IOSR Journal of Nursing and Health Science (IOSR-JNHS)
e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 8, Issue 4 Ser. IV. (July-Aug .2019), PP 21-35
www.iosrjournals.org

Effect of Health Education Intervention on Sexual Abuse Awareness and perception among School Children and their Parents

Nabila E. Saboula[1], Samia Ali. El-Nagar [2], Maaly I. El-Malky [3], Hasnaa M. El-Said [4]

[1]Family and Community Health Nursing, Faculty of Nursing, Menoufia University, Egypt and Taif University-KSA
[2] Family and Community Health Nursing, Faculty of Nursing, Menoufia University, Egypt
[3] Psychiatric Health Nursing Department Faculty of Nursing, Menoufia University, Egypt
[4] Nursing educator,Technical Institute of Health, Directorate of Health Affairs, Ministry of Health, Menoufia Governorate, Egypt
Corresponding Author: Nabila E. Saboula

Abstract: Background: *Child sexual abuse is a widespread and public health crisis with the most serious consequences that face children. Schools are commonly a safe setting for children to learn about child sexual abuse prevention. It is important to keep the focus on parents' responsibility, while teaching children skills how protect themselves.*
Aim: *It was conducted to examine effect of health education intervention on sexual abuse awareness and perception among school children and their parents.*
Design: *A quasi-experimental research design with pre and post test was used.*
Setting: *The study was conducted at primary and preparatory schools from rural and urban areas at Shebin El-Kom district, Menoufia Governorate, Egypt.*
Sample: *A multistage random sample consisted of 300 school children and their parents.*
Tools of the study: *It included three tools 1. Structured interview questionnaire concerned with socio-demographic characteristics and child previous experience with sexual abuse. 2. Awareness of children and their parents' about child sexual abuse questionnaire. 3. Child sexual abuse Myth Scale used to assess the perception of children and their parents' about child sexual abuse.*
Results: *This study revealed that 7.7% of children have previous exposure to sexual abuse before; percentage of male students that exposed to CSA was higher than female students with statistically significant difference. Furthermore, there was a statistically significant improvement in the awareness levels of school children and their parents about sexual abuse at post intervention compared to pre intervention. After intervention there was a statistically significant improvement in the perception levels of school children and their parents' about child sexual abuse compared to pre intervention. Likewise, there was statistically significant relationship between parents' age, education, residence and their level of awareness about child sexual abuse.* ***Conclusion:*** *Health education intervention was effective in improving awareness and perception of school children and their parents about child sexual abuse.*
Recommendation: *The need for developing educational programs to school age children and their parents to improve their awareness and perception about child sexual abuse prevention.*
Keywords: *Child sexual abuse, Awareness, Perception, School children**,** Parents.*

Date of Submission: 06-07-2019 Date of acceptance: 22-07-2019

I. Introduction

Child abuse is any action by another person adult or child that causes significant harm to a child, an abused child will often experience more than one type of abuse, as well as other difficulties in their lives. Child abuse can be domestic, physical, sexual, neglect, online, emotional, and bulling, but can just as often be about a lack of love, care and attention [1]. Children by nature are particularly vulnerable to all types of abuse because of their temporary helplessness and dependence on adults and lack of knowledge about danger and self-protection. Learning about sexual abuse prevention is necessary, but it is not enough to ensure children's safety. Prevention and teaching about sexual abuse are the responsibility of parents and adults [2].

Child sexual abuse (CSA) is likely the most prevalent health problem with the most serious consequences that children face [3]. CSA is often referred to as a silent epidemic either due to ignorance or

denial of the problem; it is defined as any interaction between a child and an adult or an older youth in which the child is used for the sexual gratification of the adult. The vast majority of child sexual abusers include someone the child knows such as a parent or other relative, teacher, clergy, neighbor, or friend. The CSA can include contact as touching of the vagina, penis, breast or buttocks, oral-genital contact or sexual intercourse and non-contact behaviors as voyeurism, exhibitionism, or exposing the child to pornography, communication in a sexual way by phone, internet or face-to-face [4].

The prevalence studies of CSA were limited in Arab countries, due to social stigma and the cultural sensitivity of this issue to Arabic families. In Egypt, a study among 450 school students found that 37% females and 21.2% of males experienced CSA during childhood [5]. In Egypt, the school age children are 7, 4464 million and influenced by the general problems of childhood, high density in class (70 student/ class), environmental population and educational stress as many are forced to operate in two shifts in a day. Age is a significant factor in sexual abuse. While there is risk for children of all ages, children are most vulnerable to abuse between the ages of 7 and 13. The mean age for reported abuse is 9 years old. However, more than 20% of children are sexually abused before the age of 8 years [6, 7].

School age is one of the most important times in human development, experiences and relationships throughout childhood shape how children will ultimately relate with others and how they will perceive themselves. Often, these experiences go on to become internalized such that they affect a person's daily life experiences; one of the most devastating childhood events that have significant long-term and often lifelong consequences is CSA [8].

Child sexual abuse is associated with maladaptive cognitive development and victims of CSA have lower educational outcomes than their non-abused peers victims of CSA may have difficulties with fulfilling a variety of adult social roles, such as establishing and maintaining high quality romantic relationships, acquiring a well-paid job, and developing positive and effective parenting skills [9]. People who were sexually abused as children are more likely to develop mental health problems, and to engage in self-harming behaviors including attempted suicide and harmful use of non-prescription drugs and alcohol [10]. Additionally, behavioral disorders include eating disordered and obsessive-compulsive behaviors aggression is commonly associated with CSA [11, 12].

Consequently the majority of children spend a large part of their days in a school environment, school based programs can easily access large numbers of children. Schools are often a safe setting for children to learn about CSA, and with proper training and skills, school personnel can be trusted adults to whom children can disclose abuse [13].

The most important role for community health nurse is to ensure the health and safety of the child and should raise awareness about prevention of sexual abuse among school age children; to teach children effectively, parents and teachers should be well informed about the complex impact of sexual abuse on children and other key facts. Whatever advice or instructions are given to children, they must be grounded in honest explanation and a good knowledge of the facts [14, 15]. CSA prevention programs are of value because they provide information, support and empowerment [16].

1.1. Significance of the study

According to the World Health Organization (WHO), CSA is a worldwide problem with severe lifelong outcomes. The WHO has estimated that 73 million boys and 150 million girls under the age of 18 years had experienced various forms of sexual violence in their life time [17]. Highest prevalence (34.4%) of CSA is in Africa [18]. The prevalence is higher among female than male children. A review of studies from both high- and middle-income countries has shown that 7 to 36% of females and 3 to 29% of males reported being victims of sexual abuse during their childhood [19]. In Egypt, a survey of male and female students at Sohag University found an overall CSA prevalence of 29.8%, with the rate for females (37.8%) being higher than that for males (21.2%) [20].

The children are the greatest investment of any society and the main basis for its development. School age children constitute a significant and important sector of the community who are constantly growing and developing. This basic dynamic increased vitality and vulnerability to many health problems, so requires specific health promotion and prevention in relation to seeking health and using various resources to attain optimum health [6,7]. So the aim of the present study was to examine effect of health education intervention on sexual abuse awareness and perception among school children and their parents.

1.2. Purpose of the Study

The purpose of the present study was to evaluate effect of health education intervention on sexual abuse awareness and perception among school children and their parents.

- **Research Hypotheses**
- Students and their parents who received health education intervention had higher level of awareness about sexual abuse than pretest.
- Students and their parents who received health education intervention had improved level of perception about sexual abuse than pretest.

II. Subjects and Methods

2.1. Research design

A quasi experimental design one group (pre & post) research design was used to achieve the aim of the study.

2.2. Research setting

The study was conducted at primary and preparatory schools from rural and urban areas at Shebin El-Kom district, Menoufia Governorate

2.3. Sample

A multistage random sample consisted of 300 school children and their parents. They were selected according the following criteria: Aged between 10-15yrs old, both sexes, agree to participate in the study, and who signed informed consent from their parents'. They were chosen by using the multistage random sampling technique through the following stages:

- The first stage was random selection of the district from nine districts in Menoufia Governorate. The selected district was Shebin El-Kom district (urban area).
- The second stage was random selection of one village out of 36 at this district; the selected village was Melig (rural area).
- The third stage was random selection of four schools from urban & rural area. Two schools (one primary & one preparatory school) from urban area and other two schools (one primary & one preparatory) from rural area.
- The fourth stage was simple random selection of 3 classes from each selected school (one class from each grade). Total number of classes was 12 classes.
- Then fifth stage included random selection of 25 schoolchildren from each class by using a systematic random sample by selecting every second student who fulfilling the criteria of selection. The total number of students and their parents from each selected school was 75.

2.4. Sample size

In order to calculate the sample size required to illustrate the frequency of sexual abuse, in a community of N=1915 students, we used Epi website (Open Source Statistics for Public Health)*. Our assumptions were:

- Population size N=1915
- Frequency of sexual abuse in the population = 25%+/-5%
- A power (1- β) or (% chance of detecting) of 80%.
- Confidence limits = 5%
- The sample size was calculated at confidence level 95% and confidence interval 4.91.
- 300 schoolchildren and their parents from the total number of schoolchildren enrolled at four schools at primary and preparatory schools were 1915 students.

2.5. Tools of the study: Data was collected through using the following tools:

25.1. Structured interview questionnaire: It was developed by the researchers after reviewing the related literature and included the following:

a. Scio -demographic data: It included student's sex, age, father's age, their parent's education, parent's occupation, marital status and socioeconomic status.

b. **History of exposure to child sexual abuse** (CSA): It included two items and reported by asking every child about the previous exposure to CSA and the response of item in the form of yes or no. The second item about who is the perpetrator and the response options as relative, friend, neighbor, teacher, etc.

Reliability of structured interview questionnaire tool was estimated by using test retest method with two weeks apart between them. Correlation coefficient was 0.81 which indicates that it is reliable.

2.5.2. Awareness of school children and their parents' about CSA:

a. Parents' awareness questionnaire about CSA:

It was developed by the researchers after reviewing the literature to assess parents' awareness about CSA and included 21 items. Four items about general knowledge about CSA, 4 items about child sexual abuser,

three items about causes of CSA, four items about signs and symptoms of CSA, six items about prevention of CSA. The responses of each item in the form of yes, no and don't know. Each response with correct answer was given one score, while incorrect answer and don't know was given zero score. Take the maximum score of them (1) multiply by number of questions (21) equal to 21 points that is the total score of awareness. **Scoring system** of parents' awareness about CSA, it was categorized as: Poor awareness: (0-10); Good awareness: (11-21).

Reliability of the tool: It was estimated among 10 participants by using test retest method with two weeks apart between them. Then correlation coefficient (Cronbach's alpha) was calculated between the two scores. Correlation coefficient was 0.85 which indicates that the questionnaire is reliable.

b. Awareness of school children Scale about CSA [21]:

It was developed by Sika-Bright & Nnorom, (2013) [21] and modified by the researchers. This scale was used to assess awareness of school children about CSA. It included 11 items such as CSA undesirable behavior because child physical and psychological harm, children may be sexually abused by family friends or family members, etc. The responses of each item in the form of yes, no and don't know. Each response with correct answer was given one score, while incorrect answer and I don't know was given zero score. Take the maximum score of them (1) multiply by number of questions (11) equal to 11 points that is the total score of awareness of school children about sexual abuse. **Scoring system** of school children awareness about CSA, it was categorized as: Poor awareness: (0-5); Good awareness: (6-11).

Reliability of the tool: It was estimated by using test retest method with two weeks apart between them. Then correlation coefficient (Cronbach's alpha) was calculated between the two scores. Correlation coefficient was 0.83 which indicates that the questionnaire is reliable.

2.5.3. *Child sexual abuse Myth Sc*ale [22]:

It was developed by Collings, (1997) [22].and modified by the researchers. This scale was used to assess perception of school children and their parents' regarding CSA. It included 12 items such as sexual abuse is serious on children; parents should discuss sex with children, etc. The response of items using Likert scale of three categories agree, disagree & not sure). Each response with agree was given one score, while disagree & "not sure" was given zero score. Take the maximum score of them (1) multiply by number of questions (12) equal to 12 points that is the total score of perception. **Scoring system** of school children and their parents' perception about CSA, it was categorized as: Poor perception: (0-5 score); Good perception (6-12 score).

Reliability of the tool:

It was estimated among ten participants by using test retest method with two weeks apart between them. Then correlation coefficient (Cronbach's alpha) was calculated between the two scores. Correlation coefficient was 0.82 which indicates that the questionnaire is reliable.

2.6. Validity of the tools:

The validity of the instruments was done by three experts (two professors in community health nursing and one expert in psychiatric health nursing) who examined the two instruments (for school children and their parents') for completeness and clarity (content validity), accuracy and internal validity. Also, professors were asked to judge the relevancy, clarity, fluency, and simplicity of each component in the questionnaire and their suggestions were incorporated into the instrument.

2.7. Pilot study

A pilot study was carried out on 10 % of children and their parents of the study sample to assess the clarity of the tool and estimate the time needed to fill each part. The necessary modification was done as revealed from the pilot study. The sample of the pilot study not included in the total sample to assure the stability of the result.

2.8. Ethical considerations

The researchers followed all ethical issues in conducting the research. The participation of students and their parents were voluntary; confidentiality and privacy of participants were respected and allowed to withdraw from the study at any time without compensation. Also an informed consent of student's parents was taken to participate in the study.

2.9. Data collection procedure

- Data collection for this study was carried out at the mid of September 2017 and completed by the end of April 2018.
- The researcher constructed the tools of the study after reviewing the literature that cover the various aspects of the problem by using books, periodical articles and network.
- The data was collected by using structured interview questionnaire, once permission was granted, the researcher initiated collection of data. At the beginning, the researcher introduced himself and explained the purpose of the study to the students and their parents through arranging meeting in the school broadcasting.
- From the selected classes, each student who approved to participate and fulfilled the selection criteria and obtained the approval from their parents was asked to fill the questionnaire for period of 20-25 minutes to collect socio-demographic data, their awareness and perception regarding CSA.
- Parents have been connected through the social specialist who sent letters with students to them telling them that program had been prepared about CSA. They were told to attend for the sake of the students. Parents actually attended and took pre-test on the scheduled day in the invoice.
- After collection of the (pre-test), students and their parents were divided into groups; each group consisted of 25 students. They were given instruction in class concerning CSA.
- Each group attended two sessions and the duration of each session was 30-45 minutes.
- The first session included information about meaning, types, prevalence, causes and warning signs of CSA.
- The second session focus on teaching students how to protect themselves from CSA, how to deal with this problem and how to improve perception of children and their parents about CSA.
- Each session followed by a summary of essential points. The teaching methods included lectures, group discussion and brainstorming.
- In the last session, students were given a guide booklet about CSA, the researcher developed this booklet after reviewing the related literature, and it included knowledge about CSA and colored pictures for types of CSA.
- At the end of intervention period (three months) post/test was performed by using the same pre/test questionnaire.
- Parents' post- test was carried out through sending letters to parents by the social specialist. Two third of parents attended and took a post- test while one third of parents who didn't attend, received the post- test questionnaire through students to get it done.

Statistical analysis: Data was coded and transformed into specially designed form to be suitable for computer entry process. Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 22. Graphics were done using Excel program. Quantitative data were presented by mean (X) and standard deviation (SD). Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square (χ^2) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells), or Likelihood Ratio (LR) test (if the table was more than 4 cells). Paired t-test was used to compare the normally distributed quantitative data of two related groups. Pearson correlation coefficient test (r) was used to perform the correlation between quantitative variables. Level of significance was set as P value <0.05 for all significant tests.

III. Results

Table (1): Shows that half of the studied school children are at age between 10 to 15 years with mean of 12.5 ± 1.7 years; nearly half of them are females (50.7%). Majority of mothers and fathers are in younger age groups (30 < 40 years for mothers and 35 < 45 years for fathers). In addition, more than have of mothers and fathers had secondary school (53.7% & 54.3%) respectively and the majority of mothers and fathers had university education (45.6% & 45%) respectively. As regards house rooms, 87.3% of them are living in house with 2-3 rooms.

Table (2): Highlights the previous exposure to child sexual abuse distributed by student's sex. It reveals that, 7.7% of children have previous exposure to sexual abuse before and percentage of male students that exposed to CSA was higher (11.5%) than female students (3.9%) with statistically significant difference (P=0.01). Regarding to abuser, less than two thirds of sexual abuse (60.9%) was done by friends while more than one third (39.1%) were done by relatives and there was no statistically significant difference between male and female (p =0.64).

Fig (1): Reveals that at post intervention, there is a highly significant improvement (p<0.000) in the total of parents' awareness levels about CSA. The post- test reveals that good awareness responses about CSA increased from 42.3% at pre intervention to 88.3% in post intervention, which approved our first hypothesis.
Fig (2): Shows that at post intervention, there is a statically significant improvement (p<0.000) in the total of children's awareness levels about sexual abuse. The post- test reveals that good awareness responses about CSA increased from 0 % pre intervention to 93.0% in post intervention, which approved first hypothesis.

Fig (3): Highlights the efficacy of the implementation of health education intervention on the total parents' perception levels. Post intervention reveals a highly a statically significant improvement (p<0.000) in the total parents' perception about CSA. The post -test reveals that good perception responses about sexual abuse increased from 26% pre intervention to 91.3% in post intervention, which approved second hypothesis.

Fig. (4): Demonstrates the efficacy of the implementation of health education intervention on the total children's perception levels. Post intervention reveals a highly a statically significant improvement (p<0.000) in the total perception of children about sexual abuse. The post- test reveal that good perception responses about sexual abuse increased from 0% pre intervention to 88.3% in post intervention, which approved second hypothesis.

Table (3): Shows that there is a statistically significant difference between pre intervention and post intervention as regarding mean total scores of children and their parents' awareness and perception about CSA. Regarding parents' awareness, there is a statistically significant improvement in the mean total score of parents' awareness about CSA post intervention 19.6 ±4.7 compared to before intervention 9.6 ±2.1. Concerning awareness of children, there is a statistically significant improvement in the mean total score of children's awareness about sexual abuse post intervention 10.4 ±1.8 compared to before intervention 3.9 ±0.4. As regards parents' perception, there is a statistically significant improvement in the mean total score of parents' perception about CSA post intervention 11.2 ±2.2 compared to before intervention 5.8 ±1.8. Concerning perception of children, there is a statistically significant improvement in the mean total score of perception of children about sexual abuse post intervention 11 ±2.6 compared to before intervention 3.9 ±0.1.

Table (4): Shows that there are statistically significant differences between the parents' socio-demographic characteristics and the total score of pre intervention awareness about sexual abuse (p =0.000 for each). Regarding parents' age, sixty two percent of the studied mothers who were 30 – <40 years old had poor awareness score, compared to 10.7% among older mothers with age group of 40-50 years (P =0.000). The same pattern is observed among younger age groups of fathers. Concerning parents' education, all basic education fathers and mothers showed poor awareness, while the higher the education the higher the good awareness scores either among fathers or mothers. In relation to their residence, there is a statistically significant difference between living in rural and urban areas, living in urban area showed higher percentage of good awareness (80%) than living in rural areas (20%).

Table (5): Reveals that there is a statistically significant positive correlation between total score of parents' awareness pre intervention, as well as total score of parents 'awareness post intervention with total children awareness post intervention (r=0.228, P=0.000 HS, and r=0.650, P=0.000 respectively. The later correlation is the strongest association which is between total score of parents' awareness post intervention with total score of children's awareness post intervention (r=0.650 with P=0.000 HS)**.**

Table (6): Illustrates that there is a statistically significant positive correlation between total parents' perception pre intervention with total children perception pre intervention (r=0.317, P=0.02), as well as total children perception post intervention (r=0.368, P=0.000 HS). The strongest association is between total score of parents' perception post intervention with total score of children post intervention (r=0.932 with P=0.000 HS).

Table (1): Distribution of socio -demographic characteristics among the studied school children and their parents (N = 300)

Socio demographic characteristics	No.	%
Age (Years) **Children** 10 – 12 Y 13 – 15 Y	 150 150	 50 50
Mean ± SD	12.5±1.7 Y	
Mother's age 30 - < 40 Y 40 - 50 Y	 272 28	 90.7 9.3
Mean ± SD	36.5±2.1 Y	
Father's age 35 - < 45 Y 45 - 56 Y	 248 52	 82.7 17.3
Mean ± SD	41.5±2.8 Y	
Children sex: Males Females	 148 152	 49.3 50.7
Mother's education : Elementary (Basic) education Secondary school or technical diploma University education	 2 161 137	 0.7 53.7 45.6
Father's education : Elementary (Basic) education Secondary school or technical diploma University education	 2 163 135	 0.7 54.3 45
Family income: Enough and save Enough for basics	 1 299	 0.3 99.7
House type: Shared rented house. Special owner house.	 155 145	 51.7 48.3
Family size: < 4 members 4 – 6 members	 194 106	 64.7 35.3
House rooms: 2 -3 rooms > 3 rooms	 262 38	 87.3 12.7
Residence: Rural Urban	 149 151	 49.7 50.3
Living with: Small family Extended family	 162 138	 54 46
Marital status for parents: Married Divorced and separated	 292 8	 97.3 2.7
Total	300	100

Table (2): Distribution of previous exposure to child sexual abuse (CSA) by students' sex.

Previous exposure to CSA	Student sex				Total		P- Value
	Male		Female				
	No.	%	No.	%	No.	%	
Yes	17	11.5%	6	3.9%	23	7.7%	X2=6.2, P=0.01 Sig.
No	131	88.5%	146	96.1%	277	92.3%	
Child sexual abuser (N=23):							
Friends	11	64.7%	3	50%	14	60.9%	Fisher=0.64 NS
Relatives	6	35.3%	3	50%	9	39.1%	
Total	148	100%	152	100%	300	100%	

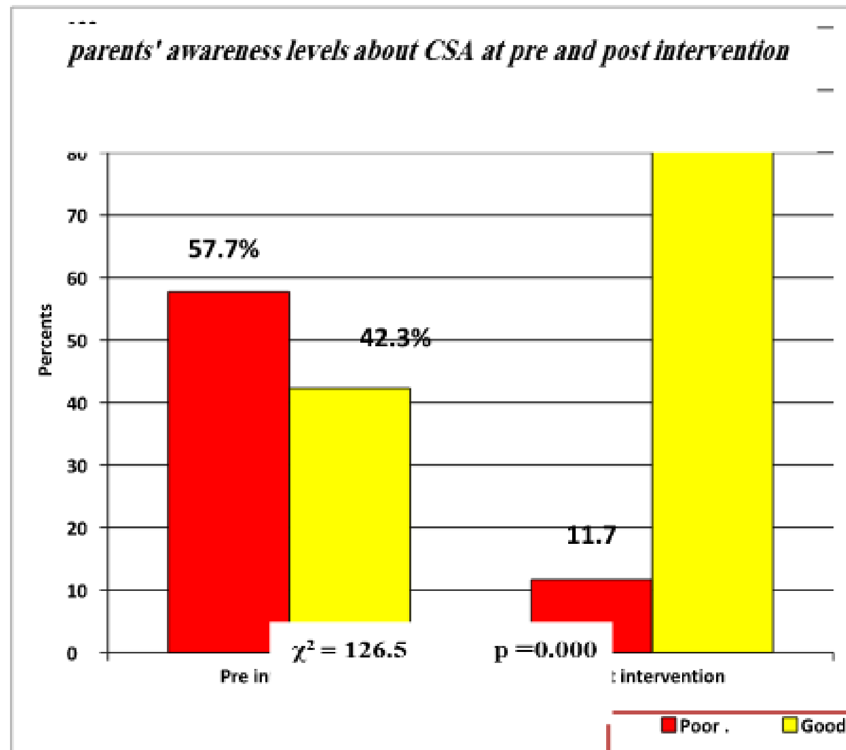

Figure (1): *Distribution of parents' awareness levels about CSA at pre and post intervention*

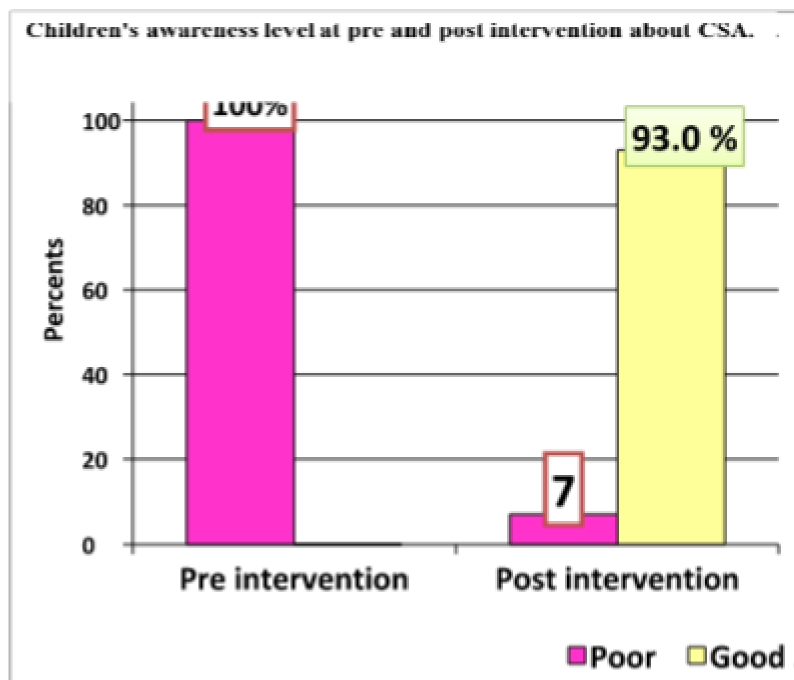

Figure (2): *Distribution of children's awareness levels about CSA at pre and post intervention (N = 300)*

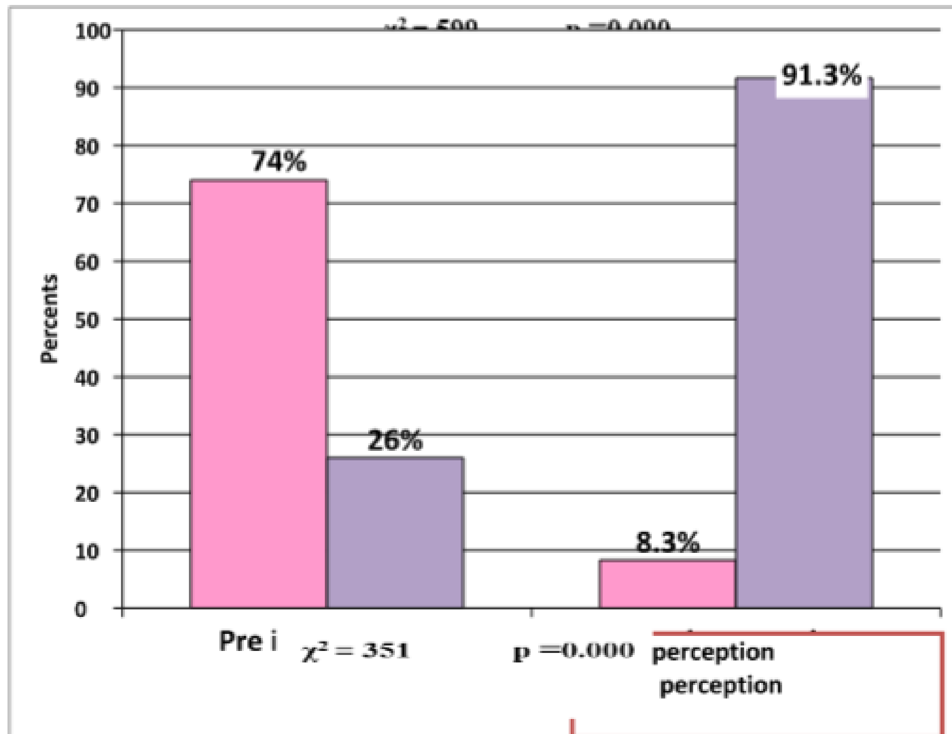

Figure (3): *Distribution of parents' perception levels about CSA at pre and post intervention (N = 300)*

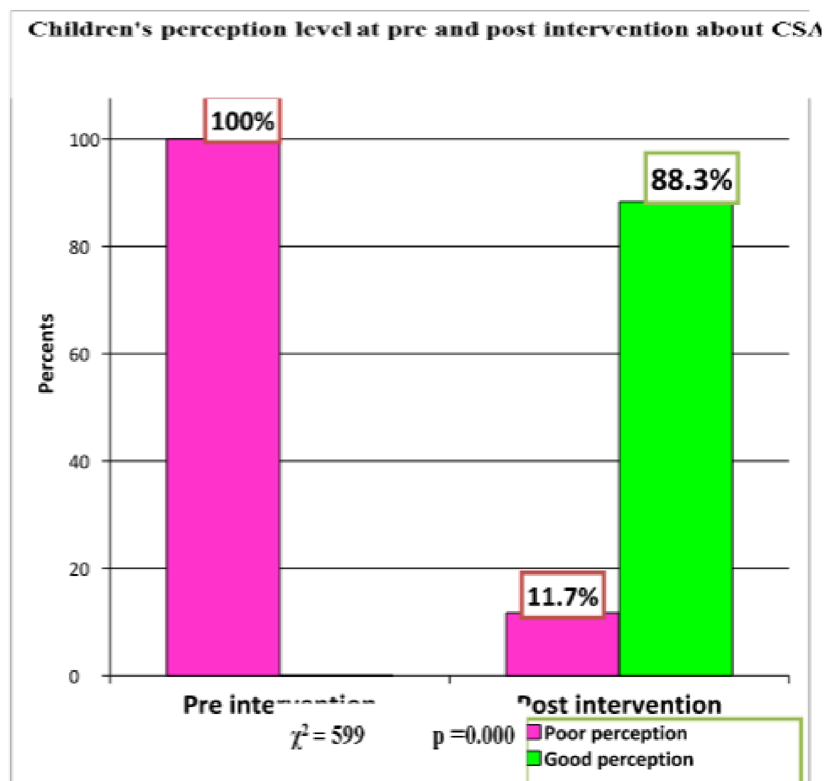

Figure (4): *Distribution of children's perception levels about sexual abuse at pre and post intervention*

Table) 3): Distribution of mean score of children and their parents' awareness and perception at pre and post intervention (N= 300)

Mean total score of awareness and perception	Pre intervention	Post intervention	Paired t- test
	Mean Score ± SD	SD ±Mean Score	
Parents' awareness Score	9.6±2.1	19.1±4.7	t=89 P = 0.000 HS
Children's awareness Score	3.9 ± 0.4	10.4±1.8	t=285 P = 0.000 HS
Parents' perception Score	5.8 ± 1.8	11.2±2.2	t=59 P = 0.000 HS
Children's perception Score	3.9 ± 0.1	11±2.6	t= 89 P = 0.000 HS

Table (4): Relation between the parents' socio-demographic characteristics and their level of awareness about sexual abuse pre intervention (N= 300)

Socio-demographic characteristics		Parents' awareness Level about CSA					
		Poor awareness.		Good awareness.		Chi-square	
		No.	%	No.	%	X^2	P-value
Mother's age	30 -<40years (N=272)	170	62.5	102	37.5	X2=27.9	0.000HS
	40 – 50 years (N=28)	3	10.7	25	89.3		
Father's age	35-<45years (N=248)	163	65.7	85	34.3	X2=38.1	0.000 HS
	45-56 years (N=52)	10	19.2	42	80.8		
Father's education	Basic education (N=2)	2	100	0	0	LR=48.1	0.000 HS
	2ry School (N=163)	122	74.8	41	25.2		
	University (N=135)	49	36.3	86	63.7		
Mother's education	Basic education (N=2)	2	100	0	0	LR=45.2	0.000HS
	2ry School (N=161)	120	74.5	41	25.5		
	University (N=137)	51	37.2	86	62.8		
Residence	Rural (N=150)	143	95.3	7	4.7	X2=174.4	0.000HS
	Urban (N=150)	30	20	120	80		
Total (N=300)		173	57.7	127	42.3		

Table (5): Pearson Correlation coefficient between total score of parents' awareness pre intervention as well as post intervention with total score of children pre intervention and post intervention (N=300)

Children's and parents' Awareness		Total parents' awareness pre intervention	Total parents' awareness post intervention	Total child awareness pre intervention	Total child awareness post intervention
Total parents' awareness pre intervention		1			
	N	300			
Total parents' awareness post intervention		.296**	1		
	Sig. (2-tailed)	.000			
	N	300	300		
Total child awareness pre intervention		.039	.147	1	
	Sig. (2-tailed)	.502	.011		
	N	300	300	300	
Total child awareness post intervention		.228**	.650**	.251**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	300	300	300	300

****Correlation is significant at the 0.01 level (2-tailed).**

Table (6): Pearson Correlation coefficient between total score of parents' perception pre intervention as well as post intervention with total score of children pre intervention and post intervention

Children's and parents' perception		Total parents' perception pre intervention	Total parents' perception post intervention	Total child perception pre intervention	Total child perception post intervention
Total parents' perception Pre intervention	Pearson Correlation	1			
	N	300			
Total parents' perception post	Pearson Correlation	.416**	1		

intervention	Sig. (2-tailed)	.000			
	N	300	300		
Total child perception pre intervention	Pearson Correlation	.317*	.585**	1	
	Sig. (2-tailed)	.028	.001		
	N	300	300	300	
Total child perception post intervention	Pearson Correlation	.368**	.932**	.347**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	300	300	300	300

****Correlation is significant at the 0.01 level (2-tailed).**

IV. Discussion

Child sexual abuse (CSA) is a worldwide problem with severe lifelong outcomes [17]. School based programs can easily access large numbers of children because the majority of children spend a large part of their days in a school setting. Schools are commonly a safe setting for children to learn about CSA prevention. To prevent CSA, it is vital to keep the focus on parents' responsibility, while teaching children skills to help them protect themselves [13].

Therefore, the aim of this study was to examine effect of health education intervention on sexual abuse awareness and perception among school children and their parents.

The present result revealed that only 7.7% of children's have previous exposure to sexual abuse before and the percentage of male students that exposed to CSA was higher than female students with statistically significant difference. This result was consistent with Pérez-Fuentes, Olfson, Villegas, Morcillo, & Wang, (2013) [23] who evaluated "prevalence and correlates of CSA in United State ". They showed that the prevalence of sexual abuse before age 18 was ten percent. Similarly, Mwaheb, (2016) [24] who assessed " demographic and medico-legal aspects of sexual abuse of children in Fayoum Governorate". He found that the percentage of CSA among males was significant higher than females. Also, the study conducted by Abd El Aziz, Ismail, & Ahmed, (2017) [25] who evaluated "the effect of sexual abuse prevention program for primary school age children in Benha City". They showed that number of boys exposed to sexual abuse was higher than girls and exposed 1-3 times. On the contrary, Walsh & Brandon, (2011) [26] assessed "parents' views about CSA prevention education in Canada". They found that between twenty and forty percent of female children and below ten percent of male children experienced CSA exposure through unwanted touching to rape before the age of 18 years. Also, Finkelhor et al., (2014) [27] who studied "the life time prevalence of CSA in the United States". They found that twenty six percent of girls and five percent of boys have experienced sexual abuse or assault by age seventeen. Likely, Pérez-Fuentes, et al., (2013) [23] they showed that the percentage of females that exposed to sexual abuse was higher than males before age eighteen. The difference between result of the present study and other studies may be related social culture and customs of each country.

Regarding to abuser, the current study found that, less than two thirds of CSA was done by one of friends while more than one third was done by one of relatives. This finding was in agreement with Nlewem & Kamodu, (2016) [28] who assessed "the knowledge and perception on sexual abuse among female secondary school students in Abia State, Nigeria". They showed that thirteen percent of abusers of children were relatives of the children, and eighty six percent do not belong to the child family. On the other hand, another study conducted by Topping & Barron, (2010) [29] who examined "school-based abuse prevention, effect on disclosures in urban locations across a Scottish city". They reported that child sexual abusers included fifty percent of family members, forty percent strangers, and ten percent neighbors.

Regarding the efficacy of the implementation of health education intervention on the total parents' awareness levels about CSA, the present study revealed that, at post intervention there was a highly statistically significant improvement in the total parents' awareness. The post test revealed that good awareness responses about CSA increased in post intervention compared to pre intervention. This indicated the effectiveness of health education intervention that cover the need and interest of the participants. This finding was supported by Fayed & Alam, (2015) [30] who studied "the effect of educational guide on mothers' awareness regarding sexual harassment for their school age children in Shebin El-Kom city at Menoufia Governorate, Egypt". They found that mothers had high score of awareness about sexual abuse on post-test compared to pretest. Also, Tremblay & Begin, (2014) [31] assessed of "mother knowledge in preventing CSA in New York". They revealed that, mothers who received a workshop program on sexual abuse prevention significantly improved their knowledge on posttest compared to pretest. This may be related to motivation of parents, informed on the subject and they had a good interest to subject matter of sexual abuse. Similarly, the study conducted in Istanbul by Kurtuncu, Akhan, & Yildiz, (2015) [32] they showed that participated in the CSA prevention training program had

significantly higher levels of knowledge about sexual abuse and scores on their skills that may be helpful in avoiding CSA. On the contrary, Mathoma, Maripe-Perera, Khumalo, Mbayi, & Seloilwe, (2006) [33] who studied "knowledge and perceptions of parents regarding CSA in Botswana and Swaziland". They found that parents have increasing knowledge of CSA at pre intervention in other regions like Botswana and Swaziland. The difference between result of the present study and other studies may be related increasing programs and conferences about CSA in their countries compared to our country.

As regards mean total score of parents' awareness about CSA, the present study revealed there was a highly statistically significant improvement in the mean total score of parents' awareness about CSA post intervention 19.6 ±4.7 compared to before intervention 9.6 ±2.1. This finding was supported by Fayed & Alam, (2015) [30] ,they found that the mean total score of mothers' knowledge about CSA in Egypt was 13.02±4.09 at pre intervention and then significantly increased at post intervention to 24.3±2.97. Similarly, Tremblay & Begin, (2014 ([31]. They showed that the mean total score of mothers' knowledge in preventing CSA in New York was significantly increased at post intervention compared to pre intervention.

Concerning children's awareness levels about sexual abuse at post- intervention, the present study showed that, post intervention revealed a highly statistically significant improvement in the total awareness of children about CSA. The post-test revealed that good awareness responses about CSA increased in post intervention compared to pre intervention. This result was consistent with the study conducted by Abd El Aziz et al., (2017) [25] they reported that there was highly statistically significant improvement at post prevention program compared to pre sexual abuse prevention program. Also, on the same line with a study carried out by Zhang, Chen, & Liu, (2015) [34] who studied "preventing CSA early preschool teachers' knowledge, perception, and their training education in China". They found that there was a positive outcome of the CSA prevention program that Chinese children are able to learn the knowledge of abused, and most trained children were able to report someone about abuse while the abuser tells them to keep it a secret. After participation in the intervention program, children in the intervention group demonstrated greater knowledge about CSA prevention and higher levels of self-protection skills compared with children in the wait-list control group.

Regarding mean score of children's awareness about sexual abuse, the present study revealed that there was a highly statistically significant improvement in the mean total score of awareness of children about sexual abuse post intervention 10.4 ±1.8 compared to before intervention 3.9 ±0.4. This result was consistent with the study conducted by Abd El Aziz et al., (2017) [25], they reported that there was highly statistically significant increasing of mean score at post intervention compared to at pre intervention. Also, on the same line with Zhang et al., (2015) [34] they found that there was a positive outcome of the CSA prevention program and increasing of mean score at post intervention compared to pre intervention.

Regarding efficacy of the implementation of health education intervention on parents' perception levels about CSA, the present finding showed that there was a statistically significant improvement in the total parents' perception at post intervention. The post test revealed that good perception responses about sexual abuse increased post intervention compared to pre intervention. This result supported by Ige, & Fawole, (2011) [35] who studied "parents' perceptions and practices in Urban Nigeria". They reported that poor parents' perception at pre intervention and it is clear that parents need further education on CSA risk perception and perpetration. In contrast, Mathomaet al., (2006) [33] they found that at pre intervention parents have increasing perception of CSA in other regions like Botswana and Swaziland. The difference between result of the present study and other studies may be related increasing in programs and conferences about CSA in countries of other studies.

Regarding mean total score of parents' perception about CSA, the present result revealed that there was a highly statistically significant improvement in the mean total score of parents' perception about CSA post intervention 11.2 ±2.2 compared to before intervention 5.8 ±1.8. On the other hand, this finding was not agreed with a study carried out by Ige, & Fawole, (2011) [35] who examined "parents' perceptions of CSA as well as prevention practices in an urban community in southwest Nigeria". They found that the mean score for perceptions of CSA and communication practices did not change significantly for any of the subgroup.

Regarding to the efficacy of the implementation of health education intervention on the total perception of children about sexual abuse, the present result revealed that at post intervention, there was a highly statistically significant improvement in the total perception of children about CSA. The post - test revealed that good perception responses about sexual abuse increased in post intervention compared to pre intervention. This result was consistent with Zwi, Woolfenden, Wheeler, O'Brien, Tait, & Williams, (2009) [36] who assessed "school-based education programmers for the prevention of CSA in China". They revealed that programs are effective at building children perception about CSA and their preventive skills. Moreover, results of Abd El Aziz et al., (2017) [25] they showed that there was statistically significant improvement in children perception at pre/post program implementation. On the contrary, these results were inconsistent with Zhang et al., (2015) [34] they found no significant difference was observed for the perception of the girls and boys related CSA prevention. The difference between result of the present study and other studies may be related to

the difference in cultures and increasing in programs and conferences that performed about CSA in their countries compared to our country.

The present study showed that there was a statistically significant improvement in the mean total score of children's perception about sexual abuse post intervention 11 ±2.6 compared to before intervention 3.9 ±0.1. This result supported by Zwi, Woolfenden, Wheeler, O'Brien, Tait, & Williams, (2009) [36] who studied "school-based education programmers for the prevention of CSA in China". They revealed that mean score of children perception about CSA in China increased at post intervention compared to at pre intervention. Also this result was consistent with the study conducted by Abd El Aziz et al., (2017) [25] who reported that there was statistically significant increasing of mean score at post intervention compared to at pre intervention. On the other hand, these results were inconsistent with Zhang et al., (2015) [34] they found no significant change was observed in mean score for the perception of the girls and boys about sexual abuse prevention in China. The difference between result of the present study and other studies may be related difference in programs content and conferences about CSA and the variation in cultures.

Regarding relationship between parents' socio-demographic characteristics and their level of awareness about sexual abuse pre intervention, the present result showed that there was a statistically significant difference between the parents' age, education, residence and the total score of pre intervention awareness about sexual abuse. Concerning to parents' age, the present study showed that about two thirds of the studied mothers who were 30 – <40 years old had poor awareness score, comparing with about ten percent among older mothers with age group of 40-50 years. The same pattern is observed among younger age groups of fathers. This result supported by Alzoubi & Ali, (2017) [37] who assessed "mothers' knowledge and perception about CSA in Jordan". They reported that knowledge of prevention practices was found to be higher among mothers with increased age than mothers with small age. On the contrary, Fayed & Alam, (2015) [25] revealed that more than half of mothers were aged between 20-30 years and about two thirds of fathers were aged between 31 to 40years had a higher level of knowledge about CSA than older mothers. Also, Chen & Chen, (2014) [38] who studied "awareness of CSA prevention education among parents of three elementary school pupils in Fuxin City, China". They reported that the mean age for women was 33.8±2.6 years and 34.6± 2.3 years for men and younger parents had a high level of awareness. The difference between result of the present study and other studies may be related to difference between age, maturation and rich experiences of parents in other studies.

Concerning the relationship between parents' education and their level of awareness about sexual abuse pre intervention, the present study showed that all basic education fathers and mothers had poor awareness, while the higher the education the higher the good awareness scores either among fathers or mother. Similar results of Alzoubi & Ali, (2017) [37] they found that the maternal knowledge about the signs and symptoms of CSA increases when the mothers has a high level of education. Likewise, Pullins & Jones (2016) [39] who evaluated "parental knowledge of CSA symptoms in Jordan". They reported that level of education and employment increases the ability to recognize the indicators of diseases in general. On the other hand, Fayed & Alam, (2015) [25] revealed that there was the majority of highly educated mothers had a poor awareness with a statistically significant difference was found between mothers' awareness and their educational level. The difference between result of the present study and other studies may be related to difference between importance and responsibility of parents.

Regarding relation between parents' awareness about CSA and their residence, the present study showed that there was a statistically significant difference between living in rural and urban areas, living in urban area showed higher percentage of good awareness than living in rural areas. This result was in accordance with Alzoubi & Ali, (2017) [37] they found that the maternal knowledge about the signs and symptoms of CSA increases when the mothers lives in urban area and a household with a high income. On the other hand, Abd El Aziz et al., (2017) [25] they reported that two thirds of boys and three quarters of girls abused exist in urban area because poor awareness in this area. Also, Johnston, Phanhtharath, Jackson, & Brenda, (2010) [40] who studied "the bullying aspect of workplace violence in nursing in Finland". They reported that, rapid demographic changes in the population, modernization, emigration, urbanization and changing social policies have all been linked with increase in child abuse and decrease awareness. The difference between result of the present study and other studies may be related to difference between culture and awareness of parents.

Regarding correlation between total score of parents' awareness pre intervention as well as post intervention with total score of children pre intervention and post intervention, the present result showed positive significant correlation between total parent awareness score pre intervention, as well as total parent awareness score post intervention with total children awareness post intervention. The later correlation is the strongest association which is between total score of parents awareness post intervention with total score of children' awareness post intervention. This result supported by Mathoma et al., (2006) [33] they found strongest association between parents awareness with children' awareness. As decrease exposure of children to CSA related to increasing parent's knowledge of CSA.

Regarding correlation between total score of parents' perception pre intervention, as well as post intervention with total score of children pre and post intervention. The present study revealed positive significant correlation between total parents' perception pre intervention with total children perception pre intervention, as well as total children perception post intervention. The strongest association is between total score of parents' perception post intervention with total score of children post intervention. The present result supported by Ige, & Fawole, (2011) [35] they reported that there was strongest association between parents' perception and children perception. As decrease exposure of CSA related to fathers had a significantly higher mean score for perception of CSA.

Finally, implementation of an educational intervention about sexual abuse for children and their parents, improved their awareness and perception regarding the importance of discussing the problem of sexual abuse with their children, how to prevent it and how to deal with it, if it is happen.

V. Conclusions

Based on the results of this study, it was concluded that:

- After intervention there was a statistically significant improvement in the awareness levels of school children and their parents' about child sexual abuse (CSA) compared to pre intervention.
- After intervention there was a statistically significant improvement in the perception levels of school children and their parents' about CSA compared to pre intervention.
- There was a statistically significant relationship between parents' age, education, residence and their level of awareness about CSA.

VI. Recommendations

The following recommendations were suggested based on the result of this study:

- School based educational programs are urgent needed and should be implemented to school age children and their parents to improve their knowledge and perception about child sexual abuse.
- Enhance awareness of school age children and their parents through social media about causes, early detection, prevention and management of sexual abuse.
- There is a need for incorporation of psychological intervention in the management of children with sexual abuse, for improvement of their psychological wellbeing.
- Psychological counseling should be integrated as a part of routine nursing intervention for child abuse to improve their self-esteem and body image.

References

[1]. National Society for the Prevention of Cruelty to Children. (2016). Child abuse and neglect available at: https://www.nspcc. org.uk/preventing- abuse/child-abuse-and-neglect.

[2]. Hitrec, G. (2011). Teaching children to protect themselves from sexual abuse. *Protecting children from sexual violence*, 165-174.

[3]. Townsend, C., & Rheingold, A.A. (2013). Estimating a child a sexual abuse prevalence rate for practioners: A review of child sexual abuse prevalence studies. Charleston, S.C., Darkness to light. Available from: www.D2L.org/1in10 .

[4]. The Child Assessment Center. (2014). Child sexual abuse facts, Available @: http:// www. cachouston.org/child-sexual-abuse-facts.

[5]. Aboul-Hagag, K. E., & Hamed, A.F. (2011). Prevalence and pattern of child sexual abuse reported by cross sectional study among the university students, Sohag University, Egypt. *Egypt J Forensic Sciol* 2(3):89–9.

[6]. Mahmoud, S., Yousif, H., & Ismail, S. (2011). Health promotion program to improve the life style of school children living in Slum Area in Helwan Governorate. *Life Science Journal; 8* (4): 618.

[7]. Mandy. A. (2015). Teaching sex abuse prevention in schools is critical. Available at: https://healingbeyondsurvival.wordpress.com/2015/05/01/teaching-sex-abuse-prevention-in-schools-is-critical/

[8]. Hurtado, A., Katz, C., Ciro, D., Guttfreund, D., & Digna, N. (2014). Children's knowledge of sexual abuse prevention in El Salvador. *Annals of Global Health 80 (2)*: March–April, PP. 103–107.

[9]. Finkenauer, C., & de Jong, R. (2015). Transition to adulthood of child sexual abuse victims. *Aggression and violent behavior, 24*, 175-187.

[10]. Reeve, R., & van Gool, K. (2013). Modeling the relationship between child abuse and long term health care costs and wellbeing, Results from an Australian Community-based Survey. *Economic Record, 89*(286) p 300-318.

[11]. Willows, J. (2016). Moving on after childhood sexual abuse: Understanding the effects of preparing for therapy. England: Routledge, Taylor and Francis Group.

[12]. Sanderson, C. (2016). The seduction of children. London and New York: *Jessica Kingsly Publishers.*

[13]. Martyniuk, H., & Dworkin, E. (2011). Child sexual abuse prevention: Programs for children. National Sexual Violence Resource Center, 1-1.

[14]. Finkelhor, D. (2007). Prevention of sexual abuse through educational programs directed toward children. In Pediatrics, vol. 120.

[15]. Abd-Erazek, A. (2011). Assessment of student`s awareness about influenza A/H1N1 in the secondary schools of girls at Benha City. Master Thesis, Faculty of Nursing, Benha University, P. 30.

[16]. White, L., Duncan, G., & Baumle, W. (2010). Bruising in children who are assessed for suspected physical abuse. *Ann Emerg Med J., 39* (5): 9-50, 3.

[17]. World Health organization. (2014). Child sexual abuse & guidelines for medico-legal care for victims of sexual violence. Available from: Whqlibdoc.who.int/publications/2004/ 924154628x.pdf . Genevayahoo.co.uk

[18]. Wihbey, J. (2013). Global prevalence of child sexual abuse. *Journalist Resource. Available from: Journalists resource. org/studies/./globalprevalene-child-sexual-abuse* .

[19]. Miller, A. (2016). Child abuse and mistreatment. archived from the original on 9 January 2016. Retrieved 5 March 2015.

[20]. .El Sayed, K, (2014). Prevalence and pattern of child sexual abuse reported by cross sectional study among the University students, Sohag University, Egypt. *Egyptian Journal of Forensic Sciences*. 2 (3):8996.

[21]. Sika-Bright, S., & Nnorom, C. C. (2013). The perception of children on child sexual abuse: the case of children in some selected schools in the Cape Coast Metropolis, Ghana. *Advances in Applied Sociology*, *3*(06), 246. [22] Collings, S. (1997). Development, reliability, and validity of the child sexual abuse Myth Scale. *Journal of Interpersonal Violence*, 12, 665–674.

[22]. Pérez-Fuentes, G., Olfson, M., Villegas, L., Morcillo, C., Wang, S. (2013). Prevalence and correlates of child sexual abuse: A National Study. *Compr Psychiatry 54*: 16-27.

[23]. Mwaheb, M.A. (2016). Child sexual abuse in Fayoum Governorat, *Egypt. J Forensic Res 7*: 332.

[24]. Abd El Aziz,M., Ismail,S., & Ahmed,H. (2017). Sexual abuse prevention program for school age children. *American Journal of Nursing Science* . Vol. 6, No. 1, 2017, pp. 1-10.

[25]. Walsh, K., & Brandon, L. (2011). Their children's first educators: parents' views about child sexual abuse prevention education, Published online: 14 September, Springer Science Business Media, LLC.

[26]. Finkelhor, D., Shattuck, A., Turner, H. A., & Hamby, S. L. (2014). The lifetime prevalence of child sexual abuse and sexual assault assessed in late adolescence. *Journal of Adolescent Health*, 55, 329–333.

[27]. Nlewem, C., & K Amodu, O. (2016). Knowledge and perception on sexual Abuse amongst female secondary school students in Abia State Nigeria Research on Humanities and Social Sciences www.iiste.orgnISSN (Paper)2224-5766 ISSN (Online) 2225-0484 (Online)

[28]. Topping, K. J., & Barron, I.G. (2010). School-based abuse prevention: effect on disclosures, Published online: 4 July, Springer Science, Business Media, LLC.

[29]. Fayed,N., &Alam,F. (2015). The effect of educational guide on mothers' awareness regarding sexual harassment for their school age children , *IOSR Journal of Nursing and Health Science (IOSR-JNHS) e-ISSN*: 2320–1959.p- ISSN: 2320–1940 Volume 4, Issue 6 Ver. VI (Nov. - Dec. 2015), PP 58-66.

[30]. Tremblay, C. & Begin, H. (2014). Evaluation of mother knowledge in preventing child sexual abuse, *International Journal of Early Childhood.*

[31]. Kurtuncu, M., Akhan, L. U., & Yildiz, H., (2015): The sexual development and Education of Preschool Children: Knowledge and Opinions from Doctors and Nurses, Published online: 22 January, This article is published with open access at Springerlink.com.

[32]. Mathoma, A. M., Maripe-Perera, D. B., Khumalo, L. P., Mbayi, B. L., & Seloilwe, E. S.(2006). Knowledge and perceptions of parents regarding child sexual abuse in Botswana and Swaziland. *Journal of Pediatric Nursing, 21*(1), 67–72.

[33]. Zhang, W., Chen, J., & Liu, F. (2015). Preventing child sexual abuse early: Preschool teachers' knowledge, attitudes, and their training education in China. *Sage Open*, *5*(1), 2158244015571187.

[34]. Ige, O.K. & Fawole, O.I. (2011): Preventing child sexual abuse parents' perceptions and practices in Urban Nigeria, *Journal of Child Sexual Abuse*, 20:6, 695-707

[35]. Zwi, K., Woolfenden, S., Wheeler, D. M., O'Brien, T., Tait, P., & Williams, K. J. (2009). School-based education programmers for the prevention of child sexual abuse, Issue 3.

[36]. Alzoubi, F., Ali ,R**.** (2017). Mothers' knowledge & perception about child sexual abuse in Jordan, inChild abuse & neglect 75 · June2017with

Nabila E. Saboula " Effect of Health Education Intervention on Sexual Abuse Awareness and perception among School Children and their Parents" .IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 8, no.04 , 2019, pp. 21-35.