

Safety 2010 World Conference





Knowledge and Evidence in Child Injury Prevention: Ten years between Clinical Ideals and Public Health Practices

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The emergence of evidence in injury prevention

The Cochrane Collaboration

Results published in <u>Cochrane Reviews</u>
Online in <u>The Cochrane Library</u>.

"State of the Art"





Cochrane Injuries Group (CIG)

- Launched in 1997
- First systematic injury review published in 1998
- •From 2003 the number of reviews increased steadily
- Around ten years of interest in evidence based injury research





Objective

- What is the evidence-base in child injury prevention according to the Cochrane Injuries Group?
- •How can the evidence be characterized?
- •How useful in measuring the effectiveness of injury preventive strategies is "the state of the art"?





Methods: Browse library by review group: "Cochrane Injuries Group"

| | Total (CIG) | Injury Prevention | Child Injury Prevention |
|-----------|-------------|----------------------|-------------------------|
| Reviews | 103 | 35 | 29 |
| Protocols | 28 | 3 | 3 |





(Methods)

For each review we have noted information on:

- Study designs
- Outcome variables
- Author's view on results:
 - a) Evidence-based
 - b) Promising or beneficial
 - c) No or insufficient evidence of impact
- Author's view on challenges in writing the review





The evidence-based interventions (11)

- 1. Alcohol-related interventions (counseling) targeting drunk driving recidivism
- 2. Bicycle helmets
- 3. Bicycle helmet non-legislative interventions
- 4. Bicycle helmet legislation
- 5. Booster seats 4-8 year olds
- 6. Graduated driver licensing among young drivers
- 7. Home safety education and provision of safety equipment
- 8. Motorcycle helmets
- 9. Red light cameras
- 10. Speed enforcement devices
- 11. Swimming pool fencing





Promising or beneficial interventions(9)

- 1. Adoption of the WHO "Safe Communities" program
- 2. Alcohol ignition interlock programs
- Increased police patrols for preventing alcohol-impaired driving
- 4. Parent education on preventing injuries during childhood
- 5. Pedestrian and cyclist visibility
- 6. Traffic calming measures
- 7. School-based violence prevention
- 8. Smoke alarms
- 9. Street lighting for preventing road traffic injuries





No or insufficient evidence (9)

- 1. Community-based interventions for the prevention of burns and scalds
- 2. Educational interventions to reduce injuries in agriculture
- 3. Educational interventions for the prevention of eye injuries
- Education of children for the prevention of dog bite injuries
- 5. Interventions in alcohol serving settings
- 6. Modifications of home environment
- 7. Post-license driver education
- 8. Safety education of pedestrians
- 9. School-based driver education





Seven implications of clinical ideals in injury practices:

- 1. Evidence is informative and motivational
- 2. Evidence emphasizes the method first and the research question second
- 3. Evidence is hard to get





(Continued)

- 4. Injury is the favorite outcome
- 5. Passive or built-in measures are not easy to fit into RCTs
- 6. Randomized Controlled Trials are costly for low frequency injuries
- 7. The objective of evaluations are changed to confirming rather than exploring





Moving beyond evidence

•Re-assess the role of RCT

- Take contextual variables as a challenge
- •Re-introduce knowledge





Thank you!

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