### Assessing Stress and Burnout in ICU Nurses

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#### Background

- Burnout syndrome is the presence of emotional exhaustion, the development of depersonalization, and a reduced sense of personal accomplishment.
- 40-50% of ICU nurses in one study met all of the symptoms on the MBI for burnout and up to 68% have at least one of the three symptoms of burnout. ¹
- PTSD, is intrusion, avoidance, negative alterations in cognitions and mood, and marked alterations in arousal and reactivity.
- 22% and 29% of ICU nurses exhibiting symptoms of PTSD and 18% meeting the diagnostic criteria for PTSD²
- The activities that nurses perform at the bedside is unknown and could exacerbate stress

#### Methods

- 20 ICU nurses were observed for a 6-hour portion of their shift. Each nursing task and its length in the observation period were recorded
- After completing their observation period they were asked to complete 6 surveys: Demographic information, The Maslach Burnout Inventory (MBI), The Posttraumatic Diagnostic Scale (PDS), The Hospital Anxiety and Depression Scale (HADS), The Connor-Davidson Resilience Scale (CD-RISC), and Sensation Seeking Scale (SSS). 3 ICU nurses declined to take the surveys
- This study received COMIRB approval

#### Results

<table>
<thead>
<tr>
<th>Participant Demographics</th>
<th>Sensation Seek Scale Correlation with Survey Outcomes</th>
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<tbody>
<tr>
<td></td>
<td>Sensation Seeking Scale</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Sex</td>
<td>MBI Burnout Low</td>
</tr>
<tr>
<td>(n=5) 29% Male</td>
<td>CD-RISC Total Low</td>
</tr>
<tr>
<td>(n=12) 71% Female</td>
<td>MBI Burnout High</td>
</tr>
<tr>
<td>Age</td>
<td>MBI Anxiety Score</td>
</tr>
<tr>
<td>36.5 Average</td>
<td>MBI Depression Score</td>
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<tr>
<td>Marital Status</td>
<td>PDS Total Low</td>
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<tr>
<td>(n=9) 3% Married</td>
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<tr>
<td>(n=7) 41% Single</td>
<td></td>
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<tr>
<td>Children</td>
<td></td>
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<tr>
<td>(n=13) 71% No Children</td>
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<tr>
<td>(n=5) 29% Have Children</td>
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<tr>
<td>Degree</td>
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<tr>
<td>(n=16) 94% BSN</td>
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<tr>
<td>(n=1) 6% Other</td>
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<tr>
<td>Years as Nurse</td>
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<tr>
<td>8 years Average</td>
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<tr>
<td>Years as ICU Nurse</td>
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<tr>
<td>6 years Average</td>
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</tbody>
</table>

#### Nursing Tasks

- Charting
- Personal
- Obtaining and Delivering Medications
- Direct Patient Care
- Rounding/Meetings
- Family Communication
- Helping Other Nurses

#### Nursing Tasks (Direct Patient Care)

- Administering Comfort Care
- Assisting with Nutrition
- Assisting with Scheduled Bedside Procedure
- Bedside Assessment
- Drawing Labs
- Managing CRRT
- Patient Admission Intake

#### References


#### Discussion

- 31% of ICU Nurses in the study met the MBI scores consistent with burnout however, 50% met at least 1 category consistent with severe burnout
- The average CD-RISC score was 74.9 meaning they were at higher risk of developing PTSD after a traumatic event
- 43% of ICU Nurses met the HADS score for considerable anxiety and 19% met the score for considerable depression
- 47% scored moderate to severe PTSD on the PDS survey

#### Conclusions

- ICU nurses are spending just 19% of their time involved in direct patient care. This included the categories in the graph titled “Nursing Tasks (Direct Patient Care)
- The rate of burnout of ICU nurses was similar to that found in other studies
- ICU nurses had higher rates of anxiety than the US average (36.9%) and lower rates of depression (30.2%) ³
- Rates of PTSD in this study for ICU nurses (20%) was greater than that of veterans (7%) ²
- There was a direct correlation between the SSS and the MBI, HADS, and PDS which was concluded using correlation coefficients
- An indirect correlation between SSS and CD-RISC was also identified using correlation coefficients

#### Implications

- ICU nurses spend the majority of their time on the computer charting or pertaining to non-patient facing activities
- Charting refers to HER use documenting interactions, medications, as well as communication with other providers. This reduces the amount of time available for bedside nursing.
- With the high PTSD rates found in this study it is evident that more research and resources need to be allocated to understand and mitigate traumatic experiences from having a lasting effect
- Those who had increased risk-taking behaviors were more likely to have worse burnout, more anxiety/depression, less resiliency, and more severe PTSD

#### Acknowledgements

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