

Self- Care Capacity and Independent Daily Living Skills among Visually Impaired Child

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Abstract: Visually handicapped children unable to carry out normal activities because of defects of vision, including blindness the aim of the study was to evaluate levels of dependency of doing daily Living Skills and self-care capacity among Visually Impaired child **Aim:** To evaluate levels of dependency of doing daily Living Skills and self-care capacity among Visually Impaired child. **Research design:** A descriptive design was used in this study. **Setting:** This study was conducted in El Noor schools of visual handicap at Tanta city **sample:** It contains (9) class room with the total number of (86) students with visual handicap. **Tools of Data collection:** Two tools were used to collect the required data, 1:-Structured interview schedule and structured observational check list. **The results:** It was revealed that there were statistically significant difference between the total score of self-dependence in relation to the socio-demographic variables such as Age in years and Educational level **Conclusion &Recommendations:** There was a highly statistically significant relationship between total score of self-dependence and socio-demographic factors as regards to age, educational level and residence. This may be due to lack of mother's knowledge, lack of supervision, follow up of child and lack of motivation resources and facilities that affect children knowledge and performance. Therefore the study recommended in service training programs and workshops should be conducted for those children to improve their knowledge and performance, health education to mothers about self-care management to child and program about care of their child.

Keywords: Self- Care Capacity, Independent daily living skills, visually impaired child.

1. INTRODUCTION

Vision plays an important role in life, at every stage of life. Despite this, vision is often excluded from health sector planning and there remains considerable unmet need for eye care services. There are different levels of vision impairment and these impacts on a person's day-to-day life in different ways. World health organization (WHO) defined a person with low vision as the one who has impairment of the visual function even after treatment and/ or standard refractive correction, Visual impairment including blindness which means impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial sight and blindness.^(1, 2)

From the moment an infant is born, vision plays a critical role in how they grow and develop. Recognising and then smiling or making noises at family and caregivers sets the foundation for intimacy and attachment. This type of communication and interaction are an important part of cognitive development.⁽⁴⁾

The global number of blind and visually disabled seems to be growing, mainly as an effect of population increase. Thus, the most recent projects estimate for world blindness points to some 45 million blind, and an additional 135 million visually disabled (low vision). About 80% of blindness is avoidable (preventable or curable), and 90% of the world's blind live in developing countries. In the U.S., there is approximately Visual Impairment less than 1% (0.6%) of persons under the age of 18 is visually impaired. Severe Visual Impairment children age 6-14 years of age (0.5%) have difficulty seeing words and letters in ordinary newsprint even when wearing glasses. legal blindness indicated that approximately 2,600 children under 5 years of age and approximately 51,000 between the ages of 5-19 were legally blind^(3,4)

Children with vision impairment can develop language skills that appear to be focused more on themselves, rather than others and the world around them. This is often because their experiences can be small and fragmented, that they don't have the same sort of perspective as other children to help develop their language. Early in life, children with vision impairment may find it more comfortable to have one-on-one interactions, including with older children and adults, rather than with groups of children⁽⁵⁾.

Self-care skills are those we use in everyday life, also referred to as Activities of Daily Living (ADL). The ability to perform the routine activities of daily living, are critical for a child's wellbeing and self-esteem. These skills include feeding ourselves, using the toilet, dressing and undressing, washing (including hand washing), grooming (including teeth and hair brushing). Children develop these skills as they develop and grow. Sometimes they need to be taught these skills.⁽⁵⁾ Younger children often require help from adults to perform ADLs, as they have not yet developed the skills necessary to perform them independently. Activities of daily living (ADLs) is a term used in healthcare to refer to daily self-care activities within an individual's place of residence, in outdoor environments. Basic ADLs (BADLs) consist of self-care tasks, including: Bathing and showering (washing the body), Dressing, Eating (including chewing and swallowing), Feeding (setting up food and bringing it to the mouth), Functional mobility (moving from one place to another while performing activities), Personal device care, Personal and grooming (including washing hair), Toilet hygiene (completing the act of relieving oneself). Instrumental activities of daily living (IADLs) are not necessary for fundamental functioning, but they let an individual live independently in a community: Housework, Taking medications as prescribed, Managing money, Shopping for groceries or clothing, Use of telephone or other form of communication, Transportation within the community^(6,7).

Significance of the study

Childhood blindness remains a significant problem, with an estimated 1.4 million blind children below age 15 and more than 90% of the world's visually impaired live in developing countries, In Egypt blind children were 0.25% of children and low vision children constituted 0.1% of total children in 2001^(8,9). In low and middle-income countries especially, children with vision impairment may not have access to supports and services that enable them to learn alongside their peers⁽¹⁰⁾

Since Visually handicapped children unable to carry out normal activities because of defects of vision, including blindness the aim of the study was to evaluate levels of dependency of doing daily Living Skills and self-care capacity among Visually Impaired child .

Aim of the study:

The aim of this study was to evaluate levels of dependency of doing daily Living Skills and self-care capacity among Visually Impaired child.

2. SUBJECT AND METHOD

Research design:

A descriptive design was used in this study.

Setting:

This study was conducted in El Noor schools of visual handicap at Tanta city It contains (9) class room with the total number of (86) students with visual handicap.

Subjects:

A sample consisted of 60 children of visual handicap out of (86) student we selected sample randomly from the previously mentioned setting according to following criteria:

1. Both Sexes
2. Age ranged from (8-16) years
3. Free from any other health problems and neurological clinical examination.

Tools of data collection: two tools were used to collected the required data:-

Tool 1:-Structured interview schedule (appendix I):

It was developed by researcher to collect the required data after reviewing relevant literature. It was written in simple Arabic language and it consists of two parts:

A- Sociodemographic data of children it was developed by the researcher to assess child's age, sex, birth order, educational level, residence.

B- Medical history of children with visual disability which include nature of disability, Onset of disease, duration of the Presenting problem, Chief complain, Visual difficulties, Diagnosis, Degree of visual impairment, disability or hand cap, cause of visual impairment, Presence of complications.

The questionnaire sheet contained closed end questions and the children were asked to respond to these one with only one correct response for each; the children who respond "correct answer" scored (1) and the children who respond "incorrect answer " or "did not give any answer "scored (zero) "the total knowledge score" was 16 where it comes from multiplying total number of questions (16) in correct response score (1) then the result divided by 100 to be converted into percentage.

Tool II: A Structured Observational Check list (appendix II) :It was developed by the researcher to assess self-care management in daily living activities in visual handicap children it comprised **8** main items:

- 1- Feeding patterns skills (Meal preparation and cleanup)
- 2- Washing clothes abilities
- 3- Personal health care skills (toothbrush -nail care –hair care-tying shoes)
- 4- Grooming skills
- 5- Dressing and undressing skills
- 6- Toilet transfer and toileting hygiene skills
- 7- Bathing and showering skills
- 8- School activities (reading-writing)

Scoring system

Different children self-care daily activities related to each item were listed .A scoring system was used to check each activity whether it was dependent done, needs some help and totally independent done. Scoring of answer to each item will be ranged from (Zero point) score was given to **dependent self-care** daily activity skill ;(one point) was given to needed some help in self-care daily activity skill and (two point) for **totally independent** in self-care daily activity skill with total score of(70) where it comes from accumulating the number of steps of all daily self-care activities (35)multiplied in **totally independent** in self-care daily score (2) then the result is divided by 100 to be converted into percentage .

The total score of each item was (4 points for capacity for eating skill,2 points for capacity for washing clothes , 4 points for capacity for personal hygiene skills ,1 points for capacity to have good appearance , 1 points for capacity to climb

stairs , 1 points to use public transportations,3 points for capacity for dressing skill,1 points for capacity to practice exercises , 5 points for capacity for toileting hygiene skills , 4 points for capacity for taking showers, 1points for capacity for money identification, 1 points for using phone, 1points for shopping, 3 points for mobility, 1 points for capacity to take treatment , 2points for capacity to do school activities .

For (60) children were resumed it mean that one hundred percent where it comes from accumulating the number of children which divided into segments; total score for self-dependence to (< 10) represented to 1 child it was score mean 1.7% ,total score for self-dependence to (10-) represented to 10 children it was score mean that 16.7%,total score for self-dependence to (20-) represented to 10 children it was score mean that 20.0%,total score for self-dependence to (30-) represented to 16 children it was score mean that 26.7%,total score for self-dependence to (40-) represented to 2children it was score mean that 3.3%,total score for self-dependence in between (50-56) represented to 19 children it was score mean that 31.6%

Content Validity: The developed questionnaire was critically reviewed by the five juries who are experts in the field of medical and nursing Pediatric to assess the validity of the tool and to avoid any repetition & content validity index (CVI) was considered.

Methods

Administrative process:

Written approval consent to conduct the study was obtained from responsible authorities from Ministry of Education at Tanta City, and the directors of the school

Ethical Considerations: Each subject was informed that:

- All subjects' rights will be secured.
- Nature of the study will be harmless.
- All data was confidential and will be used only for research purpose.
- Parents' consent to participate in the study was obtained after explaining the aim of the study.
- Each subject is free to withdraw at any time throughout the study.

Pilot study:

A pilot study was conducted on 10%of total study sample of children with visual handicap and was carried out to ensure reliability, clarity and validity of the tool, some changes were done accordingly. Those who shared in the pilot study were excluded from the study sample.

Field work:

The field work was performed over 3 days / week during afternoon shift over 6 month's period started from beginning of July 2013 to January of 2014. The researcher started by introducing herself and explaining the purpose of study briefly to the participants. Predesigning interview questionnaire sheet were filled for each children. The time consumed to answer each questionnaire sheet ranged from 15-20minutes.

Statistical analysis:

The collected data were organized, tabulated, and statistically analyzed suing SPSS version 19 (Statistical Package for Social Studies). The number and percentage distribution of each variable was calculated according to subcategories of each variable. Differences in observation for subcategories were tested using Monte Carlo exact test. The correlation between total score and age in years and birth order was calculated using Pearson's correlation coefficient (r). On the other hand the correlation between the total score and educational level was calculated suing Spearman's correlation coefficient. The p value of significance was adopted at $p < 0.05$. While, P value of < 0.618 showed a good level of reliability of the study tool

3. RESULT

Table 1. illustrates the sociodemographic characteristics of studied children, it was revealed that ,slightly more than half of the children (56.7%)were between 8-12 years, consequently more than one third (35%) of them were between 12-16 years. Regarding to than sex, it was observed that more than half of studied children (58.3%) were male. Concerning birth order it was found that more than one third of the sample (35%) was the third order, three quarter (75%) were from primary school and about two third (60%) were from rural area.

Tables (2) demonstrate the percentage distribution of studied children in relation to degree of present disability. Nearly (70%) of studied children were not identified the degree of present disability.it was found that the Presence of other type of disability was (19.3%), otherwise it was revealed from the table that more than half of children (55%) was not identified first manifestations of disability.

Figure (1) showed that about one third of the studied children (38.3%) was had difficulty with movement, difficulty with eating, difficulty with dressing consequently, difficulty dealing with others and recreational activities. It was showed that also less than one quarter (19.3%) of the child associated with presence of complications secondary to student's disability.

Table (3) It was observed from this table that, the majority (90.0%) of child Can handle a glass to drink and can wash hands before and after meals Dependent, two third of children (66.7%) Needs some help to prepare meals and about one third (26.7%) Totally independent in clean place of eating .also, it was observed that, the least (5%) of child dependent can sort unclean from clean clothes, one third (38.3%) Needs some help to sort unclean from clean clothes On the other hand (70%)of child Totally independent in wash unclean clothes , In relation to brush teeth and shoes tie, it was observed that more than half (55%) of child Dependent, otherwise half of them (50%) Needs some help to trim nails and equal percentage (33.3 %) can brush teeth and can fix the shoe tie needs some help, in the same table it showed that, about one third (30%) of child totally independent can fix the shoe tie .

Table 4. shows that, the majority (95 %)of children can move inside bathroom dependent, on the other hand less than half(46.7%)of their needs some help to keep the bathroom clean and only (6.7%)of child can walk to bath room totally independent. Other wise , the majority (91.7%) of their Can open the shower tap and wash his body Dependent ,and more than half (66.7%) of child Needs some in use soap for cleaning and Can dry body after washing

Table (5) from this table it was obvious that, more than half of studied children (51.7%) can read and write by Braille dependent, in the otherwise, slightly less than three quarter of studied (71.7%) needs some help to read and write in Arabic and the least (6.7%) can read and write by Braille totally independent.

Table (6): Percentage distribution of studied children according to total score for self-dependence the table indicated that , the majority of score of self-dependence (31.6%) which it was ranged between in (50-56) of self-dependence as was represented in (19) children ,in the same table it was observed that , the minority of this score (1.7%) was ranged from(<10)of self-dependence was represented in (1) children, also observed from this table that, the total score of self-dependence for all children (60) which was represented total score one hundred Percent .

Table(7): present the Correlation between total score of self-dependence and socio-demographic variables, It was clear from this table that, There was significant Correlation between total score of self-dependence and socio-demographic variables in age in years and educational level and no significant in birth order $p>0.05$.

Table (1) sociodemographic characteristics of studied children visual handicap

Variables	Number	Percentage
Age in Years:		
<8	3	5.0
8-	34	56.7
12-	21	35.0
16+	2	3.3
Gender:		
Males	35	58.3%
Females	25	41.7

Birth order:		
1	15	25.0
2	11	18.4
3	21	35.0
4	11	18.3
5	2	3.3
Educational level:		
Primary	45	75.0
Preparatory	10	16.7
Secondary	5	8.3
Residence:		
Rural	36	60.0
Urban	24	40.0

Table (2): Percentage distribution of studied children in relation to degree of disability

Degree of present disability:	Number	Percentage
Total	7	11.7
Partial	11	18.3
Don't Known	42	70.0
Total	60	100
First manifestations of disability:		
None	10	16.7
Excessive hypersensitivity to light	3	5.0
Head titling when looking to objects	5	8.3
Unusual eye movements	3	5.0
Others	6	10.0
Not identified	33	55.0
Total	60	100
Presence of other type of disability	11	19.3

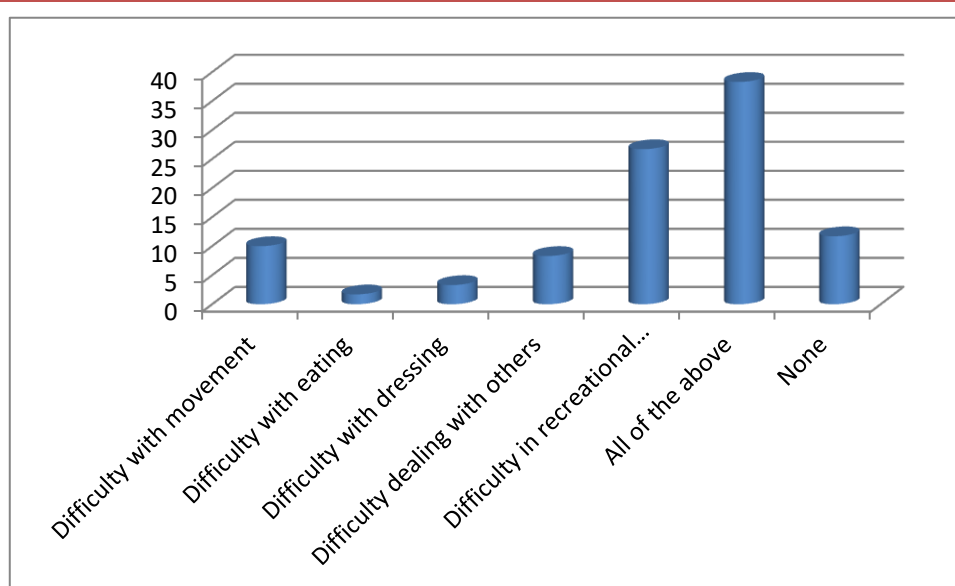


Figure (1): Distribution of studied children in relation to problems associated with disability

Table (3) Percentage distribution of studied children in relation to ability of children to do some skills

Ability of children to do some skills	Dependent		Needs some help		Totally independent	
	n	%	n	%	n	%
1-Capacity for eating:						
Can prepare meals	9	15.0	40	66.7	11	18.3
Can wash hands before and after meals	52	86.7	8	13.3	0	0.0
Can handle a glass to drink	54	90.0	5	8.3	1	1.7
Can clean place of eating	13	21.6	31	51.7	16	26.7
2-Capacity for washing clothes:						
Can sort unclean from clean clothes	3	5.0	23	38.3	34	56.7
Can wash unclean clothes	2	3.3	16	26.7	40	70.0
3-Capacity to do personal health care:	33	55.0	20	33.3	7	11.7
Can brush teeth	26	43.3	24	40.0	10	16.7
Can Wash hair	12	20.0	30	50.0	18	30.0
can trim nails	32	53.4	20	33.3	8	13.3
Can fix the shoes tie						

Table (4) Contention capacity of children disability to do some skills.

Capacity of Children to do daily activities	Dependent		Needs some help		Totally independent	
	n	%	n	%	n	%
1- Capacity for toileting hygiene skills:						
Can walk to the bathroom	50	83.3	6	10.0	4	6.7
Can open bathroom door	55	91.7	3	5.0	2	3.3
Can move inside bathroom	57	95.0	3	5.0	0	0.0
Can Keep the bathroom clean	32	53.3	28	46.7	0	0.0
Can close the bathroom door	53	88.3	7	11.7	0	0.0
2-Capacity for taking showers:						
Can open the shower tap	55	91.7	5	8.3	0	0.0
Can wash his body	36	60.0	24	40.0	0	0.0
Can use soap for cleaning	20	33.3	40	66.7	0	0.0
Can dry body after washing	26	43.3	34	56.7	0	0.0

Table (5) Contention capacity of children disability to do school activities

Capacity of children to do school activities	Dependent		Needs some help		Totally independent	
	n	%	n	%	n	%
1-Can read and write in Arabic	17	28.3	43	71.7	0	0.0
2-Can read and write by Braille	31	51.7	25	41.7	4	6.7

Table (6): Percentage distribution of studied children by total score for self-dependence

Total score for self-dependence	Number	Percentage
<10	1	1.7
10-	10	16.7
20-	10	20.0
30-	16	26.7
40-	2	3.3
50-56	19	31.6
Total	60	100.0

Table (7): Correlation between total score of self-dependence and socio-demographic variables

Variables	Total score for self-dependence	
	r	p
Age in years	-0.712	0.001*
Birth order	-0.134	0.308
Educational level	-0.618	0.001*

*Significant statistically difference <0.05 *

4. DISCUSSION

Regarding to distribution of studied children according to Problems associated with presence of disability and complications secondary to student’s with visual handicap our study showed that, more than one third of Problems associated with presence of disability was difficulty with movement, difficulty with eating, difficulty with dressing consequently, Difficulty dealing with others and difficulty in recreational activities depending on vision .although less than one quarter of the student associated with presence of complications secondary to student's disability. This may related to lack of mother education and lack of training children of disabilities in self-care. These findings disagree with **Anyanwu, C. (2012)** ⁽¹⁰⁾ who reported that less than half of children had difficulty with learning related vision problems interfere with the learning and reading capability of affected children, difficulty with reading and spelling, and skipping words and missing lines when reading.

Regarding to capacity for toileting hygiene skills and capacity for taking showers in visual handicap children founded that majority of child can move dependent inside bathroom, on the other hand less than half of child needs some help to keep the bathroom clean and less than one quarter of child can walk totally independent in bath room. Otherwise , the majority of child of child can open the shower tap and can wash his body dependent ,and more than two third of child needs some in use soap for cleaning and can dry body after washing. The present study findings were in disagreement with **Wong and colleagues (2002)** ⁽¹¹⁾ who reported that most of children at toddler age achieved mobility, walking, toileting transfers, independently. At pre-school age, continence independence, getting in and out of showers, dressing and other aspects of personal hygiene were performed independently. These results lead to the conclusion that children enter school age with the ability to master many self-care activities independently. This finding in the same line with **Tork (2007)** ⁽¹²⁾ who reported that most of children less independence regarding hygiene.

Regarding to capacity to perform school activities in children with visual handicap children founded that, more than half of studied participants can read and write by Braille dependent, in the otherwise it observed that slightly less than three quarter of studied needs some help in read and write in Arabic and slightly less than one quarter of studied read and write by Braille totally independence these findings were disagree with **El Byoumi & Mousa (2010)** ⁽¹³⁾ who demonstrated that four most difficult tasks were related to the following daily activities alluded to in the questionnaire such as reading a textbook at arm's length, copying from the blackboard, seeing somebody across the road and identifying colors. Also these findings disagree with **Robert (2012)** ⁽¹⁴⁾ who reported that more than two third they were unable to read their textbooks at arm’s length. However, only more than one third of subjects reported being unable to read the blackboard from the first row. On others, our finding was in disagreement with **Katz (1983)** ⁽¹⁵⁾ who reported that More than two thirds of children greater difficulty in performing daily activities such paperwork.

Regarding total score of self-dependence and socio-demographic variables for studied sample. P value founded highly statistically significant differences <0.001 between age and educational level and not statistically significant in birth order $p>0.05$. This finding means that, the children age and educational level affected on child self-dependence in self-care daily activity, these result could be related to supported by children environment , sample didn't contain infants and young children younger than six years who can't take care of their own cleanliness, had difficulty comprehending the questions, They also found that educational level and educational stream were positively related to myopia due to prolonged near-work was lead to progressive myopia through the direct physical effect of prolonged near-work, the long school days of reading and writing Also may related to visual difficulties may become evident with school activities consequently teachers and school staff have a critical role in the detection of visual problems ,referral to specialized medical cares ,to development of actions to integrate the child into the educational system and assessment of children in daily self-care activities . our finding was in agreement with **Tork (2007)** ⁽¹⁶⁾ who reported that self-dependence for activity daily life was significantly correlated to age, There was no significant association of self-dependence for ADL with adequacy of social support, sex of the patient nor the medical diagnoses the patient.

Concerning to relation between total score of self-dependence and socio-demographic factors for children with visual handicap .it was illustrated that statistically significant relationship between total score of self-dependence and socio-demographic factors in some Variable as age in Years, educational level and residence and not statistically significant relationship in gender and birth order. These findings means that, The children in gender and birth order not statistically significant on child self-dependence daily activity , These result could be related to the first birth order child is more prone to paternal care while last birth order child is more prone to paternal negligence ,may be related to increase number of children disability hereditary, family poverty and decrees mother education ,while also females children there may have care for their pictures and males children's there are exposed to environmental pollution ,unhygienic health practice and trauma inside and outside home ,our finding was in disagreement with **Asmaa. (1999)** ⁽¹⁷⁾. Who mentioned that no statistical significant difference was found between age, residence, sex, and history of visual handicap.

5. CONCLUSION

Based on the results of the present study, it can be concluded that there was a highly statistically significant relationship between total score of self-dependence and socio-demographic factors in some Variable as age in years, educational level and residence. This may be due to lack of mother's knowledge, lack of supervision, follow up of child and lack of motivation resources and facilities that affect children knowledge and performance.

6. RECOMMENDATIONS

Based on the findings of the present study, the following can be recommended that:

- 1- Early rehabilitation measures should be applied to assist the coping and adaptation of child visually disabled in all aspects of daily care activities.
- 2- Periodic assessment of children with visual handicap for early detection and management of independence in early life.
- 3- Further Studies in this field should be done on a large representative sample to design a comprehensive program to assess self-care management of children with visual handicap.

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