

## Physically and Intellectually Disabled Children Safety: Impact of Sexual Abuse Prevention Program

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### Abstract

**Background:** Children are our Nation's most precious resource, but as children, they often lack the skills to protect themselves. It is our responsibility, as parents and teachers, to safeguard children and to teach them the skills to be safe from all types of physical and sexual abuse. **Aim:** Investigating the effectiveness of an abuse prevention program in protecting physically disabled children against sexual abuse and promoting their safety.

**Methods and participant:** A Quasi-experimental design (one group pre/posttest) was used with a purposeful sample of 30 physically and intellectually handicapped children from Al Basma Association for Disabled Children., located at Shebin al-Kom, Menoufia Governorate, Egypt. Three tools were used including, Children's Knowledge of Abuse Questionnaire (CKAQ-RII) which was designed by Leslie Tutty (1995), The What-If-Situations-Test developed by (WIST; Nemerofsky, 1986) and What Would You Do? If Test. **Results:** Thirty handicapped children their mean age was (7.8±1.8), majority 63.3 % was female and have compound disabilities (physical and cognitive) as their IQ above 70. Additionally, 70% of the respondents were not attending any workshop before, compared by 43.3% of their mothers who attended a workshop and 16.7% had another handicapped child. The mean total score for knowledge (CKAQ-RII) about sexual abuse was (18.1) in the pre-test compared to (25.2) in the post-test with a statistically significant difference ( $P < 0.001$ ). where the mean total score for WIST questionnaire was 25.2.9±6.8 in the pre-test as compared to 32.4.5±1.6 in the post-test with a significant difference ( $P < 0.001$ ). **Conclusion:** The obtained findings concluded the effectiveness of the program in developing children with physical and compound handicapped knowledge and behavior of sexual abuse. Therefore, it is recommended to conduct more awareness program for children as well as their teachers and families as they can support them either at the time of abuse or help them to protect themselves against sexual violence.

**Keywords:** handicapped children, intellectually, prevention program, physically, safety, sexual abuse,

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### I. Background

Children are our nation's most precious resource. Yet as children, they often lack the skills to protect themselves. It is, therefore, our responsibility - as parents and teachers - to safeguard and to teach them the skills to be safe. The terms "disabled children" and "children with disabilities" are both widely used by professionals. We have taken an approach that reflects the social model of disability and used the term "disabled children" throughout to include all impairment groups. According to WHO 2015, many people with disabilities do not have equal access to health care, education, employment opportunities, and do not receive the disability-related services that they require, often experiencing exclusion from everyday life activities. This leads to the maltreatment of disabled children which is the abuse and neglect that occurs to them under 18 years of age. It includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and other exploitation which results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power. (Jones et al., 2012.)

A research found that most children suffering from disabilities are at greater risk to be victims more than their peers who were not disabled. In addition, it is strongly evidenced that child abuse among disabled children is a serious public health problem based on the clear links seen between abuse, poor health, and behavioral problems. To the best of our knowledge, very few educational programs targeted physically disabled children as to help decrease the vulnerabilities of those who are at risk of harassment and abuse. Therefore, the current study will develop an educational program about sexual abuse targeting disabled children to improve their knowledge about safety and sexual harassment. (Annerback.et. al., (2012)

According to WHO report 2015, 'disabilities' is an umbrella term, covering impairments, activity limitations, and participation restrictions. An *impairment* is a problem in body function or structure, an *activity*

*limitation* is a difficulty encountered by an individual in executing a task or action, while a *participation restriction* is a problem experienced by an individual in involvement in life situations. Disability is thus not just a health problem. In fact, it is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which they live. Therefore, overcoming the difficulties faced by people with disabilities requires interventions to remove environmental and social barriers. The ICF, adopted as the conceptual framework for this World report on disability, understands functioning and disability as a dynamic interaction between health conditions and contextual factors. (Vásquez, and Zepeda 2008). A safety assessment is the systematic collection of information on threatening family conditions and current, significant, and clearly observable threats to the safety of the child or youth. The purpose is to determine the degree to which a child or youth is likely to suffer maltreatment in the immediate future. For the purpose of the current study the word disabled refers to children who has a functional limitation or restriction in his ability to perform an activity. It is important to remember that the word "disabled" is an adjective, not a noun. People are not conditions. It is therefore preferable not to use the term "the disabled"; but rather "persons with disabilities."

A physical disability is one that affects a person's mobility or dexterity. A person with a physical disability may need to use some sort of equipment for assistance with mobility. It also includes people who have lost limbs or who, because of the shape of their body, require slight adaptations to be made to enable them to participate fully in society. Paraplegia and Quadriplegia are what many people first identify with a physical disability. Paraplegia results from injury to the spinal cord, occurring below the neck, while quadriplegia refers to damage to the spinal cord in the neck. Varying degrees of loss of limb and other mobility may result from either condition. Other forms of physical disability, such as polio (an acquired disease), cerebral palsy (damage to brain tissue during fetal stages) and some genetic conditions can result in loss of mobility. Therefore, children with physical disabilities are at greater risk to be sexually abused victims, the major risk factor for a physically disabled child to be abused at caregiver levels are stigma and poor mental health, poverty at household levels, younger age at child levels, domestic violence and poor parent-child relationship. Factors of emotional and sexual abuse among physically disabled children also occur due to the context of gender that is usually female (Meink, Lucie, & Mark 2015). A child with a disability who is abused may not be aware that abuse happens to other people as well. S/he may feel embarrassed or ashamed. Some children with disabilities may also not understand the difference between a sexual, an affectionate or a hygienic touch. Therefore, children with disabilities deserve the right to personal safety as well as to learn strategies to protect themselves. Education and training efforts that include sexuality awareness, violence and abuse prevention, and assertiveness training will thereby help to prevent abuse against people with disabilities (Meink, Lucie, & Mark 2015)

On the other hand, Children with intellectual disabilities are those who have a reduced capacity to learn tasks or process information. A learning disability may make it difficult for a person to take in information and communicate what they know. While, the children with compound disabilities (neurological) are those who have both physical and intellectual disabilities. A neurological disability is associated with damage to the nervous system that results in the loss of some physical or mental functions. A neurological disability may affect a person's capacity to move or manipulate things or the way they act or express their feelings. The way they think and process information may also be significantly influenced. The brain and the spine are the areas of the body most closely associated with neurology.

According to systematic reviews that describe the current prevalence of child sexual abuse in an account to geographical region, type of abuse, level of country development and research methods, the reviews include studies of child sexual abuse less than 18 years which were reported between 2002 and 2009. The result shows that 9 girls and 3 boys out of 100 are victims of child sexual abuse. (Barth., et al.,2013). Many studies were as well conducted in other countries which also conclude that there is an increased risk of abuse among disabled children. A review finding shows that, in the United Kingdom and other regions, the protection and abuse of disabled children do not receive the attention it deserves at research, at policy, and at practice levels. Thereby, there needs to be an increase in the awareness of child abuse, although maltreatment of disabled children remains relatively hidden. (Stalker & McArthur, 2012). Accordingly, Child Sexual Abuse (CSA) remains a prevalent and serious threat faced by disabled children that we cannot overlook, especially with recent USA estimates of lifetime prevalence of exposure to CSA by age 18 at 10.7% to 17.4% for girls and 3.8% to 4.6% for boys (Townsend & Rheingold, 2013). Given the prevalence of CSA, it is not surprising that many prevention programs have been developed over the decades (Baker, 2005). However, there are still many risk factors that expose a child's life to abuse. These factors are divided into two categories; the first one is related to parents such as the history of abuse in a parent, young maternal age or, low maternal educational level, drug or alcohol abuse, failure or inability to provide parental care, psychiatric disorders, and socioeconomic status. The second category is related to the child such as mental or physical handicap and behavioral disorders. (Regnaut, and Maxime, 2015)

Numerous researchers suggest that specific characteristics of children with physical disabilities may be associated with an increased risk of child abuse. First, these children often depend on others for activities of daily living and personal care. This dependency creates the necessity for intensive interactions with caregivers

who have the potential to be abusive. Second, children with disabilities often do not have the proper personal safety vocabulary necessary (poor communication skills) to report instances of child abuse (Alyott, 1995; Petersilia, 2000). When they do not such terminologies, they are unlikely to tell adults about the incidents in a comprehensible way. Hershkowitz, Lam, Horowitz (2007) and Kim, (2010) found that disabled children were more likely to fail to report child abuse than their peers without disabilities. Without children's disclosures, child abuse may remain unrecognized and uninterrupted. Therefore, due to poor social skills which play an important factor in the unlikeliness to discriminate between appropriate and inappropriate interactions in relationships with different people, they may be at a high risk for being manipulated into child abuse (Kim, 2010).

Due to the impact of sexual abuse on children which can lead to long-term, even life-long, consequences and is a serious problem on an individual, familial and societal level, the prevention measures on different heights remain a public health issue. In the last decades, numerous prevention programs for victims have been developed for various target groups (e.g. parenting education classes, home-visiting programs, public education, training sessions for teachers, E-Learning Programs of the German Federal Ministry for Education and Research and the Centre for Child Protection). Many of these programs have proven partially effective. Moreover, many of those affected who had turned to the Independent Commissioner for Childhood Sexual Abuse [Nervenheilkd 2013, 11:819–825.], had requested generally better prevention and earlier intervention to avoid potential harmful consequences for the abused. One of the conducted researches aimed to determine whether the child prevention program is associated with increased Child sexual abuse (CSA) knowledge, where the results of this study provide preliminary evidence that educational programs may impact potential preventative behaviors (i.e., reporting behavior), and by the increase of reporting, they may potentially reduce risk of future Child sexual abuse (CSA) events. However, there was not much discussion about the criteria that would be used to measure success, beyond simply indicating satisfaction.

The focus in a public health debate on prevention should lay on sensitive and carrying environments and the responsibility of adults instead of that on children to learn to protect themselves from sexual abuse. In about 80% of the abuse cases, the perpetrators are persons known to the child and their family [J Child Sex Abus 2009, 18:1–18.]. Prevention of child abuse, therefore, includes several effective programs such as home visits, parents' education and school programs including teaching children about their private body parts, how to say 'No', and developing awareness about signs of abuse. These programs enhance child protection mechanism which is recommended by WHO. A study was done in New York City (Pulido, Dauber, and Tully, 2015), examined the effectiveness of child sexual abuse prevention program. 492 children from 6 different public elementary schools were selected randomly from second and third grade. The program showed improvement in the knowledge of inappropriate touch in experimental groups greater than that of control groups.

In another study done by (Regnaut et al., (2015) to assess levels of knowledge and risk factors for child abuse in relation to family physicians, the results revealed that few physicians had special training to identify and manage child abuse. In addition, most physicians have reported the cases of abuse as suspected or potential cases, showing that they lack the medical knowledge in this field.

Therefore, many searches recommended that child sexual educational programs can help prevent sexual abuse. Much evidence-based research targeting 5802 primary and secondary school was thereby conducted to evidence the effectiveness of the educational program in developing knowledge and skills of physically disabled children regarding sexual harassment and abuse behavior. Post the program, the researchers see that the best and only solution is using pictures to demonstrate acts of abuse and to have sexual anatomy added to communication boards to help non-communicative children and adults (or those with limited communication) to identify and report acts of abuse. Moreover, encouraging the training and continuous education about violence against disabled children for those with disabilities themselves, their families, legal professionals, judges, prosecutors, victim advocacy agencies, Guardians ad Litem, public defenders, and police officers is important. In general, children with disabilities need early education about the risks of abuse and how to avoid it in a way that they can understand.

### **The significance of the study:**

According to the 2010 Administration on Children Youth and Families (ACYF) report, more than three million reports of child maltreatment were made in 2009, with 10 percent of cases involving sexual abuse. Eleven percent of victims reported having a disability, including 3 percent with behavior problems, over 2 percent with an emotional disturbance, and over 3 percent with an additional medical condition. (Child Maltreatment, 2009). While children with disabilities are at risk for sexual abuse in the same ways as children without disabilities, dynamics related to their disabilities and their receipt of disability-specific services exacerbate and heighten their risk. There is an alarming lack of primary prevention efforts geared to preventing sexual abuse of children with disabilities. Children with disabilities may have a personal care attendant who provides services such as bathing and dressing them, yet they are not taught to identify a bad touch in this context. Additionally, public awareness about sexual abuse of children with disabilities is lacking on every

level. Stigma, fear, underreporting, and society's failure to hold perpetrators accountable have led to a silent epidemic of child sexual abuse. When disability is added to this landscape, the silence is further compounded by a number of factors. Many of the people constituting the community of support for children with disabilities are either unaware or unwilling to believe that these children are targeted for sexual violence. According to an online survey done in the US, for 314 self-selecting parents/guardians of children with disability, to assess the emergency preparedness knowledge, behaviors, and training needs of families of children with developmental disabilities. The result shows most participants expressed a need for preparedness support. (Manag, 2015)

**Aim of the Study:** Investigating the effectiveness of an educational sexual abuse prevention program for physically disabled children against sexual abuse.

**Research questions:**

The present study was designed to answer the following questions:

**Research question #1:**

- What knowledge do handicapped children have about the sexual abuse-related behaviors as measured by the Children's Knowledge of Abuse Questionnaire-Revised II (CKAQNI)?

**Research question #2:**

- What behavioral skills do handicapped children have towards the sexual abusive behavior as measured by the "What Would You Do?" test?

**Research question # 3:**

How well does handicapped children' knowledge and skills of identification of abusive sexual behaviors affecting their safety?

**Research question # 4:**

- How well do the independent variables of children age, sex, level of education, and type of physical disabilities (diagnosis), I.Q level , prior training experience in sexual abuse educational program and subtype of neurological and intellectual disabilities predict children' knowledge and skills towards the abusive sexual abuse related behaviors?
- Which of these independent variables is the most important predictor of children knowledge and behavioral skills' towards the identification and managing the abusive sexual-related behaviors?

**Hypotheses**

Based on a review of the literature, two hypotheses were proposed for investigation:

1. Children who will receive the safety program will show no difference in knowledge of sexual abuse concepts as measured by the Children's Knowledge of Abuse Questionnaire-Revised II (CKAQNI; Tutty, 1994)
2. Children who will receive the program will show no difference in ability to specify the abusive touch and apply prevention skills as indicated by the "What Would You Do?" test (Hauard, et. al., 199L)

**II. Subjects and Methods**

**Study Area/Setting:**

The current study was conducted at Al Basma Association for Disabled Children., located at Shebin al-Kom, Menoufia Governorate, Egypt. The association is a nonprofit organization. Their mission is "Caring for our disabled children, people with special needs and their families" and it was established in 2004 as a registered Charitable Society. The association received all children with different disabilities such as autism, mental retardation, speech problems and learning disabilities. The center has 25 health care providers working with 40 children with different disabilities. The association providing optimal care through multidisciplinary team including: the psychologist, speech therapist, dietitian, social workers and psychiatrist. The association working as halfway houses received children from 8.00AM -2.00PM. The ratio of care provider to children is 1 – 3 children or one to one according to the severity and complexity of child disabilities. Also there are training programs for children, these programs help the child to adapt with his/her disability and enhance the learning of basic daily activities for example: toilet training, how to eat in a proper way, how to walk or using assistance device to move and engage the child in sports, drawing classes, if the child was able to learn (I.Q > 90) they can refer him/her to the suitable institutional school. The institution provides special courses for the children and their families including: how to deal with their children disability, practicing normal eating habits, and many different activities necessary for independent daily living.

### **Study Subjects:**

A purposeful sample of 30 physically, intellectually and compound disabled children was used to achieve the objectives of the current study. Non- probability convenient sampling technique was used to recruit children.

### **Study Design:**

A Quasi- experimental one group (pretest – posttest) design. Data were collected before and after an experimental treatment on one group of subjects. Therefore the evidence generated by the findings of this type of design is interpreted with careful consideration of the design limitations.

### **Data Collection methods, instruments and measurements**

The tools of the study consisted of 4 part as follows:

**Part 1:** personal information of the child such as age, sex, level of education, and type of physical disabilities (diagnosis), I.Q level etc.

#### **Tool II: Children’s Knowledge of Abuse Questionnaires**

The CKAQ-RII is a 33-item self-report measure which was designed by Leslie Tutty (1995) to evaluate knowledge levels of key sexual abuse prevention concepts in children between the ages of six and twelve. The instrument consists of two sub-scales, Inappropriate Touch (24 items) and Appropriate Touch (9 items). This 33-item test utilizes a "true", "False", "I Don't Know" format. It begins with questions about assertiveness and coercion by peers, and non-sexual touch and attitudes regarding strangers. The psychometric properties of the revised version are presented including item-corrected-total correlations, internal consistency ( $r = .87$ ), inter-item correlations, and one month test-retest reliability ( $r = .88$ ). Additionally, the validity and internal reliability of the revised version was proved and accepted through a study done by Nunnally, (1978) as he found that the internal consistency of (KR-20) is an alpha of .87, with strong internal reliability.

#### **Tool III: "What If" Situations Test (WIST),**

The What-If-Situations-Test (WIST; Nemerofsky, 1986) was developed to measure the performance of preschool-age children in sexual abuse prevention programs. The WIST is constructed from the learning objectives of the Children's Primary Prevention Training Program (Nemerofsky, Sanford, Baer, Cage, & Wood, 1986) and is composed of situations that require the child to determine how he or she would respond. The WIST can be used as a pretest measure, as well as a measure of performance in sexual abuse prevention programs.

### **Description**

The WIST consists of 29 items addressing (a) the names and location of the child’s “private parts,” (b) appropriate requests to touch or to examine the child’s genitals by physicians, (c) requests for touching of the child’s genitals by others, (d) requests for the child to touch another individual’s genitals, (e) the child’s right to refuse to be touched, (f) appropriate requests to touch (hug/kiss) the child by others, (g) requests to keep secrets, (h) requests to keep secrets about genital touching, (i) attempts to provide gifts/bribes/ presents/incentives to touch child’s genitals or have the child touch the genitals of another person, (j) actions to be taken if the child was afraid and/or uncomfortable, and (k) the child’s role in potential abuse situations. Eleven items require the child to make a determination about the appropriateness of an action or situation (e.g., If someone touches a child’s private parts, should the child tell?). Seventeen items deal with actions that a child should take in abuse situations (e.g., what would you do if someone touched your private parts?). One item addresses the names and locations of the child’s private parts.

**Response Mode and Timing** the WIST is administered, on an individual basis. The child’s responses were written down verbatim and scored by comparison to a key. The test requires approximately 15 minutes completing.

**Scoring** Scores can range from 0 to 64, with higher scores indicating a greater understanding of child sexual abuse prevention skills and concepts. WIST items are differently keyed according to the nature of the item. The 11 WIST items requiring the child to make a determination about the appropriateness of an action or situation are scored 0 points for a wrong answer and 1 point for a correct response. The 17 items addressing actions a child could take in abuse situations receive 1 point for an assertive or motoric response, 2 points for disclosure and 3 points for both an assertive and a disclosure response. The WIST item that requires the child to name and locate his or her private parts receives 0 points for a wrong answer, 1 point for a partial answer (e.g., child names only one private part), and 2 points for a complete correct answer (e.g., a girl's private parts are her vagina, buttocks, and breasts).

**Validity and Reliability** of the reliability of the original tool were reported by (Nemerofsky, 1991). The Cronbach’s alpha for the WIST was .83, indicating good reliability. Additionally, a significant difference was found between groups, with the experimental group of children scoring significantly higher on the WIST posttest following participation in the sexual abuse prevention training program than the control group of children who had not received the training (Nemerofsky, Carran, & Rosenberg, 1994).

**Validity and reliability of the study tools:**

To ensure the content validity of the adopted tools, we used a back translation process as it has been adopted by the world of medical research. A back translation is when a translated document is translated (back) into the original language. The idea was to verify whether the translation covers all aspects of the original English version of the scale or not. Then to ensure the face validity and reliability the final translated Arabic version of the questionnaire was evaluated by a panel of experts who were selected, on the basis of their qualifications and experience in nursing research and education.

The tools were piloted and tested by 5 children from the institution to identify ambiguities in questions, the time required for completing the questionnaire, and any difficulties that might be encountered by the participants in reading or understanding the questionnaire. The results of the pilot study were tested and documented and Cronbach alpha was 0.81

**Tool IV. What Would You Do? If Test**

This tool is a videotaped vignettes measure developed by Hazzard, et al., (1991) and was utilized to assess 1) children's ability to disseminate between situations which are likely or unlikely to be abusive and 2) children's ability to utilize primary prevention skills in potentially abusive situations. The tape contained six 30-second scenes, four of which were potentially abusive scenes, and two scenes with no clear risk of abuse. The children depicted in the scenes were aged 8 - 11, with the main character in three of the scenes being Caucasian. The four potentially abusive scenes were:

1. A babysitter asking to join a boy in taking a bath and threatening to tell his Parents that he stole money from her purse if he does not comply.
2. A male relative telling a girl at bedtime not to tell anyone about their secret touching game.
3. A male stranger offering to pay a boy five dollars to fold some flyers at the Stranger's home.
4. A teenage neighbor asking a girl to come and help him rake leaves in his backyard and touching her shoulders and hips suggestively.

The two scenes with no clear indication of risk were:

5. An aunt offering to scratch her neighbor's back while both were watching television.
6. A stranger asking a child in a park if she would like to join him and a group of other children playing soccer.

**Content validity of the vignettes:** In the current study authors have developed the same scenarios but in Arabic for easily understanding by Egyptian children. Reliability of the videos was checked and tested by the researchers before presentation in the program. Also, videotaped vignettes were tested and approved after contacting the committee members in the international research board at King Abdullah research center and National Guard safety program. Scoring of this instrument involved the children' responses with the established answers developed by Hazzard et Al., (1991). Specifically, a Prevention Skills (PS) score ranging from 0 -20 was recorded for each individual; the higher score indicating a higher level of prevention skills. The presence of such skills as saying "No", leaving the situation, and telling an adult were key elements toward determining the children's scores. This measure also yielded a Safety Discrimination (SD) score ranging from 0 -22; the higher score revealing increased ability to discriminate from safe or potentially unsafe scenes. Again, children's responses were recorded on the children' answer sheet and were compared with the scoring of the child in pre /post according to the scoring key developed by the authors of this test instrument. The ability of the child to correctly label the scene as safe or unsafe, as well as provide a response consistent with their answer, was a key to receive a higher score in this section for each of the scenes, ratings on how children would feel in a similar situation were collected on four Point scales. Two scales assessed positive feelings (happy, relaxed) and two assessed negative feelings (scared and mad). The four composite scores were thus derived based on the following categories:

1. Positive Reactions to Safe Scenes
2. Negative Reactions to Safe Scenes
3. Positive Reactions to Unsafe Scenes
4. Negative Reactions to Unsafe Scenes

From a range of 0-4, the higher number was indicative of a stronger emotional reaction to the scene. Such scales were designed to assess whether children's emotional reactions to scenes were congruent with their safety ratings as a measure of potential negative program effects. That is, increased negative emotional reactions to safe scenes may be a sign that "children were over-generalizing prevention messages and consequently experiencing undue emotional distress" (Hazard, et al, 1991; p. 129).

### **III. Safety Protection Program Against Sexual Abuse**

#### **Introduction:**

The program was developed based on a dearth review of literature. An attentiveness of the problem of the disabled child abuse was expanded, and the need for personal safety programs became an urgent issue to reduce the risk of child abuse. There is, however, relatively little research on personal safety programs for children with physical or developmental disabilities. The purpose of this study was to examine the effectiveness of a personal safety program for disabled children sexual abuse. Personal safety program aims to reduce the risk of child abuse by teaching children with physical and intellectual handicaps the necessary knowledge and skills to protect themselves against sexual abuse.

**Objectives of the program are as the followings: by the end of the educational program the children will be able to :**

1. Act as a knowledgeable person about how to prevent sexual abusive behaviors.
2. Differentiate between sexual abusive behaviors and other normal behaviors.
3. Recognize and become aware of the situations that may lead to sexual abuse.
4. Express their rights to protect themselves from sexual abuse.
5. Apply assertiveness skills such as (ways to say "no" to an adult or teenager) and ways to report sexual abuse (whom and how to tell).

#### **The program was delivered into four phases:**

Data were collected over 2 months twice weekly period by four interviewers into 2 main phases:

##### **Phase No. 1: Children teachers' preparation:**

Before data collection, 2 hours were spent with the children' teachers to inform them about the nature, purpose and their role during data collection. Teachers of classes were instructed to inform children at the beginning of each day about the nature of the study and that they will have an individual meeting with a program representative to gain children trust and cooperation and facilitate program presentation.

On the other hand, simulation activities were done to the teachers for easily administer and scoring tools of measurements such as how to read the directions for the measurement tools as printed at the top of each form and how children' verbatim answers recorded on a separate preprinted answer sheets. They were also trained on how to conform to all children that it will be alright to say "I don't know" if they did not know the answers to some of the questions. Ethical rights of the children's were informed that they could stop the interview at any time

##### **Phase no II: Data collection procedure:**

###### **Pretest administration:**

After approval that was granted from the institution to conduct the study, the children parents were assured that their anonymity would be maintained. With the presence of both physically and compound disabled children data collection was divided into 2 sub-phases as the following:

###### **1. Children with a physical disability only: (their number was 12)**

Children with the same physical disability were grouped to facilitate the conduction of the program and 6 children were handled /day for 4 hours twice per one week. Children weren't asked to state their name in a section of demographic information codes were used for easy comparison between pre and posttest measurements'.

Next the Children ' Knowledge of Abuse Questionnaire-Revised (CKAQR-II) and what if situation questionnaires were administered in a base of one to one interview). Following the CKAQR-II administration, children were shown the film of "What Would You Do?" depicting six scenes, two of safe and 4 of unsafe situations. For each scene, they were asked to record on the children answer sheet the following: whether the scene was safe or unsafe, and explains what they would say and do, with giving the explanations for their proposed actions. In addition, each child was asked to indicate how he or she will feel in a similar situation on four 4-point scales. Again, questions were read aloud by the Principle investigator of the current study while children teachers offered children support to complete the answer sheets either by themselves or by the teacher support. Finally, a debriefing session was held for the group by reminding the children with the purpose of the study and thank them for their participation.

###### **Phase 2 children with compound disabilities (neurological): No. (18)**

The Wechsler Intelligence Scale for Children—Fifth Edition (WISC-V) which was published in 2014 by The Psychological Corporation, and the Wechsler Preschool and Primary Scale of Intelligence—Fourth Edition (WPPSI-IV) was published in 2012 by The Psychological Corporation. Indicate the following categories:

###### **Wechsler Intelligence Scale for Children—Fifth Edition (WISC-V) IQ classification**

**IQ Range ("deviation IQ")**

**IQ Classification**

**130 and above**

**Extremely High**

120–129	Very High
110–119	High Average
90–109	Average
80–89	Low Average
70–79	Very Low
69 and below	Extremely Low

To facilitate the process of data collection children IQ level was categorized into 2 groups:

1<sup>st</sup> group their IQ 80 -89 was considered low average and the other group IQ was 90 and above and were considered average IQ according to The Wechsler Intelligence Scale for Children—Fifth Edition (WISC–V).

Children data collections were done on a base of one to one with the presence of the class teacher and sometimes mothers of children. Only two children were handled /day for a total of 4 hours for 6 weeks biweekly to finish the total number of 18 children. Repetition of the questions and videos were done besides, simulation by using some games were used to ensure children understanding of the questions measurements'. The same procedure of data collection was used as with physically handicapped with special attention to the type of intellectual disabilities children had.

#### **Program implementation:**

After finishing with the fulfilling of the questionnaires before, the self-protection prevention program. The educational training program was conducted in 4 consecutive sessions, and each session was 45 minutes to an hour.

1. The first session involves personal safety issues and focuses on improving self-confidence and learning to feel assertive.
2. The second session reviews different kinds of touches and feelings, as well as information about private body parts.
3. Problem-solving, decision-making skills, and assertiveness related to potentially abusive situations were taught.
4. Lastly, children were further reinforced to report incidents of child sexual abuse and provided a review of whom they can go to receive help.

#### **Methods of instructions:**

- PowerPoint presentations, Videos, photos, and simulated activities were used to deliver the data of the program. Reward and incentives were used to encourage children participation and keep them attentive throughout the interventional sessions.

**Posttest administration:** questionnaires were fulfilled by the researcher and their teachers again from children after implementing the program.

#### **Data Management and Analysis Plan:**

The data were coded and analyzed using SPSS version 20.0. Data were presented using descriptive statistics for discrete variables in the form of frequencies and percentages, And for interval and ratio variables in the form of means and standard deviations. A paired t-test was used to analyze the total scores of the participants' responses on the pre-test and the post- Test (i.e., before and after the program). Participants' sociodemographic and knowledge differences were analyzed using Pearson r was used to test the correlation between participants' knowledge and sociodemographic variables. The significance level was Pre-set at  $p < 0.05$ .

#### **Ethical Considerations:**

An official approval from the director of Al –Basmah Disabled Children's Association located at Shebin Elkom, Menoufyia governorate, Egypt. Children' parents were contacted by the manager of the institution requesting permission to include their children in the study. Children were informed about the purpose of the study, and that their participation is voluntary and they can withdraw from the study at any time. A written consent was obtained from all participants' parents'. Parents who did not return the consent form was contacted by telephone. In such cases the forms were received shortly afterward, resulting in one hundred percent of the respondents giving signed parental consent. Anonymity was ensured by using identification codes on the questionnaires that facilitated individual comparison of pre-and post-educational program responses.

## **IV. Results**

Table (1) shows the distribution of study participant (children and their family) according to their demographic characteristics. 30 children studying in primary level, the majority "63.3%" were female and all children didn't expose to abuse. More than half (56.7%) diagnosed with physical and mental handicapped. And

equal “26.7%” number of the children were in rank 2 and 3 between family members. As regard to the diagnosis of children physical disabilities, 36.7 % were diagnosed with Cp (cerebral palsy) paraplegia followed by “23.3%” diagnosed Cp (cerebral palsy) Quadriplegia with only 2 distributed between dyskinesia and hydrocephalus. Concerning the children previous participation in a similar workshop “70.0%” didn’t attend compared by “30.0%” attended majority (90.0%) of them indicated that their participation was in the school As regard to children families information, almost half (43.3%) of mothers and fathers was high school and “40.0%” have university educational level. Nearly a quarter (23%) have 7 family members followed by (40.0%) had 6 family members and 33.2% have 5 family members. A majority (83.3%) of mothers indicated that they don’t have any other handicapped children in their family, compared by “16.7%” indicated that they have “13.3%” diagnosed with a physical handicap and only “3.3%” with a mental problem. Considering the mothers’ previous attendance in sexual abuse training workshop “43.3%” attended workshop, compared by more than half “56.7%” didn’t attend any training workshops.

**Table (1) Distribution of study population (children and their family) according to their Demographic characteristics**

Variables	NO.	%	M+- SD
<b>Gender</b>	11	36.7	
• Male	19	63.3	
• Female			
<b>Childbirth order</b>			
• first	9	30	
• second	8	26.7	
• third	8	26.7	
• fourth	2	6.7	
• fifth	3	10	
<b>Types of handicapped</b>			
> Physical	12	30	
> Compound	18	70	
<b>Types of physical handicapped</b>			
▪ cerebral palsy Quadriplegia	7	23.3	
▪ cerebral palsy paraplegia	11	36.7	
▪ neuropathy	5	16.7	
▪ dyskinesia	1	3.3	
▪ muscular dystrophy	3	10.0	
▪ cerebral palsy hydrocephalus	2	6.7	
▪ thoracic MMC VP shunted +hydrocephalus	1	3.3	
<b>Participants review attendance in a workshop</b>			
• Yes	9	30	
• No	21	70	
<b>I attended</b>	6	20	
• In school	2	6.7	
• Out of school			
<b>IQ level</b>			
• 70-80	13	43.3	1.9667+- .92786
• 81-90	5	16.7	
• -above 90	12	40	
<b>Family member handicap</b>			
✓ Yes		<u>5</u>	<u>16.7</u>
• Physical		4	13.3
• Mental		1	3.3
✓ No		<u>25</u>	<u>83.3</u>
<b>Mothers education level</b>			
• Primary		4	13.3
• High school		13	43.3
• University		12	40.0
• Postgraduate		1	3.3
<b>Fathers education level</b>			
• Illiterate		1	3.3
• Primary		2	6.7
• High school		11	36.7
• University		14	46.7
• Postgraduate		2	6.7
<b>Mothers review attendance in a workshop</b>			
• Yes		13	43.3
• No		17	56.7

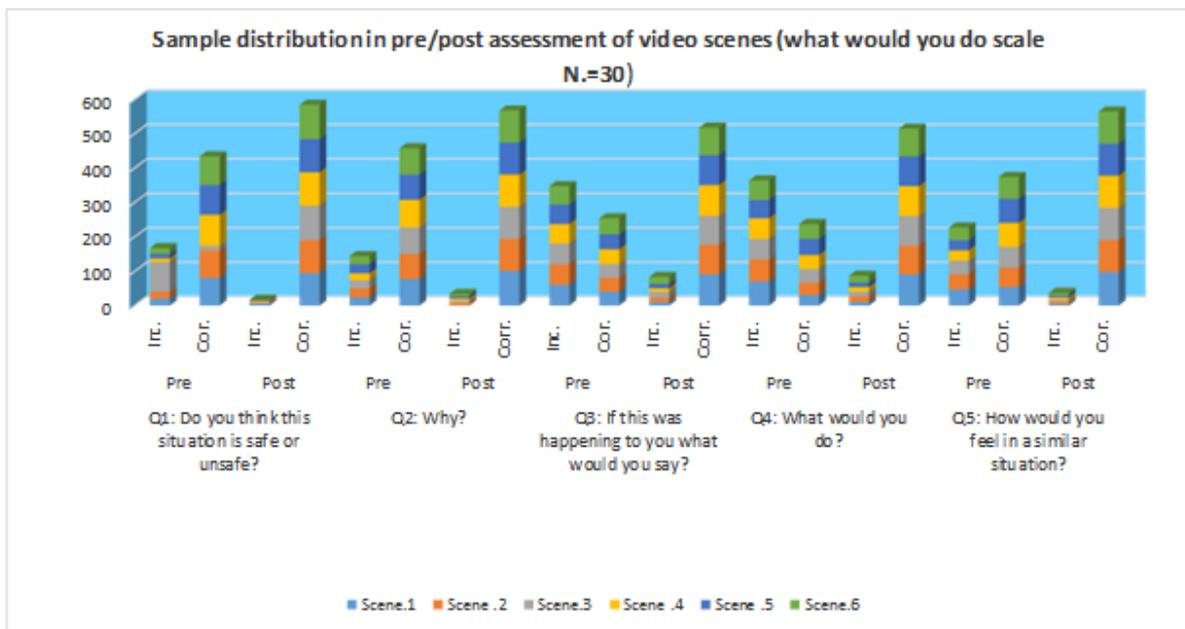
Table (2) referred to the children' knowledge of sexual abuse in pre-and post-assessment. The most prominent deficient and confusing knowledge was regarding the touch nature. As only 23.3% are correctly answered in pre-assessment that, (Boys don't have to worry about someone touching their private parts followed by 30.0% indicated that ,(Some touches start out feeling good and then turn confusing) compared by 50.0% and 80.0% in posttest respectively. An equal number in pre (33.3%) and post (66.6%) of subjects correctly answered that, (Sometimes someone in your family might touch you in a way you don't like) and (Even someone in your family might want to touch your private parts in a way that feels confusing) compared by 36.7% indicated correctly that, (Even someone you like could touch you in a way that feels bad) compared by 80.0% in post-assessment. On the other hand, for the common childish behavior (If your friend says he won't be your friend anymore if you don't give him your last piece of candy, then you should give it to him) majority (80.0%) indicated that they will give candy to maintain friendship in pre-assessment compared by (56.7%) had given the same response in post-assessment.

**Table (2) Distribution of the studied population on the pre and post assessment of their knowledge of sexual abuse scale (n=30)**

	Items	Pre		Post	
		Cor.	Inco.	Cor.	Inco.
1	you always have to keep a secret	43.3	56.6	70	30
2	It's OK for someone you like to hug you.	66.7	33.3	63.3	36.7
3	A stranger is someone you don't know, even if they Say they know you	70	30	86.7	13.3
4	Most kids like to get a kiss from their parents before they go to bed at night so for them, that would be a good touch.	86.7	13.3	83.3	16.7
5	Sometimes it's OK to Say "no" to a grownup	63.3	36.7	83.3	16.7
6	It's OK to say "no" and move away if someone touches you in a way you don't like	66.7	33.3	76.7	23.3
7	You can always tell who's a stranger - they look mean.	43.3	56.7	53.3	46.7
8	Even hugs and tickles can turn into bad touches if they go on too long	60	40	80	20
9	If you fell off your bike and hurt your private parts, it would be OK for a doctor or nurse to look under your clothes	63.3	36.7	76.7	23.3
10	If someone touches you in a way you don't like, you should not tell anyone	56.7	43.3	70	30
11	If your friend says he won't be your friend anymore if you don't give him your last piece of candy, then you should give it to him.	20	80	43.3	56.7
12	If someone touches you in a way you don't like, it's your own fault.	73.3	26.7	73.3	26.7
13	If you don't like sow someone is touching you, it's OK to Say "no".	73.3	26.7	93.3	6.7
14	Stranger look like ordinary people.	46.7	53.3	66.7	33.3
15	If a grown-up tells you to do something you always have to do it.	63.3	36.7	76.7	23.3
16	Some touches start out feeling good and then turn confusing	30	70	80	20
17	You can trust your feelings whether a touch is good or bad	46.7	53.3	63.3	36.6
18	It's OK to have a hug from a grown-up you like.	60	40	83.3	16.7
19	If a mean kid at school orders you to do something you had better do it.	53.3	46.7	73.3	26.7
20	Even someone you like could touch you in a way that feels bad.	36.7	63.3	80	20
21	A pat on the back form a teacher you like after you've done a good job at school is a good touch.	73.3	26.7	83.3	16.7
22	You have to let grown-ups touch you whether you like it or not.	53.3	46.7	76.7	23.3
23	If someone touches you in a way that does not feel good you should keep on telling until someone believes you.	60	40	80	20
24	Sometimes someone in your family might touch you in a way you don't like.	33.3	66.7	66.7	33.3
25	Boys don't have to worry about someone touching their private parts.	23.3	76.7	50	50
26	If you're walking down the Street with your mother or dad and him /she starts talking to a neighbor you have not met before, it's OK	73.3	26.7	83.3	16.7
27	If a friend's dad asks you to help him find their lost cat, you should go right away with him and help.	46.7	53.3	56.7	43.3
28	If you won a contest for drawing the best picture in your school and a neighbor you liked gave you a quick hug to congratulate you that would be a good touch.	60	40	90	10
29	Most people are strangers and most strangers are nice.	60	40	56.7	43.3
30	Even someone in your family might want to touch your private parts in a way that feels confusing	33.3	63.3	66.7	33.3
31	If your babysitter tells you to take off all your clothes but it's not time to set. Undressed for bed, you have to do it.	46.7	53.3	70	30
32	If someone walks in while you are having a bath, and you feel unconfined	50	50	53.3	46.7
33	If you get separated from your parents in a shopping mall, it's OK to ask a sales clerk or security guard for help, even if they are strangers.	60	40	66.7	33.3

Figure (1) displayed the ability of the children to correctly label the scene as safe or unsafe, as well as provide a rational response consistent with their answer, for each of the scenes, children are significantly improved after the program. As regard to “If this was happening to you what would you say?” “There is a significant improvement in the children responses in pre/post program intervention as the majority indicating they will say No or telling an adult while the majority indicated that leaving the situation will be helpful especially for those who didn't have physical problems related to running or walking. On the other hand, the children's emotional reactions to scenes whether were congruent with their safety ratings it was found that a significant difference in developing emotional understanding of each unsafe was improved after the program as the correct negative emotion was detected among the majority of the respondents to be a sign that "children were over-generalizing prevention messages and consequently experiencing undue emotional distress when they face any unsafe situation of sexual abuse or harassment.

**Figure (1) Sample distribution in their response at pre-post assessment of video scenes (n=30).**



**Figure (2)**

Figure (2) illustrated the difference between pre and post measurements scales among the studied subjects. As the total mean  $\pm$ SD of knowledge of subjects in pre-assessment was 18.3 compared by 25.3 while their prevention and practices skills (what would you do?) was 18 compared with 31.3 in post-assessment .on the other hand in what if situation children recorded 26.1 in their pre-assessment compared by 32.96 in their post-test.

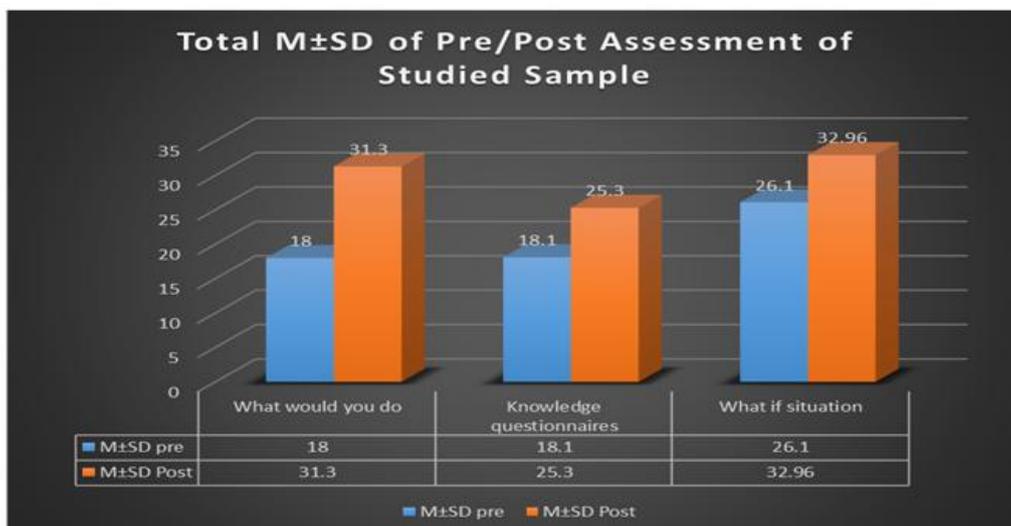


Figure (3) demonstrated the comparison between types of handicapped total mean measurements' in pre /post assessment. The physically handicapped children (n=13) had higher scores than children with compound handicapped in pre/post assessment of their knowledge of sexual abuse (pre=19±4.83) compared with 26.6±5.34 post-intervention) and their practices in different situations was in (pre=26.08±10.18 and 31.92±4.53 in posttest). While children with neurological handicapped had higher scores in identifying the difference between the safe and unsafe scenes and what is the right action to do with the presented vignettes in videos scenes as their pre-assessment was 20.12±8.96 compared by 29±2.47 in their post-assessment while, physically handicapped children had 16.6±11.5 compared by 25.54±5.65 in posttest assessment.

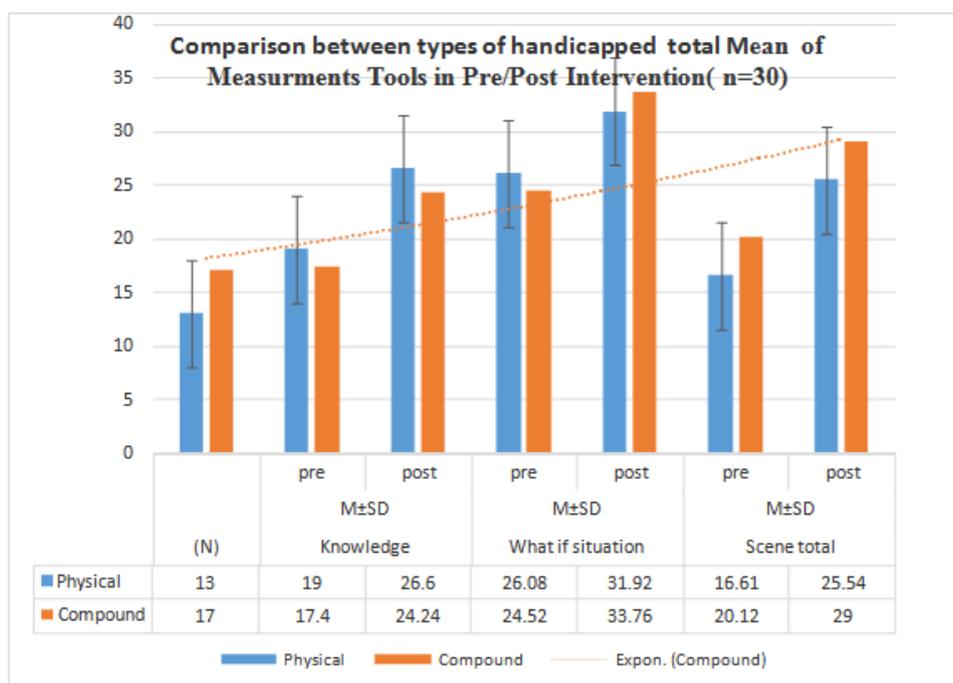


Table (4) revealed that ,there were highly significant differences between pre and post measurement scale (P < 0.001) except for pre /post video scenes number 5 as t =-2.55 and P .016.

**Table (4) Mean and standard division comparisons between pre/post scales measurements among studied subjects. (n=30)**

Pre/post measurement scales	Mean	Std. Deviation	t	Sig. (2-tailed)
Knowledge – Post know	-7.13333	6.95668	-5.616	.000
WIST – Post WIST	-6.86667	10.24100	-3.673	.001
S1 - PostS1	-5.73333	1.79911	-17.455	.000
S2 - PostS2	-1.66667	1.49328	-6.113	.000
S3 - PostS3	-1.53333	1.54771	-5.426	.000
S4 - PostS4	-1.36667	1.56433	-4.785	.000
S5 - PostS5	-1.03333	2.22033	-2.549	.016
S6 - PostS6	-1.33333	1.60459	-4.551	.000

\*P < 0.001

Table (5) clarified that, there was a highly significant difference between children with physical handicaps and others having both (physical and intellectual) P= 0.03.While, their medical diagnosis had no significant difference with their I.Q levels at P= .509

**Table (5) Relation between the subjects' different diagnoses and their IQ level (n= 30)**

Variables	I.Q levels			P. Value
	70 – 80	81 -90	≥ 91	
Types of handicapped				
• Physical				
• Neurological	2	3	8	
	11	2	4	**0.03

Diagnosis					
•	Cerebral Palsy Quadriplegia	5	1	1	.509
•	Cerebral Palsy paraplegia	4	3	4	
•	Neuropathy	1	1	3	
•	Dyskinesia's	0	0	1	
•	Muscular dystrophy	1	0	2	
•	Cerebral Palsy hydrocephalus	2	0	0	
•	Thoracic MMC shunted hydrocephalus	0	0	1	

Table ( 6 ) explained that, there was a significant correlation between number of family members (what if situation scale) in post-intervention (r 0.14 and P = 0.03), children rank order with their knowledge in post assessment (r 0.02 at P 0.92) and their IQ levels had negative significant correlation with post assessment of what if as (r -0.05 at P 0.81).While, there was no significant correlation between children age and their knowledge, WIST, and total scenes in pre/post assessment measurements scales  $P \leq 0.05$ .

**Table (6) Correlation between pre/post assessment measurements and children ‘personal information (n=30)**

Item	Knowledge Pre		Knowledge Post		WIST Pre		WIST Post		Total Scene Pre		Total Scene Post	
	r	P	r	P	r	P	r	P	r	P	r	P
Age	0.14	0.46	-0.21	0.26	-0.07	0.70	0.08	0.67	-0.10	0.60	-0.11	0.54
Child rank	0.20	0.28	*0.02	0.92	-0.08	0.67	0.26	0.17	0.10	0.59	0.18	0.35
IQ	0.16	0.41	0.27	0.14	0.22	0.25	*-0.05	0.81	-0.17	0.38	-0.02	0.92
Number of family members	0.18	0.35	-0.06	0.75	-0.17	0.37	*0.41	*0.03	0.22	0.24	0.23	0.23

\*Significant level at  $P \leq 0.05$

### V. Discussion

To the best of our knowledge, the current study is the first one which was implemented at the setting of the study. As a prevention training program was developed to maintain safety of children with intellectual, physical or neurological disability and the preliminary results of the training indicate positive effects on factual knowledge and safety practices on prevention of sexual abusive related behaviors. The current study aimed at investigating the effectiveness of an educational sexual abuse prevention program on developing knowledge and awareness of children with physical, neurological and intellectual disabilities to maintain their safety against sexual abusive behaviors. The goal of this abuse prevention program was to teach children with intellectual, physical and neurological disabilities to identify a potentially dangerous situation, to respond safely to the situation by verbally refusing and/or leaving the situation, and to report the situation. For instance, it was reported that, there have been a small number of studies on teaching self-protection skills to children with intellectual and developmental disabilities. To answer the research questions, two hypotheses were tested. The first hypothesis of the research was that, children who received the safety program will show no difference in knowledge of sexual abuse concepts as measured by the Children's Knowledge of Abuse Questionnaire-Revised II (CKAQNI; Tutty, 1994). Surprisingly, the obtained findings concluded the effectiveness of the program in developing knowledge of children with physical intellectual and neurological handicapped on sexual abusive related behaviors with the advantage of higher score was reported by physically handicapped children (n=13) than children with compound handicap in pre/post assessment. While, their medical diagnoses had no significant correlations with their I.Q level. As regard to the children's Knowledge and behavioral skills regarding abusive prevention concepts, the results of the current study revealed that, the educational program was effective in developing knowledge of sexual abusive behaviors among children in post assessment compared with pre assessment which was deficient. And the most prominent deficient and confusing in knowledge was regarding to the touch nature. As some children may feel some touches are confusing, in that it may be difficult for a child to identify the appropriate response to the touch. In order to differentiate between appropriate and non-appropriate touching, children are taught that it is not necessarily on what part of the body the touch is placed, but how one feels about that touch. The reaction to the touch continuum has been mixed. Conte, (1986) has commented that, the terms good and bad touch may be problematical because some victims may experience at least some of the sexual touch as pleasing. He suggested that, children need to be taught explicitly that even touches of private parts of the body that feel good may be abusive.

The overall improvement in posttest and retest results observed in this study were also consistent with the results from a similar program evaluated by Lee and Tang (1998) who used the Behavioral Skills Training Program designed for children without disabilities to teach Chinese children with intellectual disabilities Self-protection skills, the researchers indicated that children in experimental group demonstrated better understandings of abuse concepts (e.g., being boss of one's own body, touching an adult's private parts is wrong) than a control group at post training and at a 2-month follow-up. As regard to The WIST, in which vignettes describing appropriate and inappropriate touching behaviors were verbally presented and questions were asked (i.e., what would you do if you were asked (i.e., what would you do if you were in the situation?)) indicated that, the children evidenced a significant increase in the recognition of appropriate and inappropriate touches, compared with the pretest assessment.

Furthermore, upon identifying the inappropriate touches, the training group was more likely to verbally describe appropriate responses to the situation (i.e., saying 'no,' leaving the situation, and reporting the incident) as compared to those responses in the pre assessment. However, the current study results demonstrated that, children received relatively low scores on reporting skills (i.e., telling about incidents). In the same vein, Warzak and Page (1990) taught children with developmental disabilities to say 'no' to an abusive lure and leave the situation using instruction, modeling, and role plays, feedback, and reinforcement. The participants' skills were assessed using role plays, in which potentially abusive behaviors were simulated and the participants' responses to the situations were recorded. The results showed that, training was effective in teaching refusal skills to the children. Furthermore, results of the current study were in accordance with empirical evidence of Karla et al., (2016) who reported that, staff who had been trained on the prevention of sexual abuse shows a greater awareness and sensitivity towards sexual abuse as well as a greater commitment to put prevention and intervention plans into action. In fact, numerous researchers have developed sex education programs for both children and adults with intellectual and developmental disabilities, although there are fewer such programs for children with intellectual disabilities. The programs were found to be successful in increasing a broad range of sexual knowledge. However, it still remains unclear whether or not children with intellectual disabilities would be able to apply the knowledge to their daily lives.

Additionally, results indicated that, regardless of treatment group assignment, people with higher cognitive abilities performed better on all test instruments at pretest and posttest as compared with people with lower cognitive abilities while, unexpectedly, children with neurological disorders had higher scores in identifying the difference between the safe and unsafe scenes and what is the right action to do with the presented vignettes in videos scenes. The interpretation that could be given for the obtained results, the program for this group was implemented in one to one base using alternative methods of learning such as role play, photos, videos and feedback as well the time spent in their training was more enough to cause them retain the knowledge besides the posttest was done immediately after the training was completed. In the literature, an intellectual disability describes below-average IQ and a lack of skills needed for daily living while neurological disorders applies to any condition that is caused by a dysfunction in part of the brain or nervous system, resulting in physical and/or psychological symptoms. All neurologic disorders involve the brain, spinal column or nerves, the symptoms depend on where the damage occurs and whether, areas that, control movement, communication, vision, hearing or thinking can be affected.

On the other hand, results of the current study revealed that, children' age has no significant correlation between pre/post interventional programs score while, number of family members had a significant correlations with (what if situation scale) in post-intervention ( $r = 0.14$  and  $P = 0.03$ ), These results were congruent with the results obtained by khalil et al., (2018) who reported that, there was a significant difference in the participants post knowledge total score ( $P = .006$ ) with the number of children in the family  $P \leq 0.05$ . Despite the economic difficulties and constraints faced by the Egyptian, some families still strongly believe that big number of children are their treasure to maintain their presence in the world regardless they are healthy or having any developmental disabilities.

Additionally, children rank order had significant correlation with their knowledge in post assessment ( $r = 0.02$  at  $P = 0.92$ ) and surprisingly, their IQ level had negative significant correlation with post assessment of (what if) as ( $r = -0.05$  at  $P = 0.81$ ) that mean, the higher the IQ the lower the score in post of (what if situations). In fact, the current study revealed that, physically handicapped children ( $n = 13$ ) had higher scores than children with compound handicapped in pre/post assessment while, their medical diagnoses has no significant correlation with their I.Q level.

In fact, to prevent sexual abuse, knowledge and practices are prerequisite for disabled children to timely detect institutional and individual sexual abuse risk factors and warning signals.

## **VI. Conclusion and Recommendations**

The obtained findings concluded the effectiveness of the program in developing knowledge and behavioral skills of children with physical intellectual and neurological handicapped. Physically handicapped children (n=13) had higher scores than children with compound handicapped at pre/post assessment while, their medical diagnoses had no significant correlations with their I.Q levels. Children with neurological handicapped had higher scores in identifying the difference between the safe and unsafe scenes and what is the right action to do with the presented vignettes in videos scenes. On the other hand, children age has no significant correlation between pre/post interventional programs score while, number of family members had a significant correlations with (what if situation scale) in post-intervention ( $r = 0.14$  and  $P = 0.03$ ). Additionally, children rank order had significant correlations with their knowledge in post assessment, and surprisingly, their IQ level had negative significant correlations with post assessment of (what if) as the higher the IQ the lower the score in post assessment of (what if situations).

**Therefore, it is recommended to:** Conduct more awareness program for children as well as their teachers and families as they can support them either at the time of abuse or help them to protect themselves against sexual violence. Additionally, in order to get rid of the phenomena of child abuse, awareness program has to be imitated and promoted in the community at large. An important assumption of any proposed abuse protection education is that knowledge equates with the reduction in abuse rates. The previous research studies had also indicated that, there may be limitations between generalizing knowledge acquisition and actual reductions in abuse rate (Barger et al., 2009; Bollman & Davis, 2009; Doughty & Kane, 2010). Thus, reapplication of this study is highly recommended to be measured in a longitudinal base to see the retention of knowledge and skills among disabled children. In addition, multi-disciplinary and multi-sectoral co-operation and collaboration will be required to increase the focus on the prevention of violence against children with different types of handicapping since the children's abusive related behaviors are vary between countries. Therefore, each country required its own research in order to develop a policy tailored to their particular requirements. The existing research indicated that, children with intellectual disabilities experienced difficulties with reporting skills. Thus, more researches should be devoted to developing personal safety programs specifically with an aim to enhancing accurate reporting skills.

### **Implications and Future Research**

- Communication of the results to the manager of the study setting was done and first educational workshop was held for mothers' titled "preventing sexual abuse and maintaining safety of our children" was organized and held by the institution for first time in the history of the institution. The recommendations from this workshop are highly realized the importance of how parents should regularly attend sexual abuse prevention programs and teach their children the protective measures of sexual abusive related behaviors'.
- The results of the current study have implications regarding the importance of including these safety training program in the curriculum components of children with developmental and neurological disabilities. Indeed, the study have implications regarding staff training, hiring, and supporting. Therefore, agencies and institutions should provide sexual abuse prevention training to their developmental disabilities service providers.
- Frequent "inoculation" training or continuing education in developmental disabilities, sexuality, and sexual abuse prevention also should be provided to enhance knowledge and attitudinal change toward this sensitive cultural issue.
- A variety of assessments and instructional strategies including video simulated situations, positive and negative pictures of abusive and non-abusive sexual behaviors and interactive observation, can be used to train children and to identify whether verbal reports by staff are congruent with their behavior when interacting with the disabled children.
- Future studies should be conducted in order to develop and systematically evaluate the effectiveness of such programs for children with intellectual and physical disabilities.

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