1) Context: The investigators partnered with six USA hospital emergency departments (EDs) to test the effectiveness of an intervention to reduce violence against ED workers. Healthcare providers, patients and ED managers participated in the four year project.

2) Problem: Research has found that violence experienced by healthcare workers from patients and visitors is a prevalent problem. A recent research study by the investigators (Gates, Gillespie & Succop, 2011) found that violence is a significant stressor for many ED providers and may have a negative impact on patient care and productivity.

3) Assessment of problem and analysis of its causes: The investigators conducted focus groups with stakeholders to describe the problem, identify risks and strategies to reduce risks, and evaluate the program. Stakeholders included administration, management, patients, security, physicians, nurses, ancillary staff, and patients. Environmental assessments were conducted and additional meetings were held with safety committees to assess the problem.

4) Intervention: Policies and procedures were developed, environmental changes were made to make the workplace safer, and education was conducted using on-line and classroom strategies.

5) Study design: The design for the study was quasi-experimental with nine months of pre- and nine months of post-intervention surveys with 220 direct care providers to measure intervention effects on violence, productivity, and feelings of safety and confidence. Three EDs served as intervention and three as comparison sites. Formative and summative data are also being collected to assess how managers and employees evaluate the intervention and the extent of diffusion of the intervention, and to provide recommendations for improvement.

6) Strategy for change: Action research strategies were used to involve the stakeholders in the planning, implementation and evaluation phases. Project materials and processes were continually reviewed and revised by ED managers and staff. The Diffusion of Innovations Theory was used as a framework to implement the intervention over a three month period. All ED staff and managers were involved in the change process which included planning meetings, staff meetings, intranet communication, and posters and flyers. The project has a webpage for ED employees and managers to access information about the project, study results and related activities.

7) Measurement of improvement: On-line surveys were used to collect quantitative data for 9 months pre- and 9 months post-intervention from 220 ED care providers to assess for changes in violence, productivity, and feelings of safety and confidence. Multivariate analyses are being used to measure the effects. Formative and summative qualitative data are being collected to assess the intervention process and strategies used for the project. Data collection was recently completed and analysis is underway.

8) Effects of changes: EDs successfully implemented the project over a three month period. At the post-intervention meeting, ED managers rated the overall program and the academic-hospital partnership as extremely positive. Suggestions were made to improve specific parts of the intervention. Two of the hospitals plan to take the intervention hospital-wide. Employees rated the classroom education as extremely beneficial, higher than the on-line education. Analyses to measure effects of the intervention on violence, productivity, safety and confidence are under way.

9) Lessons learned: Although action research is an effective strategy for implementing a violence prevention program, it does involve a significant amount of time and resources. Academic-hospital partnerships provide an excellent opportunity for conducting research in the clinical setting. Physician participation was low; more targeted efforts for support in the planning stage may help.
10) **Message for others:** Violence against ED workers is prevalent and has implications for employees, patients and hospitals. It is imperative that facilities identify effective interventions to improve employees' safety. Action research serves as an excellent model for conducting intervention research by allowing practitioners to reflect systematically on their practice and to implement informed action to make improvements in real world settings.