Self-esteem and quality of life among visually impaired children in Assiut City, Egypt

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Abstract: Nowadays, quality of life is one of the important aspect in programming and giving service to disabled and blindness is one of the most important and common kinds of physical handicaps. This study aimed to: determine Self-esteem & quality of life among visual impaired children in Assiut City. Descriptive cross sectional research design was used in this study. The studied children were 100 children from El-Noor School, Assiut City, 22 children from last two years of primary school, 44 children from preparatory school, 34 children from secondary school with age ranged from 12 to 18 years and both sex. This study is divided to four tools; the first tool was structured interview sheet included biosocial data of children, time and causes of disability, second tool to assess social class by using Abd-El-Twab scale 1998. The third tool - Self-esteem scale, it includes 10 items. , the final tool to assess quality of life data, it consists of 68 items. Following approval for the research, personal meetings were held with each child in school sitting. Data was collected during the period from first of September 2009 to the end of April 2010. Obtained results revealed that more than two-thirds of studied children aged between 12-18 years. The mean age of studied children is 15.87 ± 3.03 and more than half of them were males. Nearly three quarters of studied sample had low social class (72%). In addition; nearly half of children with high total quality of life score were come from high social class compared with 8.3% from low social class children with highly statistically significant difference. Also, it was found that 40% of studied children with high total quality of life scores were outdoor school residence compared to only 8.2% of indoor school residence (p -value 0.003). Further, more than half of studied children with low social class had low self-esteem compared to more than three - quarters of normal self - esteem children were come from high social class. 71.4% of normal self-esteem children were present in small family compared by two third of low self-esteem score were present in large family**.** It is concluded that children from high social class had higher quality of life and normal self esteem than other children**.** It is recommended that multicomponant intervention with a focus on the children and their families are needed to improve self esteem and quality of life of visually impaired children. Designing and implementing of a psychological counseling program for visually impaired children to improve their emotional statues and help them to coping effectively.

Key words: Visually impaired, Self-esteem, quality of life, school age children.

1. Introduction:

One of the most common and important group of handicaps, are blinds international health organization, on the international day of blindness in year 2002 announced that about 45 million blind live in the world every 5 minutes, one person becomes blind in the world. Rapidly increasing their population, the importance of blinds welfare becomes obvious **(Dehestani, 2004).**

Childhood blindness remains a significant problem, with an estimated 1.4 million blind children below age 15 and more than 90% of the worlds visually impaired live in developing countries. The first global estimate on the magnitude and causes of visual impairment was based on the 1990 world population data, 38 million blind. This estimate was later to the 1996 world population (45 million blind), and to the projected 2020 world population (76 million), indicating a twofold increase in the magnitude of visual impairment in the world by 2020. In Egypt blind children were 0.25% of children

and low vision children constituted 0.1% of total children in 2001 **(WHO, 2004).**

Visually impaired school age children have the same rights as non-disabled people living in the wider community. These rights include socializing sexuality, learning, economic independence, dignity and respect access to community services, marriage and raising a family. Disabled people need to be productive members in their communities **(WHO, 2004).**

Quality of life is a broader concept than personal health status, it involves four dimensions. The first one is health and physical functioning it includes activity level, mobility, physical symptoms, ability to take care of responsibilities and participation in recreational activities (Mayou and Bryant, 1993), the second dimension is psychological and spiritual attitudes and responses which include satisfaction of life, anxiety, stress self-esteem achievement of goals, purpose in life, spiritual aspects; religion, sense of security and control over

own life. The third dimension is social and economical involvement, which focus on employment work, education, financial status, friendship and social support. The last dimension is family relationships which include relationship with spouse, relationship with children and family happing **(Walker and Rosser, 1997).**

In terms of global definition, quality of life consists of satisfaction with life. Personal feelings of well being or happiness, satisfaction is usually associated with cognitive dimensions and happiness with emotional ones **(World Health Organization, 1999, Abd El-Aziz and Ibrahim, 1995).** On the other hand, medicine and nursing science define quality of life as the one involving health and functional ability. Health related quality of life includes health care, health habits, health knowledge and attitudes, use of health services, persons social networks and their coping skills plus the economical, educational and psychological resources **(Lukkarinan et al., 1997).**

Quality of life is defined as an individual perception of his or her position in life in the context of the culture and value system in which he or she lives and in relation to his or her goals, expectations, standards and concerns. This definition highlights the views that quality of life refers to a subjective evaluation which induces both positive and negative dimensions and which is embedded in a cultural, social and environmental context **(Haber and Krainovich-Miller, 1997).**

Self-esteems generally considered the evaluative component of the self-concept a broader representation of the self that includes cognitive and behavioral aspects as well as evaluative or affective ones. It is a widely used concept it refers to an individual sense of his or her value or worth or the extent to which a person values approves of appreciates prizes or likes him or herself **(Blascovich and Tomaka, 1991**). The most broad and frequently cited definition of self-esteem within psychology is Rosenberg's (1965), who described it as a favorable or unfavorable attitude toward the self.

The rehabilitation nurse seeks to promote a quality of life that meets the client's definition of dignity and promotes self-respect and self-reliance. The quality of life is influenced by several interrelated factors such as personal and family purpose and goals, functional abilities, social supports, communication skills, activities of daily living, cognition, problem solving and decision-making skills, pain and comfort economic resources, and basic human requisites food shelter, and safety. The rehabilitation nurse considers these factors during the assessment of needs, establishment of goals, and development of intervention strategies.

Rehabilitation is a family centered process. The disabled individual who is part of family is viewed as a subsystem of a living dynamic system with group core process, needs, expectations, and roles. Rehabilitation nurses recognize that families must be equipped with knowledge and skills to support a disabled member, also, achieves wellness by taking actions to reduce functional limitations. Interventions are designed restore, maintain, and promote healthy lifestyles for disabled individuals **(Shirle and Jill, 2001).**

Aim of the study:
The study aimed to determine Self-esteem and quality of life among visually impaired children.

2. Subjects and methods:
Research design: descriptive cross sectional research design was used to conduct this study

Setting: the study was conducted at the El-Noor School at Assiut City, Egypt

Subject: The total number was 100 children from El-Noor School at Assiut City. The children aged from 12-18 years and both sex. All children from preparatory and secondary school were included (44 and 34 respectively) and all children last two years of primary school (22) who understand the questionnaire (Age of entrance the school above 7 years).

2. Methods of data collection:
Following approval for the research program by the Ministry of Education research committee, personal meetings were held with each of the subjects. Each student answered a questionnaire individually. Fours tools were used in this study.

Tool 1:
A structured questionnaire was used to collect socio-demographic data of children, , it include age, sex, residence, number of friends, grads, number of children in the family, birth order, time and causes of disability.

Tool 2:
Socio-economic scale; it was developed by (Abd El-Twaab 1998); used to assess the socio-economic status of the visually impaired children. It included four items; level of education of parents (8 items), family income (6 items), job of parent, life styles (3 items). Each item have one score the total score were divided into three classes as high, moderate and low class. It has been modified the item of income of social class by the researchers as following; according to the rate of inflation and increase to be conforming with recent income

through comparing difference of the value of the golden pound at 1998 to that at 2008 and multiplying the rate of inflation to the scale

Tool 3:

Self-esteem scale, the original scale was constructed by Rosenberg Self-esteem (1965) it include 10 items that are usually scored using a four point responses ranging from strongly disagree=0, disagree=1, agree=2, and strongly agree=3, the total score was thirty point, children who obtained score less than 15 degree were considered to have a low Self-esteem while those who scored between15-30 degree were considered to have a normal self-esteem.

Tool 4:

Quality of life scale, it consists of (68) items divided into six domains or subscales. First subscales, comprising 13 items covering the physical health. The second subscales, consisted of 17 items reflecting self-care (self depended). The third subscales, included 6 items representing child emotional status and religions, the fourth one consisted of 13 items related to personal and social relationships, the fifth subscale, consisted 6 items which assess the environment and ability to take decision. The last subscale, consisted of13 items used to collect data about spiritual concerns and personal beliefs. Quality of life; the original scale was constructed by Lehman (1986) and world health organization, (1997) to assess QOL. The scale was modified by the researchers to measure the current concept under study. Responses were measured on a three points likart scale ranging from 0-2. in which the higher score, the better QOL for every answer, always = 3, sometimes =2 and rarely =1. The scoring was reversed for negative items The total score was 204 point, children who obtained score less than 78 point were considered to have a low QOL while those who scored between102-153 were considered to have a moderate QOL and finally those who scored more than 153 were considered to have a high QOL.

All forms were reviewed and any missing data were obtained. Data entry, processing and statistical analysis were carried out using SPSS 16.0 statistical software package. The chi-square test of significance was used to compare results from different groups. $P < 0.05$ was considered to be statistically significant. Correlation coefficient (person correlation) was used to measure correlation between quality of life score with age and social score.

3. Results

Table (1) shows the distribution of studied sample according to personal data of visually impaired child, Assiut City. It was found that more than two-thirds of studied children aged between 12-18 years. The mean age of studied children is 15.87 ± 3.03, more than half of them were male. The majority of studied children live inside the school (85%). As regards grades of education, less than one thirds of children were in the primary stage, less than half of them were in the preparatory stage and about one-third of them were in the secondary stage of education. Regarding birth order, the second and the third birth approximately equally order were represented in one quarter of the studied sample. As regards family size, about half of studied sample were from family sized 4-6 persons. According social class score more than half of studied children were male nearly three quarter of studied sample are from low social class (72%) and only (14%) of the studied sample high score.

Fig. (1) shows that distribution of studied sample regarding to causes of visual impaired Illustrates that among the overall causes of blindness, about three-quarters of studied children had a congenital cause of their disability

Table (2) shows the distribution of studied sample regarding to their total quality of life domains of visually impaired children. More than half of the studied children had low score of total quality of life regarding emotional status, social and personal relationships. As regarding physical health, more than half of studied sample (56%) had moderate score of total quality of life and two-thirds of them had moderate score regarding economical status. According to the environment domain, 68% of studied sample had high total quality of life score and 75% of them had high score regarding spirituality ∕ religion and personal beliefs.

Fig. (2) shows that distribution of studied sample regarding to their total quality of life score of visually impaired children 70% of the studied sample had moderate total quality of life score.

Fig. (3) shows that distributions of studied sample regarding to their total Self-esteem score of visually impaired children nearly half of studied sample had normal Self-esteem (47%).

Table (3) shows that relation between total quality of life score and personal characteristics of visually impaired children. Regarding school grades, the majority of primary school children had moderate total quality of life score and no one of them had high score (P-value 0.000). As regards school residence, it was found that 40% of studied children with high total quality of life scores were outdoor school residence compared to only 8.2% of indoor school residence (P -value 0.003). According to sex, the majority of studied children with moderate total quality of life score were male compared to only 7%

with low total quality of life score. On the other hand, Female gender was represented in 58.1% with moderate total quality of life score compared to about one third of them with low score with statistically significant difference (P -value 0.009).

Table (4) shows that relation between total self-esteem score and personal characteristics of visually impaired children. Regarding self-esteem score, more than half of preparatory school children had low self-esteem score, while more than two thirds of secondary school children had normal self-esteem score. As regards school residence, about three quarters of outdoor school children had normal self-esteem score. According to the number of children in the family 71.4% of normal self-esteem children were present in small family compared by two thirds of low Self-esteem score were present in large family (more than 6 children) with no statistically significant difference

Fig. (4) shows correlation between age and quality of life score, the more the age increase, the more total quality of life score increase

Fig. (5) shows correlation between social and quality of life score, the more the social score increase, the more total quality of life score increase with highly statistically significant difference.

Table (5) show that relation between social class with total quality of life and self-esteem scores of visually impaired children It was noticed that nearly half of children with high total quality of life score were come from high social class compared by 8.3% from low social class children, with statistically significant difference. As regard self esteem and social class scores more than half of studied children with low social class had low self-esteem compared to more than three-quarters of normal self-esteem children were come from high social class but the differences were not statistically significant.

Table (1): Distribution of studied sample according to personal data of visually impaired child, Assiut City

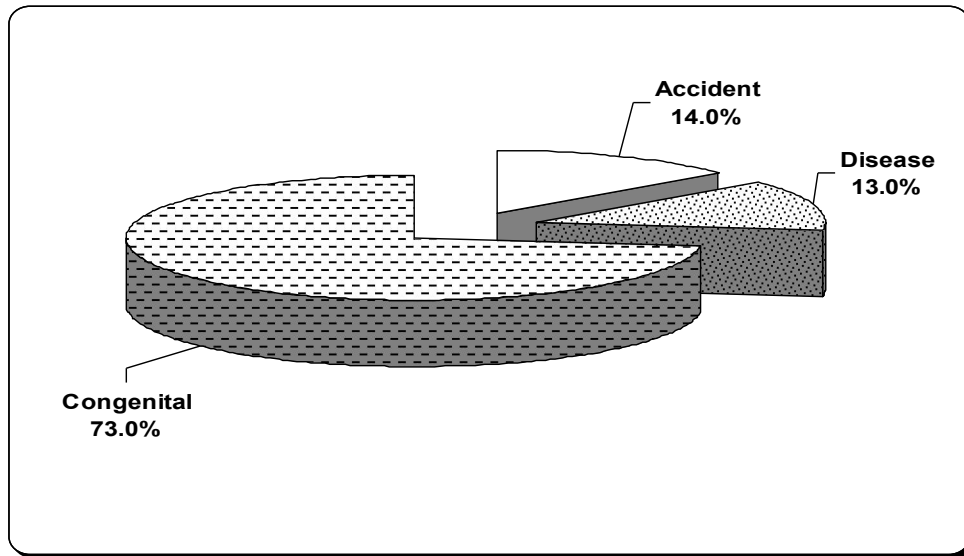| Personal data	No. (n= 100)	%
Age: (years)		
12<18	69	69.0
18+	31	31.0
Mean ± SD	15.87 ± 3.03	
Sex:		
Male	57	57.0
Female	43	43.0
School residence:		
Indoor	85	85.0
Outdoor	15	15.0
Years of education:		
Primary (last two years)	22	22.0
Preparatory	44	44.0
Secondary	34	34.0
Birth's order:		
First	20	20.0
Second	25	25.0
Third	24	24.0
Fourth	12	12.0
Fifth and more	19	19.0
Family size:		
1-3	21	21.0
4-6	51	51.0
6+	28	28.0
Score of social class:		
Low	72	72%
Moderate	14	14%
High	14	14%

Fig. (1): Distribution of studied sample regarding to causes of visual impaired

Table (2): Distribution of studied sample regarding to their total quality of life domains of visually impaired children

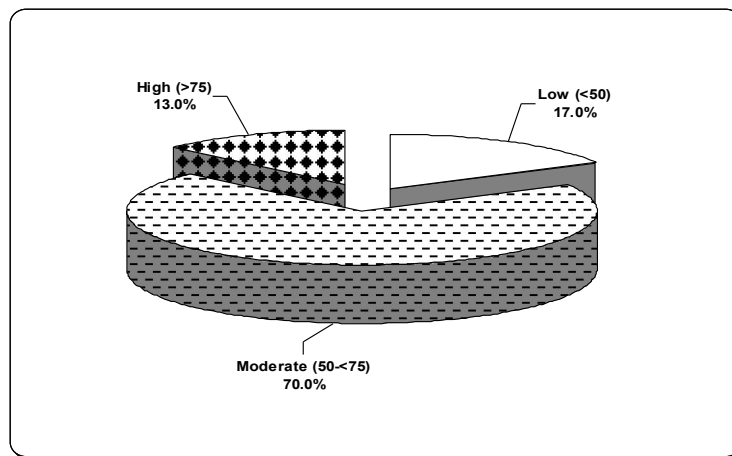| Quality of Life Domains	Low (<50) (n= 17)		Moderate (50-<75) (n= 70)		High (>75) (n= 13)	
	No.	%	No.	%	No.	%
1. Physical Health	39	39	56	56	5	5
2. Self dependence	1	1	66	66	33	33
3. Emotional Status	59	59	24	24	17	17
4. Social and personal Relationships	52	52	32	32	16	16
5. Environment	4	4	28	28	68	68
6. Spirituality/ Religion/ Personal beliefs	8	8	17	17	75	75

Fig. (2): Distribution of studied sample regarding to their total quality of life score of visually impaired children
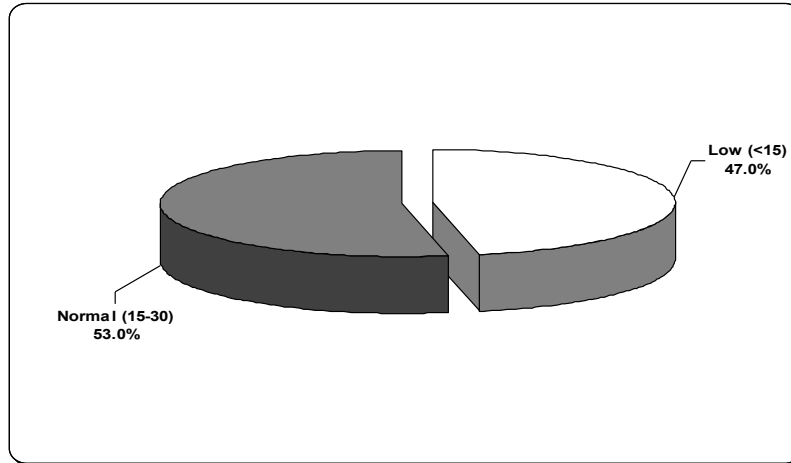
Fig. (3): Distribution of studied sample regarding to their total self-esteem score of visually impaired children

Table (3): Relation between total quality of life score and personal characteristics of visually impaired children

Personal characteristics	Total Quality of Life (n=100)						X² (P-value)
	Low (n= 17)		Moderate (n= 70)		High (n= 13)		
	No.	%	No.	%	No.	%	
School grades:							
Primary school	3	13.6	19	86.4	0	0.0	32.45
Preparatory school	14	31.8	29	56.9	1	2.3	(0.000)*
Secondary school	0	0.0	22	64.7	12	35.3	
School residence:							
Indoor	15	17.6	63	74.1	7	8.2	11.41
Outdoor	2	13.3	7	46.7	6	40	(0.003)*
Sex:							
Male	4	7	45	78.9	8	14	9.39
Female	13	30.2	25	58.1	5	11.6	(0.009)*
Number of children in the family:							
1-3 children	5	23.8	12	57.1	4	19.0	2.89
4-6 children	8	15.7	36	70.6	7	13.7	(0.577)
> 6 children	4	14.3	22	78.6	2	7.1	
Birth order:							
First	2	10	16	80	2	10	
Second	5	20	15	60	5	20	8.58
Third	7	29.2	14	58.3	3	12.5	(0.379)
Fourth	2	16.7	8	66.6	2	16.7	
Fifth and more	1	5.3	17	89.5	1	5.3	
Father education:							
Illiterate/ read & write	7	21.9	20	62.5	5	15.6	5.17
Basic education	3	14.3	18	85.7	0	0.0	(0.271)
Secondary/ university	7	14.9	32	68.1	8	17.0	
Mother education:							
Illiterate/ read & write	9	13.6	52	78.8	5	7.6	8.33
Basic education	3	27.3	6	54.5	2	18.2	(0.080)
Secondary/ university	5	21.7	12	52.2	6	26.1	

Chi-square test   * Statistical significant at P< 0.05
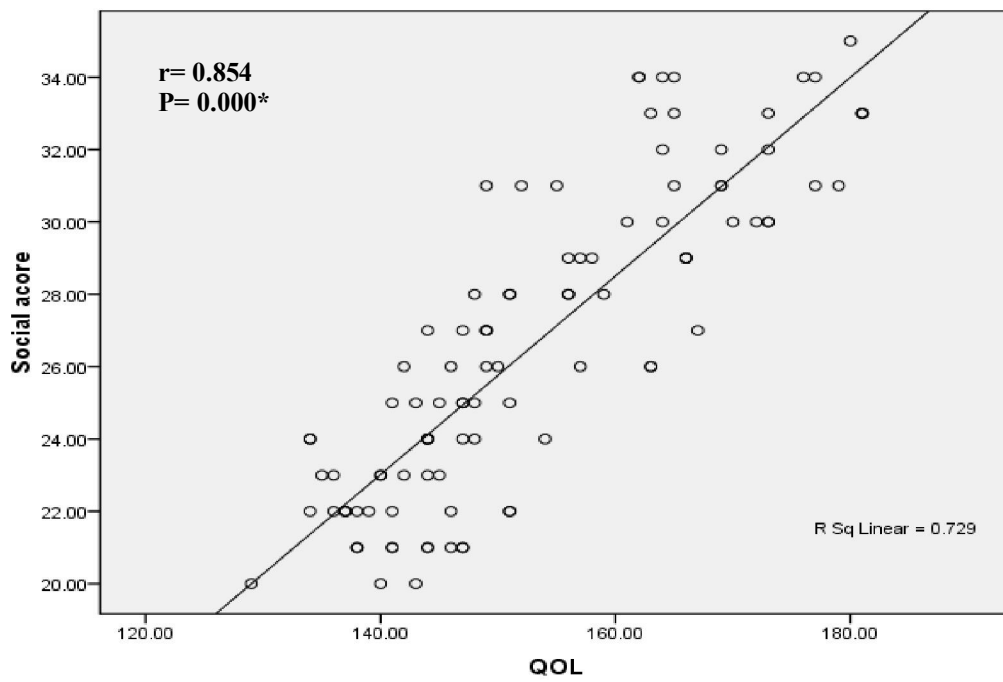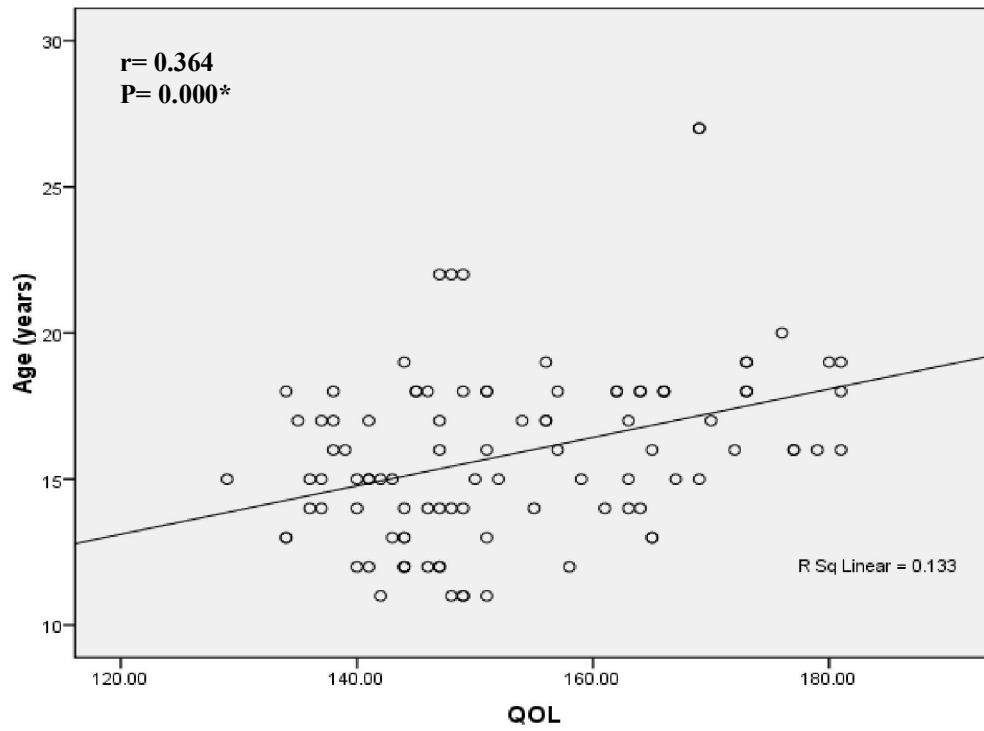
Table (4): Relation between total Self-esteem score and personal characteristics of visually impaired children

| Personal characteristics | Total Self-esteem score (n=100) | | | | X^2 (P-value) |
| | Low (<15) (n= 47) | | Normal (15-30) (n= 53) | | |
	No.	%	No.	%	
School grades:					3.59 (0.166)
Primary school	10	45.5	12	54.5	
Preparatory school	25	56.8	19	43.2	
Secondary school	12	35.3	22	64.7	
School residence:					2.93 (0.087)
Indoor	43	50.6	42	49.4	
Outdoor	4	26.7	11	73.3	
Sex:					1.69 (0.194)
Male	30	52.6	27	47.4	
Female	17	39.5	26	60.5	
Number of children in the family:					4.98 (0.083)
1-3 children	6	28.6	15	71.4	
4-6 children	24	47.1	27	52.9	
More than 6 children	17	60.7	11	39.3	
Birth order:					3.31 (0.508)
First	8	40	12	60	
Second	12	48	13	52	
Third	9	37.5	15	62.5	
Fourth	6	50	6	50	
Fifth and more	12	63.2	7	36.8	
Father education:					4.18 (0.124)
Illiterate/ read & write	18	56.3	14	43.8	
Basic education	12	57.1	9	42.9	
Secondary/ university	17	36.2	30	63.8	
Mother education:					8.08 (0.018)*
Illiterate/ read & write	35	53.0	31	47.0	
Basic education	7	63.6	4	36.4	
Secondary/ university	5	21.7	18	78.3	

Chi-square test   * Statistical significant at P< 0.05

Table (5): Relation between social class with total quality of life and self-esteem of visually impaired children

| | Social class | | | | | | X^2 (P-value) |
| | Low (n= 72) | | Moderate (n= 14) | | High (n= 14) | | |
	No.	%	No.	%	No.	%	
Quality of life:							17.33 (0.002)*
Low	10	13.9	5	35.7	2	14.3	
Moderate	56	77.8	8	57.1	6	42.9	
High	6	8.3	1	7.1	6	42.9	
Self-esteem:							4.74 (0.094)
Low	38	52.8	6	42.9	3	21.4	
Normal	34	47.2	8	57.1	11	78.6	

Chi-square test   * Statistical significant at P< 0.05

4. Discussion:

Blindness is a serious disability for the individual, his/her family and the community. WHO has always been conscious of the fact that blindness and visual disability are public health problems. However, for a long time, the magnitude of this problem could not be assessed and meaningful global prevention activities could not be initiated because of lack of epidemiological data and information. In this study, it was observed that more than half of visual impaired children were males (57.0%) and (43.0%) were females, these findings supported by Boulton, et al (2006) who found that 59.5% of the studied children were males. The same results were obtained in many studies conducted by Khallaf and Khalifa, (2004); Adegbehingbe et al., (2005); Reddy et al., (2008) and Shrestha et al. (2009) in which visual impairment are more prevalent among males. This problem may based on that males are exposed to environmental pollution, unhygienic health practice, infection and trauma inside- and outside home. On the other hand, Khandekar and Abdu-Helmi (2004); Adegbehingbe et al. (2005) and El-Moselhy et al. (2005b) found that vision impairments more common among females.

Blindness can occur as a result of a number of infectious and non-communicable diseases, as well as injuries. In this study, congenital causes accounted for 73% of causes of blindness. This is in agreement with Kamel (1987) who reported that the main causes of blindness among blind students were congenital anomalies, followed by infection, then trauma and also with El-Gilany et al (2002) who commented that congenital causes accounted for 48.7% of causes of blindness.

Regarding the child's age, our findings constituted more than tow-third of the studied children were in the age group 12 -18 years, this is in agreement with El-Gilany et al (2002) who represented that about 71.7% of the study sample were in age group 10-19 year. Also, Khandekar and Abdu-Helmi (2004) found that rate of vision impairment was significantly higher among high age group 12- 16 years (P<0.0001).

As regard socioeconomic risk factors, poverty is a major factor contributing to blindness and visual impairments (The USAID Child Blindness Program, 2007). According to findings in this study, the majority of studied children had low social class (72%), which in agreement with El Gilany et al., (2002) who found that 79.8% of studied sample participant among low and very low social class. Similar finding have been reached by Ajaiyeoba and Scott (2002) who found that (73.0%) of visual impairment children in Nigeria were from the lower socioeconomic class. Also, in India the large number of blind children among the rural population was from the lower socioeconomic class (Jain et al., 2005). In contrast with the foregoing results, Boulton et al (2006) reported that there is no significant difference in visual impaired children by socioeconomic classes.

According to total quality of life domains among visual impaired children, results of the present study clarified, the highest percentage of them had high score of the spirituality /religion and personal beliefs domain and environment domain. Regarding the spirituality /religion and personal beliefs domain, 75% of studied sample had high score. This finding in agreement with Abo El-Magd (2001) who found that the most studied sample had higher mean score of total quality of life related spiritual domain .This could be explained by the fact that society norms in our culture gives special concern to teaching the young facts and behaviors related to their religion a matter which enriches the adolescent spiritual life and attitude. Also, 68% of them had high score of environment domain, similar finding were revealed in Fahmy et al (2010). Conversely, the finding of the present study revealed that more than half of studied sample had low score of social and personal relationships domains. These findings are quite close to those of El-Gilany et al (2002) who found that 44.2% of studied sample their social role had affected by blindness, also have reported that the major impact of blindness was on relations with friends.

The present study revealed also that nearly half of children with high total quality of life score were come from high social class. This finding in agreement with Mohamed (2002) who reported that studied sample with high income had higher mean score of total quality of life than those who had lower income.

Concerning sex as a factor in quality of life, results showed that the majority of studied children with moderate total quality of life score were male compared to only 7% with low total quality of life score. This finding in agreement with Mohamed (2002) who reported that the quality of life scale being higher among male than female, This observation may be explained according to our Egyptian culture by the fact that families usually give more attention to their sons than daughters, so male receive better medical and psychological care than females. Furthermore age as a factor in quality of life; results revealed that there is an equable relation between age and quality of life. Similar finding have been reached by Mohamed et al (2009) who reported that more the age increase the more quality of life score increase.

Regarding mother education, the present study noticed a positive correlation between high education

of mother and normal self-esteem of visual impaired children. There is possible explanation for this finding, the mother's education play an important role in the understanding the children needs and feeling and increase their self confidence and make him move toward an independent life and increase their self confidence.

The finding of the present study indicated that about half of the studied children had normal self-esteem, this finding in contrast with El Gilany et al. (2002) who found that most of the sample had low self-esteem.

Regarding quality of life and self-esteem, there are high score among children lives with their family (outdoor school residence) (40% and 73.3% , respectively). There are several possible explanations for these findings, all based on families may support the children socially, financially and provide them a suitable places for living in the home more than those levies inside the school. As regards social class, more than three quarter of studied children of this study with normal self-esteem (78.6) had high social class.

According to the findings of the present study, 71.4% of studied children had normal self-esteem were present in small number family compared to more than two third of low self-esteem present in large number family. The rationale for these findings is the parent in small family are more contact with their children and provide them a lot of care, security and attention.

Conclusions:

It is concluded that children from high social class had higher quality of life and normal self-esteem than other children.

Recommendations:

It is recommended that:

Multi-component intervention with a focus on the children and their families are needed to improve self-esteem and quality of life of visually impaired children and school health program.

Designing and implementing of a psychological counseling program for visually impaired children to improve their emotional status and help them to coping effectively.

School health program for teachers and caregiver about ideas that can be implemented and behaviors that should be adopted by those in contact with visual impairment children, to giving them guidance needed to develop a full potential for autonomous community living.

Future follow-up studies with larger number of sample size are needed to determine the impact of visually impaired on quality of life of visual impairment children

It is better that educational institution (Noor School) to construct consulting centers besides school's for accepting blind and disabled children, to consult parents about problems due to child's disability and other problems.

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