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Knowledge and Attitude of Patients with Cataract Regarding Cataract and Its Extraction Surgery

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Abstract:

Background: Cataract occurs when the lens loses its transparency there by scattering or absorbing light that visual acuity is compromised. Worldwide, cataract is the most common cause of blindness and visual impairment.

Aim: The aim of this study is to assess the knowledge and attitudes of cataract patients regarding cataract and its surgery (cataract extraction surgery) at MakafinDala community of Dala local government in Kano State.

Method: This study utilized a descriptive cross-sectional survey study design, the quantitative study involve interviewer administered questionnaire of 60 respondents who are cataract recipient at Makafin Dala.

Result: The finding of the study showed that only 23.3% of the respondents attended hospital for intervention, 41.7% do not know what cataract means and 41.7% said it is due to ageing. The study further revealed that knowledge of cataract patients regarding cataract and its surgery is poor since 18.3% said medication is the effective cataract treatment, 15% said it is couching while 58.3% do not know there are different surgical techniques for cataract. Attitude of the respondents toward cataract and its surgery was negative as 66.7%, 53.5% and 73.3% agree that fear of pain, surgery, surgical outcome as well as financial costs of cataract surgery as a reason that can prevent people from seeking cataract intervention.

Conclusion: The study concluded that, poor knowledge and negative attitude among cataract patients is a leading factor responsible for not preventing early cataract intervention there by increasing the number of cataract cases and blindness in our society.

Recommendation: The study recommended that eye patients should be educated through mass awareness campaign, sensitization and mobilization, government should initiate and implement free cataract programs that will ensure a wide coverage of cataract patient nationwide. Training of eye care providers and incorporate acquisition of newer skills and training methods to ensure trainees are at par with those in other part of the world.

Keywords: Knowledge, Attitude, Cataracts, Cataract extraction surgery, Makafin Dala

1. Introduction

Cataract occurs when the lens loses its transparency there by scattering or absorbing light that visual acuity is compromised. Worldwide, cataract is the most common cause of blindness and visual impairment. A cataract is a clouding or opacification of the crystalline lens of the eye, which causes a gradual progressive decrease in visual acuity, eventually leading to blindness. The word "cataract" is derived from the Latin word "cataracta" meaning "waterfall". The grey white appearance of the mature cataract was thought to look like the streaky white appearance of falling water, therefore cataract is defined as the opacity or clouding that develops on the eye lens. (Common eye health, 2012)

Cataracts are most commonly due to aging, but may occur due to trauma, radiation exposure, vitamin deficiency, smoking, congenital or following surgery. Other risk factors include diabetes prolong exposure to sun light and alcohol intake (Raton FL, 2005).

The clinical manifestation of cataract depends on the cataract's location in the lens(either cortical, nuclear, sub-capsular or central cataract).Cataracts are painless and often progress slowly, so many years may pass before the patient experience

symptoms. If only one eye develops a cataract, the patient may not experience symptoms, as long as the sight of the other remain stable. Common symptoms of cataract include; blurred vision, colors appear faded, frequent changes of prescription eye glasses, poor night vision, seeing a halo around light and sensitivity to bright sunlight or headlight (Stenley J., 2015).

Pam, MS., 2015 reported that "Knowledge is an awareness of the existence of something and information and understanding of a specific topic of the world in general which is acquired by experience or learning, knowledge is to understand specific topic or of the world in general. In psychological perspectives, Attitude is "a relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols" Hogg, & Vaughan, (2005). According to dictionary of health professionals and nursing, 2013, attitude is a hypothetical construct that reflect an individual disposition toward like or dislike, it is a personal view of something, an opinion or general feelings about something.

The general health behavior of eye patients toward seeking timely care have been greatly attributed to the knowledge and attitude which they possess, also community's access to cataract surgery is reported to be restricted both by health services' availability at the local level and patient's attitudes (Paulo, 2005). Although Surgery to remove the cloudy lens and replace it with artificial lens (Cataract extraction surgery) is the only effective treatment for cataract avoidable blindness, lack of knowledge and negative attitudes of cataract patients regarding cataract and its extraction is an important area of research because patients attitudes and such as fear, anxiety, cultural and religious believes, perceived cost, pain, accessibility and visual outcome after the procedure plays a significant role in preventing patient from seeking early cataract intervention and prevents those who had surgery from coming for the second eye, (Paulo, 2005).

2. Statement of Problem

Cataract and its consequent visual impairment impact on the individual, family, community and the nation at large. It reduces the quality of life, independence, economy and social interaction. In developing countries the economic impact of visual loss from cataract is huge, including loss of job and increase custodial care. (Abdussalam, 2011)

Evidence has been documented in a previous study by world health organization (WHO) which estimates that 20 million persons are blind from cataract worldwide, making it the leading cause of visual loss (WHO, 2001).

The gradual deterioration in sight initially prevents patients from recognizing faces or finding their way in unfamiliar territory. Eventually, the patient requires constant care. The failure to contribute towards their keep in the family often leads to social exclusion. Unable to move about freely, the blind cannot access social services and health care, resulting in increasing poverty and ill health. In Australia, 2.7% of the national total of life years was lost due to blindness, which was similar to the life years lost due to diabetes and to coronary heart disease. Ajayi (2012).

Tasman (2014) reported that "Blindness leads not only to a loss of income and ill health for the individual, but also places an economic burden on the family and the community. There are costs involved in caring for the blind, both in time and in lost wages. Younger children are often taken out of school to look after the elderly blind, thus depriving the child of education and perpetuating the cycle of poverty within the community".

In terms of the national impact, the burden of blindness on the African economy will be 0.5% of the continent's GDP by 2020, if effective prevention of blindness programs is not implemented. The lack of demand can mostly be attributed to lack of awareness, cost, and distance. Ignorance results in the accepted notion that the blindness brought on by ageing is inevitable and untreatable; any anecdotes of unsuccessful surgery in the community also create fear and resistance to offers of help. There is often no transport to bring patients across large distances to facilities, and the cost incurred to travel and the loss of wages of the escorts often make the journey too expensive to undertake (Tasman, 2004).

Lack of knowledge and attitudes of eye patients prevent them from getting an appropriate intervention, which leads to low visual acuity and blindness that may have adverse consequences both to the individual and population levels including psychological, social, and economic problems and quality of life impairment because they generate loss of self-esteem and occupational status, with resulting loss of job (Perception of blindness world health forum, 1996).

3. Objectives

- i. To assess knowledge of patients with cataract regarding cataract and its surgery.
- ii. To assess the attitudes of patients with cataract regarding cataract and its surgery.

3.1. Review of Related Literature

A cataract is a clouding or opacification of the crystalline lens of the eye, which causes a gradual progressive decrease in visual acuity, eventually leading to blindness. The word "cataract" is derived from the Latin word "cataracta" meaning "waterfall". The grey white appearance of the mature cataract was thought to look like the streaky white appearance of falling water. Therefore cataract is defined as the opacity or clouding that develops on the eye lens, (Ophthalmol 2007).

The lens lies behind the pupil and this usually transparent structure enables light to reach the retina. It is composed of protein and water, with the proteins arranged in such a way that the lens stays transparent, allowing light to pass through it. On reaching the retina, this light is transformed into nerve signals, which are then sent to the brain for visual interpretation. If a cataract develops in this lens, some of this light may fail to reach the retina and vision becomes less clear. As people age, these proteins can start to aggregate, causing a small cloudy patch to develop in the lens. Eventually, this cataract impairs

vision, once it has become large enough. Researchers think this protein clumping that causes cataracts may develop as a result of wear and tear on the lens as people age. (Ophthalmol, 2007)

Cataract is the most common cause of blindness in the world, and an estimated 17 million persons are blind from cataract worldwide making it the leading cause of visual loss (WHO, 2012). As the proportion of people aged 60 years and older in the world in the world population increases a shift in burden of eye diseases to age related cause will occur resulting in cataract accounting for an even greater proportion of visual loss (WHO, 2014). By the year 2020, the projected number of persons with blinding cataract will exceed 40 million worldwide. Brian G., Taylor (2011).

This alarming figure coupled with the fact that, cataract is a treatable cause of blindness leads to an initiative, Vision 2020 to facilitate implementation of effective eye services to reduce the projected global blindness of 70 million by the year 2020 to 24 million (Right to sight, 2005). For this reason, intervention to reduce cataract blindness are paramount in achieving the desired objectives of vision 2020 which is to increase the number of cataract surgeries performed worldwide from 7 million in 1995 to 12 million in 2000, 20 million by 2010 and 32 million by year 2020 (WHO World sight vision, 2020).

Based on the WHO estimates, about 18 million people are blind in developing countries with Africa accounting for 7 million of which half of this number is as a result of cataract with estimated 600,000 Africans becoming blind from cataract each year (Br, J., Ophthalmol, 2010).

In the United States, about 50% of population between the ages of 65 and 74 and 70% of those over the age of 75 have cataract. Women are affected more frequently than men. Americans lose their vision from cataracts a twice the rate of Caucasians primarily due to lack of (Stenley J, Swierzewsk, (2015).

In Nigeria it is estimated that there is a backlog of over 2 million people needing cataract surgery, (Right to sight Nigeria 2007-2011). This requires increase in quantity should not be at the expense of quality as WHO guidelines recommended good surgical outcome in at least 80% of cataract operated patients at informed consultations on analysis of blindness prevention outcome (Geneva, 2008)

4. Knowledge and Attitudes of Patients With Cataract

Although surgery to remove the lens and replace it with artificial lens is the only effective treatment of cataract, lack of knowledge and attitudes of eye patients prevent them from getting an appropriate intervention, which leads to low visual acuity and blindness that may have adverse consequences both to the individual and population levels including psychological, social, and economic problems and quality of life impairment because they generate loss of self-esteem and occupational status, with resulting loss of job, (Brain, G., Taylor, 2011).

Knowledge is an awareness of the existence of something and information and understanding of a specific topic of the world in general which is acquired by experience or learning, knowledge is to understand specific topic or of the world in general. (Pam, MS., 2015). In psychological perspectives an attitude is "a relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols" Hogg, & Vaughan (2005). While Eagly & Chiiken (1993) describe attitude as "psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" and classified it into 3 components **Affective component**: this involves a person's feelings / emotions about the attitude. **Behavioral component**: the way the attitude has influences on how we act or behave. **Cognitive component**: this involves a person's belief / knowledge about an attitude. (Medical dictionary of the health professional and nursing, 2013).

According to a survey conducted in Paulo university department of ophthalmology (2013), on the attitude of cataract patients toward surgery 28.8% were afraid of undergoing surgery, of those, 16.3% cited fear of dying during surgery, 55.1% thought that they might become blind, 40.8% believed that surgery will be painful, 8.2% follow religious practices that forbid surgery and 16.4% knew some who underwent cataract surgery and had their vision worsened. This survey also evident that misconceptions and fatalistic attitudes accounts for behavioral patterns are important factors leading to cataract related blindness due to lack of appropriate surgery.

A survey to identify popular beliefs regarding the treatment of senile cataract in university of Sao Paulo in Brazil Of the total of subjects studied, 41.9% had never attended school, and 78.5% were no longer in the employment market. Most (85.1%) credited the sight restoration to cataract surgery. Among those unconvinced, 47.4% asserted that sight restoration depended only on God's will. A greater proportion of women than men ($p < 0.0000$) believed in the association of cataract and menopause, maternity, and menstrual periods and they admitted using herbal and rose teas for treating cataract. (Paulo, 2002).

Various attitudes related to the causes and implications of blindness were also identified in a survey conducted in Ethiopia aiming to understand the public's attitudes towards blindness. In this study, 1,751 heads of household were randomly selected, of who 1,401 were sighted, 246 were unilaterally blind, and 104 were blind in both eyes. According to 85% of the respondents blindness was a problem of the elderly. Of the totally blind, 33% mentioned supernatural factors, such as divine punishments and curses, as causes of blindness. (Fpesp, 2002).

According to research conducted by Foundation Dark and Light in Nigeria, many people with cataract or "couched eye" reported more than one factor responsible for not having surgery. One common reason, however, mentioned by most is the inability to afford the treatment (61%). In addition some respondents did not know where they could get treatment even if

they could afford it (10%). Virtually all the people with unilateral cataract also reported that they see at least with the other eye "Foundation Dark and Light" of the Netherlands (2007).

Review of publications of the Nigerian blindness survey (2012); indicated high prevalence of blindness, 42 % of the study population having blindness was due to avoidable causes with cataract responsible for 43%, and out of 538 eyes that had cataract surgery 42.7% had couching.

In a research to characterized willingness to pay for private operation and preferred waiting time among patients waiting for cataract surgery in Hong Kong, among 300 people completing the interview 144(48.2%) were 76 years of age or older, 177(59%) were women and mean time waiting for surgery was 17 ± 15 months. Among 220 subjects (73.3%) willing to pay anything for surgery. Subjects considering private cataract surgery, knowing people who had have cataract surgery, using nongovernmental sources to pay for surgery and having lower visual function were willing to pay, Chan, (August,2009).

People willingness to engage in health promotion is generally taken for granted. However, they manage their behaviors in the light of their own life experiences and community social and cultural pattern may influence attitudes regarding eye care, also discrepancies between the stated beliefs and what people actually do in order to avoid eye conditions has been demonstrated in the study that may be risky or may jeopardize their visual system, also Self- treatment of eye diseases implies practice that put individuals at risk of harmful self- therapy practices (WHO, 2013).

A survey conducted on the barriers to cataract surgery indicated that low demand because of fear of surgery, increase cost of surgery, poor visual result and lack of eye surgeons particularly in Africa (Jannifer, E, 2000).

A research conducted in Paris (French) on subjective assessment of pain and duration of cataract surgery revealed that, pain was recorded as no sensation in 31.5% of the cases, mild sensation 41%, moderate pain 32.3%, intense pain 3.5%, and unbearable pain 0.7%. The group with high pain score had significantly longer procedure. (French 2013).

According to department of ophthalmology Paulo University in Brazil on perception of patients about cataract concerning perception, 79.0% referred to it as small skin fold that covers the eye and 32.4 mentioned, in addition other conceptions. Concerning the cause, of the alternative presented to them, 80% reported aging, 47.1% blamed overusing the eye in the work place or at home, 7.1% believed that they had cataract due to smoking of spell. Of the associated answers, 94.1% referred to blurred vision in peoples suffering from cataract, 72.4 thought the person may become blind, and 66.5% believed that the patients suffering from cataract are depressed because they cannot see. Regarding surgery , 28.8% were afraid of undergoing surgery, of those 16.3% cited with the fear of dying during surgery, 55.1% thought they may become blind 40.8% believed the surgery will be painful, and 8.2 follow religious practice that forbid surgery. (Edema, 2006).

In a research to assess how patients in academic ophthalmology practice feel regarding the involvement of residents in their cataract surgery, participants indicated that they should be asked in advanced if residents may assist in (83%) or perform (96%) their surgery. The person asking question should be the attending surgeon. Most participants would agree to resident's assistance (83%), and nearly half would agree to residence performance (49%) of their cataract surgery. Participants indicated that they would be upset if the resident assisted in (45%) or perform (74%) the surgery without their expressed permission few would seek treatment in a setting without residents if the residents were to assist in(7%) or perform(26%) their cataract surgery(Habib, 2008).

In a research to assess patients recall of information, anxiety and attitude toward trainee surgeons immediately after providing consent for cataract surgery and 1 month postoperatively, 9 post consent (18%) and 2 post operatives (4%) recalled the risk for major complications. All post consent 40 of 47 postoperative patients (85) who remembered signing the consent form said they believed they were adequately informed. Patients reported little anxiety about surgery; the consent process have no effect on this. 5 of 17 post consent(29%) and 7 of 23 post-operative patients(31%) who could not recall being told a trainee might perform their procedure were unhappy; 1 patient in each group(3% and % respectively) who could not recall such discussion were unhappy, (Vallace July,2004).

The term operational cataract is used to define a cataract where patient and eye care professional agree to proceed with cataract surgery, the indication for cataract surgery depend on various factors including the expectations of the patient, perception, attitudes and likely visual result of the procedure (Global estimates of number of eyes with cataract, 2010).

5. Types of Cataract Extraction

Over the years, various surgical techniques have evolved, from ancient method of couching to the present day technique of phacoemulsification. Couching involves dislocation of the cataractous lens into the vitreous cavity with sharp object through cornea and was the earliest form of cataract surgery. It was practiced from ancient times through the middle ages up until the early 20th century (Abdussalam, 2011). Extracapsular cataract extraction was initiated by David Jacques in 1753; this method was abandoned because of residual cortex which incited inflammatory reaction in the eye (Mem Acad Roy Chur, 1753). Intra-capsular cataract extraction (ICCE) becomes standard in the early century. This method involves delivery of the lens along with its capsule (Abdussalam 2011).

With the introduction of intraocular lens in 1947 by Sir Harold Ridley, surgeons needed a scaffold for replacement of a posterior chamber intraocular lens (PCIOL). The above led to a re-emergence of extra-capsular cataract extraction with posterior chamber intraocular lens (ECCE+PCIOL). Extra-capsular cataract extraction (ECCE) has also undergone a lot of modifications to the present day, methods of phacoemulsification (PHACO) and manual suture less small incision cataract surgery (SICS).Presently phacoemulsification is the preferred surgical technique for cataract extraction among cataract

surgeons in developed countries (Abdussalam, 2011). In the developing world, this surgical technique is not so common due to high cost of procurement and maintenance of equipment.

5.1. Theoretical Framework

The Health Belief Model is a psychological health behavior change model developed to explain and predict health related behaviors particularly in regard to uptake of health services (Janz & Becker, 1984). The health belief model was developed in the 1950s by social psychologist at the U.S public health service (Rosentock, 1974).

5.2. Core Assumptions and Statements

The HBM is based on the understanding that a person will take a health related action if that person

1. Feels a negative health condition can be avoided e.g. cataract.
2. Has positive expectation that by taking a recommended action, he/she will avoid a negative health condition, example early cataract evaluation.
3. Believes that he/she can successfully take recommended health action, example to undergo cataract extraction. (Glanz, Rimer & Lewis, 2002).

A person's motivation to undertake a health behavior can be divided into three main categories that are individual perceptions, modifying behaviors and likelihood of action (Hochbaum & Rosentock, 1952). Individual perceptions are factors that affect the perception of illness or disease, they deal with the importance of health to an individual, perceived susceptibility that is ones opinion of chances of getting a condition and its consequences are. (Hochbaum & Rosentock). Modifying factors include demographic variables example sex, age, gender, socioeconomics, knowledge and ethnicity, perceived threats and cue of action (Strategies to activate readiness e.g. symptoms education, media information). The likelihood of action discusses factors in probability of appropriate health behaviors, it is the likelihood of taking the recommended preventive health action and a combination of these factors causes a response that often manifest into action, provided it is accompanied by a rational alternatives course of action (Hochbaum & Rosentock, 1952).

The model suggests that decision makers make a mental calculus about whether the benefits of a promoted behavior change outweigh its practical and psychological costs or obstacles, that is, individual conduct and internal assessment of the net benefits of changing their behavior, and decide whether or not to act (Green & Murphy, 2014).

6. Materials and Method

6.1. Research Design

Descriptive cross-sectional design was used in this study

6.2. Study Population

People having eye problem within the age range of 20 years and above in Makafin-Dala community were the target group in this study.

6.3. Sample Size

The sample size was 60 cataract candidates using Cochran (1967) sample size formula

6.4. Sampling Technique:

Purposive/judgmental sampling technique was used to collect the data in Makafin Dala community of Kano state due to higher population of people with eye problems in that community. Respondents were detected by the help of the community leader, pen light was used to detect whether the respondent have cataract or not. Questionnaire consist of three sections (a, b and c) comprising socio-demographic characteristics, knowledge and attitudes of cataract patients regarding cataract and its surgery

6.5. Method of Data Collection

Interviewer administered questionnaire on knowledge and attitudes of cataract patients regarding cataract and its surgery (cataract extraction surgery) was used to obtain data. Questionnaire was translated verbally to most of the respondents who do not understand English which was later recorded in the questionnaire. Data was collected in six days from Monday to Saturday by selecting ten respondents a day (5 in the morning 5 in the evening) guided by the community leader of Makafin Dala.

6.6. Data Analysis

A quantitative data was expressed using descriptive statistics; the data was analyzed using statistical package for social sciences (SPSS) version 22.0

7. Results

Variables	n	%
Age		
20-40	6	10.0
41-60	22	36.7
61 and above	29	53.3
Gender		
Male	33	55.0
Female	27	45.0
Marital status		
Single	2.0	3.3
Married	48	80.0
Widow	10	16.7
Educational status		
Primary	7.0	11.7
Secondary	5.0	8.3
Tertiary	7.0	11.7
Informal	29.0	48.3
Others	12.0	20.0
Occupation		
Civil servant	9.0	15.0
Professionals	12.0	20.0
Craft man ship	9.0	15.0
Not employed	30.0	50.0
Duration of eye problem		
5 years and above	26	41.6
3-4 years	19	31.7
0-2 years	19	26.7

Table 1: Frequency distribution of respondents as regards to socio-demographic characteristics (n=60)

Table 1 shows the socio-demographic characteristics of the respondents with majority of the respondents (53.3%) are 61 years and above. With regards to gender, it is shown that male respondents carry higher percentage of 55% compared to their female counterpart (45%) probably due to socio-cultural and religious restrictions for females to participate in the study. With regard to the educational background of the respondents, it is apparent that most of the respondents (43%) attended informal education. It is also clear from this table that half of the study respondents are not employed (50%). It is also shown from the table that, higher number of the study respondents (41.6%) had eye problems for a period of 5 years and above

STATEMENT	n	%
Previous knowledge about cataract		
Yes	40	66.7
No	20	33.3
What causes cataract		
Ageing	25	41.7
Malnutrition	5	8.3
Smoking	1	1.7
Prolong physical/outdoor activities	3	5.0
I don't know	26	43.3
Is cataract treatable /or preventable?		
RESPONSE	n	%
Yes	57	95
No	3	5
Can cataract lead to blindness?		
Yes	52.0	86.7
No	8.0	13.3
What is the effective treatment for cataract		
Surgery	36.0	60

Couching	9.0	15
Medication	11.0	18.3
Spiritual	4.0	6.7
How cataract is operated in a hospital		
Eye is removed	12.0	20.0
Lens is removed and replaced	13.0	21.7
Lens is dislocated	16.0	26.7
Don't know	18.0	30.0
Others	1.0	1.70
Are all cataract surgeries the same		
Same	14.0	23.3
Different	11.0	18.3
I don't know	35.0	58.3
Do you think cataract surgery is affordable?		
Affordable	15.0	25.0
Not affordable	31.0	51.7
It should be free	13.0	21.7
Others	1.0	1.7
Sources of information that motivate people to go for cataract intervention		
Media	7.0	11.7
Someone operated	37.0	37.0
Family/community	21.0	21.7
Informants	5.0	5.0

Table 2: Knowledge of respondents as regards to cataract and its surgery (n=60)

It is shown from the above tables that, highest proportion of the study respondents (66.7%) had previous knowledge about cataract and 33.3% had never heard the word cataract before which is a reflection that they have prior knowledge of the word cataract, also majority (43.3%) of the respondents don't know the cause of cataract, followed by 41.7% who believe cataract is due to ageing while others were reflected in the table. With regard to the knowledge of whether cataract is treatable&/or preventable, 95% of the respondents believe that cataract is treatable /preventable.

According to this table, 60% of the respondents believe that surgery is the only effective treatment for cataract, medication (18.3%); this is followed by those who believed that couching is the effective cataract intervention (15%) only 6.7% believes on spiritual as regiment for cataract blindness. It is apparent that, majority of the respondents 30% don't know how cataract is operated in the hospital. It is shown from table that, highest proportion (86.7%) of the respondents knew that cataract can lead to blindness; only 13.3% don't know cataract can lead to blindness. With regard to knowledge of the respondents on different types of cataract surgery it is shown that majority (58%) of the respondents don't know there are different types of cataract extraction, while 23.3% said all surgical techniques of cataract surgery are the same, only 18.3% had knowledge that there are different types of cataract surgery.

Knowledge of the respondents on whether cataract surgery is affordable shows that, majority of the respondents (51.7%) believe that cataract surgery is not affordable. Also, most of the respondents (61.7%) believe that those operated for cataract before inform others about cataract and its surgery than through media (11.7%).

Do you ever attended hospital for treatment		
RESPONSE	n	%
Yes	14.0	23.3
No	46.0	76.7
Personal belief can prevent people from cataract treatment		
Disagree	48.0	80.0
Neutral	1.0	1.7
Agree	11.0	18.3
Cost of cataract surgery can prevent people from seeking treatment		
Disagree	16.0	6.0
Neutral	1.0	1.7
Agree	43.0	71.7
Fear of pain can prevent people from seeking treatment		
Disagree	17.0	28.3
Neutral	3.0	5.0

Agree	40.0	66.7
Fear of surgical outcome can prevent people from seeking treatment		
Disagree	12.0	20.0
Neutral	16.0	26.7
Agree	32.0	53.3
Lack of accessibility can prevent people from seeking treatment		
Disagree	1.0	1.70
Neutral	15.0	25.0
Agree	44.0	73.3
Cataract will recur after surgery		
Disagree	18.0	30.0
Neutral	23.0	38.3
Agree	19.0	31.7
Person with poor vision should go to hospital for treatment		
Disagree	8.0	13.3
Neutral	6.0	10.0
Agree	46.0	76.7
Cataract extraction restores sight		
Disagree	1.0	1.70
Neutral	0.0	0.00
Agree	59.0	98.3
Couching is harmful eye practice		
Disagree	17.0	28.3
Neutral	8.0	13.3
Agree	35	58.4
People from cities go to hospital for intervention than those in rural areas		
Disagree	9.0	15.0
Neutral	5.0	8.30
Agree	46.0	76.3

Table 3: Attitude of respondents regarding cataract and its surgery (n=60)

This table shows that 76.7% of the respondents had never go to hospital for intervention, only 23.3% of the respondents attended hospital for intervention which is a true reflection they stay at home for long without cataract intervention also, highest proportion (80%) of the study respondents disagrees personal belief prevent patient from seeking cataract intervention, only 18.3% agreed personal belief prevent people from cataract treatment. It is apparent that, most of the study respondents (71.7%) agreed that financial cost of cataract surgery prevent patient from seeking intervention, 26.6% disagree only 1.7% gave neutral opinion, which is an indication that cost of cataract surgery can prevent people from seeking intervention

It is shown from this table that most of the study respondents (66.7%) agreed that fear of pain prevents people from going to hospital for cataract intervention of which 28.3% disagreed only 5% of the study respondents had neutral opinion. In assessing whether fear of surgical outcome can prevent people from seeking cataract intervention, most of the respondents (53.3%) agreed that fear of visual result can prevent people from seeking cataract intervention 26.7% had neutral opinion of which only 20% disagreed.

With regard to accessibility, most of the respondents (73.3%) agreed that lack of accessibility prevent people from seeking cataract intervention.

Also most of the study respondents (76.7%) agreed that person with poor vision should go to hospital early for intervention and only 13.3% disagreed while 10% had neutral answers.

Age (years)	Previous knowledge about cataract				χ^2	P
	Yes(n)	%	No(n)	%		
20-40	4.0	6.7	2.0	3.3	2.462	0.482
41-60	15.0	25.0	7.0	11.7		
Above 60	23.0	38.3	9.0	15.0		

Table 4: Relationship between age of the respondents and their previous knowledge about cataract (n=60)

According to this table, there is no statistical significant relationship between age of the respondents and previous knowledge about cataract (P=0.482)

Sex	Ever attended hospital for treatment?				χ^2	P
	Yes	%	NO	%		
Male	4	6.7	29	48.3	5.153	0.023*
Female	10	16.7	17	28.3		

Table: 5 Relationship between sex and whether the respondent ever attended hospital for treatment (n=60)

*P>0.05.

According to table 5 there is a significant statistical relationship between the gender and whether the respondent attended hospital for cataract intervention (P=0.023)

Educational background	Ever attended hospital for treatment?				χ^2	P
	Yes(n)	%	No(n)	%		
Formal	1.0	1.7	18.0	30.0	6.520	0.050*
Informal	13.0	21.7	28.0	46.7		

Table 6: Relationship between educational background of the respondents and attending hospital for treatment (n=60)

*P=0.050

According to this table there is a significant statistical relationship between educational background of the respondents and attending hospital for cataract treatment (P=0.050)

8. Discussion

Evidence has been documented in a work of Lindbergh B., St. Louis, (2016) that as you reach your 60s you need to be aware of the signs of age-related eye problems that could cause vision loss especially age-related cataract and age-related macular degeneration. In this study, the demographic characteristics of the respondents' shows that, almost half of the respondents were of higher ages (>61 years). This is a typical reflection that cataract is a disease of ageing. Similar report was revealed by the study conducted by World Health Organization (WHO, 2014) which stated that "As the proportion of people aged 60 years and older in the world's population increases, a shift in burden of eye diseases to age related causes will occur, resulting in cataract accounting for an even greater proportion of visual loss." The results from the recent national blindness and visual impairment survey revealed that 1.8% of Nigerian adults aged 40 and above had cataract-related blindness.

There has been increasing evidence that women are affected by blindness and visual impairment to a much degree than men, since then, there have also been a number of large national surveys (for example in Pakistan and Nigeria) that women account for about 64% of total number of eye conditions and blindness globally, (Paul C., Susan, 2012). Data obtained contradict this study which shows a slight sex variation (almost 1:1) among those who participated in this study. The slight variation may be due to socio-cultural and religious values that may restrict female to participate in the study since four fifth of the respondents are married. Levels of their education and socio-economic status affect their decision toward seeking care, (Edema, 2014). Almost half of the respondents attended informal schools and illiterates accounts for two fifth of the respondents. Also half of the respondents are unemployed and 3/4 had never attended hospital for intervention, this is in line with a survey reported to identify popular beliefs regarding the treatment of senile cataract in university of Sao Paulo in Brazil "Of the total of subjects studied, 41.9% had never attended school, and 78.5% were no longer in the employment market." This low level of literacy plus high rate of unemployment among the study respondents can really contribute to their attitudes of not going to hospital.

The result of this study shows that out of 60 respondents surveyed more than 2/5 had eye problem for duration of 5 years and above, followed by 2-4 years (>1/3), It was reported in a study by Xianfan, C., (2010) in China that " among patients 60 years of age and older, the percentage of patients delayed increase with age, the reason for delaying cataract surgery was that cataract is immature(29%), unaware of the presence of cataract (14.9%), lack of trust/fear of surgery (9.4%), cannot afford (6.9%)". It is true that ageing, lack of information, fear and unaffordability can cause delay in cataract treatment, this research is weak in addressing the issues of low level of education and unemployment. This study also identified reasonable proportion of the respondents do not know what cataract means, while almost half do not know the causes of cataract.

It was documented in a work of Abdussalam (2011) that Cataract extraction is the only effective treatment for cataract avoidable blindness; in this study almost all the respondents agreed that cataract is treatable and preventable. Also 3/5 of the respondents agreed that surgery is the only effective treatment for cataract, 1/5 believed that medication is the effective treatment; while 15% said couching (traditional cataract extraction) is effective. Their knowledge that cataract is preventable and surgery is the only effective treatment for cataracts possibly due to higher number of eye patients in Makafin Dala area of Kano State where the research was conducted.

When the participants were asked about how cataract is operated in hospitals, more than half of the respondents do not know. This is possible since only 23.3% of the study respondents attended hospital for medical intervention. This is agreeing with the finding of Ajayi (2012) that "Almost half of all cataract procedures were performed by herbalist". Evidence

has been documented in a population based study (Hong Kong, China, 2012) which identified cataract as a leading cause of visual impairment responsible for 28.1% blindness and low vision, finding of this research also shows almost all the respondents said cataract can lead to blindness. This is likely since they live in a community which had history of highest number of blind people in Kano State, (Maiunguwar Makafin Dala, 2016).

Over the years, various surgical techniques have evolved, from ancient method of couching to the present day technique of phacoemulsification (Abdussalam, 2011). In this study when the respondents were asked whether the surgical techniques for cataract are the same? Of which more than 4/5 of the respondents do not know this is possible since most of them do not attend hospitals.

According to a research conducted by Foundation Dark and Light in Nigeria (2007) "many people with cataract or "couched eye" reported more than one factor responsible for not having surgery. One common reason, however, mentioned by most is the inability to afford the treatment (61%). In addition some respondents did not know where they could get treatment even if they could afford". This research shows that 51.7% of the respondents said cataract surgery is not affordable. When asked of which sources of information they think can easily motivate people to go for cataract surgery, more than 3/5 of study respondent said some eye patients were operated before, 21/5 said family/community members are their informants while small proportion said it was through the media. This implies that family/community members as well as mass media are playing lesser role in informing people about cataract and its surgery.

It is evident that misperceptions and fatalistic attitudes account for behavioral patterns which are important factors leading to cataract related blindness (Chang, 2009). According to this study, 4/5 of the respondents disagree that personal beliefs prevent eye patients on cataract intervention while more than half agreed that it is the fear of surgical outcome, almost 4/5 agreed it was lack of accessibility, those who agree that fear of pains prevent patients from seeking intervention accounts for more than half of the study respondents, this may be explained by considering their age group, level of literacy and lack of sources of information on cataract and its surgery. This is in agreeing with a survey conducted in Paulo University, Department of Ophthalmology (2013), on the attitudes of cataract patients toward surgery 28.8% were afraid of undergoing surgery, of those, 16.3% cited fear of dying during surgery, 55.1% thought that they might become blind, 40.8% believed that surgery will be painful, 8.2% follow religious practices that forbid surgery and 16.4% knew some who underwent cataract surgery and had their vision worsened. Socio-economic and racial differences between Makafin Dala area of Kano state and Paulo University in India may probably be the reason for slight variation in these findings.

It was documented in a work of C., Claiborne, R., (2013) that "once cataract is removed it cannot come back, but blurred vision may develop after surgery mimicking the symptoms of the original cataract". Finding of this research showed that, most of the respondents expressed neutral opinion on whether cataract will recur after surgery or not, it is possible since they lack reliable information source. In this study, almost all of the respondents agreed that cataract extraction can restore sight while significant percentage of the study participants (3/5) agreed that couching is a harmful eye practice, this validate the study of Manmoud A, (2010) in Usman Danfodiyo University Teaching Hospital Sokoto that "traditional operative couching of the lens is not safe alternative procedure of cataract surgery". They also agreed (almost 4/5) that people from cities can easily go to hospital for intervention than those in rural areas which may be due to the fact that the study population comes from the city of Kano.

Although the good attitude of the respondents that couching is a harmful eye practice and agree that cataract extraction restores eye sight, most of them agree that fear of pains and surgical outcome, financial cost of surgery prevent patients from seeking cataract intervention. This may contribute to poor cataract surgical rate and a true reflection of a study conducted by Geert, V. (2012) that "the fear of surgery or its outcome could be a barrier to the uptake of cataract surgical services, good outcome and satisfied patients can serve as motivators for others to have surgery."

9. Conclusion

The study concluded that, poor knowledge and negative attitude among cataract patients is a leading factor responsible preventing early cataract intervention there by increasing the number cataract cases and blindness in our society.

10. Recommendations

Based on the findings of this study, the following recommendations are suggested.

10.1. Government

- Improve awareness campaign among people about cataracts its surgery and related blindness through mass media, community sensitization and mobilization.
- Initiate and implement free cataract control programs at hospital level as well as outreach services.
- Improve budgetary allocation to the health sector towards achieving the Abuja 2001 declaration in which African heads of government pledge to allocate 15% of their annual budget to health care, world health report (WHO, 2010).
- Enforce laws that will prohibit couching and other harmful eye practices.

10.2. Health Administrators

- Ensure judicious use of available resources, reduce inefficiency and leakages.

- Procurement of equipment should be accompanied with after sales maintenance and training of local staffs to maintain cataract blindness programs.
- Provision of funding for human resources development in their various institutions.

10.3. Eye Care Providers

- Eye care specialist should be willing to embrace up to date techniques in eye care services in order to keep abreast with newer trends in eye care.
- Training of eye care providers and incorporate acquisition of newer skills and training methods to ensure trainees are at par with those on other part of the world.

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