

Children Caregivers' View on Trends and Prevention of Childhood Injuries

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Introduction:

Accidents are the most common cause of death in children over one year of age.⁽¹⁾ Accidents are commonly used to describe unintentional injury.⁽²⁾ Many of the injured survivors suffer life long disability, financial trouble and physical disfigurement.⁽³⁾

Injury usually occurs in many settings: traffic, workplace, school home and recreational.⁽²⁾ In Egypt, the deaths due to traffic injury were heavily concentrated among young adult. The percent of injured children due to traffic accidents under 15 years of age was higher for rural roads than urban roads,⁽⁴⁾ however for urban population many children up to one in four attend accidents.⁽¹⁾ Poor children who live near busy street are more vulnerable for traffic injuries and they have problems of over activity, impulsiveness and problem in learning instructional materials.⁽⁵⁾

In rural area of Iran the leading causes of deaths were traffic accidents (55%), drowning (10%), falls (9%) and burns and scalding (9.5%).⁽⁶⁾ Regarding the causes of childhood injuries broken battles, knives, falls, bicycling injuries, poisoning, drawing and choking by foreign body are considered, the most prevalent types of injuries in the form of puncture wounds, lacerations, sprains, fractures, dislocation and haematomas⁽⁷⁾. Planning strategy is needed for prevention of childhood injuries⁽⁸⁾, however the most effective strategies do not prevent injuries but they have a great effect on the severity of injuries.⁽³⁾

Aim of this work is studying the knowledge of the children caregivers (parents and teachers) about childhood injuries in primary school age as regard the common sites, causes and types of these injuries and recognizing the preventive measures which are done by schools to reduce injuries.

Methodology:

The study sample consisted of 266 parents of school children, and 54 primary school teachers, they were selected by stratified systematic method, school

frame from Eastern Educational Cairo District with some governmental and private schools. A questionnaire had been designed and tested by a pilot study then the final forms were delivered by children and then returned to school after completion, while the teachers filled a self administered questionnaire.

The questionnaire included personal data and questions about the most common sites, types and causes of childhood injuries and about the exposed parts of the body for injury during accident and the treatment of injuries. The teachers' questionnaire inquired about personal data and the preventive measures which were taken in their schools for accidents prevention.

Results:

Table (1): This table showed that the most common group exposed for accidents was male children (51.2%) followed by adult males (20%), the least common was found among adult females (3.4%).

Table (2): This table showed that street was the common site for injuring (65%), regarding the causes of injury (28.9%) was caused by falling, foreign bodies was the least common cause (2.3%).

Table (3): This table showed that wound injuries represented the highest percentage (50%) among the different types of injuries followed by fractures (18.1%), the most common parts of the body exposed to injuries were extremities (33.8%) and head and face (33.5%).

Table (4): This table showed that wounds had the highest percentage among the different sites of injuries; fracture was more common in recreational area (28.6%), $X^2= 15.87$ it was near to be significant $P=0.06$, however the relation between the sites & types of injuries was significant ($p=0.006$) regarding the recreational area & home.

Table (5): This table revealed that the head and face were exposed to injury in home (50%) and school (34%) while the extremities were exposed to injury in street (35.3) and recreational areas (42.9%).

Table (6): This table showed that the majority of injuries needed first aid (64.7%), while 35.3% of injuries required hospital admission.

Table (7): This table revealed that 83.3% of teachers reported that their schools had a role in prevention of injuries, this had been done through conferences (33.3%) posters (13.3%), video (15.5%) and multiple (37.9%). The majority of teachers (75.5%) reported that the preventive program should be directed to parents, caregivers and children.

Table (1): Exposed group for accidents

Exposed groups for accidents		Frequency	%
1	Male children	136	51.2
2	Adult males	53	20
3	Old age	25	9.4
4	Female children	13	4.8
5	Adult females	9	3.4
6	Multiple groups	30	11.2
Total		266	100

Table (2): Frequency distribution of the sites and causes of injuries

Injuries		Frequency	%
Sites:			
1	Street	173	65
2	School	47	17.7
3	Recreational area	28	10.5
4	Home	18	6.8
Total		266	100
Causes:			
1	Falling	77	28.9
2	Poisoning	66	24.8
3	Sharp objects	44	16.5
4	Burns	25	9.4
5	Drowning	10	3.8
6	Foreign bodies	6	2.3
7	Multiple causes	38	14.3
Total		266	100

Table (3): Frequency distribution of the types and exposed parts of the body for injuries

Injury		Frequency	%
Types:			
1	Wounds	133	50
2	Fractures	48	18.1
3	Bleeding per mouth/nose	40	15
4	Multiple	45	16.9
Total		266	100
Exposed parts of the body:			
1	Extremities	90	33.8
2	Head and face	89	33.5
3	Abdomen	9	3.4
4	Eyes	8	3
5	Multiple	70	26.3
Total		266	100

Table (4): Relation between the sites and types of injury

Types of injury	Sites of injury								Total		
	Home		Recreational area		Street		School		No	%	
	No	%	No	%	No	%	No	%			
1	Bleeding per mouth/ nose	5	27.8	3	10.7	28	16.2	4	8.5	40	15
2	Wounds	6	33.3	16	57.1	86	49.7	25	53.2	133	50
3	Fractures	1	5.6	8	28.6	32	18.5	7	14.9	48	18.1
4	Multiple	6	33.3	1	3.6	27	15.6	11	23.4	45	16.9
Total		18	100	28	100	173	100	47	100	266	100
						$X^2=12.48 P=0.006$					
								$X^2=3.16 p=0.368$			

$X^2=15.87 P=0.06$

Table (5): Relation between the sites of injury and the exposed parts of the body for injury

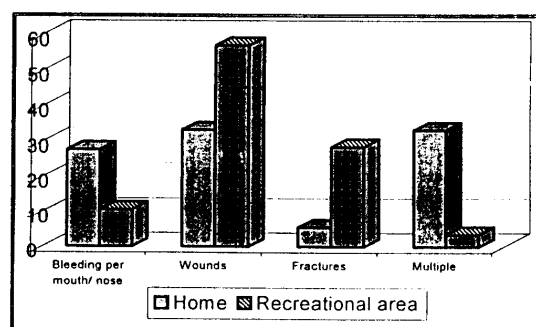
Exposed parts of the body	Sites of injury								Total		
	Home		School		Street		Recreational area		No	%	
	No	%	No	%	No	%	No	%			
1	Head and face	9	50	16	34	57	32.9	7	25	89	33.5
2	Eyes	3	16.7	1	2.1	4	2.3	-	-	8	3
3	Abdomen	1	5.5	2	4.3	5	2.9	1	3.5	9	3.4
4	Extremities	2	11.1	15	31.9	61	35.3	12	42.9	90	33.8
5	Multiple	3	16.7	13	27.7	46	26.6	8	28.6	70	26.3
Total		18	100	47	100	173	100	28	100	266	100

X^2 could not be applied

Table (6): Treatment of injuries

Treatment	Frequency	%	
1	First aid	172	64.7
2	Admission	94	35.3
Total		266	100

Fig. (1): Relation between the sites and types of injury

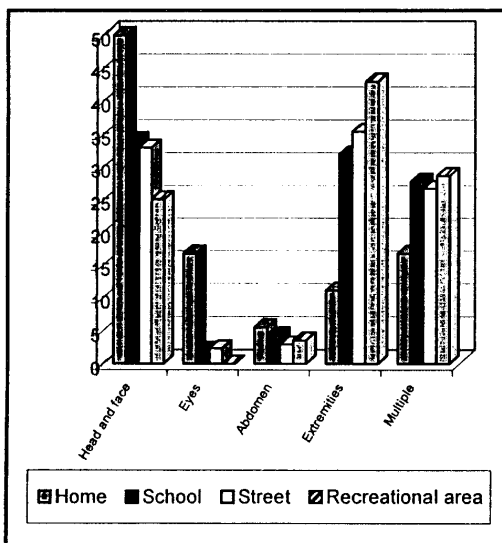


(Children Caregivers' View...)

Table (7): Role of school in prevention of injuries

School had a role in prevention of injury		Frequency	%
1	Yes	45	83.3
2	No	9	16.7
Total		54	100
Methods used by School		Frequency	%
1	Conference	15	33.3
2	Video	7	15.5
3	Posters	6	13.3
4	Multiple	17	37.9
Total		45	100
Responsible Personnel for Prevention of Injury		Frequency	%
1	All	34	75.5
2	Parents	5	11.1
3	Caregivers	5	11.1
4	Children	1	2.3
Total		45	100

Fig.(2): Relation between the sites of injury and the exposed parts of the body for injury



Discussion:

Injuries represent one of the most important public health problems facing both developing and industrialized nations today. Injuries may be either intentional or non intentional. In this study the highest prevalence of exposure to accidents was among male children (51.2%) followed by adult males (20%). High incidence among young adults may be explained by the

fact that they are generally active and exposed to hazardous situation both at home and at work⁽⁹⁾ world wide in 1990, about five millions people died of injuries of all causes and most of these deaths were heavily concentrated among young adults.⁽⁴⁾

In children lack of coordination, unawareness of dangerous substances and exploratory nature of this age play important roles in the occurrence of injuries.⁽⁹⁾ According to Kemp and Sibert, (1997),⁽¹⁾ accidents are the most common cause of death in children over one year of age. In 1992, 559 children died in United Kingdom as a result of accidents, 240 from road traffic accidents and 100 from burns and scalds. Accidents risk factors include low social class, psychological stress, unsafe environment and child developmental disorders.

Regarding the site of injuries, it was noticed that street was the commonest site (65%) and home was the least common site (6.8%). Street injuries involving children are more common in poor communities because children often have no other places than the street to play,⁽¹⁰⁾ traffic injuries among children occurs because children having no alteration to use the main road when walking to and from schools.⁽⁴⁾

Domestic injuries among children reflect lack of domestic safety measures and behaviors of this age group an age of exploration and experiments in which lack of knowledge of the dangers contributes to high incidence and mortality rates, recreational injury continue to occur despite extensive publicity about their causes and prevention.⁽²⁾

Regarding causes of injuries, it was noticed that falling was the commonest revealed cause that was represented by (28.9%), this was in accordance with Amin et. Al., (1998)⁽⁷⁾ and Juan (1995).⁽⁸⁾ The least common cause was foreign bodies (2.3%) this was in agreement with a study done in Ireland, the results showed that over 50% of injuries due to fall (50.8%)

blows and cuts account for (22.6%), 13% due to burns, 7.9% due to poisoning, 5.9% due to foreign bodies.⁽¹²⁾

In an Egyptian study sharp object injuries were the commonest type of injuries. Falling from height, burn, fractures, scorpion stings and animal bites recorded 17%, 15.4%, 9.3%, 8.3% and 8.3% respectively, the least common injuries were poisoning and electric shock (1.3%).⁽¹³⁾

Inhalation of foreign body (F.B) is considered a life threatening accidents.⁽¹⁴⁾ Typically two types of FBs are encountered: true FB (e.g coins, buttons) and food-related F.B.⁽¹⁵⁾

Accidental ingestion of poisons and household products is a potential source of morbidity and mortality in children all over the world,⁽¹⁶⁾ many studies have shown that children under five years are particularly at risk from accidental poisoning with the introduction of a whole range of medicines and the availability of wide selection of household cleaners and other chemicals.⁽¹⁷⁾

In an Egyptian study, children represented 50.9% of the cases of burn which may be due to flam, liquids, electricity and chemicals.⁽¹⁸⁾

Concerning types of injuries it was revealed that wounds accounted (50%) of all types, this findings was in agreement with Amin et al., (1998).⁽⁷⁾ Regarding the exposed parts of the bodies, the head, face and extremities had nearly equal distributions (33.5%, 33.8%). Abou-Zeid et al., (1998)⁽⁴⁾ reported that head was the most frequent single region involved injury (29.09%) while extremities ranked second (26.07%).

Concerning the treatment of injuries, first aid was needed in (64.7%) and hospital admission was (35.3%), Abou Zeid et al., (1998)⁽⁴⁾ revealed that the percent of those not need hospital admission in traffic injuries was (17.88%). Another study revealed that hospital admission was 5-10% of injuries⁽¹⁾, while Laffory, (1997)⁽¹²⁾ reported that (19.4%) of injured children required hospital admission.

Conclusion:

This study revealed that male children were the most common group exposed to accidents and street was the most common site for childhood injuries and great percentage of these injuries ended by wounds and nearly one-third of it needed hospital admission. The results of this study revealed that schools played a role in prevention of injuries and preventive program should be directed to parents, caregivers and children.

Recommendation:

1. Introduction of traffic rules and instruction in the primary school curriculum which must include activity format to help children to learn, build skills and avoid dangerous situations.
2. Designing a playgrounds in between the residential area for playing of children to reduce the street injuries caused by this reason.
3. Continuing educational program for parents and caregivers about safety measures and initial treatment for injured patient.

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Abstract

Injuries represent one of the most important public health problems and they are the most common cause of morbidity, disability and death in children for this reasons this study had been done to explore these variables. The study sample consisted of children caregivers (266 parents and 54 primary school teachers); it was carried out in some schools from Cairo city. The results of this study revealed that male children had highest percentage of exposure to injuries (51.2%), the most common site for injuries was street and falling represented the common cause of injuries (28.9%), most injuries ended by wounds (50%), head, face and extremities were the common parts of the body affected by injuries (33.5%, 33.8%). 35.3% of injuries needed hospital admission. 83.3% of teachers stated that their schools play an important role in prevention of injury among their students. This study revealed that street were the most common and half of it ended by wounds and one third of it needed hospital admission.

Key words:

Parents, caregivers, teachers, childhood injuries,,
hospital admission.

المخلص

**رأى القائمين على رعاية الأطفال في الاتجاهات والوقاية من
إصابات الأطفال**

تمثل الإصابات واحدة من أهم المشاكل الصحية وتعد من الأسباب الأساسية لوفاة الأطفال ونظراً لخطورة المشكلة فقد تمت دراستها. تكونت عينة البحث من ٢٦٦ أولياء أمور الأطفال و٥٤ من المدرسين، وقد أجريت في مدينة القاهرة وأظهرت نتائج الدراسة أن أكثر الفئات تعرضاً للإصابات هي الأطفال الذكور (٥١,٢%) وكان أهم مكان لحدوث الإصابات هو الشارع وكان السقوط أكثر أنواع الإصابات حدوثاً (٢٨,٩%) وكانت نتيجة الإصابات الجروح في ٥٠% من الحالات وأكثر أجزاء الجسم تعرضاً للإصابة الرأس والوجه والأطراف (٣٣,٥%، ٣٣,٨%)، وأظهرت النتائج أيضاً أن ٣٥,٣% من الإصابات تحتاج إلى دخول المستشفيات وقد قرر ٨٣,٣ من المدرسين أن مدارسهم تؤدي دوراً هاماً في وقاية تلاميذها من الحوادث.