

915 EVALUATING THE IMPLEMENTATION OF A SPORT INJURY PREVENTION PROGRAM IN A SCHOOL SETTING

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Background Sport injuries are a significant burden, and while there are studies demonstrating the effectiveness of injury prevention programs, there is less guidance on how they are adopted and implemented successfully. The aim of this project was to conduct a process and formative evaluation of an injury prevention program implemented in a school setting.

Methods This study proposes two frameworks [RE-AIM and the Consolidated Framework for Implementation Research (CFIR)] to evaluate the implementation of a neuromuscular training program (iSPRINT) to reduce sport injury and improve health-related measures in a junior high school population. The five dimensions of the RE-AIM and CFIR frameworks will be used.

Results A total of 245/320 students were willing to participate in the program (68% reach). There was a lower risk of injury in intervention schools ($n = 2$) compared to controls ($n = 2$) [RR = 0.52 (95% CI: 0.33–0.81)]. 76% of students and 83% of teachers reported positive attitudes towards the program, 60% of students reported they believed the program could reduce the risk of injury, and 74% reported the program could improve fitness. 14% of the schools approached agreed to participate in the program (adoption). For students, the most frequently reported reason for participating was the belief that the program would reduce injury and increase fitness. Factors related to successful implementation of the program in schools included clear explanation and demonstration of the program, and barriers included difficulty in executing certain program components. Finally, 88% of teachers reported interest in maintaining the program. Ongoing formative evaluation will be collected via focus groups using CFIR constructs (2015–2016).

Conclusions Teachers were able and keen to continue to use the iSPRINT program. We will provide further discussion on the dimensions of REAIM, and report the specific constructs that facilitated and impeded implementation of the iSPRINT program.

916 A FIVE-YEAR TIME TREND ANALYSIS OF ROAD TRAFFIC INJURIES [RTIS] AND DEATHS AMONG INFANTS AND TODDLERS IN QATAR

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Background Road Traffic Injuries (RTIs) are the leading cause of death in Qatar,¹ but the epidemiology of these injuries in the infant (0–1 years) and toddler (2–4 years) [IAT] population has not been reported. This study aimed to document and analyse the epidemiology of RTIs in IATs of Qatar and make recommendations for targeted and age-specific recommendations to improve road safety for this population.

Methods A retrospective analysis of data on child RTIs and RTI deaths admitted to the Hamad Medical Corporation [HMC]

Trauma Centre or Mortuary in Doha, Qatar, from 2008–2014, was conducted. Temporal trends in the nature of RTIs and RTI deaths, road user types and mortality rates were calculated and analysed for the years that age-group population size was available.

Results There were 189 severe RTIs and 15 RTI deaths during the study period. Males made up 80% of the injured and 60% of fatalities. The average age of the injured was 3 years and for fatalities was 2.8 years. Pedestrians [53%] and unrestrained passengers [43%] made up the majority of the injured. There have been steady declines in severe RTI and RTI death rates from 2008 to 2012 [25.9 to 22.2 RTIs per 100,000 and 9.0 to 4.0 RTI deaths per 100,000], but these rates are still two times higher than those for IAT in other high-income countries [HICs] like the United States and Germany.²

Conclusions RTIs and RTI death rates in IAT in Qatar have been declining but proven programs for improved safety of child pedestrians and passengers must be implemented if it is to approximate those in other HICs. This includes programs around child restraint use and improving pedestrian environments and practices/supervision for IAT.

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917 PROACTIVE AND REACTIVE PARENT-CHILD CONVERSATIONS ABOUT INJURY

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Background Parents are uniquely positioned to reduce unintentional injury risk in children. Early in childhood this takes the form of direct supervision, yet as children gain independence parents must devise new ways of keeping their children safe. Parent-child conversations about safety may help children to internalise safety values so that they are able to independently regulate their own behaviour. This paper reports studies that examine how these conversations unfold in both proactive (before an injury occurs) and reactive (after an injury has occurred) situations.

Methods We studied proactive conversations by asking mothers and their children (8- to 10-years-old) to rate and discuss the safety of 12 photographs depicting children engaged in various physical activities. To examine reactive conversations, we examined interviews with parents about the strategies they used when discussing how an injury requiring a trip to the emergency department could have been prevented.

Results In proactive conversations, parents referenced the potential outcomes of the activity and the dangerous features of the situation. In reactive conversations, parents relied on 4 main strategies: 1) providing an alternative strategy for future use, 2) telling children to be more careful in the future, 3) telling children not to engage in the activity again, and 4) explaining why the activity was dangerous. Parents varied their use of these strategies according to children's age, gender, and the circumstances surrounding the injury.

Conclusions Parents promote the internalisation of safety values by pointing out dangerous features and outcomes of a situation, as well as by explaining why certain behaviours are dangerous. In

doing so, parents are preparing their children for independent, safe navigation of the world around them.

918 PATTERN OF CHILDHOOD INJURIES: FINDINGS FROM HOSPITAL BASED INJURY SURVEILLANCE SYSTEM IN OMAN

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Background Globally, injuries cause death and disability for millions of children every year. Literature from high-income rapidly developing countries, such as the Arab Gulf states, on this burden is sparse. Realising this gap, a surveillance system was established in two hospitals of Oman. Data on childhood injuries was collected and analysed to better understand such injuries in the Arab Gulf States.

Methods Data was collected over a 6-month period in two large hospitals of Oman. All patients up to 18 years who were admitted with a history of trauma between October 2014 and April 2015 were included. External cause and place of occurrence according to age and sex was analysed.

Findings 35% of all cases were paediatric (891/2549 cases) and of those, 69.3% were males. Children between 0–5 years accounted for 53% of the study population. Most common external causes of injuries were falls (51%), exposure to mechanical forces (20.4%), and transport injuries (16.5%) for all ages. Analysis by age revealed that falls accounted for 50.9% of injuries for ages 0–5 years and 53.3% for 6–12 years. Transport injuries (43.5%) were the most common cause for children 13–18 years, which were also more common in males (20%) than females (8.4%). Larger proportion of females (13.5%) was injured by contact with heat and hot substances vs. males (6%). Home was the place of injury for most children 0–5 years (86.4%) and 6–12 years (61.5%), whereas streets and highways were the most common place of injuries for age 13–18 years.

Conclusion Childhood injuries are a significant cause of hospital admissions in Oman. Significant age-related differences in cause of injury highlight the need for targeted interventions. Prevention of home-based falls and transport injuries must be a priority for all children. Additionally, road safety interventions and education must be the top agenda for young Omani males.

919 NEW CRAZY GAME “RUSSIAN BIKER ROULETTE”

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Background The spread of different games through the internet and via social networks is becoming a serious health problem that physicians and medical professionals have to deal with, and it is necessary for them to be aware of the risks those behaviours are connected to. Unintentional injuries are the leading cause of morbidity and mortality among child and teens and some Authors reports recommendation regarding safe practices to reduce injuries [1][2]. The “deadly new craze” involving bikers taking turns

to cross a busy road without checking for cars is an unsafe practice visible in web videos.

Methods In this study we considered a particular case of bicycle accident related with a game proposed via web: the bike roulette challenge. We developed an appropriate, educational public health training program to understand the current characteristics of unintentional road traffic injury related with web challenges.

Results This case is about a 16 year-old male patient arrived alive to the hospital with thoracic and abdominal trauma. The length of stay was 18 days associated with serious surgical complications.

Conclusion In recent years is commonly possible to find strange, crazy, popular videos, via web with the intention to obtain in young population a good number of “likes”. Bike roulette is a particular game described via web and is one of the new cause of trauma. Identifying biker roulette related injury in administrative data collections can be very problematic; the results of this apparently isolated case report can be used to research appropriate procedures and timely referrals of severe adolescent injury related to web games. School appropriate interventions have got the potential to reduce unintentional trauma related to these behaviours.

920 GAMBELLA ETHIOPIA PRIMARY 5 SCHOOL VIOLENCE

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Background For decades in Gambella Ethiopia collective ethnic violence has been recurrent among the Nuer (Pastoralists), Anuak (Agriculturalist) & Highlanders (Northern Ethiopians). The Anuak have been moved from their land to accommodate Indian, Saudi and Chinese agribusiness. Land pressures are augmented by refugees from the Southern Sudan. Injury and violence among grade 5 children growing up in this milieu was evaluated.

Methods The study was conducted in March 2013. Qualitative and quantitative data was collected from a randomised stratified sample. Ethical approval was obtained. Study population came from 21 Schools, (11 Urban, 2 Semi-urban, 10 rural) , Pupils N = 1674 females 795).

Results Violence included physical attacks & fights and hitting or stabbing with weapons. Attack Frequency: last 6 months 51.8%, Fight 46.3%, all Violence 57.5%; Serious Injury = 16.7% (67.2% Fracture; 28.6 % Cuts). Validation was via School First Aid Records. Bullying episodes: 2/month (girls 67.2%, boys 57.2%); 10/month 14%. Emotional Dimensions: social isolation in all: 8.51%, no friends 15%. Victimized 33% no friends, 9.6% felt hopeless, 2.2% suicidal, 13 sleep disorders 30% absenteeism. Drug use among violence exposed: alcohol 38%, tobacco 20% khat. 23%, & 21% had initiated sexual activity. Children (1/3) noted parents were unaware of their situation. Violence associations: female gender OR 2.35 (1.78–3.01), khat or Alcohol use OR 9.86 (6.16–15.77, sexual activity OR 2.16 (1.98–3.99). Family Support was protective.

Conclusions The prevalence of physical violence and bullying among Grade 5 children in Gambella is high. There was no variance between rural and urban settings. Injury was common; social consequences are severe Social misconduct was associated with violence; Family support was protective. Gambella Ethiopia has suffered from decades of collective ethnic based violence