bushfire&natural HAZARDS CRC

Red headers on bushfire evacuation messages help encourage community members to follow emergency instructions

Adding Colour and Icons to Emergency Warning Messages

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Current Australian emergency warning messages that have been refined to match evidence-based practice already encourage community members' readiness to act on emergency instructions. What happens when we add colour and/or icons to emergency warning messages?

Introduction

Since 2014, emergency service agencies across Australia have adopted a range of evidence-based practice when constructing emergency warning messages.

As the written elements of warning messages are working well to encourage readiness to act (Greer et al., 2019), this research examines the effect of adding colour and/or icons to official warning messages.

This research complements the increasing industry interest in developing a National Multi-Hazard Warning System that can promote clear understanding of warnings and appropriate protective action across Australian jurisdictions.

Methods

A total of 2,482 Australians across all states/territories participated in a survey.

Participants first read one of 16 mock emergency warnings (see Figure 1) about either a bushfire or a riverine flood that were variously presented without icons, with icons, in greyscale and colour (see Figure 2).

Participants then answered a series of questions about their demographic characteristics, message comprehension and effectiveness, threat appraisal and coping appraisal.

Data were analysed using two-way between-groups ANOVA.

Results

Adding colours and/or icons to the Evacuate Now (Bushfire) message creates small improvements:

- Adding a red header to the message improved the comprehensibility and effectiveness of the message

- The event described in the message is considered more likely when either a coloured icon or no colour/icon is used.

- Adding a red header to the message improved how confident participants felt in their ability to complete the action.

While these improvements are small from a statistical standpoint, the effect small changes can have at a population level are likely impactful, especially when message improvements can save lives, properties and reduce harm.

The other three messages showed no improvement (or loss) in message comprehension, effectiveness, threat appraisal, or coping appraisal as a result of adding colours and/or icons. Colours and/or icons might be useful, however, to aid the interpretation of less well-worded emergency warning messages if they reduce uncertainty.

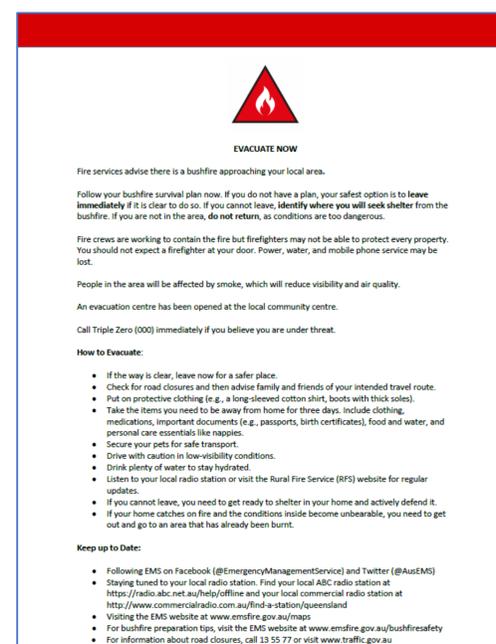For more information, please email dominique.greer@qut.edu.au

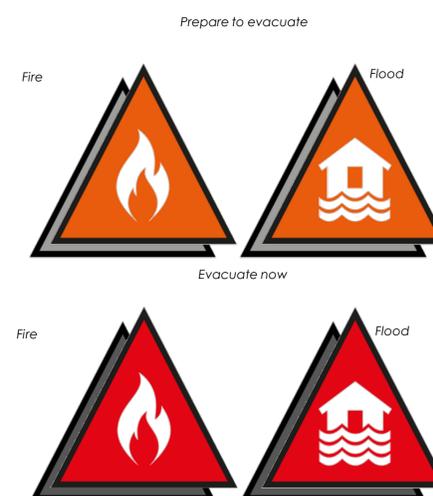Figure 1. Mock emergency warning (1 of 16)

Figure2: Example icons in colour and greyscale

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