Purpose

The objective of this study was to assess the PTSD Impact of verbal and physical abuse on neurology nurses, identify coping strategies, explore relationships between demographic characteristics, incidence and coping strategies.

Background & Significance

PTSD as a result of abuse in the workplace is becoming a common reality for nurses working in direct patient care roles around the world and in the United States. Abuse Against Nurses • Non-fatal violent crime 8.1 per 1000 compared to 5.1 per 1000 for all occupations (US Department of Justice, 2011) • Highest percentage of workplace violence of all medical professions (US Department of Justice, 2011)

PTSD after Abuse • PTSD symptomatology has been identified in health care workers at risk for abuse (Gates et al., 2011) • 17% of U.S. ER nurses had high PTSD scores from patient and family related violence (Gates et al., 2011).

Verbal/Physical Abuse • 60-91% have experienced both verbal and physical abuse (Trahan & Bishop, 2016)

Neurology Nursing • Physical aggression is reported as a common occurrence in neurology clinical settings (Soreny, 2009)

Coping with Abuse • Coping types constantly change and examination of coping strategies NOT an option (Hays et al., 2006)
• Expected to solve the problem & NOT create a disturbance (Gates et al., 2011)

Research Questions

RQ 1. What is the global impact of verbal and physical abuse experience by neurology nurses from patients and families?

RQ 2. What is the relationship between the coping strategies (Avoidance, Task, and Social/Emotional coping) and global measures of impact (IES-Avoidance, Intrusion, Hyperarousal, and Total Score) with verbal and physical abuse incidence?

RQ 3. What is the best set of predictors of global impact (IES Total Score) among coping strategies (Avoidance, Task, and Social/Emotional coping) and demographic variables (gender, years of neurology experience and age)?

Method

Design

Setting • United States & Houston/Galveston area

Recruitment • 5000 surveys sent to neuro nurses from Redi-Data database • 312 surveys sent to neuro nurses at three local hospitals (St. Luke’s, Ben Taub and UTMB)

Sample • Sample size = 112 • 33.3% local and regional response rate (N = 104)

UTMB IRB Approved

Data Collection

Instruments

Impact of Events Scale – Revised (IES-R) • Assessed subjective distress for any specific life events related to PTSD (Weiss et al., 1997)

Verbal and Physical Abuse Incidence & Intensity Scale (VPAIIS) • Assessed patient and family verbal and physical abuse incidence and intensity (Celik et al., 2007; Lepiesova et al., 2013; Manderino et al., 1997)

Brief Cope Inventory • Assessed a broad range of coping strategies and responses to stress (Carver, 1997)

References


Data Analysis Results

Table 1: PTSD Characteristics of Neurology Nurses Impact of Verbal and Physical Abuse from the Impact of Events Scale – Revised (IES-R) (N = 112)

<table>
<thead>
<tr>
<th>IES-R Scales</th>
<th>N with score ≥ 1</th>
<th>% with score ≥ 1</th>
<th>Score Range</th>
<th># of Items</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidance</td>
<td>72</td>
<td>64.3</td>
<td>1 - 3</td>
<td>.006</td>
<td>.84</td>
<td>.75</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Intrusion</td>
<td>64</td>
<td>57.1</td>
<td>1 – 3</td>
<td>.007</td>
<td>.72</td>
<td>.70</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Hyperarousal</td>
<td>47</td>
<td>42.0</td>
<td>1 - 4</td>
<td>.032</td>
<td>.63</td>
<td>.73</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

PTSD as a result of abuse in the workplace is reported as a common occurrence in neurology clinical settings (Soreny, 2009).

Brief Cope Avoidance accounted for the highest portion of variance.

Eighty-six percent of 112 participants had a Total IES-R score ranging from 1 – 66 which indicates the presence of at least one PTSD stress symptom after a violent event.

Avoidance Scale has highest mean at 0.84 and percentage of neurology nurse participants with a score ≥ 1.

Intrusion (57.1%) and Hyperarousal Scale (42%) of participants with score of ≥ 1.

Data shows neurology nurse participants were more likely to use the items associated with Avoidance Subscale more often when dealing with verbal and physical abuse.

Pattern of small significant positive relationships (higher values on one were associated with higher values on the other) between IES subscales (indicators of PTSD symptomatology) and patient verbal and physical incidence.

A pattern between IES subscales and family verbal incidence lacking for family physical incidence.

Coping subscales for family verbal incidence showed significant small correlations with all three.

Most robust pattern of relationships were moderate to large magnitude significant positive correlations between coping and the impact subscales indicating that higher use of all coping strategies is related to higher scores on all impact scales.

Avoidance coping shows the strongest correlations with the three impact dimensions.

Table 2: Significant Correlations Between Cope x Incidence x IES-R Scales

<table>
<thead>
<tr>
<th>Stepwise Regression Analyses for Total IES - Predictors of PTSD</th>
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<tbody>
<tr>
<td>Variables included</td>
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<tr>
<td>--------------------</td>
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<tr>
<td>FORWARD Model</td>
</tr>
<tr>
<td>BCOPE Avoidance</td>
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<tr>
<td>Family Verbal Incidence</td>
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<tr>
<td>Patient Verbal Intensity</td>
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<tr>
<td>BACKWARD Model</td>
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<tr>
<td>BCOPE Avoidance</td>
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<tr>
<td>BCOPE Task</td>
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<tr>
<td>BCOPE Social Emote</td>
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<tr>
<td>Family Verbal Incidence</td>
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</tbody>
</table>

Forward stepwise regression on Total impact scores resulted in a significant model:

Three variables were significant predictors - BCOPE Avoidance, Family Verbal Incidence and Patient Verbal Intensity - 59% of variance in Total impact.

Brief Cope Avoidance (67% of total variance). Positive relationships indicate a proportional increase in Total impact for every 1 point increase in the predictor.

Backward stepwise resulted in five significant predictors - BCOPE Avoidance, BCOPE Task, BCOPE Social Emote, Patient Verbal Intensity and Family Verbal Incidence.

Five predictors accounted for 62% of the variance of Total impact.

Brief Cope Avoidance accounted for the highest portion of variance.

High contribution of BCOPE Task not detected in the forward model and the negative relationship with BCOPE Social Emote reflecting a reduction in Total impact scores for every increase in Social Emote scores.

Discussion

Eighty-six percent of 112 participants had Total IES-R scores ranging from 1 – 66 indicating presence of at least one stress symptom after a violent event.

Neurology nurse participants more likely to use items associated with Avoidance when dealing with the verbal and physical abuse.

Association between higher use of various coping strategies and higher impact.

Substantial degree of PTSD symptomatology has been established among the neurology nurse participants of this study with 16.1% scoring greater than 33 on the Total IES-R score indicating high PTSD symptomatology.