

A PRELIMINARY STUDY ON CAUSES AND RISK FACTORS RELATED TO ACCIDENTS AMONG A SELECTED GROUP OF CHILDREN

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INTRODUCTION

Among the injuries that occur in childhood, accidents are the most common among children all over the world. Accidents are identified as the leading cause of death and injuries among children in the United States (Currie & Hotz, 2003). Accidents are the leading cause of death and also cause injuries that result in thousands of hospital admissions for children and young people each year and may lead to lifelong pain, suffering and disability among survivors in England (Ellis & Fauth, 2010). As a low and middle income country, Sri Lanka also has to face this issue of childhood accidents. It is a major public health problem that requires urgent attention. Besides, accidents are the most common cause of deaths in children over one year of age. Therefore, prevention remains a high priority (Kemp & Sibert, 1997). Furthermore, accidents among children are not necessarily purely “accidental” or random events; to a degree they are predictable and therefore largely preventable (WHO, 2005). Risk factors related to child accidents are varied and most of the accidents can be prevented by identifying their risk factors. Therefore disclosing the risk factors related to child accidents are important in making interventions to prevent them.

Accordingly, the purpose of this study was to examine risk factors related to children’s accidents in the Lady Ridgeway Hospital for children (LRH). The specific objectives were to identify the guardians’ knowledge and attitudes regarding child accidents, the existing causes for accidents among children, and the barriers affecting controlling accidents among children.

METHODOLOGY

The study was conducted in the accident service of Lady Ridgeway Hospital for children during the period 30th January to 8th February 2013. Quantitative approach and descriptive design was used in this study and a self-administered close ended questionnaire was applied as the tool for the study. Parents or legal guardians of the affected children, who were willing to participate voluntarily with their competence to give informed consent were selected for the study. Ethical approval was obtained by the ethical review board of the LRH. The sampling method was random and the guardians of 150 children who were admitted during the stated period to the accident ward of LRH, with various accidental injuries participated in the study. Data was analyzed manually, interpreted in percentages and cross –checked with Microsoft Excel results.

RESULTS AND DISCUSSION

The researchers gathered information from 150 guardians of children and the response rate was 96%. Relating to the demographic characteristics of the sample, the majority of children (70%) were male which showed that they were the higher risk group for accidents than the girls, based on the admission rate throughout the study period. The sample consisted of guardians of children in the ages range of one year to twelve years and 75% of them were living in urban areas.

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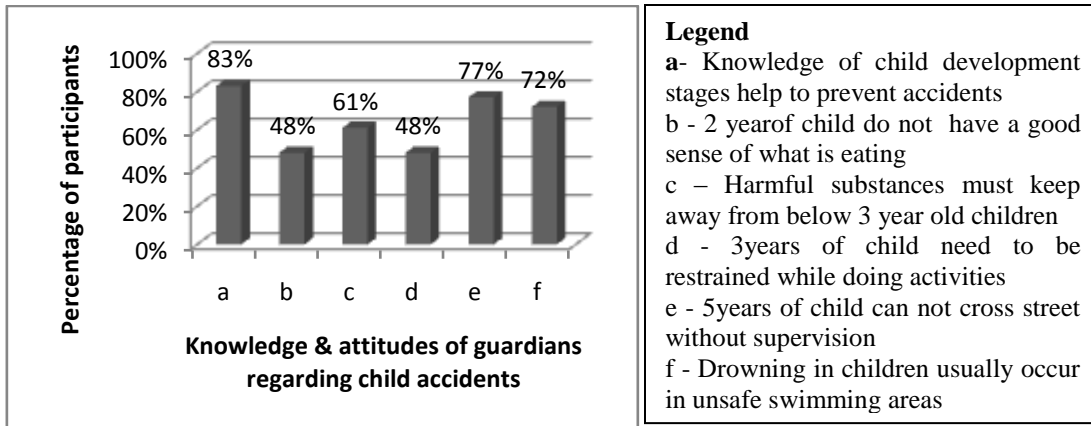
Considering the educational level of the caregiver, 88% guardians were able to read and write and the greater part (68%) of the family income of the sample varied from Rupees 10,000 to 30,000 per month (Table -1).

Table - 1: Profile of the study group.

Characteristics	Percentage	Characteristics	Percentage
<u>Sex</u>		<u>Living area</u>	
Male	70%	Urban	75%
Female	30%	Rural	25%
<u>Age group (Years)</u>		<u>Family income (Rupees/month)</u>	
8 – 12	31%	> 30000	16%
5 - 8	27%	20000 -30000	49%
3 - 5	21%	10000 -20000	19%
1 – 3	21%	< 10000	14%
<u>Educational level of the guardian</u>			
Cannot read and write	12%		
Grade 1 – Grade 9	25%		
G.C.E. Ordinary Level	37%		
G.C.E. Advanced Level	23%		
Degree holders	03%		

In view of the knowledge and attitudes regarding child accidents, a majority of the guardians had more than 50% knowledge and attitudes about accidents. Most of the guardians had known that active supervision of their children is needed to prevent accidents and guardians had taken preventive measures to safeguard children according to their knowledge level. But most guardians had not known that the childhood injuries are a leading cause of death. A majority of guardians (83%) had knowledge about developmental stages which can help to prevent accidents whereas a few did not and they were not even aware of the accidents that could occur in relation to child developmental stages.

Most of the participants (72%) knew that drowning in children usually occurs in unsafe swimming areas; 77% knew that a five year old child cannot cross the street without supervision and 61% knew harmful substances needed to be kept away from children below 3years. Less than 50% of participants knew that a three year old child needed to be restrained when they are doing activities and that two year old children do not have a good sense of what they are eating.(Figure -1).



Legend
a- Knowledge of child development stages help to prevent accidents
b - 2 yearof child do not have a good sense of what is eating
c – Harmful substances must keep away from below 3 year old children
d - 3years of child need to be restrained while doing activities
e - 5years of child can not cross street without supervision
f - Drowning in children usually occur in unsafe swimming areas

Figure – 1: Knowledge and attitudes of guardians regarding child accidents

Looking into the causes related to accidents of children, 71% subjects had faced accidents by falling, 11% children had faced road traffic accidents whereas 9% had cut injuries. 5% reported animal bites, 4% were other causes including knocking, swallowing foreign bodies, hitting by objects and assaulting.

When the accident occurred, 85% children had stayed with one parent, and 15% of children had stayed with either parents or another person. 56% accidents had occurred in the home environment while 44% accidents had occurred in other places including the schools and road (Table – 2).

Table -2: Causes and risk factors related to accidents of children.

Characteristics	Percentage	Characteristics	Percentage
<u>Causes:</u>		<u>When accident occurred child was with:</u>	
Falls	71%	Mother	70%
Road traffic	11%	Father	15%
Cut injuries	09%	Both father & mother	05%
Animal bites	05%	Relation	06%
Others	04%	Servant	01%
		Day care	03%
<u>Place of accident:</u>			
Home environment	56%		
Other places	44%		

In identifying the barriers in preventing accidents among children, respondents selected more than one response as barriers to control accidents. Not spending enough time with children was rated as the highest (72%) barrier in preventing accidents. The difficulties in changing the risk environment (66%), the lack of knowledge in ways of preventing accidents (62%) were also highlighted by the participants as barriers. The two other obstacles to preventing accidents among children, namely impact of cultural norms and values for caring children and the inability to buy higher cost safety equipment were rated as 35% and 25% respectively. (Figure- 2).

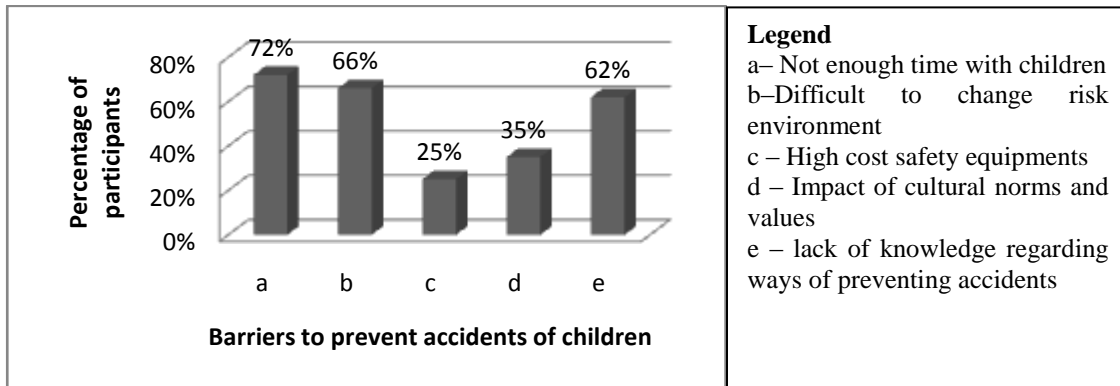


Figure – 2: Barriers to prevent the accidents of children.

CONCLUSIONS / RECOMMENDATIONS

The findings show that, falls were the most common cause for accidents among children admitted to the Lady Ridgway Hospital during the period of the study. The major risk factors related to children’s accidents indicate that being a male child, living with one parent or guardian, an unsafe living environment and lack of knowledge increase the frequency of accidents among children. The major barrier for preventing accidents was not enough time to supervise the children constantly.

To overcome the barriers in decreasing risk factors related to accidents it is suggested that the guardians’ knowledge be increased and that overall public awareness should also be developed. Further, more research needs to be conducted in recognizing risk factors for accidents among children including both intentional and unintentional accidents as a means of identifying preventive measures which could be applicable in any setting such as home, school, rural and urban or even on the road.

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ACKNOWLEDGMENTS

I would like to express my deepest appreciation to all those who participated in this research study including the participants, researchers and the supervisors. A special gratitude is paid to the Head of the Department of Health Science, who contributed with encouragement, suggestions and for giving moral support.