

CROSS-SECTIONAL STUDY OF INJURIES AMONG SCHOOL CHILDREN IN ISMAILIA CITY, EGYPT.

By Dr. Hesham El-Sayed, Fatma Hassan and Ms. Suzan Gad

Problem Statement

Injuries are defined as any physical damage to the body resulting from acute exposure to thermal, mechanical, electrical, or chemical energy or from the absence of such essentials as heat or oxygen. Injuries are one of the leading causes of mortality and morbidity among Egyptian children after the first year of life. It is estimated that one out of every five children who survive childhood diseases dies from injury. (MOH,1993) However, there are not enough data about the pattern and risk factors of injuries among the different age groups in Egypt.

Objectives

To investigate the pattern and the possible risk factors of injuries among school children in Ismailia Governorate, Egypt.

Methodology

A Cross-sectional school-based study of 5 randomly selected preparatory schools (Grades 6 to 8) was carried out. Data were gathered on a specially designed form during the school year 2000/2001 by trained social workers, nurses or teachers under the supervision of the directors of the selected schools. The standardized form was employed to identify the personal and demographic characteristics of the recruited pupils. It also included various aspects of the injuries that needed medical care or caused activity restriction during the last six months. Furthermore, it included details on injuries such as external cause, its location and type of activity involved, nature of the injury, treatment received, and its consequences.



Study Results

The study included children who suffered injury that needed medical care or caused disability in the 6 months preceding the study. The study included 1,303 students from the 5 randomly selected schools; they were almost equally distributed between the three study grades, and 55% of them were females. The mean age of the studied pupils was 12.6 ± 1.1 years, with a range of 11-18 years. The most common external causes of injuries sustained by the pupils were falls (26%), road traffic accidents (23%), and burns (14%) (Fig 1). Intentional injuries represented 4.3% of all injuries. The majority of accidents occur in either streets or schools, while a third occur at home (Fig.2)

Gender played significant role in determining the nature of injury. Falls and traffic were common among both sexes, burns were much more common among females (21% vs. 5%), while beating by parents and human and animal bites were more common among males. Place of injury also differed significantly by gender. While injury at home was very frequent among females (43% vs.19%), injury in the street or in the playground was more common among males (43% vs. 29% and 6% vs. 3% respectively). Injury inside school premises was common for both males and females (26% vs. 20%).

School children were treated most frequently in the medical facilities like hospitals (39%), primary health care centers (13%), and private clinics (12%). Some were treated at pharmacies (12%) and at home (20%), and a small proportion received care from traditional healers (1.4%) (Fig 3). Most of the students who went to the hospitals (81%) were treated in the outpatients' clinics and discharged, but 19% of them were admitted to the hospitals. However, most of admitted pupils stayed in the hospital for less than 2 days (80%). Trauma caused transient disability for 40% of the injured pupils, while it caused permanent disability in 1% of them. Injuries resulted in school absence for a large proportion of the injured pupils.

Fig 1: External Causes of Injuries Among The Studied School Children

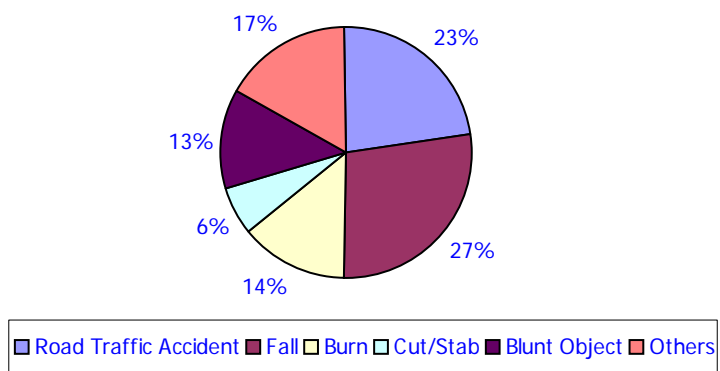


Fig 2: Place of Injury of School Children in Ismailia City

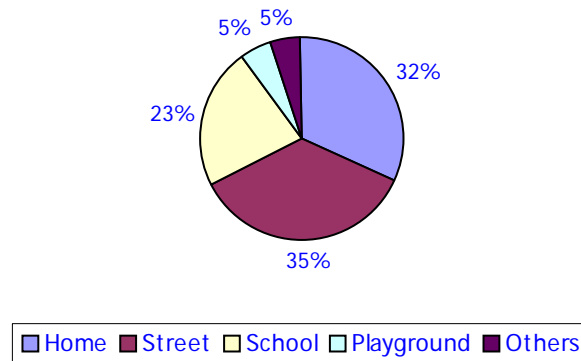
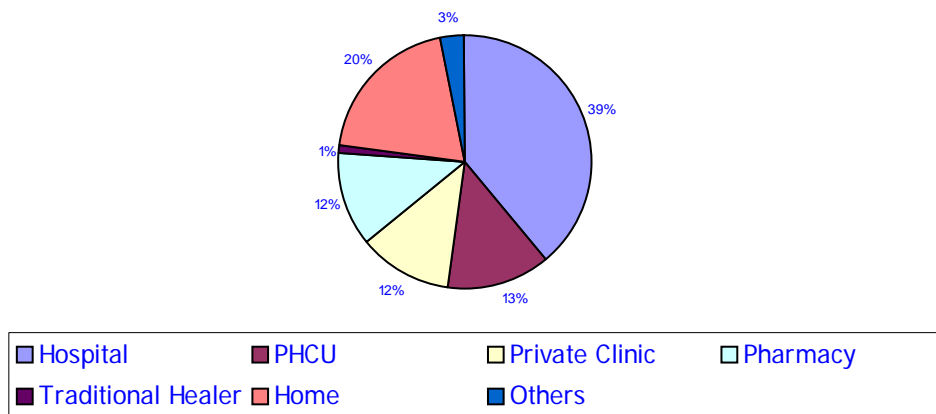


Fig 3: Place of Medical Care Received by School Children



Recommendations

- There is a need to initiate local and national programs for identification and prioritization of the common injuries and their risk factors among school children in order to help in the design of injury prevention and control programs.
- There is a need to raise public awareness about the magnitude and burden of injuries among children, and about the different methods of injury prevention and control.
- Injury control and prevention programs should benefit from a combination of community-based and school-based interventions, adapted to the particularities of the different age groups concerned.
- We recommend establishing and applying an educational and training program targeted at injury prevention and control among school children. This program should be part of the regular school educational curriculum. The school staff should implement this program, after special training courses, to ensure better sustainability of the control program
- Further research is needed to evaluate the available injury prevention strategies for school children, and to modify them to be suitable for different parts of Egypt. These strategies should be adapted to the cultural, social, and economic conditions of the different communities in Egypt.

About the Author

Dr. Hesham El-Sayed, Professor of Pediatrics, Faculty of Medicine, Suez Canal University

Dr. Fatma Hassan, Assistant Professor of Community Medicine, Suez Canal University

Dr. Suzan Gad, Lecturer in Pediatrics, Faculty of Medicine, Suez Canal University

About the Program

The Egyptian Partnership in Development Research Program aims to inform development policies and strategies by linking those who conduct research with those who can utilize its findings to promote development in local communities. It promotes a research agenda which is responsive to the needs and priorities of local communities. The program is characterized by a multi-disciplinary, demand-driven, and participatory approach. The program began in Egypt in 1999. The program is directed by an Advisory Board of prominent members who are concerned with development issues.

About the Series

The PDR Policy Brief Series disseminates the results of research conducted under the auspices of the Partnership in Development Research Program funded by the Netherland Ministry of Foreign Affairs, Development Cooperation. It is currently operative in nine countries, Bangladesh, Bolivia, Egypt, Kerala-India, Mali, Nicaragua, Tanzania, Uganda and Vietnam.

The authors are solely responsible for the content of the Research Briefs.

Copies of the Briefs can be ordered from the Secretariat of the Program or through the Program's web site.

Partnership in Development Research
American University in Cairo
Social Research Center
106 Kasr Al-Aini Street, Cairo Center 11th Floor
Cairo-Egypt
Painting is by: Bikar
Tel: 00202-797-6959
Fax: 00202-795-7298
Email: pdr@aucegypt.edu
Website: www.aucegypt.edu/pdr