

Mothers Attributes and Supervision Behaviors Relevant to Child Injury

Rasha Mohammed Bahaa Eldin*¹, Abeer Mohammed Ibrahim Abdel Hafez², Hosnia Mohammed Ragab³

Departments ¹Family Medicine and ³Public Health and Community, Faculty of Medicine, Zagazig University, Egypt

Department ²Family Health Care, Diarb Negm District, Sharqia Governorate, Egypt

*Corresponding author: Rasha Mohammed Bahaa Eldin, **Mobile:** (+20) 01228258724, **E-Mail:** rasha_bhaa@yahoo.com

ABSTRACT

Background: Home injuries are a major health problem in children. They are the most common cause of death in children under 5 years of age. Every year they leave many thousands permanently disabled. Most of these accidents are preventable through increased awareness and improvements in the home environment.

Objectives: To assess mothers attitude about home related injuries among children younger than 5 years of age.

Patients and methods: A cross-sectional study included 330 mothers conducted in health unit of Safour Village, Diarb Negm District, Sharqia Governorate. A predesigned validated questionnaire was administered to mothers who have children equal or less than five years old to assess the parent supervision attributes profile.

Results: the result revealed that mothers have satisfactory score as regard subscale of protectiveness, risk tolerance and supervision beliefs respectively (84.8%, 74.5% and 72.2%).

Conclusion: Mothers in Diarb Negm district have satisfactory supervision attribute as regards home injuries of their under five years children.

Keywords: Home injuries, Mothers attribute, Mother supervision.

INTRODUCTION

Child injuries are a growing global public health problem. They are a significant area of concern from the age of one year, and progressively contribute more to overall rates of death until children reach adulthood ⁽¹⁾. Injuries are most commonly categorized as unintentional or intentional, based on the injured party's presumed intent ⁽²⁾. Unintentional injury is a major cause of hospitalization and death for children elsewhere; moreover, it is a heavy burden for society ⁽³⁾. Most of the injuries are preventable since studies show that inadequate supervision is an important contributing factor to child injury ⁽⁴⁾. Appropriate supervision could prevent children from attempting unsafe activities and assist them to accomplish tasks successfully ⁽⁵⁾.

In Egypt, it also a public health problem ⁽⁶⁾. For example, in 1998 the overall rate of injuries in the indoor home environment was 72.5% among children under the age of 5 years ⁽⁷⁾. The incidence of home accidents among children under 6 years of age in Assiut governorate in the year 2003 as perceived by their mothers was 50.3%. The most common injuries include drowning, falls, fires or burns, poisoning, suffocation, and transportation-related injuries. Moreover, findings from selected Arab countries between 2004 and 2012 suggest increasing rates of domestic violence ⁽⁸⁾.

The aim of the study was to assess mother's protectiveness and supervision of children from mothers' interaction with the observational measures.

PATIENTS AND METHODS

A cross-sectional study was conducted. The sample was calculated by assuming that percentage of knowledge of mother about first aids of home injury

was 35.1% and total population of women had children age from 1 -5 years attending health unit of Safour Village, Diarb Negm District was 6000 women per year. So sample size was 330 using epi info at power 80% and CI 95%. Through a systematic random sample was adopted for selection of the mothers during vaccination sessions.

Study participants and data collection:

The study included women attending health care unit for their children vaccination session. Women were interviewed using validated questionnaire to assess their attitude about their children supervision:

The parent supervision attributes profile questionnaire (PSAPQ)⁽⁹⁾:

The questionnaire consists of four subscales comprises including 29 items. The first part is about protectiveness and consists of (nine items). The second part is about supervision beliefs and consists of (nine items). The third part is about tolerance for children's risk taking and consists of (eight items). The fourth part is about extent of belief in fate as the primary determinant of children's safety and consists of (three items). These items were randomly ordered and presented to parents in the present study. A three point scale (1 = disagree, 2 = neutral, and to 3 = agree) was used in judging each statement. The total score higher than 70% is considered satisfactory score for each subscale.

Administrative and Ethical Design:

The study protocol was approved from the Ethical Committee at Faculty of Medicine Zagazig University



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY-SA) license (<http://creativecommons.org/licenses/by/4.0/>)

and Institutional Review Board (IRB) with approval number: 5471/29-7-2019. The necessary official permissions to carry out the study were obtained from health unit of Safour Village, Diarb Negm District, Sharqia Governorate. A verbal consent was also obtained from every mother in this study after they were informed about the nature and steps of the study. They were reassured about the strict confidentiality of any obtained information, and that the study results would be used only for the purpose of research. This work has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for studies involving humans.

Statistical analysis

The collected data were coded, processed and analyzed using the SPSS (Statistical Package for the Social Sciences) version 22 for Windows® (IBM SPSS Inc, Chicago, IL, USA). Quantitative data were expressed as mean ± SD (Standard deviation). Quantitative data were expressed as frequency and percentage.

RESULT

Table (1) shows that mean ± SD age of participant mothers was 28.62 ± 5.13 years old, about half of mother education was secondary level 53.9%, and majority of them had no occupation.

Table (1): Distribution of the studied mothers according to sociodemographic data (n = 330)

Age (years) of mothers		
Mean ± standard deviation	28.62 ± 5.13	
Mother education	No	%
Illiterate/Read and write	14	4.2
Preparatory	4	1.2
Secondary	178	53.9
University	95	28.8
Postgraduate	39	11.8
Mother occupation		
No	219	66.3
Yes	111	33.6

Table (2) shows that majority of participants had response agree for most of questions as child protection, sensing of all the dangerous things that could happen, keeping the child from playing rough games, keeping the child away from anything that could be dangerous, fearing that something might happen to their child, warning the child about things that could be dangerous and feeling responsibility. Also most of mothers have neutral respond to watching child's face to see how he/she is doing and to trying things with child at first time.

Table (2): Distribution of the studied mothers according to attitude of protectiveness belief (n = 330)

Q	Variable	Disagree		Neutral		Agree	
		No.	%	No.	%	No.	%
1	I feel very protective of my child	10	3.0	40	12.1	280	84.8
2	I think of all the dangerous things that could happen	145	43.9	13	3.9	172	52.1
3	I keep my child from playing rough games or doing things where he/she might get hurt	10	3.0	84	25.5	236	71.5
4	I make him/her keep away from anything that could be dangerous	13	3.9	55	16.7	262	79.4
5	I feel fearful that something might happen to my child	122	37.0	18	5.5	190	57.6
6	I warn him/her about things that could be dangerous	0	0.0	46	13.9	284	86.1
7	I keep an eye on my child's face to see how he/she is doing	15	4.5	200	60.6	115	34.8
8	I feel a strong sense of responsibility	0	0.0	13	3.9	317	96.1
9	I try things with my child before leaving him/her to do them on his/her own	31	9.4	193	58.5	106	32.1
	Total score	(84.8%)					
	Mean ± SD	22.9 ± 3.24					

Table (3) shows that majority of participants had response agree for questions of watching their child closely, staying close enough to their child to get to him/her quickly, hovering next to their child, and knowing where their child is and what he/she is doing, neutral response to that trusting their child to play alone, staying within reach of their child when he/she is playing on the equipment and trusting him/her to play safely and disagree response to having their child within arm's reach at all times and knowing exactly what their child is doing.

Table (3): Distribution of the studied mothers according to supervision belief (n = 330)

Q	Variable	Disagree		Neutral		Agree	
		No.	%	No.	%	No.	%
10	I have my child within arm's reach at all times	177	53.6	104	31.5	49	14.8
11	I know exactly what my child is doing	114	34.5	110	33.3	106	32.1
12	I can trust my child to play by himself/herself without constant supervision	70	21.2	203	61.5	57	17.3
13	I stay within reach of my child when he/she is playing on the equipment	58	17.6	166	50.3	106	32.1
14	I keep a close watch on my child	27	8.2	134	40.6	169	51.2
15	I say to myself that I can trust him/her to play safely	108	32.7	124	37.6	98	29.7
16	I stay close enough to my child that I can get to him/her quickly	0	0.0	143	43.3	187	56.7
17	I hover next to my child	39	11.8	112	33.9	179	54.2
18	I make sure I know where my child is and what he/she is doing	24	7.3	134	40.6	172	52.1
Total score		(72.2%)					
Mean ± SD		19.53 ± 4.21					

Table (4) shows that majority of participants had response agree to encouraging child to try new things, letting child learn from his/her own mishaps, letting their child take some chances in what he/she does and waiting to see if he/she can do things on his/her own before they get involved, while; neutral response for letting their child do things for him/herself and letting their child make decisions for himself/herself, and disagree response for letting their child experience minor mishaps if what he is doing is lots of fun and encouraging their child to take risks if it means having fun during play.

Table (4): Distribution of the studied mothers according to risk tolerance (n = 330)

Q	Variable	Disagree		Neutral		Agree	
		No.	%	No.	%	No.	%
19	I encourage my child to try new things	24	7.3	136	41.2	170	51.5
20	I let him/her learn from his/her own mishaps	0	0.0	70	21.2	260	78.8
21	I let my child take some chances in what he/she does	0	0.0	160	48.5	170	51.5
22	I let my child do things for him/herself	25	7.6	167	50.6	138	41.8
23	I let my child experience minor mishaps if what he is doing is lots of fun	177	53.6	32	9.7	121	36.7
24	I let my child make decisions for himself/herself	53	16.1	196	59.4	81	24.5
25	I encourage my child to take risks if it means having fun during play	243	73.6	63	19.1	24	7.3
26	I wait to see if he/she can do things on his/her own before I get involved	4	1.2	144	43.6	182	55.2
Total score		(74.5%)					
Mean ± SD		17.88 ± 3.60					

Table (5) shows that majority of participants had response agree for thinking of fate and disagree response for thinking of bad luck and thinking of good fortune.

Table (5): Distribution of the studied mothers according to risk fate belief (n = 330)

Q	Variable	Disagree		Neutral		Agree	
		No.	%	No.	%	No.	%
27	When my child gets injured it is due to bad luck	274	83.0	50	15.2	6	1.8
28	Whether or not my child gets injured is largely a matter of fate	4	1.2	40	12.1	286	86.7
29	Good fortune plays a big part in determining whether or not my child gets injured	220	66.7	46	13.9	64	19.4
Total score		(46.4%)					
Mean ± SD		5.57 ± 1.17					

DISCUSSION

This study was conducted to measure how mothers' attributes and behaviors, including supervision, relate to risk of child injury. The findings from this study reveal a variety of mothers attributes that were measured by questionnaire and that relate to mothers supervision, protectiveness, risk tolerance and risk fate.

The present study revealed that majority of mothers had satisfactory score more than 70% as regard attitude of supervision, protectiveness and risk tolerance. The current satisfactory mothers' attitude results might be attributed to mothers education and most of them does not work, which allowed them to be close to their children most of time, which allows supervision and looking after them. Moreover, the current result showed that mother pays more attention to prevent their children injury. As regard the attitude of risk fate subscale the mothers showed lower score than other subscales. This might explained by that most of mothers believed that child injury is inevitable and related to bad luck. Moreover, the child injury is expected to be accepted event during this age period and not related to surrounding home environment.

The current study scores are lower than results revealed by studies of **Yang et al.** ⁽¹⁰⁾ and **Petrass et al.** ⁽¹¹⁾. The difference in scores between studies may be related to the differences between Eastern and Western parents who differ in socioeconomic, cultural, and religious factors, which affect the ability of the care perception for children and probable risks. The Western culture encourages child risk-taking, explorations and impulsion. Many caregivers expressed self-confidence in supervision and a belief that the safety of the children is a matter of luck or fate ⁽¹²⁾. Some parents also believe that injuries of children are normal and that they cannot prevent their children from injury, so they give low attention than parents who had more self-confidence for injuries controlling ⁽¹³⁾. Family physicians are ideally located to deliver focused safety counseling to families. They can also be active promoters for childhood safety in their communities ⁽¹⁴⁾. Finally, the proper supervision can prevent children from make an attempt risky activities and support them to achieve tasks successfully ⁽¹⁵⁾.

CONCLUSION AND RECOMMENDATIONS

Mothers in Safour Village in Diarb Negrn District have satisfactory attribute as regards protectiveness, supervision and risk of tolerance beliefs. Further study is needed to study the characteristics of parental supervision and behaviors among the group of children with different age categories and disabilities within different localities. Also, further studies are needed to assess the role of fathers and different parenting style.

Financial support and sponsorship: Nil.

Conflict of interest: Nil.

REFERENCES

1. **Bulus J, Lar N, Remon L et al. (2015):** Predictors of unintentional childhood injuries seen at the Accident and Emergency Units of three tertiary health care centres in Jos. *Int J Med Biomed Res.*, 4(3):127-134.
2. **Norton R, Kobusingye O (2013):** Injuries. *New England Journal of Medicine*, 368 (18): 1723–30.
3. **Canadian Institute of Child Health (2000):** The health of Canada's children: a CICH profile. 3rd ed. Ottawa: Canadian Institute of Health Research; 2000. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2817769/>
4. **Morrongiello B, Ondejko L, Littlejohn A (2004):** Understanding toddlers' in-home injuries: II. Examining parental strategies, and their efficacy, for managing child injury risk. *J Pediatr Psychol.*, 29(6):433–46.
5. **Lyons R, Kendrick D, Towner E et al. (2013):** The Advocacy for Pedestrian Safety Study: Cluster Randomised Trial Evaluating a Political Advocacy Approach to Reduce Pedestrian Injuries in Deprived Communities. *PLoS One*, 8(4):158-163.
6. **Kamel E, Emam S, Mohammed E (2014):** Knowledge, attitude and practice among rural mothers about home-related injuries in a rural area in El-Minia Governorate. *Egypt SJP.*, 2: 653-659.
7. **Eldosoky R (2012):** Home-related injuries among children: knowledge, attitudes and practice about first aid among rural mothers. *EMHJ.*, 18:1021-1027.
8. **Badawy S, Gergis N, El-Seidy A et al. (2014):** A prospective study of some medicolegal aspects of physical and sexual family violence cases at Menoufia University hospital over 2 years. *Menoufia Med J.*, 27:122–129.
9. **Morrongiello B, Corbett M (2006):** The parent supervision attributes profile questionnaire: a measure of supervision relevant to children's risk of unintentional injury. *Injury Prevention*, 12(1): 19-23.
10. **Yang J, Lee S, Zhou Y et al. (2019):** Parent supervision attributes profile questionnaire (PSAPQ) for young children: psychometric properties of the Chinese version. *BMC Public Health*, 19: 2-9.
11. **Petrass L, Blitvich J, Finch C (2011):** Adapting an established measure of supervision for beach settings is the parent supervision attributes profile questionnaire reliable? *Int J Inj Control Saf Promot.*, 18(2):113–7.
12. **Andrade C, Carita A, Cordovil R et al. (2013):** Cross-cultural adaptation and validation of the Portuguese version of the parental supervision attributes profile questionnaire. *Inj Prev.*, 19(6):421–7.
13. **Morrongiello B, Dayler L (1996):** Community-based study of parents' knowledge, attitudes and beliefs related to childhood injuries. *Can J Public Health*, 87(6):383–8.
14. **Lee T, Fagiana A, Wells R (2019):** Overview of Pediatric and Neonatal Transport: In *Aeromedical Evacuation: Management of Acute and Stabilized Patients*. Springer Nature Switzerland AG. Hurd W, Beninati W (eds.). Pp. 363-390. https://link.springer.com/chapter/10.1007%2F978-3-030-15903-0_22.
15. **Lyons R, Kendrick D, Towner E et al. (2013):** The advocacy for pedestrian safety study: cluster randomised trial evaluating a political advocacy approach to reduce pedestrian injuries in deprived communities. *Plos One*, 8(4): 60158-63.