

A Statewide Burn Disaster Training in Kansas: Predictors of Improved Self-Reported Competence

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Program purpose

- ❑ Learning opportunity for licensed health care practitioners in Kansas about multiple-casualty burn disaster incidents
- ❑ Emphasis on challenges that community-wide multidisciplinary team faces when responding to burn disasters.
- ❑ Target audience included physicians, nurses, ARNPs, physician assistants, paramedics and EMTs
- ❑ Training focused on direct patient assessment and management.



How did the program happen?

- Grant funding via the Bioterrorism Hospital Preparedness grant (CFDA No. 93.889) from the Division of Emergency Health Care Preparedness in the DHHS Health Resources and Services Administration to the Kansas Department of Health and Environment Office of Local and Rural Health
- Partnership development
- Needs assessment and regional planning
- Curriculum development by burn experts

Program Evaluation

1. **Assess training impact through participant self-ratings of abilities, confidence and competence in burn management** (Wetta-Hall, R., Cusick-Jost, J., Jost, G., Praheswari, Y., & Berg-Copas, G.M. (2007) Preparing for Burn Disasters: Evaluation of a Continuing Education Training Course for Pre-hospital and Hospital Professionals in Kansas. *The Journal of Burn Care & Research* 28(1), 97-104.
2. **Reliability analyses on testing instrument** (Ahlers-Schmidt, C.R., Wetta-Hall, R., Berg-Copas, G., Cusick-Jost, J., & Jost, G. (In Press). Reliability and Item Analysis of the Community-Based Burn Management and Care Instrument. *Journal of Continuing Education in Nursing*.
3. **Logistic regression to identify predictors of increased perceptions of burn treatment competence**

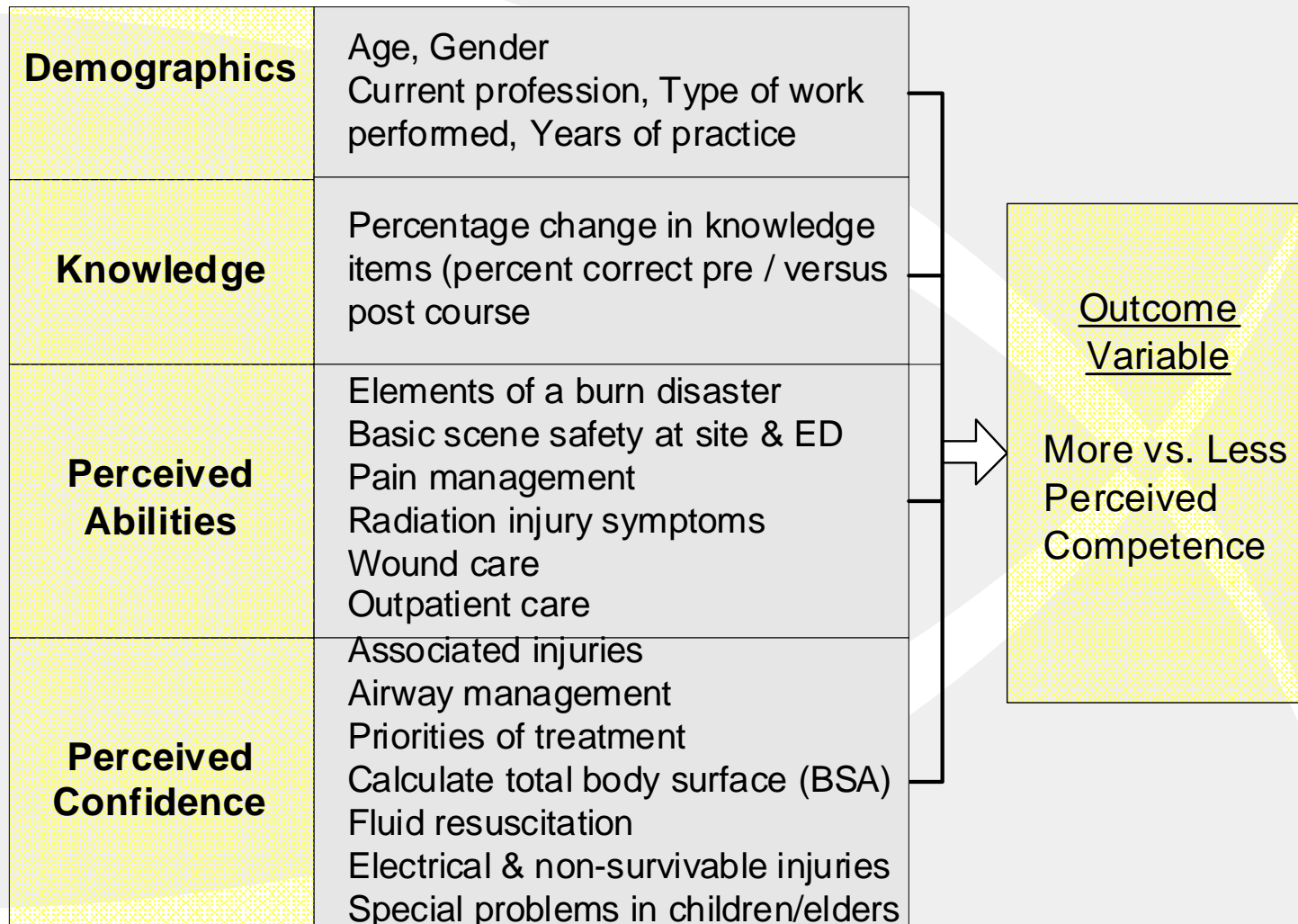
Participant Characteristics Percent

Gender	Male	28.9
	Female	71.1
Age Group	< 30 years	17.5
	30-39 years old	24.9
	40-49 years old	30.2
	50 years or older	27.5
Profession	Advanced Practitioner (MD/DO, PA, ARNP)	5.4
	RN/LPN	58.8
	Paramedic/EMT	35.7
Type of Work	Pre-hospital care	38.9
	Emergency Dept.	26.6
	Acute Care/Burn Ctr. Management	24.6
		10.0
Practice	10 years or less	53.6
	11-25 years	35.0
	> 25 years	11.3

Instrument Content

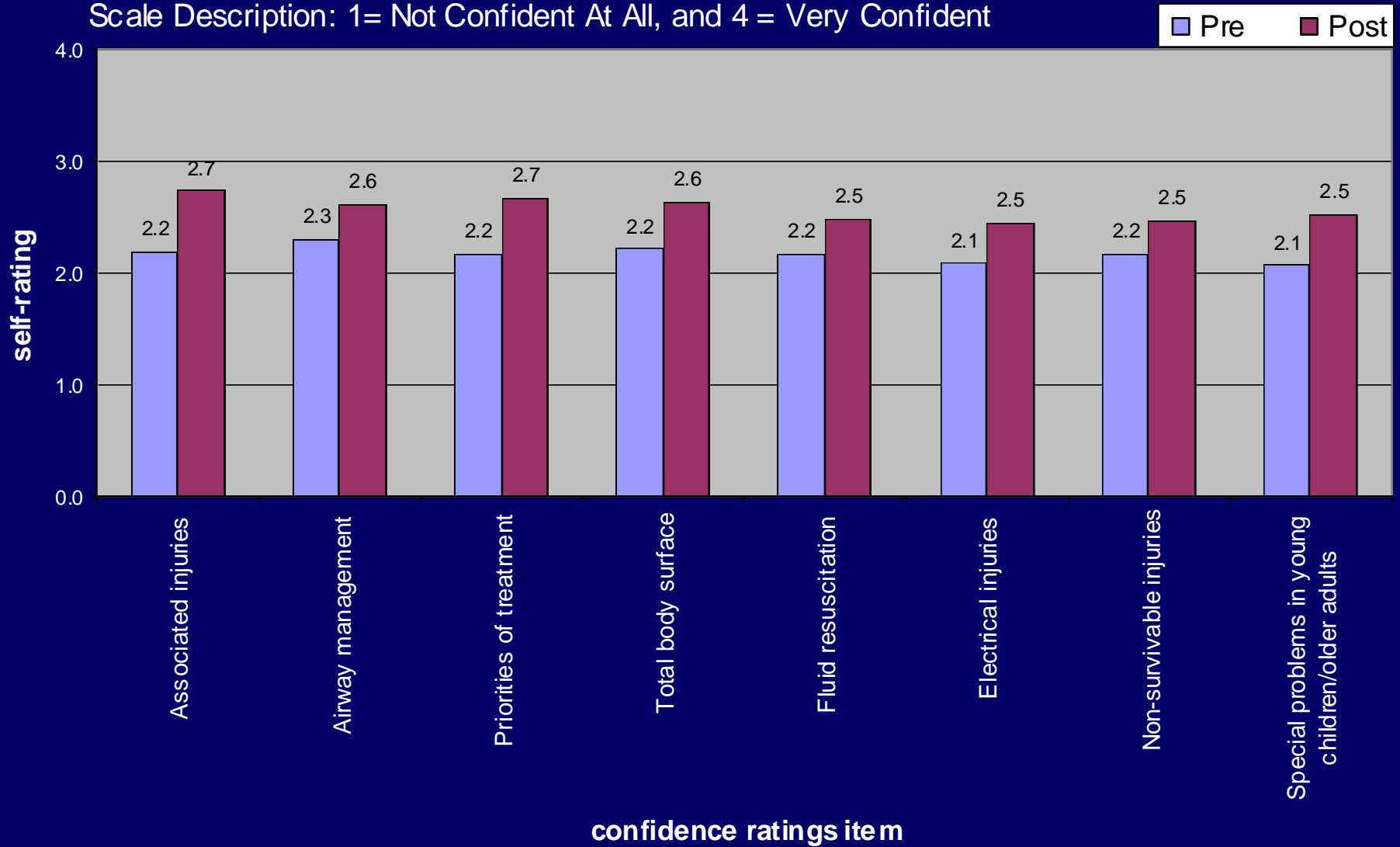
- Knowledge: 27 items using true/false and multiple choice answers
- Abilities & Confidence: Using a five-point Likert scale (1 = very poor and 5 = excellent) participants were asked to rate their abilities and/or confidence in burn treatment modalities
- Self-rated competence: burn injury management using a four point Likert scale (1= not competent at all and 4 = Highly competent)

Logistic Regression Model

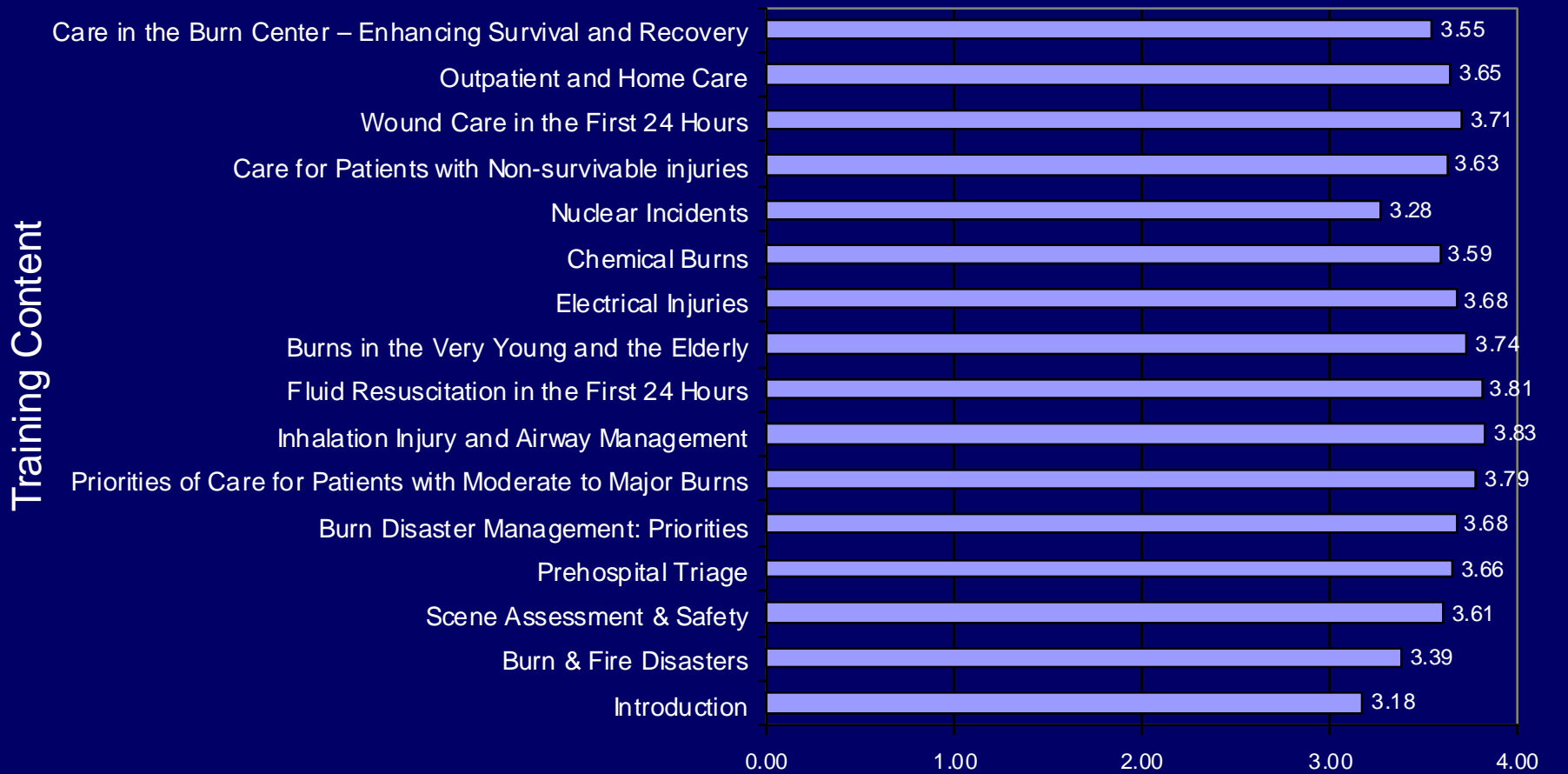


Participant Confidence Ratings Pre vs. Post Intervention

Scale Description: 1= Not Confident At All, and 4 = Very Confident



Usefulness of Program Content: Mean Ratings



Scale Description: 1 = Not Useful, and 4 = Highly Useful

Multivariate Logistic Association

Predictors of Feeling More Competent

Variable	Odds Ratio (OR)	Confidence Interval (CI)	p
Type of work (prehospital)	3.06	(0.83-11.30)	0.09
Practice in field (> 10 yrs)	0.31	(0.09-1.08)	0.07
Training site (urban)	0.01	(0.18-0.82)	0.01
Airway management	2.31	(1.03-5.17)	0.04
Electrical injuries tx.	4.86	(1.84-12.85)	<.001
Non-survivable injuries	2.24	(0.93-5.43)	0.07

Alpha = 0.10

N = 290

Non-significant variables: gender, age, motivation, establish treatment priorities, determine total BSA, calculate fluid resuscitation needs

Study Limitations

- Limitations:
Measurement and volunteer bias
- Program drew from target population across Kansas



Conclusions

- Curriculum achieved desired goals
- Improvement in knowledge translated to enhanced abilities, confidence and competence in burn assessment and treatment
- Regression analyses assisted to improve curriculum and program delivery
- Training for burn disasters cover a broad range of topics; however, learning needs may vary by practice setting, work experience and previous exposure to disaster events
- Findings suggest that “one size does not fit all”
- CE programs may need tailoring to meet unique learning needs