Community level influence on individual behaviours with respect to bushfire readiness & decision making in the face of immediate threat

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Overall Aim

- Preparedness influenced by both individual & community variables

- Community characteristics influence how individuals:
  - Interpret hazards
  - Perceive risk
  - Act

- Lack of research → community characteristics & how they interact with people’s interpretation

What community level factors contribute to community level differences & influence individual preparedness?
Community: Significance

Communities → significant resource for risk management

- influence collective capacity to manage bushfires
- level of people’s active involvement in community networks = key predictor of preparedness across different hazards
- community structures are vital for the dissemination of preparedness information
Association between community involvement & people preparing

--> most effective information source people drew on entailed interactions with other people

* = p<.05
Yet → large differences between bushfire-prone communities regarding level of preparedness & responding

2011 WA bushfire projects → opportunity to compare individual AND community variables across 3 communities that varied from residential to rural
1) large difference between preparatory actions people took in different communities

![Graph showing mean number of preparatory actions by residential/urban, semi-rural, and rural communities.](image)

- F(2, 423) = 93.7, p<.01
2) difference in the ways in which people learned about the fire

- Initially learned of fire via contact from friends or family
- Initially learned of fire elsewhere
3) Communities differed in terms of proactively monitoring fires danger ratings via the FESA website

Chi-square (df=2) = 20.2, p<.001
To really understand the influence of communities in disaster preparedness

- focus on the interactions between individuals & communities

  (Shinn & Toohey, 2003)

- capture how people’s interpretations regarding disasters is constructed through social interaction with their environment

  (Paton & McClure, in press)
Interactions: Complex

People’s interpretations & actions regarding disasters are constructed:

Individual beliefs & capabilities → Communities

Actively & constantly interpret perceived stimuli from the environment while interacting with the environment.

Reflective process →

- point out to themselves the various factors influencing certain actions
- assess the suitability of these actions for themselves
- decide what kind of action to take → influence communities
Interactions: Complex

People’s interpretations & actions regarding disasters are contextual:

Communities create specific conditions in situations & supply cultural stories that people use to interpret situations.

Conditions → facilitate or constrain community member’s risk perceptions & ability to deal with bushfires.
Interactions: Multi-level

Deciding/Acting/Preparation
Data shows community differences

Communities differences

- due to interactions between individual & communities
  - change over time
  - at multiple levels

What specific community variables influence the development of individual belief systems & capabilities that facilitate preparing & responding?

How do variables interact with each other?
State, Shire & Community:
Regulations, Policies, Resources

Community Leadership

Community Organisation

Community Participation

Can Do

Reason To

Energised To

Individual Preparation

Structures of effective organisations:
- social networks
- roles & responsibility
- autonomy/control
- goals & feedback

- trust
- task significance & identity
- compliance & reinforcement
- relatedness & attachment
- cooperation & support
Research Design: Mixed Methods & Longitudinal

Qualitative
- sensitive topics & vulnerable groups
  - interactions & processes

Literature Review
In-depth case studies of high & low prepared communities

Identify structures, processes, & interpretations

Identify & formulate key community variables for development of community profiler
create hypothesis re possible interactions
Quantitative

- testing variables & RS with large populations

  Design survey & distribute it to many communities

  test key community variables & relationships

  identify causal relationships between key concepts

  assess degree to which key concepts influence individual prep
Qualitative

- clarify key community variables
- identify & formulate new key community variables
- create new hypothesis re possible relationships

Provide:
- interpretations
- illuminations
- illustrations

Qualitative ↔ Quantitative
Top-down Quantitative: testing community differences over time

Nov 11 (f) - July 12 (m/off) Oct 12 (b/f) Feb 13 (m/f)

12 communities

Refining of model & community profiler ~ 2 years

Review of policies

In-depth Interviews

Participant Observation

Diaries

Census

June 2011 → WA

March 2012 → other states

Bottom-up Qualitative: identifying, clarifying & interpreting
Outcomes of the Project

Community Profiler
key community variables that cause greatest differences between communities → predictor of individual preparedness

Universal Preparedness Measure
no well-accepted measure
limited & focus on individual preparedness
involving both levels:
- Community
- Individual

Template for Intervention
Community Selection Criteria

- High & low community preparedness in disaster prone areas (as assessed by fire or emergency authorities) → need assistance identifying these communities

- 4 different states: Which ones? Funding?

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