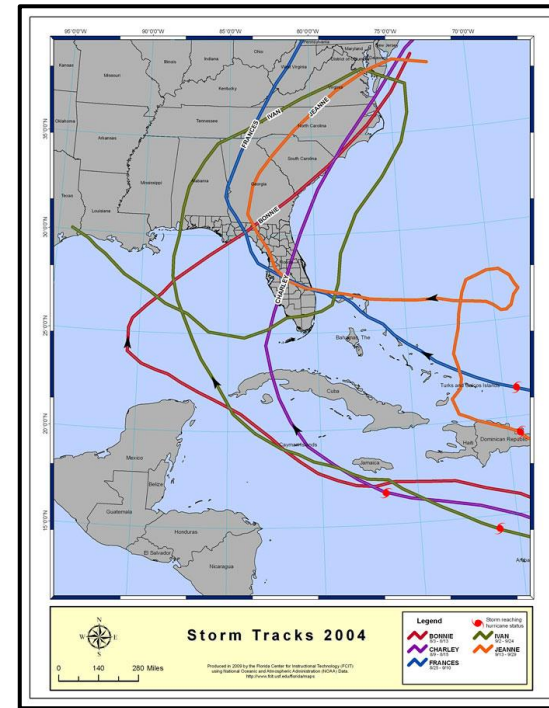


BACKGROUND

- Public health workers have varied occupational and personal demands during and following disasters, from providing emergency care to safety at home.
- The 2004 Florida hurricane season was unprecedented, with four hurricanes (Charley, Frances, Ivan, and Jeanne) and one storm (Bonnie) making landfall over the course of two months.
- Occupational and personal circumstances that public health workers experience can influence levels of perceived control in the workplace, especially during disasters.
- This study examined the extent to which occupational factors, such as resource availability and coworker support, were associated with perceived control among disaster workers during and following hurricane exposure.



METHODS

Participants: 9 months after 2004 hurricane season

n = 2,282 Florida Department of Health (FDOH) workers

- Gender: 80.5% female; 19.5% male
- Marital status: 66% married; 34% not currently married
- Age: 18-78 years (mean(SD) = 47.5(10.3))
- Education: 50.2% < BA/BS; 49.8% ≥ BA/BS
- Education: 50.2% < BA/BS; 49.8% ≥ BA/BS
- Race: 73% white; 27% non-white

Study design

- Collaborative effort between FDOH, Centers for Disease Control and Prevention (CDC), and the Center for the Study of Traumatic Stress.
- Self-report surveys were distributed via e-mail to all FDOH employees.
- Participation was voluntary and anonymous.

Measures

- Resource availability:** "How often did you receive an assignment without the resources or materials necessary to complete it?"
 - Response options of "Always" (0) to "Never" (5).
- Coworker support:** "How much could coworkers be relied on when things got tough at work?"
 - Response options of "Hardly at all" (0) to "A great deal" (4).
- Perceived control:** "How much control did you have over your tasks, workload, schedule, and/or procedures?"
 - Response options of "Very little" (0) to "A great deal" (4).



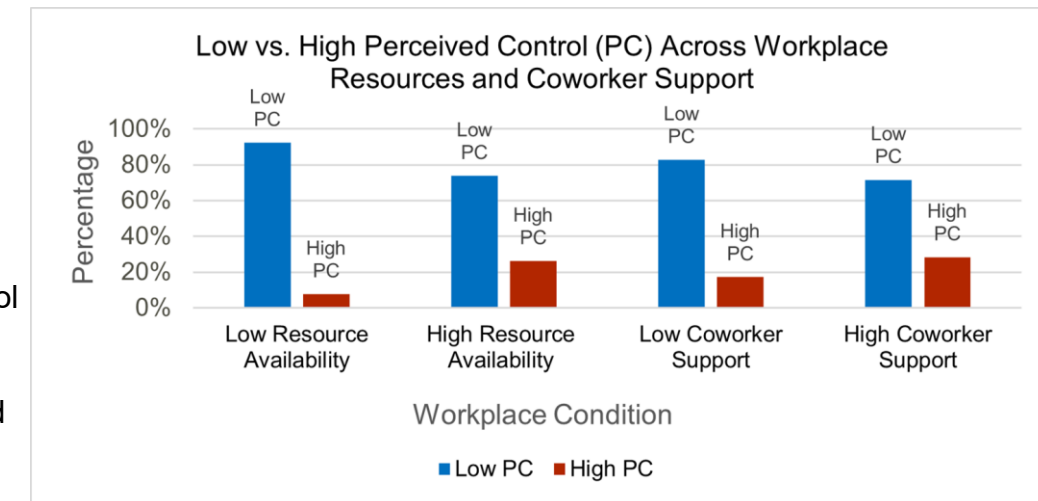
RESULTS

Key variable distributions

- Resource availability:** 1.3% low (0-2); 98.6% high (3-5)
- Coworker support:** 38.2% low (0-2); 61.8% high (3-4)
- Perceived control:** 48% low (0-2); 52% high (3-4)

Key findings

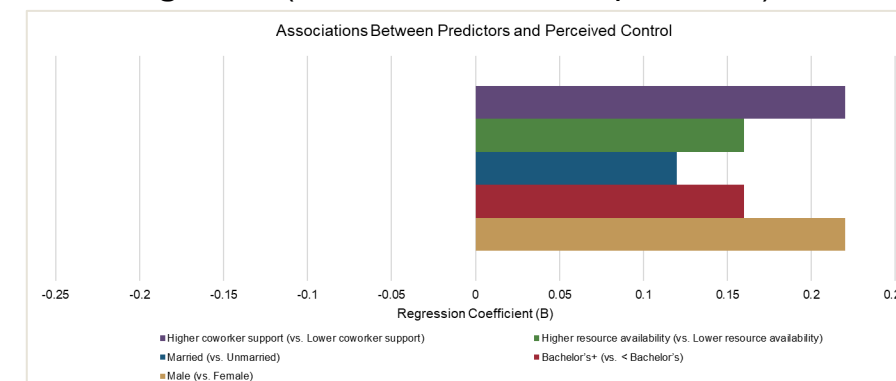
- A large proportion of FDOH workers reported low levels of perceived control (PC), regardless of resource availability and coworker support.
- High resource availability and coworker support continued to be associated with increased levels of perceived control even after accounting for demographics.



Univariable linear regression analyses

The following factors were associated with high perceived control:

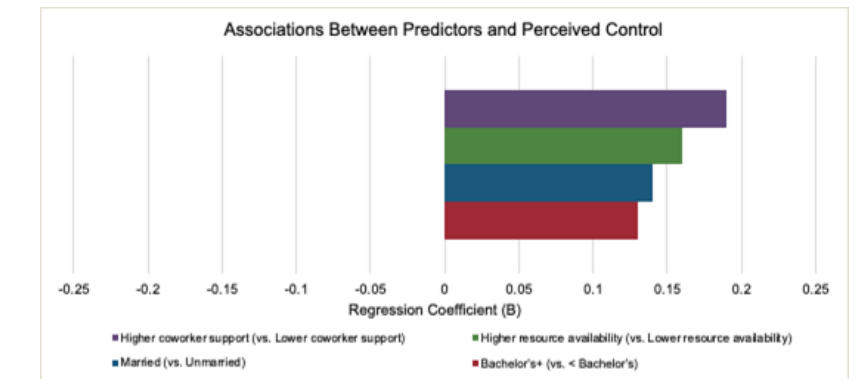
- Higher coworker support** (B = 0.22, SE = 0.03, $p \leq 0.001$)
- Higher resource availability** (B = 0.16, SE = 0.03, $p \leq 0.001$)
- Being married** (B = 0.12, SE = 0.06, $p \leq 0.05$)
- Higher education levels** (B = 0.16, SE = 0.05, $p \leq 0.01$)
- Male gender** (B = 0.22, SE = 0.07, $p \leq 0.001$)



Multivariable linear regression analyses

After adjusting for all significant factors at the univariable level, the following factors were associated with high perceived control:

- Higher coworker support** (B = 0.19, SE = 0.03, $p \leq 0.001$)
- Higher resource availability** (B = 0.16, SE = 0.03, $p \leq 0.001$)
- Being married** (B = 0.14, SE = 0.06, $p \leq 0.05$)
- Higher education levels** (B = 0.13, SE = 0.06, $p \leq 0.01$)



CONCLUSIONS

- Public health workers who reported less resource availability to complete work tasks and less coworker support were more likely to perceive less control during the hurricane and response recovery, even after adjusting for demographics.
- Study findings have important implications for leadership planning to maintain perceived control among rescue workers following a disaster, especially as perceived control can contribute to further behavioral and psychological effects.
- Strategies to address resource adequacy may include mapping resources prior to deployment to assess needs and establishing redundant communication systems to ensure contact 24/7 is recommended.
- Strategies recommended to address coworker support may include using a buddy system to enhance safety and conducting regular check-ins after shifts to provide emotional support.

