changes

Suchyta et al. Brain Imaging and Behavior 4:22-34, 2010
Stress-induced cardiomyopathy (Takotsubo) – broken heart and mind?

- Emotional stress
- Depression/mania
- Anxiety
- Psychosis
- Epileptic seizure
- Ischemic stroke
- Subarachnoid hemorrhage
- Somatic stress

Vascular Health and Risk Management
16 April 2013
<table>
<thead>
<tr>
<th>Somatic stressors</th>
<th>Emotional stressors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigorous exercise</td>
<td>Grief (e.g., death or illness of a loved one)</td>
</tr>
<tr>
<td>Pheochromocytoma</td>
<td>Receiving bad news (e.g., being diagnosed with major illness, learning of a daughter’s divorce)</td>
</tr>
<tr>
<td>Subarachnoid hemorrhage</td>
<td>Fear</td>
</tr>
<tr>
<td>Seizure</td>
<td>Relationship conflicts</td>
</tr>
<tr>
<td>Postoperative pain</td>
<td>Public speaking</td>
</tr>
<tr>
<td>Hyperthyroidism</td>
<td>Financial problems</td>
</tr>
<tr>
<td>Alcohol/opiate withdrawal</td>
<td>Being bullied</td>
</tr>
<tr>
<td>Invasive medical procedures</td>
<td>Surprise party</td>
</tr>
<tr>
<td>Exacerbation of underlying noncardiac disease</td>
<td>Changing residence</td>
</tr>
<tr>
<td>Sexual intercourse</td>
<td>Involvement in accident</td>
</tr>
<tr>
<td>Administration of sympathomimetics</td>
<td></td>
</tr>
</tbody>
</table>
Depression

- Prevalence 17-43%
- May decrease or stay the same over time (Hopkins 2010; Adhikari 2011)
- Risks include: alcohol dependence, female gender, younger age, cognitive dysfunction, hypoglycemia, severity of illness measures, mean ICU benzodiazepine dose
- Associated with ability to return to work

Davydow et al. Psychosom Med 2008; 70:512-9
Adhikari et al. Chest 2011; 140: 1484-93
Persecutory Delusions/PTSD

Post Traumatic Stress Disorder

- Prevalence 21-35%
- Risk factors include benzodiazepine exposure, delusional memory, female sex, younger age, physical restraint in the ICU, low serum cortisol, not receiving corticosteroids, Vent days, ICU LOS
- Endogenous personality traits: pessimism

Jones et al. Critical Care 2010; 14(5): R168
Myhren et al. Crit Care 2010; 14: R14
Davydow Crit Care 2010; 14: 125
Kapfhammer et al. Am J Psychiatry 2004; 161: 45-52
Caregiver Burden

**Psychiatric illness in the next of kin of patients who die in the intensive care unit**

Mark D. Siegel, MD, FCCP; Earle Hayes, DO, MS; Lauren C. Vanderwerker, PhD; Diane B. Loseth, RN, MSN, APRN, BC-PCM; Holly G. Prigerson, PhD

**CCM 2008; 36: 1722-1728**

PTSD symptoms consistent with a moderate to major risk of PTSD were found in 33% of family members.

Azoulay et al. AJRCCM 2005; 17: 987-994
Jones et al. Int Care Med 2004; 30: 456-460

Caregiver depression risk was 34%, 31% and 23% at 2, 6, 12 months
Lifestyle disruption and employment reduction were common.
Compromised HRQOL similar to caregivers of stroke/dementia
Depressive symptomatology associated with depression in ARDS survivors

Cameron et al. Crit Care Med 2006;34:26-33
Table 3. Physical Health Status by Caregiving Status: Crude Death Rates and Adjusted Relative Risks of 4-Year Mortality

<table>
<thead>
<tr>
<th>Disease State</th>
<th>Cell n</th>
<th>No. of Deaths</th>
<th>% of Crude Death Rate</th>
<th>Adjusted Relative Risk† (95% Confidence Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No disease</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse not disabled</td>
<td>140</td>
<td>5</td>
<td>3.6</td>
<td>(Referent)</td>
</tr>
<tr>
<td>Not helping disabled spouse</td>
<td>14</td>
<td>3</td>
<td>21.4</td>
<td>6.17 (1.47-25.98)†</td>
</tr>
<tr>
<td>Helping, no strain</td>
<td>53</td>
<td>2</td>
<td>3.6</td>
<td>0.92 (0.18-4.75)</td>
</tr>
<tr>
<td>Helping, reports strain</td>
<td>54</td>
<td>4</td>
<td>7.4</td>
<td>1.71 (0.46-6.41)</td>
</tr>
<tr>
<td><strong>Subclinical disease</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse not disabled</td>
<td>182</td>
<td>19</td>
<td>10.4</td>
<td>2.62 (0.97-7.02)</td>
</tr>
<tr>
<td>Not helping disabled spouse</td>
<td>31</td>
<td>4</td>
<td>12.9</td>
<td>2.42 (0.64-9.17)</td>
</tr>
<tr>
<td>Helping, no strain</td>
<td>47</td>
<td>5</td>
<td>10.6</td>
<td>2.04 (0.58-7.13)</td>
</tr>
<tr>
<td>Helping, reports strain</td>
<td>76</td>
<td>11</td>
<td>14.5</td>
<td>3.14 (1.07-9.20)†</td>
</tr>
<tr>
<td><strong>Prevalent disease</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse not disabled</td>
<td>105</td>
<td>16</td>
<td>15.2</td>
<td>3.43 (1.25-9.41)†</td>
</tr>
<tr>
<td>Not helping disabled spouse</td>
<td>30</td>
<td>6</td>
<td>20.0</td>
<td>4.39 (1.33-14.52)†</td>
</tr>
<tr>
<td>Helping, no strain</td>
<td>38</td>
<td>12</td>
<td>31.6</td>
<td>4.81 (1.63-14.16)§</td>
</tr>
<tr>
<td>Helping, reports strain</td>
<td>49</td>
<td>16</td>
<td>32.7</td>
<td>7.25 (2.61-20.14)‖</td>
</tr>
</tbody>
</table>

*Ellipses indicate not applicable.
†From a Cox regression model including age, sex, race, education, and stressful life events. Cell dummy variables were created and tested against the no disease, spouse not disabled reference cell.
‡P<.05.
§P<.01.
‖P<.001.

Caregiving as a Risk Factor for Mortality: The Caregiver Health Effects Study
JAMA. 1999;282(23):2215-2219
Caregiver Outcomes (Quantitative)

Care-giving Impact Scale at 7 day, 3-months, 6-months and 12-months post ICU discharge

Centre for Epidemiological Studies Depression Scale at 7 day, 3-months, 6-months and 12-months post ICU discharge

≥16 considered at risk for symptoms of depression
Bereavement

- The experience of losing to death a person to whom one is closely emotionally attached
- 80-90% of bereaved individuals experience normal or uncomplicated grief and have limited signs of impairment 6 months after the loss
- A minority experience adjustment difficulties including: suicidal thoughts and gestures, Major Depressive Disorder, PTSD, those with symptoms of Complicated Grief Disorder

Prigerson . Bereavement Care 2004;23:38
Complicated Grief
Anxiety and Depression
PTSD

Sudden, Traumatic
Death of a Child

Angry
Ambivalent
Dependent
Relationship

Prior Mental
Health Issues

Death Perceived
As Preventable

Poor Support

Health Consequences of Bereavement

- Increase in fatigue, eating and sleeping disorders, MD visits, medication use, disability, hospitalizations, death
- High risk of PTSD in family members of patients dying in ICU (50%-82%) and risk increased by poor communication at end-of-life
- Severe PTSD associated with anxiety, depression and decreased HRQOL

A Communication Strategy and Brochure for Relatives of Patients Dying in the ICU

Alexandre Lautrette, M.D., Michael Darmon, M.D., Bruno Megarbane, M.D., Ph.D., Luc Marie Joly, M.D., Sylvie Chevret, M.D., Ph.D., Christophe Adrie, M.D., Ph.D., Didier Barnoud, M.D., Gérard Bleichner, M.D., Cédric Bruel, M.D., Gérald Choukroun, M.D., J. Randall Curtis, M.D., M.P.H., Fabienne Fieux, M.D., Richard Galliot, M.D., Maité Garrouste-Orgeas, M.D., Hugues Georges, M.D., Dany Goldgran-Toledano, M.D., Mercé Jourdain, M.D., Ph.D., Georges Loubert, M.D., Jean Reignier, M.D., Fâyçal Saidi, M.D., Bertrand Souweine, M.D., Ph.D., François Vincent, M.D., Nancy Kentish Barnes, Ph.D., Frédéric Pochard, M.D., Ph.D., Benoit Schlemmer, M.D., and Elie Azoulay, M.D., Ph.D.

Value and appreciate what the family members said, Acknowledge the family members emotions, Listen, ask questions that allow the caregiver to Understand who the patient was as a person, Elicit questions from family members

+Bereavement Brochure
Challenges and Opportunities

- Chronic stress is making the patient and caregiver sick
- Important depression and PTSD in patient and caregiver
- Caregiving is a risk factor for mortality
- The family caregiver needs support from the moment of ICU admission and through all health care transitions
- They are at risk for complicated grief and need bereavement assistance
- They need to be intimately involved with each aspect of their loved one’s care