PROMOTING FIRE-FITNESS: A PROACTIVE APPROACH TO ENHANCING PREPAREDNESS

ABOUT THIS PROJECT
This research was conducted as a PhD study Advancing public health in the context of natural hazards: normalising preparedness within a framework of adapted protection motivation theory, under the broader CRC project Managing animals in disasters.

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SUMMARY
This research proposes practical processes and new public health policy to assist people to safely negotiate natural hazards in an increasingly climate change affected environment. This is achieved by normalising preparedness – to make fire-fitness routine and commonplace. With data gathered from a diverse regional community in South Australia, this research adapted Protection Motivation Theory to identify strategies that facilitate beneficial outcomes for individuals and communities. This research recommends that the application of fire-fitness principles should be tailored and societal-wide, to help narrow the gap between awareness and action, promote public safety and well-being, and identify topics requiring further research.

CONTEXT
Research shows that many people in high risk natural hazard areas are often not sufficiently prepared or not personalising the risk to themselves. Proactive strategies designed to normalise preparedness need to be developed and evaluated to help save lives (of humans, companion or recreational animals, livestock and wildlife) in a bushfire.

BACKGROUND
Protection Motivation Theory (PMT) describes how individuals are motivated to react in a protective way towards a perceived threat. The mismatch between people's awareness of a hazard threat and their readiness to manage the threat or treat the risk – known as the awareness-preparedness gap – is widely acknowledged as persistently too large. While the gap remains, human morbidity and mortality in bushfire (and other) natural hazards will not be significantly reduced; people will continue to make dangerous decisions, thereby perpetuating a cycle of negative outcomes and ramifications.

Previous studies have contributed to addressing this problem, but none have identified the need to establish fire-fitness - a year-round normalised culture of disaster preparedness that precedes natural hazards and therefore mitigates damage.

FIRE-FITNESS
Processes by which natural hazard preparedness is normalised amongst individuals, families or communities. This precedes preparedness messaging, leading to timely and safe decision-making. While the name refers to fire, the concept is applicable across natural hazards.
The Bushfire and Natural Hazards CRC is a national research centre funded by the Australian Government Cooperative Research Centre Program. It was formed in 2013 for an eight-year program to undertake end-user focused research for Australia and New Zealand.

END-USER STATEMENT

“Prevention and preparedness is where we as a community have traditionally been poor. Actions to build this will assist the response agencies by reducing the workload at the time and more importantly reduce the amount of recovery that is required within the community after the event. An increase in preparedness activities is a major step in building the resilience of a community and a resilient or prepared community is the outcome that all participants in emergency management aim to support.”
Senior Sergeant First Class Russell Dippy
CSTJ LEM, Emergency Management Coordinator, South Australia Police

RESEARCH FINDINGS

Findings were grouped into six categories of possible strategies and proactive public policies that could be developed, each aiming to make preparedness as routine as buying the groceries or fuelling a car. These strategies are not intended to replace preparedness campaigns. Rather, they are designed to change the preparedness environment by establishing a preceding culture of fire-fitness as a routine social norm – to develop a prescient suite of lifestyle adaptations to confront the new reality of extreme weather events. These strategies are:

- A new type of workplace leave, for example, Catastrophic/Code Red day or Extreme fire weather leave.
- Financial incentives, for example, a discount on municipal rates for attendance at fire-safe seminars.
- Effective and synchronous delivery of information, for example, information delivered at the same time to different members of a family via workplace, school and social settings.
- Acknowledging and rewarding best-practice fire-fitness, for example, accreditation for best-prepared properties (which has the potential to positively influence market price of those properties).
- Adaptive rewards and dynamic risk assessment, for example, facilitating trust and positive relationships with local fire authorities by clearing rubbish and vegetation to ensure ease of access.
- Reducing the impacts of cropland fires through, for example, review of the use of firebreaks, crop types, crop placement and planting around assets.

Each of these strategies contributes to cultivating a culture of preparedness over the short-, medium- and/or long-term. Importantly, a fire-fitness program for any given group must be locally relevant and tailored to the particular community.

HOW COULD THIS RESEARCH BE USED?

Considering the damage of the 2019/20 bushfire season and the predicted increase in frequency and severity of extreme weather events, and the fact that Australia’s bushfire seasons are becoming longer and more severe, this research can significantly contribute to reinvigorated conversations that recognise the importance of mitigation through prevention and preparedness.

The recommendations from this research are readily achievable. Local advocacy and pilot programs would be a logical first step. While these strategies are able to be adopted and implemented quickly, they will promote and achieve medium- to longer-term changes in the public’s level of improved fire-fitness and also in the perception among the wider population of the need to adapt to a worsening natural hazard environment.

FUTURE DIRECTIONS

The next stage of the research is utilisation, with outreach underway to attract participant organisations to trial and evaluate some of the fire-fitness strategies. This will involve community consultation and design of bespoke fire-fitness programs. Early trials aim to be completed and reported within the next two years.

Given the fires in South Australia in 2019/20, an agricultural application of fire-fitness programs will focus on croplands and cropland fires – specifically the use of firebreaks, crop type and placement and planting around assets.

FURTHER READING


Hazard Notes are prepared from available research at the time of publication to encourage discussion and debate. The contents of Hazard Notes do not necessarily represent the views, policies, practises or positions of any of the individual agencies or organisations who are stakeholders of the Bushfire and Natural Hazards CRC.