

357 RISK OF UNINTENTIONAL INJURY IN CHILDREN WITH SENSORY IMPAIRMENT

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Background Unintentional injury (UI) is a leading cause of death in <15s. Children have less ability to process and synthesise complex sensory information. Children with sensory impairment (SI), whether visual impairment (VI) or hearing impairment (HI), are at increased risk as they have incomplete development summated with SI.

Methods Medline (from 1950), Embase, AMED and PsychINFO were searched to Week 36, 2013. The search string was designed to maximise sensitivity. PICO was P:Children from birth to 18 I: SI defined by the study authors as 'significant' C: Not impaired O: UI – medically attended or self-care. Exclusion criteria were papers with mixed ages with no separate children's data, varied impairments (I) with no outcomes by I, or mixed levels of I with no separate data for significant I. The systematic review was registered with PROSPERO, the International Prospective Register of Systematic Reviews.

Results 16,466 articles were title reviewed and 15,290 excluded. 1,176 abstracts were reviewed and 1,139 excluded. Grey literature searching identified a further paper. 38 full papers were reviewed with 16 articles included. 22 articles were excluded. A narrative synthesis of the heterogenous data found increased risk of UI with increasing age, male sex, being from an ethnic minority, of low socio-economic status, having low activity levels and for dental UI specifically risk was increased with overjet > 3.5 mm, severe malocclusion, inadequate lip coverage and poor oral health.

- No cohort studies or trials were found. No research was found covering some of the major types of childhood UI such as drowning or fire-related UI. Nor covering the effect of the severity of the impairment on UI risk. Nor covering effect of comorbidities on UI risk in SI.

Conclusions Little is currently known about the impact of SI on UIs. This review suggests SI increases a child's risk of UI. Surprising gaps in evidence were found. Further high-evidence level studies are needed.

358 INCREASING SAFETY IN TRANSPORTATION OF CHILDREN WITH SPECIALS HEALTHCARE NEEDS: A CLOSER LOOK AT A PAEDIATRIC HOSPITAL'S APPROACH TO ADDRESSING GAPS

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Background Car seats are vital for reducing the incidence of motor vehicle-related injury and death. Many children with special healthcare needs require specialised transportation resources, which can be costly and difficult to instal. The present study aims to characterise the patient population served by a paediatric hospital's special needs car seat loaner program and community-based special needs inspection station data. These concerted

efforts attempt to improve the occupant safety children special healthcare needs.

Methods Child Passenger Safety Technicians (CPSTs) certified in special healthcare needs, conducted car seat consultations for patients over a 2-year period. In each consult, a CPST evaluated the patient and provided an appropriate loaner seat, along with education regarding proper installation of the seat. Additionally, car seat inspection station collected data on child restraint selection and installation (uses and misuses) of children with special healthcare needs in the community.

Results Car seats were distributed to 124 patients throughout the hospital. The community-based car seat inspection station provided insight on selection, installation and referral processes for children with special healthcare needs. Both strategies provided special needs CPS resources to children and increased safe transportation options for families.

Conclusions The loaner program served children with temporary and long-term special healthcare needs. The special needs inspection station provided a unique insight to selection, installation and educational resource needs related to transportation. Car seat loaner programs for special needs children offers cost-effective and convenient means of promoting child passenger safety for children with a variety of unique medical needs.

359 FACTORS INFLUENCING SAFE ACTIVE PLAY FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS

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Background Participation in physical activity can provide important health benefits for children living with Autism Spectrum Disorders (ASD). Children with ASD, however, experience increased risk of injury along with higher levels of inactivity and obesity. The increased injury risks are related social, sensory, and behavioural factors. Parents of children with ASD also express safety concerns which may influence children's participation in activities. In light of these factors, there is a need for better understanding of the barriers and supports for children with ASD to take part in safe and active play opportunities.

Methods This project explored the views of parents and service providers about factors influencing safe and active play for children with ASD, who were 3–12 years in age and residing in the Okanagan region of British Columbia, Canada. A qualitative, ethnographic approach was used that included in-person, in-depth interviews with parents and service providers that were conducted in 2015. Data collection also included participant observation in recreation settings and review of relevant documents. Grounded theory and constant comparison was used to identify categories and major themes.

Results Parents and providers identified a range of specific child safety concerns including bolting and wandering behaviours, access to outdoor hazards, and falls and collisions during play. Barriers and supportive factors were identified at both child and family levels. At the community level, factors in the social and physical environments were seen to play key roles along with community programming and services.

Conclusions Program planning for safe recreation opportunities for children with ASD should be informed by consideration of barriers and supports at varied levels. Programs and policies that address local needs and provide secure environments can help to