

Improving Farmers' Self-protective Behavior with a Narrative-based Tractor Safety Community Education Program¹

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Aims – Farm injury surveillance data were used to develop a community education program to promote farmers' adoption of tractor rollover protective structures (ROPS) in two intervention rural Kentucky counties.

Methods – The community-trials design included the two intervention and two control counties. Local groups in the intervention counties assisted in developing and then disseminated the program materials consisting of hands-on demonstrations, displays, mailing stuffers, radio public service announcements, and newspaper articles. Hundreds of personal stories about the risks and injury consequences of tractor overturns and the protection provided by ROPS and seat belts comprised the program. The intervention activities and materials were designed according to principles of narrative psychology, socioculturalism, participatory learning, persuasive mass communication, dual coding theory, and interactive learning.

Findings – Repeated measures analysis of variance of a pre- and post-intervention survey data collected from a random sample of 1,227 farmers found a significant difference ($p = .001$) in the expected direction for the intervention counties compared to the control counties with respect to (1) positive attitudes about ROPS, (2) contemplating putting ROPS on unguarded tractors, and (3) efforts to do so. A significant difference ($p = .05$) also was found in the expected direction for farmers' actual acquisition of ROPS-equipped tractors for the intervention counties compared to one control county (See Table 1). In the other control county an equipment dealer implemented his own ROPS retrofit campaign after a friend was killed in a tractor overturn. Records for the three-year project period revealed 50 SAF-T-CAB ROPS sales to dealers in the treatment counties and 8 to dealers in the control counties. (SAF-T-CAB manufactures ROPS for nearly all tractors except for John Deere and Kubota.)

¹ Community Partners for Healthy Farming Intervention Project, "Further Dissemination and Evaluation of the Kentucky ROPS Project" NIOSH/CDC Cooperative Agreement U06/CCU412900-02, principal investigator, Henry P. Cole. University of Kentucky Human Subjects Protocols 01-0205-P4L, 99-10018 and 00-0771.

Conclusion – The results are discussed in terms of the translation of injury surveillance data into narratives that promote replacement of risky attitudes and behavior with self protective behaviors.

Table 1

ROPS Retrofits and ROPS-equipped Replacement Tractors for Samples of Farmers across Intervention and Control Counties						
	Intervention Counties			Control Counties		
County	IC 1	IC 2	Combined	CC 1	CC 2	Combined
Farmers (n)	301	283	584	322	321	643
Retrofits	15 (5.0%)	27 (9.5%)	42 (7.2%)	8 (2.5%)	33 (10.3%)	41 (6.4%)
Replacement tractors with ROPS ~	10 (3.3%)	15 (5.3%)	25 (4.3%)	8 (2.5%)	7 (2.2%)	15 (2.3%)
Total	25 (8.3%)	42 (14.8%)*	67 (11.5%)	16 (5.0%)*	40 (12.5)	56 (8.7%)
95% CI	5.6-12.2	11.0-19.6*	9.1-14.4*	3.0-8.1*	9.2-16.7	6.7-11.2

~ Percent of farmers who replaced older unguarded tractors with newer (used or new) tractors equipped with ROPS where the primary motivation was to obtain a ROPS-protected tractor and not for other reasons like more power, better hydraulics, etc.

* Significant difference ($p < .05$) in farmers' intentional acquisition of ROPS-protected tractors

- Integrating Farm Safety Information into Social Studies Classrooms in Rural Public Schools: A Report from the Field. *Joan M. Mazur, PhD, USA*. Coauthor: *Henry P. Cole, EdD*
- Evaluation of Pedagogical Tools Used Within the Inter University Diploma Course (DIUST) in France: How to Acquire Knowledge but also and Especially Know Competencies. *Maria Gonzalez, MD, France*. Coauthors: *Janine Bigaignon-Cantineau; Alain Cantineau, MD, PhD*
- The Relationship of Training to Patient Assaults Against Mental Health Staff. *Kathleen McPhaul; RN, MPH, USA*. Coauthors: *Jane Lipscomb, RN, PhD, FAAN; Karen Soeken, PhD*

12 noon **Lunch – Provided**
Liberty Ballroom
Lobby Level

1:30-3 pm **Concurrent Scientific Sessions**

Reducing Ergonomic-Related Risk Through Education and Training

Lincoln Room

Cabana Level, North

Moderator: *Judith Ostendorf, RN, MPH, COHN-S, USA*

- Experience of New Teaching Strategies of Occupational Health and Ergonomics at Tallinn Technical University. *Virve Siirak, MD, Estonia*
- Utilizing a Multidisciplinary Ergonomic Educational Program: The New York Harbor Healthcare System Experience. *Margaret L. Eichler, MSN, FNP, COHN-S, USA*
- Highly Effective Training Results in Reduced Ergonomic Risk. *Shonna Cole, CEA, COHC, USA*. Coauthor: *Mark Klemmer, LLC*
- Implementing Mechanical Lifts and Training Programs in Acute Care Hospitals and Nursing Homes. *Laurie Wolf, MS, CPE, USA*. Coauthors: *Liz Aton; Jason Canos; Jim Collins; Bradley Evanoff, MD, MPH*

Intervention Effectiveness Strategies in Education and Training

Pratt 'A' Room

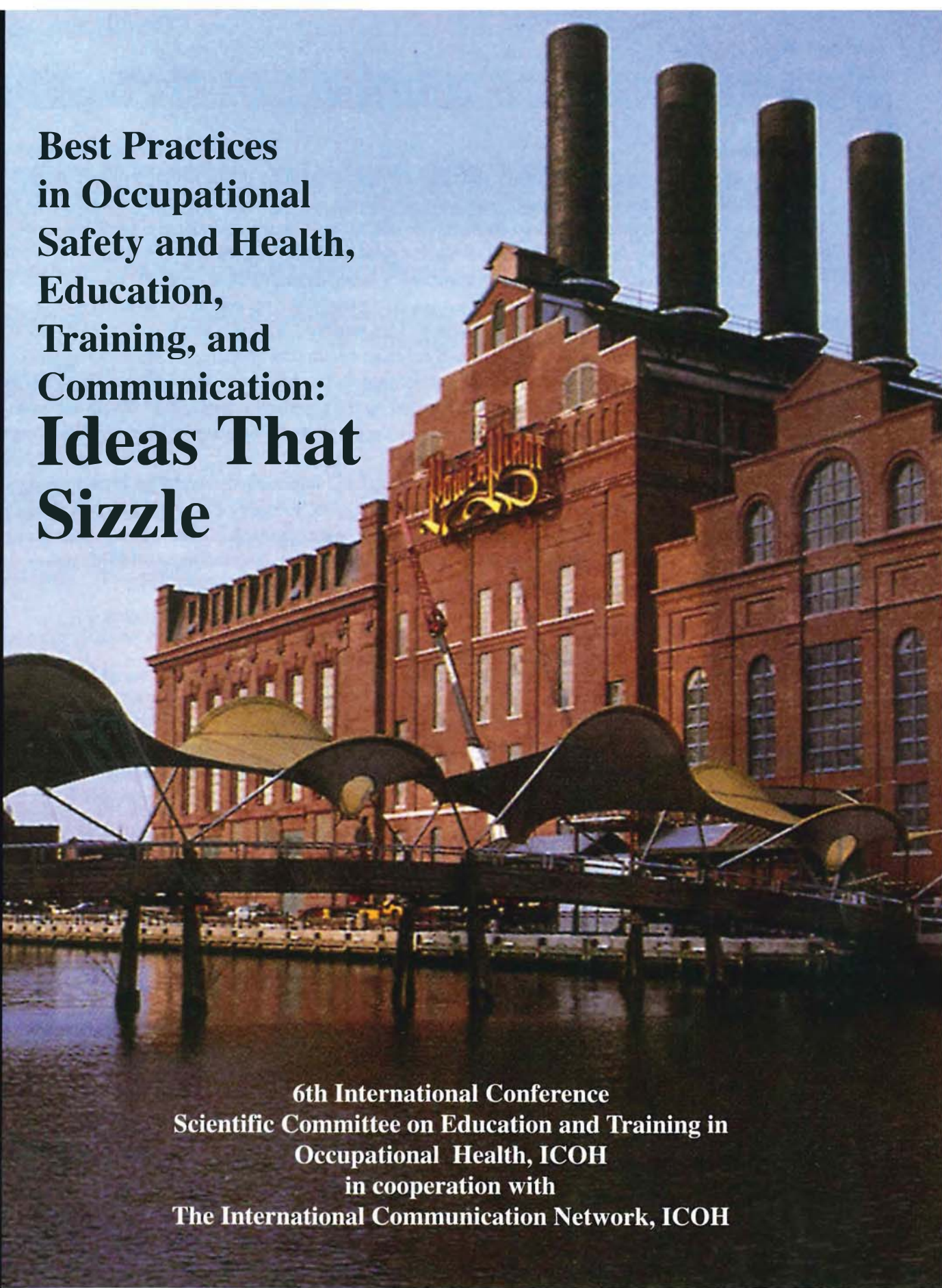
Lower Lobby Level

Moderator: *Roberto Lucchini, MD, Italy*

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