

## Counseling for Mothers Regarding Accident Prevention for Their Children with Special Needs

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### Abstract

**Background:** Injuries are one of the most serious health problems facing any society. **Aim** of the present study was to determine the effect of counseling intervention for mothers caring children with mental disability to help them in accidents prevention. **Research design:** A quasi experimental design was utilized for conducting the study. **Settings:** The study was conducted in the two Special Needs Care Centers at Cairo governorate namely Ard El Hobe Center and Sara Center. **Subjects:** A purposive sample includes 48 mothers coupled with their children those selected from the previously mentioned setting those had eligible criteria. **Tools of data collection:** An interview questionnaire sheet was used pre / post counseling. **Results:** This study revealed that, there was a highly statistical significant difference between rate of accidents` occurrence pre / post counseling. **Conclusion:** This study concluded that, the rate of accidents among mentally disabled children was significantly decreased after counseling intervention. **Recommendations:** Counseling and guidance should be provided to improve parents` knowledge and practices about accidents in (home, school, street and public place), prevention and first aids for all mentally disabled children. Further studies should be done to assess the effect of counseling and training programs on children`s parents to reduce the rates and severity of accidents among mentally disabled children.

**Key words:** Counseling, children, accidents` prevention, special needs.

### Introduction

The term accident which implies unpredictability or fate is gradually being replaced by using the term injury, which more accurately reflects rapture of the problem. Injuries are the most common cause of death and disability to children in the world (Paul et al., 2012).

Injuries are the leading cause of disability and death during childhood and represent one of the most important causes of pediatric morbidity and mortality. Children with disabilities are

believed to face a higher injury risk than their health (Behrman et al., 2011& Baker, 2014).

Special needs are a term used in clinical diagnostic and functional development to describe individuals who require assistance for disabilities that may be medical, mental, or psychological. Special needs children described as mentally retarded (Cunningham, 2012).

The term retarded is defined as slowed or delayed in achieving developmental milestones.

Developmental disability is restriction or lack of ability to perform an activity in the manner or within the range considered normal for human being. Mental retardation is considered to be a part of the broad category of developmental disability (WHO, 2011 & Polnay, 2012).

It was reported that injuries are caused by acute exposure to physical agents such as mechanical energy, thermal, electricity, chemical or ionizing radiation interacting with the body in amounts or at rates that exceed the threshold of human tolerance. In some cases e.g., drowning, injuries result from sudden lack of one or more essential agents such as oxygen or heat (WHO, 2011).

Responsibilities of the pediatric nurses are counseling, guiding and directing the parents through decision-making processes. The nurse must be familiar with the resources of community. Pediatric nurse presents reality to parents if the parent lacks of knowledge and skills to approach a problem systematically. The nurse combine teaching and counseling roles to help parents solve the dilemma successfully (Breslau, 2014).

Nurse counselor provides parents and public counseling where appropriate to facilitate health promotion and injury prevention. Nurses are in a key position to provide leadership in the area of pediatric injury prevention. Nurses can counselor legislators and public about how to manage public health epidemic (Dickmann et al., 2015).

Counseling is advice and support that is given to people to help them deal with problems and make important decision. So it is important for the pediatric nurses as a researcher to determine the effect of counseling intervention for mothers caring children

with mental disable to help them on accident prevention for their children (Webster, 2011).

### **Significance of the study:**

Problem of childhood accidents in Egypt has a major importance which given its magnitude and seriousness. The incidence of home accident is 33% (REF), it is even higher among mentally disable children and this category involves 13.1% of those aged 5 to 14 years. Protection of children with disabilities represent the major concern that given to protect themselves and the responsibility is on their parents and care giver. Adequate counseling could help these parents and care giver to fulfill their expected roles through assisting them to recognize the need for children's safety from accident and to apply the required first aids if the accident happened.

### **Aim of the work**

This study aimed to determine the effect of counseling intervention for mothers caring children with mental disability to help them in accident prevention. This aim was achieved through the following:

1. Measure the frequency rate of accident among the mentally disable children before the counseling intervention.
2. Design and implement the counseling intervention for mothers.
3. Measure the frequency rate of accident after the months following the counseling intervention.
4. Evaluate the effectiveness of counseling intervention to decrease the rate post counseling in comparison to pre.

### Research hypothesis:

The frequency rate of accidents among the mentally disable children will be significantly decrease after implementation of the counseling intervention.

### Subjects and methods

#### Research design

A quasi experimental design was utilized to conduct this study.

#### Settings:

The study was conducted in the two Special Needs Care Centers at Cairo governorate namely "Ard El Hobe Center" and "Sara Center". The rationale for choosing these settings was for availability of the studied subjected.

#### Subjects

A purposive sample included 48 mothers were selected from the previously mentioned settings with eligible criteria for the study as follows:

- Care for the accompanied children with mild and moderate mental disable chronological age 6-12 years.
- Accept to participate in the study.

**Sample technique:** A consecutive sampling technique was used to recruit couples of the mothers and children for fulfilling the eligible criteria of the study.

#### Tools and technique of data collection:

#### The following tools were used

#### I)An interview questionnaire sheet (Appendix 1):

It was designed by the researcher under guidance of the supervision after reviewing the current available relevant literature. It was written in a simple Arabic language to suitable mother's educational level. It covered the following parts:-

• **Part I:** It concerned with the following:

○ Characteristics of the studied mothers such as age, level of education, marital status, residence, family size, housing condition as windows, gas and electricity.

○ Characteristics of the studied children such as age, gender, medical record, grade of mental disability, IQ, daily activity to assess the level of dependency and children schooling.

• **Part II:** History of the studied mothers' accident during previous 12 months before counseling that included cause, type, place and organ injured consequences. It was designed for assessment of the accident rate before and after the intervention.

• **Part III:** Mothers' knowledge about accident: Causes, types at home, school and street. Types of wound, fracture and burn pre-counseling. Safety, reported practice for accident prevention and therapy of different types of accident.

#### Scoring system:

The knowledge items were scored as follows:

- Causes of accident at home(5 score) and types (5 score), causes of school accident (3 score) and types (3

score), causes of accident in street (3 score), types of accident in street (5 score), types of wounds(3 score) fracture (3 score), burn (3 score). Total score were 33 degree then classified as follows:

Unsatisfactory	16 < 23
Satisfactory	23 ≤ 33

▪ The mothers' knowledge about barrier for accident prevention was assessed through 9 statements according to their responses (Yes or No). The grade was calculated in pre / post counseling. Total knowledge score were 42 degree then classified as follows:

Poor = less than 21 grades
Average = 21 < 31
Good = 31 ≤ 42

• **Part IV:** Mothers' reports about the preventive practices. It was consisted of 19 items and classified as always (3) grades, sometimes (2) grades and never (1) grade.

#### Scoring system:

The total score were 57 degree were sorted as follows:

Poor	= less than 23.5
Average	= 23.5 < 34.5
Good	= 34.5 < 57.

• **Part V:** Therapeutic practices for dealing with different types of accident and first aids. The mothers had to select the appropriate practices from a provide list. Mothers' selection were compared with ideal action for each situation. The total ideal action scores = 15 grades were sorted as follows:

Poor	<5 grade
Average	7.5 < 12.5
Good	12.5 ≤ 15

Knowledge obtained for the studied mothers were scored and calculated according to the mothers' responses using the model answer sheet which prepared by the researcher.

#### Validity and reliability:

▪ Testing validity of the tools by a panel of 5 experts from different academic categories (Professor of Pediatric Nursing at Ain Shams University - Professor of Community Health Nursing and Psychologist from Banha University to inspect the tools items for data collection. The test review tools for clarity, accuracy, and relevance. Test retest were applied for the reliability measurement.

#### Operational design

##### Preparatory phase:

A review of current, past, local and international related literature or various aspects related to the problem was done using textbooks, articles, periodicals, magazines and internet search to be acquainted with the research problem as well as to developed the study tools.

##### Pilot study

A pilot study was carried out on 10% of the study subjects (mothers) for testing clarity, applicability of the tools and necessary modifications were done. Pilot sample was excluded from the current study subjects.

#### Ethical considerations:

The research approval was obtained from the scientific research ethical committee in Faculty of Nursing, Ain Shams University. Moreover, anonymity and confidentiality of the

study subjects had been assured. The studied mothers were be informed that all the gathered data were be used for research purpose only and they had the right to with draw from the study at any time freely.

#### **Field work:**

- The actual filed work for data collection through a period of one and half year, from January 2014 till June 2015.

- The researcher was available in the study settings three days: Monday, Tuesday and Wednesday from 9-12 AM / per week, at the time when mothers came to take their children from centers.

- The researcher started by introducing herself to each mother and child, then given the mothers a brief idea about aim of the research.

- Interviewing process started by the researcher upon agreement to participate using the pre constructed tools (pre counseling).

- Each mother's interview lasted for about 25 to 30 minutes (post counseling) to know the effect of counseling intervention on rate of accident after one year from counseling.

- The researcher designed a counseling intervention for mothers to provide their children safety.

- The intervention was including provision of information about accidents in general and among mentally disabled children in particular, safety at home, accident prevention and management.

- The counseling technique was used in implementation of the intervention with active participation

from side of the mothers in the lectures followed by class discussion.

#### **The counseling was performed in four phases:**

##### **Phase (1): Assessment phase:**

It was done for the studied mothers whose children exposed to accidents twelve months ago to identify their needs related to accidents' prevention and management. The general objectives of counseling sessions were to improve the studied mothers' knowledge and practices. Moreover, dissolve the behaviour barriers related to accident prevention of recurrence and management.

##### **Phase (2): Planning or developmental phase:**

Content of counseling sessions was developed and included the theoretical part e.g characteristics of mental disable children developmental stage were identified according to the types of accident, causes.....etc.

##### **Phase (3): Implementation of counseling sessions:**

Aim of this phase was to implement the counseling sessions. The researcher met each mother separately two days / week for 45-60 minutes. The implementation lasted 4- 6 weeks according to mothers' capacity. It took 6-7 months to achieve all counseling sessions.

The researcher used different approaches related to counseling such as express feeling, exchange experience, interact, constructive criticism and appraisal of achievement, encourag speaking or stop speaking to listen and arrange what to do in relation to accident prevention and management. The media

was poster, printed leaflet in Arabic language to suit the mothers.

At the end of each counseling session the researcher made conclusion and took feedback from the mothers.

#### **Phase (4): Evaluation of counseling:**

Aim of this phase was to evaluate the effect of counseling and post test was done after 6 months from January 2015 using the pre constructed tools. Appraised was done by comparing the mother's knowledge and practices pre / post counseling sessions using.

(In this phase, effectiveness of the intervention was assessed through comparison of the post-intervention findings with the pre).

#### **Administrative design**

An official letter was submitted from the Dean of the Faculty of Nursing, Ain Shams University to all persons in charge requesting permission obtained from Centers Director to conduct the study. This letter was including aim of the study and a photocopy from the data collection tools to get the permission and help for data collection.

#### **Statistical design:**

Data collected from this study tools were computed and tabulated for statistical and analysis using the mean, standard deviation, student t – test, unpaired, paired t-test, linear correlation coefficient, chi-square and ANOVA by SPSSV17.

## **Result**

**Table (1):** Identifies that there was highly statistical significant difference between the rate of accidents' occurrence pre / post counseling regarding place, cause, types, side and types of care (14.9, 46.2, 27.59 & 8.9 respectively) at p-value <0.001.

**Table (2):** Illustrates that there was a highly statistical significant difference between rate of accidents occurrence pre / post counseling ( $X^2=57.441$ ) and P-value<0.001.

**Table (3):** Reveals that there was a statistical significant difference between mothers' knowledge regarding reasons of accidents pre / post counseling, P-value<0.001.

**Table (4):** Shows that there was a statistical significant difference between mothers' knowledge about attitude barriers for accidents' prevention pre / post counseling.

**Table (5):** Shows that there was a statistical significant difference between mothers' reports about preventive practices pre / post counseling.

**Table (6):** Shows that there was a statistical significant difference between mother's reported practices regarding some specific accidents pre / post counseling.

**Table (7):** Clarifies that there was a statistical significant difference between total knowledge and practices pre / post counseling ( $t= 11.227, 3.200, 11.342$  &  $6.410$ ), P-value <0.001.

**Table (8):** Clarifies that there was a statistical significant difference between total knowledge and practices pre / post counseling as regards the following: Preventive practices, therapeutic practices and total practices ( $R = 0.771, 0.884$  &  $0.830$  respectively), P-value <0.001.

Table (1): Comparison between the rate of accidents' occurrence pre / post counseling

Items	Pre (n=45)		Post(n=7)		Chi-square	
	N	%	N	%	X <sup>2</sup>	P-value
<b>Place of accident</b>						
Home	41	91.11	4	57.1	3.438	0.063
Away from home	4	8.89	3	42.7		
<b>Causes of the accidents</b>						
Fall	3	6.67	0	0.00	14.933	0.018*
Wounds	41	91.11	4	57.1		
Burns	1	2.22	2	28.5		
Poisoning	0	0.00	1	14.2		
<b>Type of injury</b>						
Incised wound	43	95.56	0	0.00	46.277	<0.001*
Fractures	1	2.22	0	0.00		
Burns	1	2.22	2	28.5		
Poisoning	0	0.00	1	14.2		
Penetrating	0	0.00	4	57.1		
<b>Site of injury</b>						
Head	1	2.22	2	28.5	27.597	<0.001*
Upper limbs	3	6.67	2	28.5		
Lower limbs	41	91.11	1	14.2		
Abdomen	0	0.00	2	28.5		
<b>Type of care</b>						
First aids at home	44	97.78	4	57.1	8.945	0.003*
Specialized health care treatment	1	2.22	3	42.7		

Table (2): Comparison between pre / post counseling as regards proportion of accidents occurring to children

Children exposure to accident	Pre		Post		Total	
	N	%	N	%	N	%
Yes	45	93.75	7	14.50	52	54.17
No	3	6.25	41	85.40	44	45.83
Total	48	100.00	48	100.00	96	100.00
Chi-square	X <sup>2</sup>		57.441			
	P-value		<0.001*			

**Table (3): Comparison between total studied mothers` knowledge about reasons of accidents pre / post counseling**

Items		Pre		Post		Total		Chi-square	
		N	%	N	%	N	%	X2	P-value
Causes of accidents at home(5)	Unsatisfactory	7	14.58	3	6.25	10	10.42	1.832	0.176
	Satisfactory	41	85.42	45	93.75	86	89.58		
Types of accidents at home (5)	Unsatisfactory	7	14.58	3	6.25	10	10.42	1.832	0.176
	Satisfactory	41	85.42	45	93.75	86	89.58		
Causes of accidents at school (3)	Unsatisfactory	13	27.08	3	6.25	16	16.67	7.992	0.005*
	Satisfactory	35	72.92	45	93.75	80	83.33		
Types of accidents in school (3)	Unsatisfactory	10	20.83	6	12.50	16	16.67	1.211	0.271
	Satisfactory	38	79.17	42	87.50	80	83.33		
Causes of accidents in the street and public places (3)	Unsatisfactory	12	25.00	6	12.50	18	18.75	2.501	0.114
	Satisfactory	36	75.00	42	87.50	78	81.25		
Types of accidents in the street and public places (5)	Unsatisfactory	12	25.00	6	12.50	18	18.75	2.501	0.114
	Satisfactory	36	75.00	42	87.50	78	81.25		
Types of wounds (3)	Unsatisfactory	10	20.83	8	16.67	18	18.75	0.274	0.601
	Satisfactory	38	79.17	40	83.33	78	81.25		
Types of fractures (3)	Unsatisfactory	14	29.17	8	16.67	22	22.92	2.144	0.143
	Satisfactory	34	70.83	40	83.33	74	77.08		
Degrees of burns (3)	Unsatisfactory	13	27.08	4	8.33	17	17.71	6.044	0.014*
	Satisfactory	35	72.92	44	91.67	79	82.29		
Things must be present within first aids box	Unsatisfactory	10	20.83	6	12.50	16	16.67	1.211	0.271
	Satisfactory	38	79.17	42	87.50	80	83.33		

**Table (4): Comparison between mothers` knowledge about attitude barriers for accidents` prevention pre / post counseling**

Items		Pre		Post		Total		Chi-square	
		N	%	N	%	N	%	X2	P-value
Accident is usually unexpected and unplanned	No	4	8.33	2	4.17	6	6.25	8.362	0.039*
	Yes	44	91.67	46	95.83	90	93.75		
Accident should lead to injury	No	35	72.92	3	6.25	38	39.58	62.279	<0.001*
	Yes	13	27.08	45	93.75	58	60.42		
Some children liable to accident	No	14	29.17	47	97.92	61	63.54	59.346	<0.001*
	Yes	34	70.83	1	2.08	35	36.46		
All types of accidents cannot be prevented	No	11	22.92	1	2.08	12	12.50	10.945	<0.001*
	Yes	37	77.08	47	97.92	84	87.50		
Mentally disabled child could not be practice normal life	No	34	70.83	46	95.83	80	83.33	14.182	<0.001*
	Yes	14	29.17	2	4.17	16	16.67		
Mentally disabled child should not play sports	No	37	77.08	46	95.83	83	86.46	7.837	0.005*
	Yes	11	22.92	2	4.17	13	13.54		
Mentally disabled child less prone to accidents due to lack of activity	No	38	79.17	46	95.83	84	87.50	8.186	0.017*
	Yes	10	20.83	2	4.17	12	12.50		
Mother should have knowledge about accident and first aid	No	34	70.83	1	2.08	35	36.46	59.346	<0.001*
	Yes	14	29.17	47	97.92	61	63.54		

**Table (5): Comparison between pre / post counseling as regards children's mothers reported preventive practices**

Items	Good		Pre				Post				Chi-square			
	N	%	N	%	N	%	N	%	N	%	X <sup>2</sup>	P-value		
Are you carefully to cover electricity fish	20	41.67	25	52.08	3	6.25	4 3	89.58	5	10.42	0	0.00	27.308	<0.001*
Do Temerity on the prevent the electric wires exposed	21	43.75	23	47.92	4	8.33	4 3	89.58	3	6.25	2	4.17	25.846	<0.001*
Shut down the gas supply after use	15	31.25	24	50.00	9	18.7 5	0	0.00	46	95.83	2	4.17	32.645	<0.001*
Put the sharp tools out of reach of the child	19	39.58	26	54.17	3	6.25	0	0.00	46	95.83	2	4.17	32.170	<0.001*
The match out of reach of the child	35	72.92	11	22.92	2	4.17	0	0.00	43	89.58	5	10.42	70.115	<0.001*
Put the clean liquid and chemicals solution out of reach of the child	29	60.42	14	29.17	5	10.4 2	0	0.00	48	100.0 0	0	0.00	66.848	<0.001*
Put chemicals liquid in another bottle not original bottles	27	56.25	11	22.92	10	20.8 3	2	4.17	1	2.08	45	93.75	59.489	<0.001*
Do you leave your child alone in the kitchen	6	12.50	31	64.58	11	22.9 2	2	4.17	42	87.50	4	8.33	7.154	0.028*
Do you leave your child alone in the balcony	3	6.25	32	66.67	13	27.0 8	0	0.00	1	2.08	47	97.92	61.403	<0.001*
Do you leave your child playing in the street	2	4.17	27	56.25	19	39.5 8	0	0.00	0	0.00	48	100.0 0	53.179	<0.001*
Do you store water in open containers	6	12.50	29	60.42	13	27.0 8	2	4.17	3	6.25	43	89.58	43.487	<0.001*
Do you use insecticide in the presence of a child	1	2.08	15	31.25	32	66.6 7	3	6.25	2	4.17	43	89.58	13.918	<0.001*
Can a family member smokes in the presence of a child	3	6.25	12	25.00	33	68.7 5	6	12.50	41	85.42	1	2.08	55.904	<0.001*
Is Temerity on the not present the furniture beside the windows	7	14.58	20	41.67	21	43.7 5	4 2	87.50	1	2.08	5	10.42	59.396	<0.001*
Do Temerity to free the house from insects	14	29.17	15	31.25	19	39.5 8	4 5	93.75	0	0.00	3	6.25	50.903	<0.001*
Do you leave your foods exposed	6	12.50	23	47.92	19	39.5 8	6	12.50	0	0.00	42	87.50	40.775	<0.001*
Do you leave your food out of the refrigerator for a long time	4	8.33	21	43.75	23	47.9 2	1	2.08	3	6.25	44	91.67	23.808	<0.001*
Are you learn your child safety means	7	14.58	34	70.83	7	14.5 8	4 5	93.75	3	6.25	0	0.00	71.174	<0.001*
Are you learn your child learn how to act in case of exposure to risk	6	12.50	33	68.75	9	18.7 5	7	14.58	41	85.42	0	0.00	16.944	<0.001*

**Table (6): Comparison between pre / post counseling as regards children's mothers reported therapeutic practices**

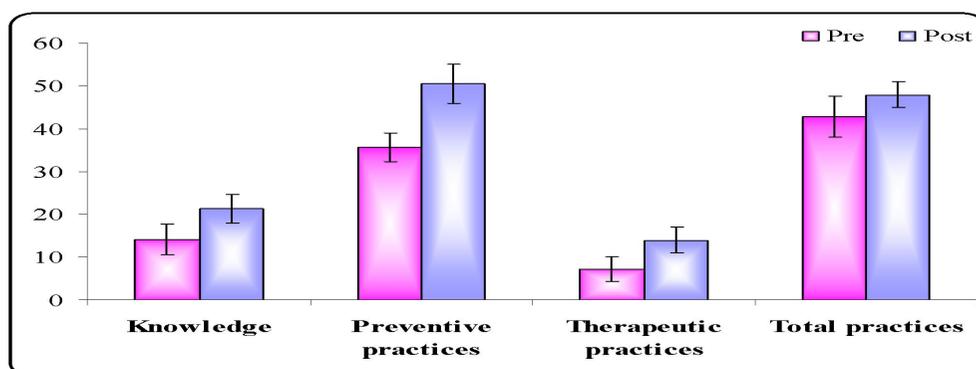
Items	Pre				Post				Chi-square	
	Done		Not done		Done		Not done		X <sup>2</sup>	P-value
	N	%	N	%	N	%	N	%		
In case of cut wound	36	75.0	12	25.0	44	91.7	4	8.3	4.800 <sup>a</sup>	0.028
In case of burn	31	64.6	17	35.4	42	87.5	6	12.5	6.918 <sup>c</sup>	0.009
In fire	34	70.8	14	29.2	42	87.5	6	12.5	4.042 <sup>d</sup>	0.044
In case a fit convulsions	30	62.5	18	37.5	46	95.8	2	4.2	16.168 <sup>d</sup>	0.000
In case of foreign body in the eye	27	56.3	21	43.8	44	91.7	4	8.3	15.630 <sup>e</sup>	0.000
In case of foreign body in the nose	4	8.3	44	91.7	44	91.7	4	8.3	66.667 <sup>f</sup>	0.000
In case of foreign body in the ear	10	20.8	38	79.2	44	91.7	4	8.3	48.931 <sup>g</sup>	0.000
In case of foreign body in the airway	32	66.7	16	33.3	44	91.7	4	8.3	9.095 <sup>d</sup>	0.003
In case of poisoning	31	64.6	17	35.4	42	87.5	6	12.5	6.918 <sup>c</sup>	0.009
In case of bleeding from nose	34	70.8	14	29.2	46	95.8	2	4.2	10.800 <sup>a</sup>	0.001
In case of fracture	30	62.5	18	37.5	46	95.8	2	4.2	16.168 <sup>d</sup>	0.000
In case of bit by bee	6	12.5	42	87.5	46	95.8	2	4.2	67.133 <sup>h</sup>	0.000
In case of electric shocks	5	10.4	43	89.6	48	100.0	0	0.0	77.887 <sup>i</sup>	0.000
In case of wound	4	8.3	44	91.7	46	95.8	2	4.2	73.628 <sup>j</sup>	0.000
First aids	30	62.5	18	37.5	44	91.7	4	8.3	11.558 <sup>k</sup>	0.001

**Table (7): Relation between knowledge and practices among studied mothers pre / post counseling**

Items	Pre		Post		Difference	Paired T-test	
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD		T	P-value
<b>Knowledge (33)</b>	14.083 ± 3.660	21.229 ± 3.397	7.146	11.227	<0.001*		
<b>Preventive practices (57)</b>	35.563 ± 3.332	50.521 ± 4.546	14.958	3.200	0.001*		
<b>Therapeutic practices (15)</b>	7.167 ± 2.861	13.917 ± 2.974	6.750	11.342	<0.001*		
<b>Total practices</b>	42.729 ± 4.752	47.917 ± 3.024	5.188	6.410	<0.001*		

**Table (8): Correlation between total knowledge and practices among studied mothers pre / post counseling**

Practices	Knowledge	
	r	P-value
<b>Preventive practices</b>	0.771	<0.001*
<b>Therapeutic practices</b>	0.884	<0.001*
<b>Total practices</b>	0.830	<0.001*



**Figure (1): Presentation of total knowledge and practices levels among studied mothers pre / post counseling.**

### Discussion

Counseling and health teaching are certainly a primary component of comprehensive health care. Counseling for accident prevention should be available at special needs center to provide the children's mothers how to promote home safety, prevent recurrence injures and hazards exposure (Clements, 2009).

The aim of this study was to assess the effect of counseling intervention for mothers caring children with mental disable to help them in accident prevention. This aim was achieved through measuring the frequency rate of accident among mentally disable children before designing and implementing the counseling intervention. The counseling interventions implemented to the mothers then measuring the frequency rate of accidents after twelve months and evaluate the effectiveness of counseling in decreasing the rate of accident by comparing the rate before and after.

Discussion for the study result was classified under three main parts: First part concerned with the characteristics of the study subjects (children and their

mothers). Second part focuses on characteristics of the studied children regarding rate of accidents' occurrences in the previously twelve months before counseling. Third illustrated studied mothers' knowledge, prevented and therapeutic practices for accidents pre / post counseling, added to effectiveness of counseling in decreasing the rate of accident after twelve months.

The present study was conducted on forty eight mothers caring their children with mentally disable, male and female, aged six to twelve years at two especial needs care center in Cairo where availability of the needed subjects were present.

Children with disabilities are believed to face a higher injury risk than their healthy counter parts due to deficiencies in gait/ motor control, impairments in mental processing and an inability to their environmental adjustment. In the United States, among the top public health issues and healthy people 2010 designated people with disabilities as a special target population in the nation's strategic plan to promote health. The 2013 state of the world's children report was focused on improving

the lives of children with disabilities (Hui-Ping, 2012 & UNICEF, 2013).

The present study indicates that, the mean age of studied children's mothers were thirty seven points one. This results indicated that mothers' age was considered a suitable for parenthood of children with special needs. More than half of the studied mothers (fifty two percent) had university certify followed by secondary school then read and write for minority of them. This findings had an impact on caring children and level of education is an important indicator affecting health behavior.

Result of the current study came in disagrees with **Bristol & Gallagher, (2004)** who revealed that, majority (83%) of studied mothers were illiterates. Almost the same result was detected by **Golding, (2008)**. Every parent with a special child has to become more educated and empowered, learn how to love unconditionally, redefine perfection and disability; understand fully the sacred and tremendous responsibility of being a child's parent.

Regarding to occupation, more than half of studied mothers were employed in governmental job and their studied children were ranking as the first or last child. These were a gift that mothers were able to provide the care for children. Another gift revealed that, highest percentages of the studied mothers were married and father of the child share them the care compared with the minority who widow or divorced.

The present study revealed that, studied children aged between six to twelve years old, also half of them were males and the remaining were females. **EI-Eterby, (2008)** found in his study that 75% of the sample were male and the rest were females. Another conducted by **Aref,**

**(2009)** on communication problems among 3922 child in Upper Egypt, revealed that two thirds of disabled children were males.

Concerning the order of studied children, it was observed that less than half of studied children were the second child. This result was supported by **EI-Sherif, (2007)** who studied the epidemiology of disabilities among children in Mansheyt Nasser, Cairo City and reported that less than half of them were represent the middle child.

As regards the dependence of children in daily life activities, this study results showed that majority of them were completely dependent on parents in daily life activities. This results were agreed with **Mohamed, (2011)** who found that two thirds of them were completely dependent on parents in daily life activities. The previous findings indicated that parents needs assistance from family member's friends and community services to provide care for their children and teach them how to be independent in care. In addition, children with disabilities need ample opportunities to solve problems for themselves, develop a greater sense of independence rather than dependence and wide variety of movement activities designed to breakdown the artificial limitation are that often build up around their disabilities.

Considering social state of studied children, it was found that ninety five points of them interact socially with their sibling as well as with the stronger outside the home. Meanwhile, the minority was either isolated or opened. The highest percent of mothers reported the acceptance by society and it become more tolerant of different people.

Regarding the previous health status, all children were admitted to

hospital and highest percent of them represent eighty seven point five were operated on. Only the minority were represent eight point three on drug therapy as stated by children`s mothers.

The present study revealed that male and female with chronological age from six to twelve and had mild and moderate disability were equal in number as well as they exposed to accidents with no statistical significant difference between them as regards the exposure to the same type of accidents. These findings were contrasted by **Quan et al. (2015)** who reported that female with disabilities was higher than boy. The chronological age of studied children were  $9.2 \pm 1$ , mental age mean was  $6.2 \pm 1$  and it ranged from four to eight years old.

In the same line, the highest percentage of them had mild degree of disability as described in the school file that completely dependent on them. Mothers were represent eight nine point six as a care giver. Similar to the research findings **Houtrow et al. (2014)** who stated that physical and cognitive abilities degree of dependence need supervision as the highest percent were eat, dress, defecate with complete assistance of the mothers.

The highest percent of children enter school with low academic level. More than half of those children were forced to leave the ordinary school as stated by their mothers. The reasons were: inability to understand mothers` interpretation the reason of fear about child condition. The researcher clarified to the mother that the child under age as the mean child mental ages was four to eight. The intelligence rates were identified for each child in school file before enter.

The highest percent of them were represent eight nine point six, with mild degree of disability and the highest percent of children were completely dependent on their mothers regardin to each dressing, urination and defecation.

Approximately one third of studied children had from two - three siblings. One third of them were ranked as the first child and less than one third ranked the last child. This result was supported by **El-Sheraf, (2007)**.

The present study revealed that there was a statistical significant difference between the rates of accidents` occurrence among the children with mental disability.

The current study proved that majority of the studied children were exposed to accidents before counseling, the major accident occur at home and the most first aids at specialized center. The rate of home accidents occurred twelve months per counseling.

The highest percent of studied children, ninety one percent were exposed to home accidents and main causes were wound followed by fall. Most of wound were cut wound in the lower limbs. Post counseling only less than ten percent of the studied children had exposed to accidents after the 12 months. This result was agreed with **Mohamed, (2011)** who found children's mothers view injuries largely as a natural consequence of childhood due to hyperactivity of these children at that age of six to ten years.

The children in this age are more prone to accidents as they are more curious and wish to explore the world increase significantly while they only have limited capacities to understand or respond to danger especially those with physical disabilities also have an

increased potential for injury and this indicated that the incidence was higher.

Results revealed that more than three quarters of children were injured at home, also **Abd El-Aziz et al. (2015)** reported that in a study done on 311 mothers that most injuries took place at home. The results reached by **Sherrard et al. (2001) & Hui-Ping, (2012)** who agreed with the results of the current study that a common site of accidental injuries in children age of six to ten years old was the home.

This results agreed with **Sinclair and Huiyun, (2008)** in study titled in Injuries among US children with different types of disabilities, reported that children with disability had a higher risk of injury but the current study disagreed with **Petridou, (2003)** in a study titled injuries among disabled children: a study from Greece found that falls more common among disabled children, they stated that injury risks for a disabled child are increased with mobility or condition that reduce effective supervision.

The current study results agreed with **Foge and Bend, (1998)** who mentioned that, the most common injuries which may happen at home are wound, fracture and burn. **Crill, (1996)** stated that accidents are wound, fracture and burn. They are caused when dangerous situations or unsafe equipment are not recognized and dealt with people who careless and do not take normal safety precautions if they are in a hurry, living condition crowded, when children are unsupervised and when sufficient protective parenting is lacking.

In the present study there was a highly statistical significant difference between the rate of accidents occurrence pre / post counseling as regards the place, cause, types, side and types of care.

Regarding the rate of accidents, there was a highly significant decrease from pre to post counseling whereas  $X^2=57.4$ ,  $P < 0.001$ . The rate reflect the effectiveness of counseling that presented injury rates, safety behavior, attitude and knowledge.

The present study revealed that, there was a statistical significant difference between the rate of accidents' occurrence among the children with mental disability. Pre/post counseling intervention that proved the effectiveness in decreasing rate of accident for the children's mothers. The main care givers play an important role and this could due to the fact that counseling sessions for children's mothers about accidents' prevention and therapeutic management were simple, concise and precise. In addition, the clarifications of children's understanding level, explanation of the difference between the chronological and metal age for children's mothers facilitate the acceptance of children to perform the wrong and mothers clarify of their children according to the mental age.

Moreover, all this achievement due to the fact that children's mother provide direct care for them at home with assistance of the family member that acquire the essential simple scientific knowledge about expected accidents and different methods of prevention among children. If accident occurs each mother can apply the first aids for each injury at home before seeking the medical help. The previous findings were interpreted by result of the present study as pre counseling, the studied total score of knowledge among children's mothers were ranged from average to poor regarding to the reason, types, causes of accident at home and school.

On the same context, **Paulazzi (2003)** found that, the percentage of

mother's knowledge increases immediately after the program due to the knowledge gained through the counseling. While post counseling the high percent had score good and average, added to any minority had poor. There was a statistical significant difference between the score level pre/ post counseling.

Further more, results of the present study highlighted that there was a statistical significant difference in mothers therapeutic practices on most accidents where their children exposed.

As regards actions taken at home in case of wound injuries, majority of study sample did first aids correctly, while **Ibrhaim, (2000) & Sinclair and Huiyun, (2008)** reported that less than half of the sample only did first aids at home correctly and **Mohammed, (2003)** reported that, in Egypt the majority of parents of injures children immediately seek medical advise and no first aid done by the majority of them.

### **Conclusion**

The counseling plays an important role in accidents` prevention for mental disabled children. Majority of children had a history of exposure to accidents pre counseling. Meanwhile, post counseling for the minority of them. There was a significant difference between pre / post counseling as regards mothers` knowledge, preventive and therapeutic practices, whereas more improvement was indicated. Moreover, there was a significant decrease post counseling in the proportion of accidents` occurrence on mental disabled children.

### **Recommendations**

**Based on the main study findings, the following recommendations are proposed:**

- Counseling and guidance should be provided to improve parents`

knowledge and practices about accidents in (home, school, street and public place), prevention and first aids for all mentally disabled children.

- Further studies should be done to assess the effect of counseling and training programs on children`s parents to reduce the rates and severity of accidents among mentally disabled children.

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