

#### 455 UNINTENTIONAL INJURIES IN SCHOOLCHILDREN IN FRANCE: CONTRIBUTION OF THREE SURVEYS AT 6, 10 AND 15 YEARS

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**Background** Unintentional injuries need to be better studied to be avoided, as they are responsible for 25,000 deaths per year in France, including one a day in children under 15 years old. One of the objectives of “school surveys” is to describe these injuries, the conditions of their occurrence, their severity, their consequences in terms of limitations and healthcare, and the factors associated with the injury.

**Methods** The same questionnaire on the occurrence of injuries was used in three nationally representative samples in France: 17,000 schoolchildren aged 5–6 years in 2012–2013, 7,000 schoolchildren aged 10–11 in 2004–2005, and 7,000 students aged 14–15 in 2008–2009. The data were weighted; descriptive and multivariate analyses were performed.

**Results** In the three months preceding the survey, 4% of 5–6 year-olds, and 9% of 10–11 and 14–15 year-olds reported an injury. The proportion of traffic accidents was 10% at 14–15 years, and only 4% at 10–11 years and 2% at 5–6 years. The proportion of fractures was similar among the three samples, representing between 20% and 24%. Sprains increased with age: 8%, 33% and 54%. The head was the most affected part at 5–6 years (57%) and lower limbs at 10–11 years and 14–15 years (41 and 48%). Injuries were more frequent among boys in the three surveys, in middle class children, in children spending less time watching a screen, in children with a history of asthma or practicing a sport activity in the 14–15 years age group, and in overweight children in the 5–6 years age group. They were less frequent in 5–6 years and 10–11 years old children attending school in priority education zones.

**Conclusions** As all the children attend school in France, these results relate to all unintentional injuries of children of one age group. Further specific surveys on the most severe injuries are needed to define preventive actions.

#### 456 ROAD TRAFFIC INJURY PREVENTION AMONG SCHOOLCHILDREN, SPLIT AND DALMATIA COUNTY, CROATIA, 2015

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**Background** All children in childhood are exposed to risk of road traffic injury (RTI). Insufficient road traffic orientation, education and other risk factors inherent to childhood make children vulnerable group. Routine mortality data obtained from the Croatian Bureau of Statistics for Split and Dalmatia County (SDC) showed 3 children aged 5–9 and 5 of them aged 10–14 as victims of RTI deaths with mean annual mortality rate 3.5 and 3.3 per 100.000 respectively, during the observed period 2003–2013.

**Objective** Our project based on multidisciplinary approach is intended to improve knowledge on road traffic injury prevention (RTIP) and to increase road traffic skills among young schoolchildren (aged 6–10 years) in two elementary schools where two road traffic related deaths occurred (one at schoolyard and other nearby school bus station).

**Results** In accordance with the Third Road Safety Week celebration, Health Promotion and Disease Prevention Department in partnership with the Traffic Police Department, implemented pilot project on RTIP which included almost 300 schoolchildren. The project consisted of two workshops, educational and role playing one, designed by public health professionals and police officers. Pre and post questionnaire scores were compared to assess the effectiveness of the workshops. We used descriptive analysis. Results showed that children’s knowledge of RTIP was insufficient. After implementing workshops, children improved knowledge of RTIP as well as their road traffic skills (increased competence in respecting traffic rules) and were able to take their own road safety measures responsibly (helmets, seat belts). Also they increased global awareness of injury prevention.

**Conclusions** Early and continuous education including road traffic skills improvement is essential aspect of RTIP among young schoolchildren. The formation of public health - police partnership can contribute to well RTIP which represents example of good practice.

#### 457 SETTING-UP AN EPIDEMIOLOGICAL MONITORING SYSTEM IN METROPOLITAN FRANCE: A CASE REVIEW OF DEATHS BY TRAUMA IN CHILDREN UNDER 15

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**Background** In metropolitan France, trauma is the leading cause of death among children under 15 years: 450 annual deaths (source: *Epidemiological Centre for Medical Causes of Death*), with 220 deaths due to home and leisure injuries (HLI). These rough mortality data do not describe the circumstances of the trauma resulting in death.

**Methods** A feasibility study was conducted in 2009 in three regions covering one third of the population of metropolitan France. Through a case review, the main objective was to accurately describe how these HLI occurred, in order to determine their risk factors. Its secondary objectives were to test the feasibility and evaluate the opportunity of extending and/or scaling up the monitoring of these deaths.

**Results** Results of this feasibility study based on 76 HLI death certificates led to contact 219 medical certifiers, among whom 93% filled the detailed questionnaire. The information collected allowed to characterise HLI and to identify risk factors: types and intensity of lack of supervision by adults (little child left alone at home, in the bath, parents asleep, etc.) in 75% of cases among children under 1 year and 57% among 1–4 years children; lack of awareness (groundnut given to a toddler); parent’s deny of risk (let a firearm accessible); the responsibility of dangerous products was mentioned in 43% among children under 15 years (for firearm, ring, crib bars, etc.) or misused by adults or children; the influence of inappropriate behaviour among teenagers in 70% of cases, etc.

**Conclusions** The conclusions of this feasibility survey are positive: data collection is effective and practicable with a high quality and exhaustiveness. They led in setting up a permanent survey at national scale on “Detailed analyses of deaths by trauma among children under 15”, that started at end of 2015. The precise knowledge of the circumstances of these lethal traumas will be a basis to measure their avoidability and to prevent them.

#### 458 PARENTAL PERCEPTIONS ON RISK OF CHILD INJURIES IN THE COLOMBO DISTRICT OF SRI LANKA

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**Background** The objective of this study was to describe parental perceived factors which may influence the occurrence of unintentional traumatic injuries among children aged 5 to 12 years, in the Colombo district of Sri Lanka.

**Methods** A community based qualitative study consisting of several Focus Group Discussions (FGD), were conducted, covering four separate areas of the district. The study population was housewives, who were parents of children. Each FGD consisted of 5 participants, a facilitator and a note taker. They were conducted in a private setting within their villages.

**Results** The study showed that home, schools, playgrounds and roads were the most common injury risk environments according to the parental perception. Risk factors for home injuries were hyperactive children, non-vigilant parents, socio-economic family factors and behaviour of other siblings. Unruly students, inexperienced teachers and unsafe school environment were identified to be the risks at school. Playground conditions and incorrect techniques in sports were causes for playground injuries. Travelling in 2-wheel and 3-wheel vehicles were a risk factor for road accidents. Most parents thought inexperience of children were a main cause for sustaining injuries. Lack of proper parental guidance in carrying out activities put children at risk of injury. Parental awareness of child's friends, their behaviour and activities were found to be important. Knowledge of first aid in the children and proper implementation of regulations by the authorities were also mentioned as important steps that could minimise the occurrence, and effects of injuries.

**Conclusions** Parents have a responsibility in the prevention of injuries of their children. They need to teach and train their children to identify injury risks factors and avoid them or act safely. They need to be aware of the child's friends, their behaviour and must have a close bond with their children to prevent them from injuries.

#### 459 NURSES' PERCEPTIONS ABOUT CHILD ABUSE

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**Background** Despite the efforts to protect children around the world, child abuse and neglect remain serious and global problems. In Palestine, child abuse is hidden under the community culture, does not appear in the Ministry of Health official reports, and little is known about nurses' perceptions towards this phenomenon. The aim of this study was to identify nurses' perceptions about child abuse definition, whether they faced such cases during their work, and how they managed them.

**Methods** Data were collected using descriptive survey (exploratory) approach. A total of 84 nurses from a major hospital in Ramallah city in Palestine were surveyed.

**Results** Only 33% of the participants intend to use referral system in co-operation with the Ministry of Social Affairs, child protection organisations, or the police in Palestine to deal with child abuse cases. The most seen abuse case was neglect (79%), followed by psycho-logical abuse (61%), then physical abuse (57%) and the least seen was sexual abuse (27%).

**Conclusions** Most of the participants do not know how to deal with child abuse effectively. This research provides baseline information for understanding nurses' practice in the ground, and it helps in presenting the appropriate conditions that enable nurses to fully practice their role toward such cases.

#### 460 CHARACTERISTICS AND RISK FACTORS OF DOG-INDUCED INJURY AMONG CHILDREN IN TWO DIFFERENT SIZE CITIES OF CHINA

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**Background** Dogs are a potential source of several health hazards for humans. Global public attention has recently focused on bites and other canine aggression, but few data in China. Our study aims to estimate the prevalence of dog-induced injuries and to identify possible risk factors in the two cities with different population and development level.

**Methods** A cross-sectional survey of 9380 children from middle size city, Shantou and super city, Shenzhen in Guangdong province, was conducted in 2015. A self-administered questionnaires was used to collect participant's information on socio-demographics and injury occurrence. Multivariate logistic regression was used to assess the individual and family factors associated with odds of dog-induced injuries.

**Results** Among 9380 children, the range of age was 6–20 ( $12.85 \pm 3.29$ ), and 50.5% were male. 1413 (15.1%) children reported they had been injured by dog. In the two areas, 18.1% of children had been injured by dog in Shenzhen and 11.7% was attacked in Shantou ( $\chi^2 = 75.03$ ,  $P < 0.01$ ). Multivariate logistic regression results for all children showed dog-induced injury was associated with middle-school age (OR: 2.17, 95% CI: 1.71–2.74), living in rural area (OR: 2.48, 95% CI: 1.93–3.19), being fond of animals (OR: 1.46, 95% CI: 1.09–1.91), poor academic performance (OR: 1.54, 95% CI: 1.28–1.85), both parents working outside (OR: 1.42, 95% CI: 1.17–1.72) and dog owner (OR: 1.76, 95% CI: 1.40–2.21). The dog-induced injury rate was no significant difference among boys and girls. Moreover, hierarchical multiple regression analysis were conducted by different city, showed increased risk of non-only child, poor academic performance and dog owner were significant only in Shantou (middle size city), while middle-school age, living in rural area and mother working outside only in Shenzhen (super city).

**Conclusions** Dog-induced injuries have become a pressing public health problem among Chinese children. Strategies targeting the risk factors may be effective for the prevention of injuries by