

Knowledge, attitude and practice study for the
role of family physicians and nurses in
prevention and treatment of unintentional
injuries in children under 10 years, Cairo

Thesis

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List of Abbreviations

| | |
|--------------|--|
| AAP | : American Academy of Pediatrics |
| ACA | : American Counseling Association |
| CDC | : Center for disease control and prevention |
| CPR | : Cardio pulmonary resuscitation |
| DALYs | : Disability Adjusted Life Years |
| EDs | : Emergency Departments |
| EMRO | : Eastern Mediterranean Region Office |
| EU | : European Union |
| FGD | : Focus group discussion |
| FHCs | : Family Health Centers |
| GBD | : Global burden of disease |
| GCUIS | : Global childhood unintentional injury surveillance |
| HIC | : High income country |
| ICECI | : International classification of external cause of injury |
| IPC | : Injury prevention counseling |
| KAP | : Knowledge, attitude and practice |
| LMIC | : Low and Middle income country |
| MVT | : Motor vehicle traffic |
| RTAs | : Road traffic accidents |
| WHO | : World Health Organization |
| YLL | : Years of life lost. |

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Introduction

Injuries are a leading cause of death and disability among children worldwide (*WHO, 2002*). Injury and violence are responsible for over 900,000 deaths in children and young people under the age of 18 years each year. Unintentional injuries account for almost 90% of these injuries and they are among the top three cause of death among children aged 0–19 years. In addition to the deaths, tens of millions of children require hospital care for non-fatal injuries every year – many are left with lifelong disabilities. Poor children in all countries are at increased risk of unintentional injuries (*Sminkey, 2002*).

Traditionally injuries have been regarded as random, unavoidable “accidents”, which has resulted in the historical neglect of this area of public health (*Krug et al., 2002*). Within the last few decades, a better understanding of the nature of injuries has changed these attitudes, and today injuries are viewed as largely preventable events (*Peden et al., 2002*). In the light of this public health calamity, awareness of injuries and violence and knowledge of prevention policies and programmes are increasing in some countries. In these places considerable progress is being made (*WHO, 2002*).

While advances in medical care have improved the outcome for some types of trauma, further significant decreases in morbidity and mortality will hinge on the development and implementation of effective prevention programs (*Rivara et al., 1997*). In fact, many strategies to prevent injury are more effective than many medical interventions. Because rates of acute and chronic diseases are low in children under 10 years, injuries are unmasked as the clear preventable cause of death that physicians must face when providing health care to children. Family physicians, pediatricians, and internists can all play a role to introduce effective strategies to patients during clinical encounters (*Rivara et al., 1997*). They can educate parents or caregivers about the risks of unintentional injuries and recommend specific measures to minimize those risks, including environmental modification or the use of safety equipment (*Gardner, 2007*).

Many studies have been done all over the world to evaluate the awareness, attitudes and practices of physicians towards childhood injury prevention (*Carter et al., 1997*; *Cummings et al., 1997*; *Bazelmans et al., 1997*). In Egypt, studies were conducted among school children about the pattern, burden of injuries, injury prevention and safety promotion (*El Sayed et al., 1997, 2007*). Another study was conducted about knowledge and perception of school injuries among school physicians, nurses, teachers and social workers (*Kamel et al., 1997*).

To the best of our knowledge, no studies have been found in Cairo to measure knowledge, attitude and practice (KAP) of primary health care practitioners towards prevention of unintentional injuries. This study aims ١) to develop insight about family physicians and nurses and their role in the prevention of unintentional injuries in children and ٢) provide baseline data about the current situation in order to help develop childhood injury prevention programs in Egypt.

Hypothesis:

There is lack in knowledge and low practice among family physicians and nurses as regards childhood unintentional injury prevention and treatment.

Ultimate objectives

- ١- Decreasing childhood mortality due to injuries.
- ٢- Improving the quality of life of children.

Aim of the work

- ١- To determine knowledge, attitude and practice of family physicians and nurses towards unintentional injury prevention in children under ١٥ years in Cairo.
- ٢- To identify barriers against provision of prevention and treatment of unintentional injuries.

Definitions, Types and epidemiology of injuries

1.1 Definition of injury:

Injuries are a major cause of morbidity and mortality in both developing and industrialized regions (*Polinder et al., 2007*). WHO defines physical injury as "the damage caused by the acute transfer of energy, whether physical, thermal, chemical or radiant, that exceeds the physiological threshold or by the deprivation of a vital element" (*Sethi et al., 2007*).

Injury is also defined as occurring in a short period of time as opposed to health problems caused by the cumulative damaged or repeated exposure to a chemical or substance over time. For example, Asbestos exposure causing Mesothelioma or by repetitive physical movement, which result in repetitive strain injury (*Christoffel et al., 2007*).

1.2 Types of injuries:

Injuries can be classified in a number of ways, either according to whether or not they are deliberately inflicted (or by whom), and/or according to the mechanism of the injury. In most cases, the classification of injury by intent is fairly straightforward. However, in relation to children, it is more likely that there will be some "grey" area (*WHO, 2007*).

For example, a child losing their balance and falling into a fire clearly constitutes an unintentional injury, but if the fall occurs when the child has been left unsupervised for a long period or after the child has been struck, then the question of neglect or abuse arises. In terms of the intention to harm, the gradient ranges from actively intending to hurt or harm a child at one end of the spectrum through to neglect, where a child is injured through lack of reasonable care or failure to protect, at the other (*WHO, 2007*).

Intent means the role of human purpose in the injury event (*ICECI, 2000*). Injuries can be classified according to the intent into: intentional and unintentional injuries (*Polinder et al., 2000*).

Intentional injuries are caused by violence. Violence is defined as the intentional use of physical force or power, either threatened or actual against oneself, another person, a group or community that results in injury, death, psychological harm, or deprivation. Violence can be self-directed (as in suicide or self-harm), collective (as in war or gang activity) or interpersonal (involving for example, a child, partner, elderly person, acquaintance or stranger) (*WHO, 2000*).

The word unintentional injuries “Accidental injuries” is used to refer to injuries that were unplanned. Unintentional injuries can be defined as events in which: The injury occurs in a short period of time - seconds or minutes, The harmful outcome was not sought, or The outcome was the result of one of the forms of physical energy in the environment or normal body functions being blocked by external means, e.g., drowning. The most common unintentional injuries result from motor vehicle crashes, falls, fires and burns, drowning, poisonings and aspirations (*Carda-Auten et al., 2000*).

Injuries can also be classified according to mechanism. Mechanism of injury means the way in which the injury was sustained (i.e., how the person was hurt). Injuries are often the result of a sequence of events. Different types of mechanisms are usually involved in the injury .Underlying mechanisms- those involved at the start of the injury event. Direct mechanisms- those producing the actual physical harm. Intermediate mechanisms- others mechanisms involved in the injury event. Example of these mechanisms, exposure to blunt force or penetrating force, thermal or chemical exposure (*ICECI, 2000*).