

A Healthy Child Care America Campaign Regional Child Care Initiative to Reduce and Prevent Injuries to Preschoolers

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Project Background

- Riley Hospital for Children awarded \$5,000 grant from the American Academy of Pediatrics Healthy Child Care America Campaign.
- Riley Hospital served as Project Coordinator
- Indiana Association of Child Care Resource and Referral Agencies served as State Partner and Advisor on development of a regional plan of action

Project Goals

- To pilot the RISK WATCH injury prevention curriculum in preschool settings to help reduce and prevent injuries to preschoolers in six states
- To begin building a regional alliance of child care providers, child safety advocates, and healthcare professionals to address safety and health issues for preschoolers

Regional Partners

Indiana, Illinois,
Wisconsin, Michigan,
Minnesota,
and Ohio



State Partners

- Child Care Resource and Referral Agencies
- Fire Service
- SAFE KIDS
- State Chapters of the American Academy of Pediatrics

Leadership Role of Child Care Resource and Referral Agencies

- The child care resource and referral network served as the primary contact and leader in each state
- The child care resource and referral network assisted in identifying and/or recruiting child care providers for the trainings in each state

Why RISK WATCH for Preschoolers?

- Our youngest kids are our most vulnerable to injury and injury-related deaths – they are curious, fearless, and lack an understanding of the consequences of their actions
- Children under age 5 consistently represent the highest numbers of injuries and injury-related deaths for children up through age 14

History of RISK WATCH

- Injury prevention program for children, preschool through grade 8.
- Developed by NFPA and Lowe's Home Safety Council.
- Supported by key injury prevention organizations for 8 injury areas in curriculum
- Based on successful elements found in the NFPA Learn Not to Burn Program and sound educational theory and practice
- Thoroughly tested in United States and Canadian schools

Why Use RISK WATCH?

- First comprehensive injury prevention curriculum for use in schools.
- Based on an integrated, experiential approach to learning. Age-appropriate and uses latest educational theory and practice.
- Field-tested and proven to be successful.
- Fun for both teacher and students.
- Directly involves care givers in learning process.
- Designed for maximum teacher flexibility.

Project Timetable

- November – December 2000: Identified contacts in each state, sent out correspondence
- January – February 2001: “Super trainer” script developed and sent to each state
- February – April 2001: States carry out RISK WATCH trainings
- March – May 2001: States submit pre-tests
- May – July 2001: States submit post-tests

Study Design

- Pre-tests were administered to preschoolers prior to the curriculum presentation
- Post-tests were conducted in the week following completion of the curriculum over 8 weeks
- Pre and post test scores were compared to evaluate gains in knowledge by the preschoolers about injury prevention as a result of exposure to the RISK WATCH Pre-K curriculum

Study Methods

- Total sample from 23 sites in 6 states was 456 preschoolers.
- Of the 23 sites, only 4 sites (102 children from Indiana) were assigned to a control group.
- Of the 354 children in the intervention group, only 258 (73%) took both the pre and post tests.

Study Methods

- To compare the difference between the intervention and control groups, Analysis of Covariance (ANCOVA) model was employed, in which the dependent variable is the percent of correct post answers and the percent of correct pre answers is a covariate.

Study Methods

- To explore the sensitivity of each question detecting the improvement of the intervention program, the percentage of change from pre to post at the individual question level was calculated.

Study Results

- 258 (73%) of the 354 children completed both pre and post tests.
- Most states had a positive change, except Michigan, where there was a statistically significant negative change. (reason for the negative change is unknown).
- To avoid any confounding by other unknown factors, Michigan was excluded from statistical analysis.
- Positive change in Ohio was not statistically significant.

Study Results

- The percentage improvement for the intervention group was 10.8 and its 95% confidence interval was (8.6, 13), which is statistically significant.

Study Results

- The intervention group had a higher percentage of positive change than the control group (p-value=0.005).
- The adjusted mean of the percent of correct answers for the intervention group was 90.3, while it was 84.6 for the control group.

Study Results

- Only 173 (75.5%) of 220 children in the intervention group (Michigan excluded) were used to calculate the sensitivity of each question.
- Questions 1, 5, 7, and 11 did not capture any significant changes (90% confidence interval contains 0).
- Remaining questions captured significant changes and all changes were positive. Question 3 had a very narrow 95% confidence interval, indicating this question is very reliable for capturing changes from the pre to post test.