

Disaster Perceived Threat, Efficacy, and Distress Among Individuals with Disabilities Over Time

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Background

- Previous studies have found a positive association between perceived threat of disasters and psychological distress (Li et al., 2021; Suzuki et al., 2015).
- Individuals with disabilities are disproportionately impacted by the negative effects of disaster events (Castro et al., 2017; Chou et al., 2014; Quail et al., 2018), and may therefore be more likely to develop disaster-related psychological distress.
- Other psychological factors, like self-efficacy and response efficacy, may help to attenuate disaster-related distress within this population (Ambelu et al., 2022; Duygulu et al., 2022; Ejeta et al., 2015).
- Recent research has adapted Protection Motivation Theory (PMT) to model the additive effects of perceived threat, self-efficacy, and response efficacy on emotional responses (Kim et al., 2022, Zhang et al., 2022).
- **The current study aims to use an extension of PMT to longitudinally test the relationships between perceived threat, emergency preparedness self-efficacy (EPSE), response efficacy, and psychological distress within a sample of individuals with disabilities (see Figure 1 for hypothesized model).**

Methods

PARTICIPANTS

- 106 adults with physical disabilities; 74% female, 26% male
- 89% White, 11% Racial Minorities
- Median education = Bachelor's degree

PROCEDURE

- 216 participants from the original study five years ago were recontacted. Recruited participants (June-September 2020) completed several web-based measures related to perceived threat, EPSE, response efficacy, psychological distress, and other relevant constructs.

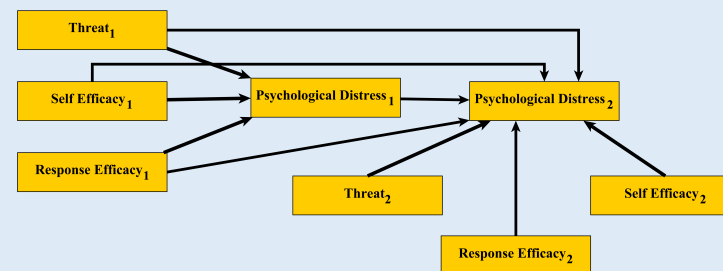
Methods

MEASURES

- **Perceived Threat** (Marceron & Rohrbeck, 2018)
 - 4-item measure to assess perceived severity and likelihood of disaster, Cronbach's alpha = .82
 - **Example:** "In your view, what is the likelihood of a natural or human-made disaster in your city or town in the next six months?"
- **Emergency Preparedness Self Efficacy (EPSE)** (Burns et al., 2014)
 - 7-item measure, Cronbach's alpha = .81
 - **Example:** "I can protect myself and my property in an emergency"
- **Response Efficacy**
 - 3-item measure, Cronbach's alpha = .80
 - **Example:** "following emergency preparedness recommendations will be effective in reducing the impact of disasters"
- **Kessler 6 (K6)** (Kessler et al., 2002)
 - 6-item measure to assess general psychological distress, Cronbach's alpha = .82
 - **Example:** "During the past 30 days, about how often did you feel nervous?"

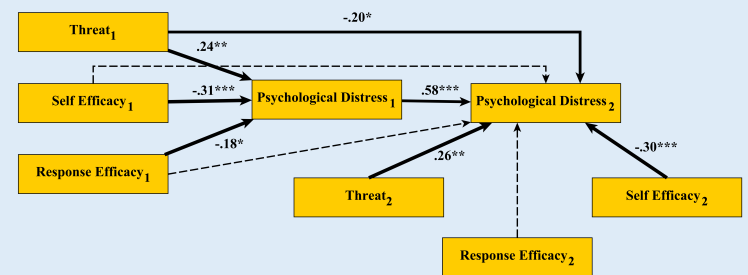
Results

Figure 1: The Hypothesized Model



Results

Figure 2: The Final Model



Discussion

- The associations of proximal perceived threat and EPSE with distress remain stable across waves.
- The association between proximal response efficacy and distress at Wave 1 dissipated by Wave 2, suggesting that the effect of response efficacy on distress may be more variable and context-specific.
- Individuals who reported an increase in EPSE over waves also reported a decrease in psychological distress (not shown in Fig 2).

LIMITATIONS

- Data collection during COVID may have impacted risk perception, EPSE, response efficacy, and distress at Wave 2.
- The results may not be generalizable to the broader population of individuals with disabilities because the sample was highly educated and primarily female and white.

FUTURE DIRECTIONS

- Future studies should test interventions to increase EPSE among individuals with disabilities as a strategy to reduce disaster-related psychological distress.