

ARE YOU READY? READY FOR WHAT? – PREPAREDNESS IN RELATION TO INTENDED RESPONSE TO A BUSHFIRE THREAT

Illy M. McNeill¹, Patrick D. Dunlop¹, Timothy C. Skinner², and David L. Morrison³

¹ School of Psychology, University of Western Australia, WA ² Psychological Sciences, Charles Darwin University, NT

³ Murdoch University, WA

Summary

When threatened by bushfire, residents of fire prone areas in Australia can choose between defending their property or evacuating, preferably well ahead of the fire. Fire agencies urge residents to decide how they will respond to a bushfire threat ahead of time, and be well prepared for this response. Many residents, however, lack a specific (i.e., defend vs. evacuate) response plan: They intend to defend their property until it is too dangerous, wait for more info before deciding what to do, or wait for authorities to tell them what to do. The present study investigated how residents' intended fire response is related to their levels of preparedness for the specific actions of defending versus evacuating, and in terms of psychological preparedness and preparing their properties. In addition, the study investigated whether these differences in intended fire responses are related to the importance and perceived likelihood of a set of different outcomes, such as 'the house survives the fire' and 'the pets survive the fire'. Amongst other things, findings showed the need to target those with a less specific intended response (e.g. defend until too dangerous), as they were significantly less prepared for defence than those who specifically intended to defend, even though the former group still considered defending as an option. Also, evacuator prepared their property to a lesser extent.

Method

Participants and procedure. Data were collected at two time points amongst residents of WA fire prone communities: Time 1 = pre-fire-season (October 2011) and Time 2 = the end of the season (March 2012). The final pool consisted of 229 participants (118 males, 111 females, Mean age = 54.63, SD = 12.39).

Fire plan. We gave people the following options in indicating their fire-plan (see Whittaker, Haynes, McLennan, Handmer, & Towers, 2010):

- Stay and try to protect your property throughout the fire,
- Do as much as possible to protect your property but leave if the fire directly threatens it/reaches your property,
- Wait to see what the fire is like before deciding whether to stay and defend or leave,
- Wait for police, fire or other emergency services to tell you what to do on the day,
- Leave as soon as you know there is a fire threatening your town or suburb,
- You would not be at home because you intend to leave your property and stay somewhere else on days of extreme and catastrophic fire danger,
- Haven't thought about it, or
- Other (please specify): ...

Bottom 3 plans were not analysed as they were reported by less than 1% of participants.

Preparedness. We measured 5 types of preparedness.

Defence Preparation. Nine items, such as 'You possess and have prepared equipment to put out spot fires and sparks, such as metal buckets, rakes, shovels, and mops' ($\alpha = .73$).

Evacuation Preparation. Eight items, such as 'You have selected a suitable planned destination for evacuation' ($\alpha = .76$).

Property Preparation. Twenty-two items, such as 'Fuels (e.g., leaves, twigs and long grass) are cleared for a distance of at least 20m around the house' ($\alpha = .81$).

Survival Kit. Nine items, such as 'You possess woollen blankets' ($\alpha = .64$).

Psychological Planning. Eight items, such as 'All of your family members are comfortable with the intended fire plan' ($\alpha = .80$).

Outcome Likelihood and Valuation. We measured how important 8 different outcomes were for people (e.g. 'You survive the fire) and how likely it was that they would reach this outcome by a) defending, or b) leaving early.

Results

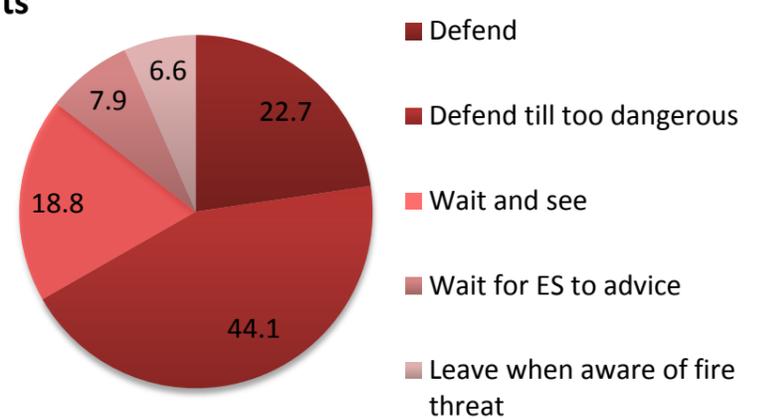


Figure 1. Percentage of participants selecting each fire response.

Table 1. Percentage items completed by end of season (T2).

	Defence	Evac	Property	Survival Kit	Psych Planning
R1	86% (.15)	65% (.28)	64% (.17)	87% (.14)	75% (.25)
R2	62% (.24)	63% (.28)	60% (.19)	75% (.22)	67% (.31)
R3	65% (.24)	65% (.24)	55% (.19)	81% (.18)	74% (.29)
R4	63% (.17)	70% (.32)	60% (.22)	77% (.18)	80% (.26)
R5	38% (.20)	67% (.21)	47% (.18)	61% (.21)	71% (.29)

R1 = Stay and try to protect your property throughout the fire; R2 = Do as much as possible to protect your property but leave if the fire directly threatens it/reaches your property; R3 = Wait to see what the fire is like before deciding whether to stay and defend or leave; R4 = Wait for police, fire or other emergency services to tell you what to do on the day; R5 = Leave as soon as you know there is a fire threatening your town or suburb.

Outcome Importance and Likelihood

Intend to Defend: Less important that I survive; More important that house survives; More likely that I/pets/visitors/house/contents/working equipment survive when defending; Less likely that children/pets survive when leaving.

Intend to Evacuate: Less important that house and contents survive; Less likely that I/others survive when defending.