

0612 A RANDOMISED, CONTROLLED TRIAL OF HOME INJURY HAZARD REDUCTION: THE HOME INJURY STUDY

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Background The home is a leading location of injury for young children.

Objective Test the efficacy of home safety device installation on medically-attended injury.

Methods Of 8878 screened prenatal patients, 1263 (14%) were eligible and 468 (37%) agreed to participate. 355 children were born and randomly assigned to experimental (n=181) or control (n=174) groups. The mean number and density (no. per area) of hazards were assessed at home visits by trained research assistants using a validated survey. Medically-attended visits were measured by telephone survey. Two intention-to-treat analyses were conducted on (1) total injury rates and (2) on injuries deemed, a priori, preventable by installation of devices. Rates were calculated over 24 months using Poisson regression and generalised estimating equations.

Results The mean age of children at intervention was 6 months. Injury hazards were significantly reduced from baseline to 12 months in intervention but not control homes ($p < 0.005$). The mean number ($p < 0.02$) but not density ($p = 0.44$) of hazards was also reduced at 24 months compared to controls. There was no significant difference in the rate of all medically-attended injuries for intervention compared to control group children, 14.3 (95% CI 9.7 to 21.1) versus 20.8 (95% CI 14.4 to 29.9) per 100 child-years ($p = 0.17$) respectively; but there was a significant reduction in preventable medically attended injuries among intervention compared to control group children, 2.3 (95% CI 1.0 to 5.5) versus 7.7 (95% CI 4.2 to 14.2) per 100 child-years, respectively ($p = 0.026$).

Conclusions An intervention to reduce exposure to injury hazards in homes of young children led to a 70% reduction in injury.