Social Capital and the Self-Efficacy of Performing Community Emergency Response Team (CERT) Skills

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Background
- A community’s ability to “bounce-back” from disasters is critical to limiting adverse health impacts
- Increasing social capital has been identified as a key component to increasing resiliency
- Social capital is the accumulated social networks, reciprocity, trust, and connections between people and communities
- Previous research has found a positive relationship between social capital and the self-efficacy of individuals to prepare for emergencies

Methods
- Administered an 36-question online survey to assess: demographics, social capital, and self-efficacy of CERT members
- Recruited participants by contacting the managers for all county-level CERT organizations in Pennsylvania and asking them to send out the survey
- Scores for social capital and self-efficacy were created by summing answers to 5-point Likert scales
- Responses analyzed using bivariate ANOVA tests to select significant variables to include in multiple linear regression model using α-level ≤ 0.1
- Multiple linear regression of all collected variables was also performed

Results
- 12 CERT program managers agreed to send out survey
- 8 county-level programs
- 2 regional organizations, 1 university organization, and 1 municipality-level
- Sent to approximately 1,900 CERT-trained individuals
- 84 responses, 58 complete responses
  - Age or the time since the class was taken were the most frequently missing variables
  - Model building: bivariate ANOVA testing social capital and self-efficacy was significant (p=0.039), as was gender and self-efficacy (p=0.065)
  - Exclusion of the other variables allowed for increase of the number of cases to be included in analysis to 71 cases
  - Multiple linear regression model testing the association between the social capital score and self-efficacy while controlling for gender was not significant (p=0.168)
  - Multiple linear regression of all collected variables was also not significant (p=0.499)

Discussion and Implications
- When not controlling for other factors, social capital was associated with responder self-efficacy
- Increased social capital was not associated with increased responder self-efficacy for performing disaster response skills after controlling for confounders
- Individual volunteer responder self-efficacy may not be dependent on the level of social capital in a community
- Emergency planners considering implementing a CERT program in a community with low social capital should not be concerned that the social networks negatively impact confidence in skills
- Existing literature notes that CERT programs have been used for non-disaster activities that enhance a sense of community
- Given that social capital is important for increasing resiliency through other programs, planners establishing a CERT may provide new opportunities for expanding social connections in and across communities
- CERT programs may serve as a framework for increasing social capital for other disaster resiliency projects while simultaneously building community-based response capabilities

Limitations
- Small sample size and low response rate
- Sample was drawn from a single state
- Survey based methodology makes design susceptible to self-report bias
- Online distribution of survey also increases selection bias
- This study only assessed self-efficacy of response skills, not the actual skill competency of individuals

Future Avenues for Research
- Future investigations of social capital’s effects on responder skills should consider measuring actual skill performance, preferably in a disaster setting
- Assess the impact of bonding (within a group) versus bridging (across groups) social capital on volunteer responder skill sets
- Compare social capital in a community before and after a CERT program is started
- Assess the impact of social capital on the ability of CERT to function together as a team after a disaster

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