Developing a Measure of Psychological Preparedness

A PhD research project by Jessica Boylan

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Research Advisory Forum
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The current issue

High levels of stress → unpredictable response

<table>
<thead>
<tr>
<th>Effects of stress…</th>
<th>…on your mind</th>
<th>…on your emotions</th>
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<tbody>
<tr>
<td>Poor decision making</td>
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<td>Anxiety</td>
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<td>Poor judgement</td>
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<td>Depression</td>
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<td>Memory problems</td>
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<td>Concentration problems</td>
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<td>Confusion</td>
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<td>Disorientation</td>
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PhD aim

• **To:** develop a valid measure of psychological preparedness for a bushfire.

• **For:** researchers to assess the impact of their applied research **AND** for fire agencies to improve public safety.
Research approach

1. Conceptualise
   - Literature review
   - Expert opinion

2. Write questions
   - Literature review
   - Expert opinion

3. Preliminary refinement
   - Expert review of questions
   - Online questionnaire

4. Secondary refinement
   - Online questionnaire
   - Participants from bushfire prone areas

5. Reliability & Validity
   - Online questionnaire
   - Participants from bushfire prone communities

Current stage
Resource theories of stress & coping

• Resource theories take a proactive approach to understanding stress & coping

• Resources: ↓ stress in the future, ↓ severity of stress consequences, ↑ adaptability & problem solving

• Internal e.g. self-esteem or optimism

• External e.g. money or fire fighting equipment
Stage 1: Conceptualise Psychological Preparedness
Cognitive Resources

**Cognitive resources refer to a person’s knowledge about bushfires**

- Knowledge about how bushfires spread
- The difference between safe and unsafe behaviours
- The type of facilities available
- Physical and emotional impact

Knowledge: realistic expectations, understanding & interpretation of the stressful situation → better decisions & judgements.
Personal Resources

**Personal resources refer to a person’s characteristics that promote adaptation and resilience during stressful situations**

- Belief in their ability to cope & adapt
- Belief they are in control of what happens to them
- Positive outlook on the future
- Proactive and preventative approach to reducing stress

Personal characteristics ➔ feel in control of unpredictable situations ➔ resilient & adaptable
Social Resources

**Social resources refers an individual’s social support**

- Informational support: advice, suggestions and general information
- Emotional support: listens to problems with empathy, care and understanding
- Instrumental support: provides functional aid in completing tasks if needed

Social support → adaptability & resilience
Stage 2: Write questions for the measure

• Total number of questions: 170
  – Cognitive resources: 69 questions
  – Personal resources: 71 questions
  – Social resources: 30 questions

• Source of information: fire & emergency services pamphlets, fact sheets, videos, research literature, previous measures, suggestions from experts
Stage 3: Preliminary review of questions

- Experts rated the clarity and relevance of each question in only one of the scales and provided additional comments
  - Clarity: 1 = very unclear – 4 = very clear
  - Relevance: 1 = Not relevant – 4 = very relevant

- Clarity scores were **averaged**

- **Interrater agreement** was used for relevance scores

- This data was used to **rewrite, delete or add** questions
Stage 3: Results - Cognitive Resources Scale

- 32 questions deleted (clarity, relevance, too similar)
- 7 questions added
- Cognitive resources scale reduced from 69 to 47 questions
Stage 3: Results – Social Resources Scale

- 8 questions deleted (relevance, too similar)
- 4 questions added
- Social resources scale reduced from 30 to 26 questions
Stage 3: Results – Personal Resources Scale

- Currently refining the questions using similar criteria as previous scales
Some examples of the refined items

**Cognitive Resource Scale**

1. A bushfire moves faster when travelling downhill.
2. Bushfires typically travel at 100km/hr.
3. Spot fires can start 5km in front of a fire.

**Social Resource Scale**

1. There is a neighbour, relative, or friend living in my locality who I talk to regularly about bushfire safety.
2. If there was a bushfire in my area, I would have a hard time finding a neighbour, relative, or friend living in my locality who I could turn to for advice.
3. There is a neighbour, relative, or friend living in my locality who I can depend on for help during a bushfire if I needed it.
Next step

1. Conceptualise
   • Literature review
   • Expert opinion

2. Write questions
   • Literature review
   • Expert opinion

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Current stage
Other projects...

• Tasmania bushfire research
  – Interviews and surveys
  – Interviewed the interviewers
  – Preliminary report: iPad data, interviewer observations & training evaluation.
Thank you for listening

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