SPLINTERS & FRAGMENTS

Firearms
A Swedish study matched 141 cases of children and teenagers hospitalised due to firearm injuries during a 21 year period with 141 controls to track the long term profile of both groups. Most had been shot by airguns and periods of hospitalisation were usually brief. Ten years down the track, cases had experienced higher levels of morbidity from all causes, with all the diagnoses of severe psychopathology being among the case group. Criminal histories were more frequent among cases, who were also younger at the time of the first offence. The study suggests that “irrespective of firearm laws, young people suffering from firearm injuries, even if the injury is classified as accidental, run a higher risk of becoming psychosocially disadvantaged and criminal as adults” indicating that preventive measures will benefit not only society as a whole, but also at-risk young people themselves (European Journal of Emergency Medicine 1997;4:125–9).

Toddlers and swimming pools—two views on pool fencing

Will fencing of residential swimming pools prevent toddler drownings? When Queensland’s landmark swimming pool fencing legislation was implemented in 1992, it was accompanied by an aggressive publicity campaign. In each of the two years after legislation, only two toddlers drowned, and pool fencing legislation appeared to have achieved its objective. In the next three years, however, the trend line started to creep up, and an average of 11 children have drowned each year since, bringing the figures close to the average of 12 per year in the pre-legislation era. Two factors need to be borne in mind: the number of residential pools has nearly doubled; and close examination of the circumstances revealed that in 33 of the 38 post-legislation cases, the pools did not comply (pools were unfenced or had defects in the barriers), and in three cases the pool gate had been propped open. There were three cases of children climbing fences. No legislative measure will be successful without enforcement and the authors recommend that strategies to increase compliance be implemented in conjunction with a renewed public education campaign (Med J Aust 1998;169:557–8). A United States study does not support the fencing approach: the authors believe that even if all pools were fenced, most drownings to preschoolers would still happen. Data from a random telephone survey of 5238 households to estimate the national prevalence of fencing were extrapolated to estimate that of approximately 18.5 million households with outdoor swimming pools, 76% would have been adequately fenced. In turn this translated into an estimated 88 drownings that could have been prevented had all home pools been fenced. Householders living in detached houses and those with annual incomes exceeding $US50 000 were significantly less likely to report having adequate fencing than others, with no difference between households with children <5 years of age and those without young children. The authors concluded that “even if all residential pools in the United States were fenced adequately, most of the pool-related drownings that occur among children <5 years would not be prevented . . . [and that] other prevention strategies need to be considered (eg, pool covers and alarms)” (Pediatrics 1998;101:e3). The study could benefit from a more detailed examination of the reported adequacy of the fencing, as proposed in the following article.

Investigation techniques in need of improvement

The traditional methods of collecting injury data, telephone interviews, mail questionnaires and on-site investigations, can be affected by bias and incompleteness, possibly leading to implementation of ineffective countermeasures. Valuable insights may be lost due to time and money constraints, and the lack of open ended questions. The authors suggest that lessons could be learned from the legal technique of witness questioning since recall and perceptions are somewhat selective and overlaid by post-event interpretation. Reconstruction at the place the event occurred, with video and sound recordings, as soon as possible after the event, can be quite helpful in retrieving information. Subjects frequently attribute causation to a narrow range of choices, usually their own fault, and rarely consider product or circumstantial characteristics as contributors. “These findings suggest that an exclusive reliance on subjects’ reports is bound to result in biased conclusions as to the occurrence of accidents. . . . in order to set requirements for a safer product, one cannot do without detailed insights into user-product interactions resulting in injury”. Since this form of data collection is time consuming and costly, the authors recommend designing questionnaires only after a detailed examination of several actual cases has been conducted (International Journal for Consumer & Product Safety 1998;5:173–89). This approach would surely result in more accurate and complete data on which to base preventive programs.

Bull bars

Testing using impact test procedures developed to assess the safety of cars in impacts with pedestrians, has shown that, in general, vehicles equipped with bull bars are more likely to cause injuries to pedestrians, especially child pedestrians, than vehicles not fitted with bull bars. Test results from trials with plastic bull bars have shown them to be much safer for pedestrians and there is evidence that cars equipped with these may even be safer than cars without (Pre-hospital Immediate Care 1997;1:99–100).

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