

The Uptake of Emergency Preparedness Training at the Local Level: The TRAIN Experience

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9 April 2014

Presenter Disclosures

Jim Bellamy

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

Thank You!

- Funding
 - North Carolina Preparedness and Emergency Response Research Center (NCPERRC)
 - New Investigator Award
 - University of Kentucky Center for Public Health Systems and Services Research
 - Mini – grant
- NACCHO
- Public Health Foundation

Thank You!

Dissertation Committee

- Dr. Glen Mays (Co – Chair)
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- Goal
- Research Questions
- Transfer of training
- Data Sources
- Results

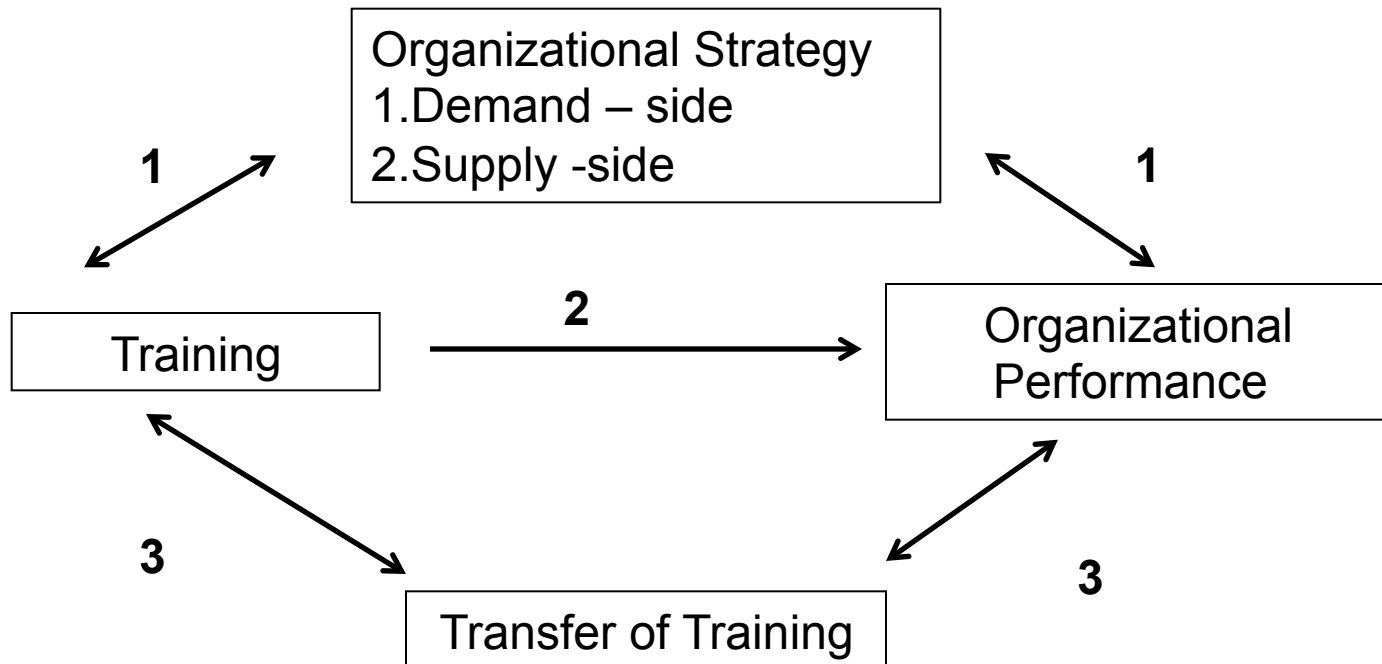
The Goal

- To examine the uptake of emergency preparedness training in the jurisdictions served by local health departments (LHDs) as a function of continuing education opportunities through the TRAIN program.

Research Questions

1. What demand-side and supply-side factors affect the frequency, intensity, and scope of exposure to EP training among U.S. public health workers?
2. How does workforce exposure to EP training affect LHD participation in EP activities?
3. How do transfer-of-training factors affect the relationship between EP training exposure and participation in LHD EP activities?

Training – Organizational Performance Model



Transfer of Training

- Important concept
 - For examination of the relationship between training and performance
- Significant literature has developed
 - Human Resource Development
 - Psychology

Training → Transfer of Training → “Organizational Performance”

Transfer of Training

Cont:

- Broad (1997) defined transfer of training as
 - “the effective and continuing application by learners – to their performance of jobs or other individual, organizational, or community responsibilities – of knowledge and skills gained in learning activities”.
- Baldwin and Ford model
 - Individual characteristics
 - Workplace characteristics
 - Intervention characteristics

Baldwin and Ford Model

Individual Characteristics

- Most predictive
 - Cognitive ability
- Other individual characteristics – moderate to small effect sizes
 - Age
 - Gender
 - Education

Baldwin and Ford Model

Organizational Characteristics (work environment)

- Social support
 - Managerial
 - Peer
- Transfer climate (most predictive)
 - Situational clues
 - Constraints on opportunities for performing learned behaviors on the job

Baldwin and Ford Model

Method of Training

- Mixed results
- “Put simply, the evidence in support of transfer interventions was not as compelling as either our intuition or prior commentaries would suggest.”
 - Burke and Hutchins, 2007

Data Sources

- TRAIN
 - Training variables
 - Trainee characteristics
- NACCHO
 - Organizational strategy variables
 - Supply- and Demand- side variables
 - EP activities (dependent variables)
 - Review/Revised EP plan
 - Reviewed relevant legal authorities
 - Participated in drills/exercises
 - Assessed WF competencies

Master Data Set

Goal

- Develop a jurisdictional-level data set to examine the uptake of EP preparedness training.
- County – level data set
 - Some LHDs serve more than one county

Possible Confounders

- “Learning by doing”
 - Participation in previous public health emergencies may lessen an agency’s or individual’s need for training
- Experienced workers
 - Could have hired experienced workers that require less training
- Received training other than TRAIN

Research Question 1

- *What demand-side and supply-side factors affect the frequency, intensity, and scope of exposure to EP training among U.S. public health workers?*
- In general, results are mixed
- Supply-side characteristics
 - No statistically significant relationships exists
 - Signs vary depending on activity
- Demand-side characteristics
 - The percentage of non-whites and Hispanics in a LHD's jurisdiction were marginally to highly significant and positive in all 4 equations
 - The number of nonEP courses completed was marginally significant and positive in all equations

Research Question 2

- *How does the workforce exposure to EP training affect LHD participation in EP activities?*
 - A positive and statistically significant relationship exists between training and participation in the EP activities of reviewed/revised EP plans, reviewed relevant legal authorities, and workforce assessment
 - A negative and statistically significant relationship exists between training and participation in drills and exercises
 - **For LHDs in this sample**

Research Question 3

- ***How do transfer-of-training factors affect the relationship between EP training exposure and participation in LHD EP activities?***
 - Several factors affected the relationship
 - Gender, ethnicity, and education
 - However, no consistent relationship existed
 - Participated in drills and exercises
 - Mixed results
 - Implying that these associations were activity specific

Limitations

- Omitted variables
 - Transfer-of-training
- No data on the effectiveness of training
- Attribution
- Confounders
- No data on the level of participation of EP activities

Implications

- Training does appear to have an effect on performance
 - Continuing education
- Accreditation
- Specific funding for training

Future Research

- Does training have an effect on other PH services
- More in-depth research on the transfer-of-training variables
- Differences between ongoing training and one-time trainings

Thank You!

- Questions?

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