What About The Caregivers?

Psychological Outcomes In Informal Caregivers Of The Critically ill: Preliminary Results

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Background

1. Reliance on families to adopt informal caregiver role
2. Caregivers experience depression; burden and lifestyle interference
3. Greatest period of risk during critical care
4. Negative psychology and positive psychology

1Haines 2015 CCM, 2Kulkarni 2010 Chest
Rationale and Study Aim

- No data describing caregiver psychological trajectories in Australia

Study aim:
To investigate the prevalence and short term trajectory of psychosocial morbidity in informal caregivers of patients requiring mechanical ventilation for >48 hours, at:

i) ICU admission,
ii) Hospital discharge
iii) Two-months post hospital discharge
Methods

Design
Multi-site, prospective observational study

Setting
Three mixed medical/surgical tertiary, university-affiliated ICUs in Melbourne, Australia

Participants
Informal caregiver of patients MV ≥48 hours

Study size
n= 40, final n = 115

Statistical methods
Descriptive analyses

PATIENT Exclusions:
<18 years of age, imminent death, ICU readmission, predicted hospital stay >6mths or unlikely to return home, care facility pre-morbidly

CAREGIVER Exclusions:
Unable to understand English language, Unable to be identified or contacted

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Methods – Caregiver Outcomes

ICU • Demographics, Employment, Caregiver Assistance Scale
• Anxiety, Depression, HRQoL, Lifestyle Interference, Self-Mastery

Hospital DC • Anxiety, Depression, HRQoL, Lifestyle Interference, Self-Mastery

2 Months Follow-up • Employment, Caregiver Assistance Scale
• Anxiety, Depression, HRQoL, Lifestyle Interference, Self-Mastery

PTSD
# Methods – Psychological Outcome Measures

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Outcome Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>Hospital Anxiety &amp; Depression Scale¹</td>
</tr>
<tr>
<td>Depression</td>
<td>Center for Epidemiological Studies-Depression²</td>
</tr>
<tr>
<td>HRQoL</td>
<td>Short Form 36 version 2³</td>
</tr>
<tr>
<td>Lifestyle Interference</td>
<td>Activity Restriction Scale⁴</td>
</tr>
<tr>
<td>Resilience</td>
<td>Pearlin’s Self-Mastery Scale⁵</td>
</tr>
<tr>
<td>Post-traumatic Stress Disorder</td>
<td>Impact of Events Scale⁶</td>
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</tbody>
</table>

Methods – Patient Outcomes

ICU
- Demographics
- Employment
- Pre-ICU Function: Activities of Daily Living\(^1\), Instrumental Activities of Daily Living\(^2\)

2 Months Follow-Up
- Employment
- Post-ICU function: Activities of Daily Living\(^1\), Instrumental Activities of Daily Living\(^2\)

\(^1\)Katz 1963a, \(^2\)Katz 1963b
Results – Participant Flow

- Dyads enrolled: n = 80
- Patients deceased before follow-up: n = 13
- Patients alive: n = 67
- Caregivers lost to follow-up after baseline: n = 3
- Dyads available: n = 64
- Missing data at 1 time point: n = 5
- Dyads with complete data: n = 40
- Active data collection: n = 19
## Results – Caregiver Characteristics

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>PRE-ICU</th>
<th>POST- ICU 2MTHS FU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD)</td>
<td>54 (15)</td>
<td>-</td>
</tr>
<tr>
<td>Gender, female n (%)</td>
<td>25 (63)</td>
<td>-</td>
</tr>
<tr>
<td>Spouse/Partner, n (%)</td>
<td>26 (65)</td>
<td>-</td>
</tr>
<tr>
<td>Other dependents, mean (SD)</td>
<td>1 (2)</td>
<td>-</td>
</tr>
<tr>
<td>Pre-existing psychology, no n (%)</td>
<td>34 (85)</td>
<td>-</td>
</tr>
<tr>
<td>University-educated, n (%)</td>
<td>19 (48)</td>
<td>-</td>
</tr>
<tr>
<td>Full-time employment, n (%)</td>
<td>15 (38)</td>
<td>15 (38)</td>
</tr>
<tr>
<td>Caregiver assistance scale, mean (SD)</td>
<td>10 (20)</td>
<td>20 (23)</td>
</tr>
</tbody>
</table>
## Results – Patient Characteristics

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<th>CHARACTERISTIC</th>
<th>PRE-ICU</th>
<th>POST- ICU 2MTHS FU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD)</td>
<td>56.7 (15)</td>
<td>-</td>
</tr>
<tr>
<td>Gender, male n (%)</td>
<td>24 (59)</td>
<td>-</td>
</tr>
<tr>
<td>APACHEII, mean (SD)</td>
<td>19 (7)</td>
<td>-</td>
</tr>
<tr>
<td>ICU Admission Diagnosis, cardiac n (%)</td>
<td>9 (22)</td>
<td>-</td>
</tr>
<tr>
<td>MV Hours, Mean (SD)</td>
<td>158.3 (96.2)</td>
<td>-</td>
</tr>
<tr>
<td>ICU Length of stay, Median (IQR)</td>
<td>8.5 (9)</td>
<td>-</td>
</tr>
<tr>
<td>ADL (Range 0-6), mean (SD)</td>
<td>6 (0.2)</td>
<td>6 (1)</td>
</tr>
<tr>
<td>IADL (Range 0-8), mean (SD)</td>
<td>7 (1.3)</td>
<td>7 (1.8)</td>
</tr>
<tr>
<td>Full-time employment n (%)</td>
<td>11 (27)</td>
<td>4 (10)</td>
</tr>
</tbody>
</table>
Caregiver Outcomes

Depression and anxiety symptoms over time

Percentage

0 20 40 60 80

ICU  Hospital DC  2 Months

Depression

Anxiety

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Results – Caregiver Outcomes Over Time

<table>
<thead>
<tr>
<th>Outcome</th>
<th>ICU n= 40</th>
<th>Hospital Discharge n= 40</th>
<th>Two month follow up n= 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Restriction mean (SD) (Range 7-36)</td>
<td>20 (9)</td>
<td>16 (7)</td>
<td>13 (6)</td>
</tr>
<tr>
<td>Low self-mastery n (%)*</td>
<td>11 (28)</td>
<td>15 (38)</td>
<td>10 (25)</td>
</tr>
<tr>
<td>SF36 Mental Component Score mean (SD)</td>
<td>44 (14)</td>
<td>40 (16)</td>
<td>48 (10)</td>
</tr>
<tr>
<td>Population mean (SD) = 50 (10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTSD - IES &gt; 19 n (%)*</td>
<td>-</td>
<td>-</td>
<td>13 (33)</td>
</tr>
</tbody>
</table>

*Clinically significant symptoms according to reported cut-off scores - Haines 2015
Discussion

First Australian study

Psychological morbidity highest during ICU

>30% experienced PTSD at 2 months – may impact patient recovery

Informs future interventional research
Acknowledgements

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Thank you for listening