

Effectiveness of An Instructional Program on Adult Cataract Patients' Knowledge Concerning Prevent Post-Operative Complications At Ibn AL-Haitham Teaching Eye Hospital In Baghdad City .

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Abstract

Background: Postoperative complications of cataract are a major health problem because these complications are difficult to heal and lead to permanent vision lost and affect the quality of life which makes the patient dependent on others .

Objectives : The study aims to determine the effect of an instructional program on the patients' knowledge to prevent postoperative complications of cataract between patients socio-demographic characteristics of gender , age , educational level , social status , occupation , monthly income , type of residence and residential area and their knowledge related cataract disease.

Methodology: a descriptive study has been carried out in Ibn AL-Haitham Teaching Eye Hospital , from December 15th , 2016 February 20th , 2017 . A purposive (non-probability) sample of (100) patients suffering from cataract disease are selected . The sample is divided into two groups : 50 patients for the control group and 50 patients for the case study group.

Results: the results of the cataract disease and the prevention of post-operative complications show the differences between the patients knowledge about prevention in pretest and their knowledge in posttest periods and a response for case group after the application of the program

Conclusion : the researcher concludes that the case group of cataract patients have benefited from the implementation of the instructional program , and their knowledge is effectively enhanced and established , also he has considered that the instructional program van is as an effective mean for improving the cataract patients knowledge .

Recommendations: The researcher recommends the importance of increasing awareness among patients about the cataract and the complications of cataract surgery handbooks, explanatory posters, and performing an educational health programs through modern technological means (audio-visual) to follow their health after cataract surgery at home and at work.

Keyword: instructional, knowledge, complications, prevention

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I . Introduction

A cataract is a clouding or a discoloration of the crystalline lens of the eye which leads to a reduce in vision (1).Cataract is the leading cause of blindness , affecting an estimated 20 million people , because people growth and increased longevity. This is expected to increase to 50 million by the year 2020 if no additional Interventions are Implemented(2).Cataract Blindness is defined by (W.H.O) as having best corrected visual acuity (BCVA) in the better eye worse than 3/60 or (20/400) (3) .It can affect one or both eye , gradually progressing. (4) According to world Health Organization (WHO) Cataract is the leading cause of blindness and visual impairment throughout the world. (5) The prevalence of cataract increases with age , the world's population aging is related to increasing incidence of Cataract induced visual dysfunction and blindness .(6) So it is now a global problem . It is estimated that more than 82.8% of all blindness occurring in individuals aged 50 and older is related to cataract (7) . Cystoids Macular Edema (CME), Iris prolapse , corneal edema , wound leak or rupture , IOL dislocation , Endophthalmitis , Retinal tear , or detachment , persistent iritic , striate keratopathy, hyphema, macular edema and increase (IOP) . In early stages , corneal edema after cataract surgery can be treated by the use of topical hyper osmotic agents , topical corticosteroids ,when decrease visual acuity , recurrent infections keratitis , and symptoms of pain are possible indications for (penetrating or endothial keratoplasty).Elevated Intraocular Pressure following cataract surgery . depend on the cause if due to

endophthalmitis must be treated by antibiotic and use Timolol drops with diamox tablet is given to slow the production of aqueous fluid , and use Mannitole solution to decrease aqueous fluid production is lead to decrease and maintain IOP normal (normal rang IOP 11-21 mm.Hg) ,If capsular rupture occurs during phaco emulsification and ECCE ,nuclear material may enter the posterior segment . The high fluid flow state in the anterior chamber increases this risk . A small rupture in the posterior capsule during emulsification of the nucleus can be managed by alteration of the surgical technique ,vitreous prolapse through the pupil , resulting from rupture of the anterior vitreous body during surgery , Treatment vitreous prolaps by anterior vitrectomy ,decentration and dislocation the lens one complications of cataract surgery. Decentration can produce unwanted glare and reflections or multiple image if the edge of the lens is within the papillary margin (space . The surgeon should attempt to rotate the IOL to apposition where clinical evidence shows sufficient capsule and zonular fibers to support the implant , hyphema in the immediate postoperative period usually originate in the incision or the iris . Treat by washing of anterior chamber .retinal detachment occurs intraoperative or within 6 months of cataract surgery following posterior capsulotomy treat by re attachment of retina by surgeon , The acute post-operative endophthalmitis is a sight treating emergency needs rapid assessment and management . Onset is usually 1-7 days after surgery . The most common microorganisms are staphylococcus epidermis , staphylococcus aureus and streptococcus species diagnosis performance AC tap and vitreous biopsy. Posterior capsular opacification is the late complications of cataract surgery these treated by Nd , YAG laser capsulotomy .

II .Methodology

The Design of the Study : A quasi-experimental study.

The Sample of the Study: Total number of (100) patients have cataract disease undergo at Ibn AL-Haitham Teaching Eye Hospital in Baghdad City . In order to attain precise data and illustrative sample , none probability (purposive) sample is carefully chosen which consists of (100) patients ; (50) patients are assigned for case group and (50) are assigned for control group .

The Setting of the Study: To obtain a valid and comprehensive data , the study is conducted in the ward department and outpatient department in Ibn Al-H Haitham Teaching Eye Hospital in Baghdad City) .

The Instrument.: The questionnaire consisted of (3) parts

Part I : The Patients' Socio-demographic Characteristics :

This part consists of (8) items which includes : age , gender , occupation , level of education , monthly income , social status , type of resident and residential area .

Part II : The Patients' Clinical Characteristics :

This part consists of (7) items which includes : presence of chronic disease , type chronic disease smoking , years of smoking , family history for cataract disease , having a pervious surgery for cataract , time of admission to the hospital due to the complications of cataract disease .

Part III : The Patients' Knowledge Concerning Cataract

The Validity of the Questionnaire and Program :

The content validity of the instrument is established through a panel of (13) experts (Appendixes D) they are :

- (7) Faculty members from College of Nursing / University of Baghdad .
- (6) Faculty member from Ibn AL-Haitham Teaching Eye Hospital .

The Reliability of the knowledge Test

Test – retest reliability is determined through a complication of Pearson Correlations for the scales . knowledge coefficients for the (5) Parts of anatomy scale :

(r = 0.97) for the part of causes and risk factors ; (r= 0.98) for the part of signs and symptoms; (r= 0.89) for the part of complications ; (r= 0.98) part of prevision methods ; (r= 0.98)

The Statistical Analysis :The analysis of the data was used through descriptive statistics(Frequencies , Percentage, Mean, Standard Deviation)and statistical Inferential (T-test)in order to find the differences between the case group and control group.

III. Results

The table(1) the socio-demographic Characteristics for case and control groups of Study Samples (No.=50)

	Variables	classification	Case group		Control group	
			Fre.	%	Fre.	%
1	Gender	Male	25	50.0	23	46.0
		Female	25	50.0	27	54.0

2	Age	20-29	5	10.0	6	12.0
		30-39	6	12.0	5	10.0
		40-49	18	36.0	19	38.0
		50 and above	21	42.0	20	40.0
3	Level of Education	Not read and write	3	6.0	2	4.0
		Read and write	11	22.0	10	20.0
		Primary School	18	36.0	22	44.0
		Intermediate school	12	24.0	10	20.0
		Secondary school	4	8.0	3	6.0
		Institute	1	2.0	1	2.0
		college	1	2.0	2	4.0
4	Employment	Governmental employee	5	10.0	8	16.0
		Free work	20	40.0	18	36.0
		Retired	2	4.0	2	4.0
		house wife	17	35.0	17	34.0
		Not work	6	12.0	5	10.0
5	Marital statuses	Married	40	80.0	32	64.0
		Single	6	12.0	9	18.0
		Divorced	2	4.0	2	4.0
		Widowed	2	4.0	7	14.0

	Variables	classification	Case group		Control group	
			Fre.	%	Fre.	%
6	Economic Status	Sufficient	23	46.0	23	46.0
		Barley sufficient	20	40.0	17	34.0
		Not sufficient	7	14.0	10	20.0
7	Residency	Urban	34	68	31	62.0
		Rural	16	32	19	38.0

8	Type of residence	Fre	%	Fre	%
	Private property	40	80	39	78
	Rented	9	18	11	22
	Total	50	100	50	100

Fre.: frequency, %: Percentage

The table reveals that 50% of the study sample are female at age 50 years and above for the case group and 54% of the control group are females at 50 years and above, high percent of the study sample graduated from primary school 36% for the case, and 44% for the control, 40% of the case group, and 36% of the control group have free job, 80% of case group, and 64% of the control group are married, 46% of the case and control group are sufficient income, 68% of the case group, and 62% of the control group live in urban.

Table(2): the Total Mean and Standard Deviation of Patient Responses for domains of instructional program concerning cataract for case and control group at pre- test

	Domains	Pre-case		Pre-control	
		Mean	SD	Mean	SD
1	Patients knowledge related to complications of cataract surgery	16.68	2.004	16.18	1.870
2	Patients knowledge related to prevention of cataract surgery	27.34	3.936	26.88	4.118

The table presents the mean and standard deviation of patient's responses toward the domains of instruction program concerning patients' knowledge about cataract are equal value for the case and control groups at the pretest of instructional program

Table (3) Total Mean and Standard Deviation of Patient Responses for instructional program concerning cataract for case (pre- and post-test)

	Domains	Pre-case		Post case	
		Mean	SD	Mean	SD
1	Patients knowledge related to complications of cataract surgery	16.6800	2.00448	31.6400	3.97318
2	Patients knowledge related to prevention of complications of cataract surgery	27.3400	3.93628	62.2800	3.78526

The table shows the effectiveness of the instructional program at posttest is clear through the high value of mean for all domains of program

Table(4) Total Mean and Standard Deviation of Patient Responses for instructional program concerning cataract for case and control group at post -test.

	Domains	Post-case		Post control	
		Mean	SD	Mean	SD
1	Patients knowledge related to complications of cataract surgery	31.6400	3.97318	16.6600	2.16286
2	Patients knowledge related to preventions of cataract surgery	62.2800	3.78526	28.6000	3.80118

The table reveals that there are clear changes for the patients' knowledge of the case group at posttest than the control group by the value of mean for all program domains

IV. Discussion

Discussion of the sample socio –demographic characteristic of the study and control groups

Age

Table 1 reveals that 50% of the study sample are females at age 50 years and above for case group and 54% of the control group are females at 50 years and above This mean ? That the age groups most used affected are old people .

This result is similar to that of :

(8)the study reports the cataract increase incidence in old age.-(9)the study records the cataract increase with age specially over 64 years old.(10) the study shows the cataract increase in old age

Gender

The present study reveals that the majority of patients (50 %) for each male and female are affected equally for the case group (table 2) and (54%) are females for control group . This means that the cataract occurs equally in male and female . the study disagrees with :

(9) the study finds the male risk factors of cataract more than female.(11) the study explains the female risk factors of cataract more than male .

Employment The study reveals that the majority of patients (40%) are free job of the case group , and (36%) so for each the free job are from the control group .

The researcher indicates that most of the patients with cataract have free job (who cataract with environment hazard such as injury and sun light , These study agree: (12) the study explains a significant association of cataract with working in direct sunlight. (13) the study finds the higher exposure of sunlight the risk factors of cataract.

Level of education The study shows that the majority of (36%) are primary school graduation for the case group and(44%) for the control group are primary school graduates also (table1) .

Economic Status :It appears from (table 2) that (46%) of the patients have sufficient monthly income of the case and control group .

This result in : The study dis agree with :

(12):the study observe significantly higher prevalence of any cataract in the extremely low social group.

(14) the study finds that the people with visual impairment due to cataract are poorer than those with normal sight in all three low-income countries (Kenya, Bangladesh, and Philippines) in their study.)

Marital status The study shows that the majority patients (80%) are married for the case group and (64%) of the control group patients are married, to (table1).

This study contrasts with: (15) The studies demonstrate that people of lower social status are consistently more likely to have cataract.

Residency: The find of this study shows that (68%) of the case group live in urban areas , and (62%) of the control , group live in urban areas , too (table 1) .

The cataract is not related to residential area.

The study disagrees with: (17) the study explains the cataract above in rural area.

Type of Residence The finding of this study shows that the majority of (80%) live at private property for the study group while for the control group , (78%) also live at a private property (table 1)

Table 2 presents the mean and standard deviation of patient's responses toward the domains of instruction program concerning patients' knowledge about cataract are equal value for case and control group at pretest of instructional program. The result agrees with (23) the study reported that the knowledge of the eye are lows.

Table 3 shows the effectiveness of instructional program at posttest is clear through the high value of mean for all domains of program.

The study agrees with (24) means the implementation of instructional program lead to increase knowledge .

Table 4 the results reveal that there are clear changes for the patients' knowledge of the case group at posttest than the control group by the value of mean for all program domains

V. Conclusion

Effectiveness of an Instructional Program on Adult Cataract Patients' Knowledge Concerning Prevent Post-Operative Complications apposite highly significant rate

IV. Recommendations

Printing guide booklets and/or information sheet should be disseminated to patients , that illustrate information about the disease , the prevention methods , activities and positions that should be avoided in the home and work , and the complications that may happen , these measures have to be printed in a simple way that they can understand . Increasing healthy instruction guides for patients with cataract through T.V. , radio , newspapers , medical magazine , announcements on webs , pamphlets and developing language that are planned according to targeted patients

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