No Ordinary Call
Factors predicting Fire Communication (FireCom) officers job strain & well being

Presented by
Karen Bradley
Queensland Fire & Emergency Services
FireCom South Eastern – Southport Fire station
Overview of Research model

JOB DEMANDS

JOB RESOURCES

Chronic PWD

Acute GARS

Shiftwork

AGE

Self-Efficacy

Social Support (1 Co worker, 2 Supervisor, 3 family)

Well-being

Depression

Anxiety

Stress
Well-being

- **Warwick Edinburg Well-being Scale** (Tennant, et al., 2007)

- 14 positively worded items.

- E.g. “I’ve been feeling relaxed”

- Response options – *None of the time; Rarely; Some of the time; Often & All of the time.*

- Over the past 6 months.
Depression, Anxiety & Stress

- Depression, anxiety & stress scale 21 (DASS; Lovibond & Lovibond, 1995).
- Depression scale - *dysphoria, hopelessness, lack of interest*..
- Anxiety scale - *autonomic arousal, situational anxiety*...
- Stress scale - *nervous arousal, being easily upset, irritable & impatient*...
- Over the past 6 months.
Theoretical Framework – JD-R Model

Job Demands

Stress  Pressure

Job Resources

Social support  Feedback
Job Demands

- **Chronic**
  - Perceived Work Demands Scale (PWD; Boyar, Carr, Mosley & Carson, 2007).

- **Acute**
  - Greater Alarm Response System (GARS; QFES, 2016)
  - 2nd Alarm
### Greater Alarm Response System (GARS)

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>1st Alarm</th>
<th>2nd Alarm</th>
<th>3rd Alarm</th>
</tr>
</thead>
</table>
| Fire          | First Alarm response is as regional mobilisation protocols (2 x pumpers) | 4 x Pumper  
1 x Control vehicle  
1 x Command officer | 6 x pumpers  
1 x control vehicle  
1 x aerial  
1 x BA Hazmat  
2 x Command officers |
| Hazmat        | 3 x Pumpers  
1 x BA Hazmat  
1 x Control vehicle  
1 x Command officer  
1 scientific | 5 x Pumpers  
1 x BA Hazmat  
1 x Control vehicle  
2 x Command officer  
1 scientific |  |
Job Demands – Shift Work

• 4 on / 4 off
• Night shift – 6pm – 8am (14 hours)
• Average over 2 weeks
• < 48hrs in 2 weeks = part time
• >48 hrs in 2 weeks = full time
Job Resources

Social Support

Self-efficacy
Social Support (Caplan et. al., 1980)

Includes subscales:

- 1. Co-workers
- 2. Supervisor
- 3. Spouse & family/friends

The subscales are summed to give overall social support score.
*Additional analysis
The Occupational Self Efficacy Scale (OCCSEFF; Schyns & von Collani, 2002)

- Self Efficacy in the occupational domain.
- 8 items such as “no matter what comes my way in my job, I'm usually able to handle it”
- Responses range from 1 (not at all) to 6 (completely true).
AGE

- Over 40
- Under 40
Hypotheses

- **H1.** Shiftwork, age and the two types of job demands (acute & Chronic) will negatively predict well-being and positively predict depression, anxiety and stress.

- **H2.** Self-efficacy and social support will positively predict well-being and negatively predict depression, anxiety and stress.
Regression Analysis

**Wellbeing**
- Total variance, 32.4%, $F(6, 72) = 5.74, p < .005$
- Age ($\beta = -.25, p = .016$)
- Social support ($\beta = .43, p < .005$)

**Depression**
- Total variance 29.25, $F(6, 72) = 4.95, p = .000$.
- GARS ($\beta = .27, p = .015$) and social support ($\beta = -.47, p = .000$)

**Anxiety**
- Total variance 17.3%, $F(6, 72) = 2.50, p = .029$.
- Job demands ($\beta = -.24, p = .041$)

**Stress**
- Total variance 29.1%, $F(6, 72) = 4.93, p = .000$.
- Job demands ($\beta = .25, p = .020$)
- Social support ($\beta = -.37, p = .003$)
Results

H1. Shiftwork, age and the two types of job demands (acute & Chronic) will negatively predict well-being and positively predict depression, anxiety and stress.

- Higher acute job demands (GARS) was associated with higher levels of anxiety and stress.
- Higher chronic demands (PWD) was a significant predictor of stress.
- Older (>40) reported lower well-being.
- No support for shift work on overall well-being.

H2. Self-efficacy and social support will positively predict well-being and negatively predict depression, anxiety and stress.

- Higher social was associated with higher levels of well-being and lower levels of depression and stress.
  *Further analysis showed family support to be most important.
- Self efficacy positively predicted well-being.
<table>
<thead>
<tr>
<th></th>
<th>Well-Being</th>
<th>Depression</th>
<th>Anxiety</th>
<th>Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>GARS</td>
<td>-.14</td>
<td>.26*</td>
<td>.20</td>
<td>.26*</td>
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<tr>
<td>PWD</td>
<td>-.01</td>
<td>.16</td>
<td>.27*</td>
<td>.35**</td>
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<td>.08</td>
<td>.12</td>
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<tr>
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<td>.21</td>
<td>.24*</td>
<td>.15</td>
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<td>.02</td>
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<td>Social support</td>
<td>.46**</td>
<td>-.37**</td>
<td>-.09</td>
<td>-.34**</td>
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</table>
WHAT DID THAT UNIT SAY?!
Conclusion

Job Demands

Job Resources

Coffee
Karen.Bradley@qfes.qld.gov.au