

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Shendi University



Faculty of Graduate Studies and Scientific Research

Research about:

**Determinant the Effectiveness of Discharge
Instructions Among Patient Post Eye
Surgery in Elmek Nimer University Hospital**

*A thesis Submitted in Requirements of Partial Fulfill for The
Master's Degree in Medical Surgical Nursing*

Submitted by:

Samah Alfadil Ahmed Ali

B.Sc University of Khartoum 2008

Supervised:

Dr. Sania Ahmed Mohamed Salih

*BSc, MSc, Ph D, MSN- Shendi University
Assistant professor of medical surgical nursing*

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الْقَصَصُ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

﴿ وَقَالَتِ امْرَأَتُ فِرْعَوْنَ قَرَّتْ عَيْنِي لِي وَلَكَ لَا تَقْتُلُوهُ عَسَىٰ

أَنْ يَنْفَعَنَا أَوْ يَتَّخِذَهُ وَلَدًا وَهُمْ لَا يَشْعُرُونَ ﴾

صدق الله العظيم

سورة القصص - الآية (9)



Dedication

*I have dedicated this research to my dear parents
Who gave me all efforts and facilities to my study from
childhood until adulthood.*

Alfadil Ahmed Ali and Amna Ali

*To the soul of my heart really you are terrific and
gentleman and thank you for supporting through out the
process of completing this degree*

My husband Fawzi Awad allah

To my children you are treasures from god and I'm blessed

(Mohammed)

To all my teachers:

*Who are teaching me giving without take and patience
without tedium.*

*Also I would like to dedicate it to my remaining
brothers and sisters for their continuous assistance and
help.*

To all my friends:

Those who precede me and no longer with me,

Those who precede me and are still among me,

Those with me,

And to those who will follow me.

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*Finally I would like to thanks all of
the people who help me in this research*

List of abbreviation

Abbreviation	Term
CN	Cranial nerve
ECCE	extra capsular cataract extraction
ICCE	Intra capsular cataract extraction
IoP	Intra ocular pressure
IoL	Intra ocular lens
PTk	Phototherapeutic keratectomy
PFk	Photorefractive keratectomy

ملخص البحث

أجريت هذه الدراسة الوصفية المقطعية بمستشفى المك نمر الجامعي بمدينة شندي في الفترة من أغسطس إلى ديسمبر 2016م لتحديد مدى فعالية النصائح والإرشادات التي تعطى لمرضى العيون بعد العملية.

شملت الدراسة 40 مريض حيث تم جمع المعلومات بواسطة استبيان (يحتوي على ستة عشر سؤال وتم تحليل النتائج باستخدام برنامج الحزم الإحصائية للعلوم الاجتماعية إصدار 22 وتم عرضها في شكل جداول وأشكال بيانية وتوصلت هذه الدراسة إلى أن معظم المرضى لديهم معرفة ضعيفة حول طريقة استخدام القطرة (28%) والمضاعفات التي تحدث بعد العملية (30%) وطريقة نظافة العين بعد العملية (17%) بالرغم من ذلك لديهم معرفة جيدة فيما يخص استخدام النظارة بعد العملية (67%) وعدم التعرض بها إلى مصادر الضوء والتلفاز (82%) وأيضاً المتابعة بعد العملية (55%).

توصلت الدراسة إلى عدة توصيات أهمها على إدارة المستشفى ورئيس وحدة التمريض بتقديم دورات تدريبية للمرضين لزيادة المعرفة فيما يخص النصائح التي تعطى لمرضى العيون بعد العملية وتشجيعهم على تقديم التوعية والنصائح اللازمة لهم وإعطائهم نصائح مكتوبة.

Abstract

This study carried out in Elmek Nimer university hospital in Shendi city during period extended from August to December to determine the effectiveness of discharge instruction among patient post eye surgery. the study involve 40 patients. The data was collected by structure questionnaire included 16 question method and analyzed by (SPSS version 22).

The study reveals that most of patients had poor knowledge about administration of eye drop (28%), complication after surgery (30%), eye cleans after surgery (17%), in spite of this most of patients had good knowledge about eye glass (67%), (don't expose to source of light (82%)) and follow up (55%).

The study recommended that the hospital managers, nursing direction and seiner nurses should have provided nursing staff with update regarding post eye surgery teaching and encouraging them to provide good advices to the patients and also provide written instructions.

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Chapter One

Introduction

Justification

Objectives

1.1 Introduction

The important of education post eye surgery to change patient perception about eye surgery to encourage eligible candidates to have surgery, encourage, patient to adopt healthy behaviors to improve and maintain eye health.

To change patient perception regarding modern health care and orient patient to health care system, ^{1}.

The incidence of cataract surgery has steadily increased over 32 years reaching received levels in 2011.

Additionally, second eye surgery is performed sooner and more frequently between 2005 and 2011, 60 percent of residents had second eye cataract surgery within three months of first eye cataract surgery more than double the 28 percent rate recorded between 1998 and 2004, ^{2}.

Minimum follow-up was 1 year. No retinal detachment occurred in patient presenting with an intro operative or pre operative successfully treated retinal break, the rate of retinal detachment occurring after idiopathic muscular hole (n=272) surgery was higher than after the epiretinal membrane surgery (n=362). Were performed between 2000 – 2003, ^{3}.

There were 48.229 corneal transplant is performed in the united state in 2013 since 1961 more than 1000.000 men, women and children ranging in age from nine days to 100 years, have had sight restored through a corneal transplant, ^{4}.

Study conduct on a study of rational use of drugs among the ophthalmic-in-Patients of a government teaching hospital.

J Indian Acad Forensic Med. October- Decem
ber 2011, done by Kanchan Kumar Mondal

Inappropriate, irrational and cost-ineffective practices of pharmaceuticals are worldwide phenomena. A retrospective study was conducted among the Ophthalmic-in-patients to investigate the nature of utilization of drugs in respect of rationality correlating the clinical and forensic pharmacology. Prescriptions in the bed head tickets were the study samples which were analyzed according to

the WHO. Incurred cost per day per prescription was calculated. Commonly prescribed drugs were also studied. Result revealed that proportion of drugs from Essential Medicines List (EML) was 51.62%, while 54.05% was prescribed by generic names. Most commonly prescribed drugs were antibiotics (100%), analgesic-anti-inflammatory agents (100%) and mydriatic-cycloplegic agents (91.98%).

Average number of drugs per prescription was 4.03 ± 1.5 and average cost per day per prescription was 99.22 INR (Indian Rupees). Injectables were prescribed in 97.36% cases, and 10.81% of total drugs (37) prescribed. Prescribing practices were not always in accordance with the WHO criteria for rational use of drugs. It is suggested that there is a felt need to provide more inputs to the Ophthalmologists to promote rational use of drugs, ^{5}.

1.2 Justification

Discharge instruction post eye surgery is very important to reduce the risk of complication post surgery.

Some patient have worse out come after surgery and To help the patient toward to good out come after surgery. Patient feared deterioration in visual acute and some worried about becoming permanently blind.

Post eye surgery instruction is very important because the successful of eye operation depend on this instruction.

1.3 Objectives

1.3.1 General objective:

To determine the effectiveness of discharge instruction among patient post eye surgery.

1.3.2 Specific objectives:

- 1- To assess the patient understanding about discharge instruction.
- 2- To evaluate the effectiveness of discharge instruction.

Chapter Two

Literature Review

2. Literature review

Patients, family caregivers and healthcare providers all play roles in maintaining a patient's health after discharge. And although it's a significant part of the overall care plan, there is a surprising lack of consistency in both the process and quality of discharge planning across the healthcare system.

This Fact Sheet will look at the keys to a successful transition from hospital to home, explain some important elements, offer suggestions for improving the process, and with checklists to help ensure the best care for a loved one. If provide caregivers you are a caregiver, you play an essential role in this discharge process: you are the advocate for the patient and for yourself.

Effective discharge planning can decrease the chances that your relative is readmitted to the hospital, help in recovery, ensure medications are prescribed and given correctly, and adequately prepare you to take over your loved one's care.

Not all hospitals are successful in this. Although both the American Medical Association and the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) offer recommendations for discharge planning, there is no universally utilized system in US hospitals. Additionally, patients are released from hospitals "quicker and sicker" than in the past, making it even more critical to arrange for good care after release.

Studies have shown that as many as 40 percent of patients over 65 had medication errors after leaving the hospital, and 18 percent of Medicare patients discharged from a hospital are readmitted within 30 days. This is not good for the patient, not good for the hospital, and not good for the financing agency, whether it's Medicare, private insurance, or your own funds. On the other hand, research has shown that excellent planning and good follow-up can improve patients' health, reduce readmissions and decrease healthcare costs.

Even simple measures help immensely. For example, you should have a telephone number (s) accessible 24 hours a day including weekends, for care information. A follow-up appointment to see the doctor should be arranged

before your loved one leaves the hospital. Since errors with medications are frequent and potentially dangerous, a thorough review of all medications should be an essential part of discharge planning. Medications need to be "reconciled," that is, the pre-hospitalization medications compared with the post-discharge list to see that there are no duplications, omissions or harmful side effects.

Under the best of circumstances, the discharge planner should begin his or her evaluation when the patient is admitted to the hospital, ^{6}.

Unlike most organs of the body, the eye is available for external examination, and its anatomy is more easily assessed than many other body parts. The eyeball, or globe, sits in a protective bony structure known as the orbit. Lined with muscle and connective and adipose tissues, the orbit is about 4 cm high, wide, and deep, and it is shaped roughly like a four-sided pyramid, surrounded on three sides by the sinuses: ethmoid (medially), frontal (superiorly)ophthalmic artery enter the orbit at its apex through the optic foramen. The eyeball is moved through all fields of gaze by the extraocular muscles. The four rectus muscles and two oblique muscles are innervated by cranial nerves (CN) III, IV, and VI. Normally, the movements of the two eyes are coordinated, and the brain perceives a single image.

The eyelids, composed of thin elastic skin that covers striated and smooth muscles, protect the anterior portion of the eye. The eyelids contain multiple glands, including sebaceous, sweat, and accessory lacrimal glands, and they are lined with conjunctival material. The upper lid normally covers the uppermost portion of the iris and is innervated by the oculomotor nerve (CN III).

The lid margins contain meibomian glands, the inferior and superior puncta, and the eyelashes. The triangular spaces formed by the junction of the eyelids are known as the inner or medial canthus and the outer or lateral canthus. With every blink of the eyes, the lids wash the cornea and conjunctiva with tears.

Tears are vitally important to eye health. They are formed by the lacrimal gland and the accessory lacrimal glands. A healthy tear is composed of three

layers: lipoid, aqueous, and mucoid. If there is a defect in the composition of any of these layers, the integrity of the cornea may be compromised. Tears are secreted in response to reflex or emotional stimuli, ^{7}.

The conjunctiva, a mucous membrane, provides a barrier to the external environment and nourishes the eye. The goblet cells of the conjunctiva secrete lubricating mucus. The bulbar conjunctiva covers the sclera, whereas the palpebral conjunctiva lines the inner surface of the upper and lower eyelids. The junction of the two portions is known as the fornix, ^{7}.

The sclera, commonly known as the white of the eye, is a dense, fibrous structure that comprises the posterior five sixths of the eye. The sclera helps to maintain the shape of the eyeball and protects the intraocular contents from trauma. The sclera may have a slightly bluish tinge in young children, a dull white color in adults, and a slightly yellowish color in the elderly. Externally, it is overlaid with conjunctiva, which is a thin, transparent, mucous membrane that contains fine blood vessels. The conjunctiva meets the cornea at the limbus on the outermost edge of the iris, ^{7}.

The cornea, a transparent, avascular, domelike structure, forms the most anterior portion of the eyeball and is the main refracting surface of the eye. It is composed of five layers: epithelium, Bowman's membrane, stroma, Descemet's membrane, and endothelium. The epithelial cells are capable of rapid replication and are completely replaced every 7 days, ^{7}.

Behind the cornea lies the anterior chamber, filled with a continually replenished supply of clear aqueous humor, which nourishes the cornea. The aqueous humor is produced by the ciliary body, and its production is related to the intraocular pressure (IOP). Normal pressure is 10 to 21 mm Hg, ^{7}.

The uvea consists of the iris, the ciliary body, and the choroid. The iris, or colored part of the eye, is a highly vascularized, pigmented collection of fibers surrounding the pupil. The pupil is a space that dilates and constricts in response to light. Normal pupils are round and constrict symmetrically when a bright light

shines on them. About 20% of the population has pupils that are slightly unequal in size but that respond equally to light. Dilation and constriction are controlled by the sphincter and dilator pupillae muscles. The dilator muscles are controlled by the sympathetic nervous system, whereas the sphincter muscles are controlled by the parasympathetic nervous system, ^{7}.

Directly behind the pupil and iris lies the lens, a colorless and almost completely transparent, biconvex structure held in position by zonular fibers. It is avascular and has no nerve or pain fibers. The lens enables focusing for near vision and refocusing for distance vision. The ability to focus and refocus is called accommodation, ^{7}.

The lens is suspended behind the iris by the zonules and is connected to the ciliary body. The ciliary body controls accommodation through the zonular fibers and the ciliary muscles. The aqueous humor is anterior to the lens; posterior to the lens is the vitreous humor. All cells formed throughout life are retained by the lens, which makes the cell structure of the lens susceptible to the degenerative effects of aging. The lens continues to grow throughout life, laying down fibers in concentric rings. This gradual thickening becomes evident in the fifth decade of life and eventually results in an increasingly dense core or nucleus, which can limit accommodative powers, ^{7}.

The posterior chamber is a small space between the vitreous and the iris. Aqueous fluid is manufactured in the posterior chamber by the ciliary body. This aqueous fluid flows from the posterior chamber into the anterior chamber, from which it drains through the trabecular meshwork into the canal of Schlemm, ^{7}.

The choroid lies between the retina and the sclera. It is a vascular tissue, supplying blood to the portion of the sensory retina closest to it.

The ocular fundus is the largest chamber of the eye and contains the vitreous humor, a clear, gelatinous substance, composed mostly of water and encapsulated by a hyaloid membrane, ^{7}.

The vitreous humor occupies about two thirds of the eye's volume and helps maintain the shape of the eye. As the body ages, the gel-like characteristics are gradually lost, and various cells and fibers cast shadows that the patient perceives as "floaters." The vitreous is in continuous contact with the retina and is attached to the retina by scattered collagenous filaments. The vitreous shrinks and shifts with age, ^{7}.

The innermost surface of the fundus is the retina. The retina is composed of 10 microscopic layers and has the consistency of wet tissue paper. It is neural tissue, an extension of the optic nerve. Viewed through the pupil, the landmarks of the retina are the optic disc, the retinal vessels, and the macula. The point of entrance of the optic nerve into the retina is the optic disc. The optic disc is oval or circular, is pink, and has sharp margins. In the disc, a physiologic depression or cup is present centrally, with the retinal blood vessels emanating from it. The retinal tissues arise from the optic disc and line the inner surface of the vitreous chamber. The retinal vessels also enter the eye through the optic nerve, branching out through the retina and forming superior and inferior arcades. The area of the retina responsible for central vision is the macula. The rest of the retina is responsible for peripheral vision. In the center of the macula is the most sensitive area, the fovea, which is avascular and surrounded by the superior and inferior vascular arcades. Two important layers of the retina are the retinal pigment epithelium (RPE) and the sensory retina. A single layer of cells constitutes the RPE, and these cells have numerous functions, including the absorption of light. The sensory retina contains the photoreceptor cells: rods and cones.

Rods and cones are long, narrow cells shaped like rods or cones. The rods are mainly responsible for night vision or vision in low, ^{7}.

Common type of eye surgeries:

- Cataract surgery.
- YAG laser capsulotomy.
- Eye muscle (strabismus)surgery.

- Glaucoma surgeries.
- Oculoplastic surgeries.
- Entropion ectropion repair.
- Blocked tear duct surgery.
- Blepharoplasty (eye lid surgery).
- Ptosis repair.
- Orbital surgeries.
- Retinal procedures and surgeries.
- Intravenous fluorescein Angiography.
- Vitrectomy.
- Pneumatic retinopexy.
- Sclera buckling surgery.
- Laser photocoagulation for age related macular degeneration.
- Laser photocoagulation for diabetic retinopathy.
- Photodynamic therapy.
- Surgeries to correct myopia or hyperopia, ^{8}.

Types of eye surgery:

CORNEAL SURGERIES:

Among the surgical procedures used to treat diseased corneal tissue are phototherapeutic keratectomy (PTK) and keratoplasty.

PTK is a laser procedure that is used to treat diseased corneal tissue by removing or reducing corneal opacities and smoothing the anterior corneal surface to improve functional vision. PTK is a safer, more effective (when indicated) alternative than penetrating or lamellar keratoplasty. PTK is contraindicated in patients with active herpetic keratitis because the ultraviolet rays may reactivate latent virus. Common side effects are induced hyperopia and stromal haze. Complications are delayed re-epithelialization (particularly in patients with diabetes) and bacterial keratitis, ^{7}.

Postoperative management consists of oral analgesics for eye pain. Re-epithelialization is promoted with a pressure patch or therapeutic soft contact lens. Antibiotic and corticosteroid ointment and non steroid anti inflammatory drugs (NSAIDs) are prescribed postoperatively. Follow-up examinations are required for up to 2 years. Keratoplasty (ie, corneal transplantation or corneal grafting) involves replacing abnormal host tissue with a healthy donor corneal tissue. Common indications are keratoconus, corneal dystrophy, corneal scarring from herpes simplex keratitis, and chemical burns, ^{7}.

Several factors affect the success of the graft: ocular structures (eg, lids, conjunctiva), tear film function, adequacy of blinking, and viability of the donor endothelium. Tissue that is the possible source of disease transmission from donor to recipient or acuity. The nurse also initiates appropriate referral to community services when indicated, ^{7}.

Because graft failure is an ophthalmic emergency that can be associated with the two major disadvantages of RK: hyperopic drift and weakening of the structural integrity of the cornea occur at any time, the primary goal of nursing care is to teach the patient to identify signs and symptoms of graft failure. The early symptoms are blurred vision, discomfort, tearing, or redness of the eye. Decreased vision results after graft destruction. Patients must contact the ophthalmologist as soon as symptoms occur, ^{7}.

Treatment of graft rejection is prompt administration of hourly topical corticosteroids and periocular corticosteroid injections.

Systemic immunosuppressive agents may be necessary for severe, resistant case contraindication of corneal transplantation (donor characteristics) systemic disorders:

- Death from unknown cause.
- Creutzfeldt-Jacob disease.
- AIDS or high risk for HIV infection.
- Hepatitis.
- Eye infection, systemic infection, ^{7}.

Intrinsic Eye Disease:

- Retinoblastoma.
- Ocular inflammation.
- Malignant tumors of anterior segment.
- Disorders of the conjunctiva or corneal surface involving the optical zone of the cornea.

Other:

- History of eye trauma.
- Corneal scars.
- Previous surgical procedure.
- Corneal graft.
- LASIK eye surgery, ^{7}.

REFRACTIVE SURGERIES:

Refractive surgeries are cosmetic, elective procedures performed to reshape corneal tissue and correct refractive errors so that eyeglasses or contact lenses are no longer needed. Current procedures include radial keratotomy, photorefractive keratectomy (PRK), and LASIK.

Radial Keratotomy:

Radial keratotomy (RK) is indicated for low myopia (less than 8D). The procedure involves making four to eight, deep, radial incisions in the paracentral and peripheral cornea with a metal or diamond blade. The corneal contour then becomes flatter. Glare, photosensitivity, fluctuations of vision during the day, and occasional diplopia are common side effects. As the popularity of laser refractive surgery grows, RK procedures decrease, ^{7}.

Laser Vision Correction:**Photorefractive Keratectomy:**

Laser vision correction photorefractive keratectomy (PRK) is a procedure used to treat myopia and hyperopia with or without astigmatism. The 193-mm argon fluoride excimer laser is applied directly to the cornea according to

carefully calculated measurements. For myopia, the relative curvature is decreased; for hyperopia, the relative curvature is increased. A bandage contact lens is placed over the cornea to promote epithelial healing. Laser-Assisted In Situ Keratomileusis (LASIK), ^{7}.

An improvement over PRK, particularly for correcting high (severe) myopia, LASIK involves flattening the anterior curvature of the cornea by removing a stromal lamella or layer. The surgeon creates a corneal flap with a microkeratome, which is an automatic corneal shaper similar to a carpenter's plane. The surgeon retracts a flap of corneal tissue less than one third of the thickness of a human hair to access the corneal stroma and then uses the excimer laser on the stromal bed to reshape the cornea according to calculated measurements. The corneal flap, a naturally adhering bandage, is rolled back and repositioned. LASIK also appears to be an effective, predictable, stable, and safe procedure for correcting residual myopia after cataract surgery, ^{7}.

LASIK causes less postoperative discomfort, has fewer side effects, and is safer than PRK. The patient has no corneal haze and requires less postoperative care. With LASIK, however, the cornea has been invaded at a deeper level, and any complications are more significant than those that can occur with PRK, ^{7}.

GLUCOMA SURGERY:

In laser trabeculoplasty for glaucoma, laser burns are applied to the inner surface of the trabecular meshwork to open the intratrabecular spaces and widen the canal of Schlemm, thereby promoting outflow of aqueous humor and decreasing intraocular pressure (IOP). The procedure is indicated when IOP is inadequately controlled by medications; it is contraindicated when the trabecular meshwork cannot be fully visualized because of narrow angles. A serious complication of this procedure is a transient rise in IOP (usually 2 hours after surgery) that may become persistent. IOP assessment in the immediate postoperative period is essential, ^{7}.

In laser iridotomy for pupillary block glaucoma, an opening is made in the iris to eliminate the pupillary block. Laser iridotomy is contraindicated in

patients with corneal edema, which interferes with laser targeting and strength. Potential complications are burns to the cornea, lens, or retina; transient elevated IOP; closure of the iridotomy; uveitis; and blurring. Pilocarpine is usually prescribed to prevent closure of the iridotomy, ^{7}.

Filtering procedures for chronic glaucoma are used to create an opening or fistula in the trabecular meshwork to drain aqueous humor from the anterior chamber to the subconjunctival space into a bleb, thereby bypassing the usual drainage structures. This allows the aqueous humor to flow and exit by different routes (ie, absorption by the conjunctival vessels or mixing with tears).

Trabeculectomy is the standard filtering technique used to remove part of the trabecular meshwork. Complications include hemorrhage, an extremely low (hypotony) or elevated IOP, uveitis, cataracts, bleb failure, bleb leak, and endophthalmitis. Unlike other surgical procedures, the filtering procedure's goal in glaucoma treatment is to achieve incomplete healing of the surgical wound. ^{7}

The outflow of aqueous humor in a newly created drainage fistula is circumvented by the granulation of fibrovascular tissue or scar tissue formation on the surgical site. Scarring is inhibited by using antifibrosis agents such as the antimetabolites fluorouracil (Efudex) and mitomycin (Mutamycin). Like all antineoplastic agents, they require special handling procedures before, during, and after the procedure. Fluorouracil can be administered intraoperatively and by subconjunctival injection during followup; mitomycin is much more potent and is administered only intraoperatively.

Drainage implants or shunts are open tubes implanted in the anterior chamber to shunt aqueous humor to an attached plate in the conjunctival space. A fibrous capsule develops around the episcleral plate and filters the aqueous humor, thereby regulating the outflow and controlling IOP, ^{7}.

Indication of laser Trabeculoplasty.

Ocular hypertension with open angles.

Open angle glaucoma.

Pigmentary glaucoma.

Pseudoexfoliation glaucoma.

Iop elevation after intracocular injection.

Contraindication of laser Trabeculoplasty.

Active uveitis.

After recent ocular trauma.

Active iris neovascularization.

Insufficient open angle, ^{9}.

TEACHING ABOUT GLUCOMA CARE AT HOME:

For patients with severe glaucoma and impaired function, referral to services that assist the patient in performing customary activities may be needed. The loss of peripheral vision impairs mobility the most. These patients need to be referred to lowvision and rehabilitation services. Patients who meet the criteria for legal blindness should be offered referrals to agencies that assist in obtaining federal assistance.

Reassurance and emotional support are important aspects of care. A lifelong disease involving a possible loss of sight has psychological, physical, social, and vocational ramifications. The family must be integrated into the plan of care, and because the disease has a familial tendency, family members should be encouraged to undergo examinations at least once every 2 years to detect glaucoma early, ^{7}.

Cataract surgery:

Fewer than 15% of people with cataracts suffer vision problems severe enough to require surgery. In general, if reduced vision from cataract does not interfere with normal activities, surgery may not be needed. However, in deciding when cataract surgery is to be performed, the patient's functional and visual status should be a primary consideration. Surgery is performed on an outpatient basis and usually takes less than 1 hour, with the patient being discharged in 30 minutes or less afterward. Although complications from cataract surgery are uncommon, they can have significant effects on vision. Restoration of visual function through a safe and minimally invasive procedure

is the surgical goal, which is achieved with advances in topical anesthesia, smaller wound incision (ie, clear cornea incision), and lens design (ie, foldable and more accurate intraocular lens measurements), ^{7}.

Intracapsular Cataract Extraction. From the late 1800s until the 1970s, the technique of choice for cataract extraction was intracapsular cataract extraction (ICCE). The entire lens (ie, nucleus, cortex, and capsule) is removed, and fine sutures close the incision.

ICCE is infrequently performed today; however, it is indicated when there is a need to remove the entire lens, such as with a subluxated cataract (ie, partially or completely dislocated lens), ^{7}.

Extracapsular Surgery. Extracapsular cataract extraction (ECCE) achieves the intactness of smaller incisional wounds (less trauma to the eye) and maintenance of the posterior capsule of the lens, reducing postoperative complications, particularly aphakic retinal detachment and cystoid macular edema. In ECCE, a portion of the anterior capsule is removed, allowing extraction of the lens nucleus and cortex. The posterior capsule and zonular support are left intact. An intact zonular-capsular diaphragm provides the needed safe anchor for the posterior chamber intraocular lens (IOL). After the pupil has been dilated and the surgeon has made a small incision on the upper edge of the cornea, a viscoelastic substance (clear gel) is injected into the space between the cornea and the lens. This prevents the space from collapsing and facilitates insertion of the IOL, ^{7}.

Phacoemulsification. This method of extracapsular surgery uses an ultrasonic device that liquefies the nucleus and cortex, which are then suctioned out through a tube. The posterior capsule is left intact. Because the incision is even smaller than the standard ECCE, the wound heals more rapidly, and there is early stabilization of refractive error and less astigmatism. Hardware and software advances in ultrasonic technology—including new phaco needles that are used to cut and aspirate the cataract—permit safe and efficient removal of nearly all cataracts through a clear cornea incision that is as small or smaller

than required for available foldable lenses. Ultimately, advances in technology will achieve an injectable IOL, ^{7}.

Lens Replacement. After removal of the crystalline lens, the patient is referred to as aphakic (ie, without lens). The lens, which focuses light on the retina, must be replaced for the patient to see clearly. There are three lens replacement options: aphakic eyeglasses, contact lenses, and IOL implants.

Aphakic glasses are effective but heavy. Objects are magnified by 25%, making them appear closer than they actually are. Objects are magnified unequally, creating distortion. Peripheral vision is also limited, and binocular vision (ie, ability of both eyes to focus on one object and fuse the two images into one) is impossible if the other eye is phakic (normal), ^{7}.

Contact lenses provide patients with almost normal vision, but because contact lenses need to be removed occasionally, the patient also needs a pair of aphakic glasses. Contact lenses are not advised for patients who have difficulty inserting, removing, and cleaning them. Frequent handling and improper disinfection increase the risk for infection, ^{7}.

Indication of cataract surgery:

Lens induced diseases.

The need to visualize the fundus for special investigation.

Contraindication of cataract surgery:

The patient dose not desire surgery.

Glasses or visual aids provide satisfactory functional vision.

Surgery will not improve visual function.

The patient life style is not compromised.

The patient is medically unfit.

The patient has had acataract removal in one eye has not sufficiently healed to warrant the surgical removal of cataract in the second eye, ^{10}.

Teaching Patients Self-Care. To prevent accidental rubbing or poking of the eye, the patient wears a protective eye patch for 24 hours after surgery, followed by eyeglasses worn during the day and a metal shield worn at night for

1 to 4 weeks. The nurse instructs the patient and family in applying and caring for the eye shield. Sunglasses should be worn while outdoors during the day because the eye is sensitive to light, ^{7}.

Slight morning discharge, some redness, and a scratchy feeling may be expected for a few days. A clean, damp washcloth may be used to remove slight morning eye discharge. Because cataract surgery increases the risk for retinal detachment, the patient must know to notify the surgeon if new floaters (ie, dots) in vision, flashing lights, decrease in vision, pain, or increase in redness occurs.

Continuing Care. The eye patch is removed after the first follow up appointment. Patients may experience blurring of vision for several days to weeks. Sutures left in the eye alter the curvature of the cornea, resulting in temporary blurring and some astigmatism, ^{7}.

Vision gradually improves as the eye heals. Patients with IOL implants have visual improvement faster than those waiting for aphakic glasses or contact lenses. Vision is stabilized when the eye is completely healed, usually within 6 to 12 weeks, when final corrective prescription is completed. Visual correction is needed for any remaining nearsightedness or farsightedness (even in patients with IOL implants).

Study was conduct on to assessment the knowledge of post-operative self-care activities among patients under gone Cataract surgery, on Malaysia done by Mini Rani Mary Beth on may 2007.

Is the leading cause of blindness it will give an impact on physical and emotional status of an individual with cataract. World health organization also has the mission towards eliminating blindness by year 2020.

The purpose of this study is to assess the knowledge of post-operative self-care activities among patients who have under gone cataract surgery in a selected hospital Malaysia. The theoretical frame work used is dorothea orem's self care model.

Across sectional was used in this study_ non probability convenient sampling method was used to choose 90 subjects. Data was collected by face to

face interview using cataract post operative self –care knowledge questionnaire. The results were analyses used descriptive statistics with {SPSS} 16.0 version2007 and data were presented in tables and pie chart.

The result showed that most of the subjects did not restrict their diet after the cataract surgery and knew that infection injury might occur after surgery, there were 43% of the subject who have chosen the correct technique of cleaning the eye before instilling the eye drops or ointment, most of the subject knew the importance of hand hygiene before in instillation of eye drops all subjects knew the importance of regular follow up after surgery Study concludes that there is need for reinforcement to the patient through education to improve the knowledge; nurses need to be supportive and educative in caring for these patients, ^{11}.

Laser Eye Surgery:

Lasers are beams of light that turn into heat when they reach the eye. This heat can be used to treat a variety of eye problems. These include the closing of leaking blood vessels commonly caused by diabetic retinopathy and macular degeneration. Lasers help to slow or stop the growth of abnormal blood vessels (called neovascularization) that may also result from these conditions. Eye doctors often use lasers to seal torn or detached eye tissue, especially in the retina.

Your vision may be blurry after surgery, but should clear up by the next Morning. S mall spots may also appear in your vision after surgery. We Recommend that you rest for the remainder of the day following surgery, but Patient should be able to resume your normal activities by the next day depending on the nature of your condition.

To ensure the best recovery, carefully follow any instructions your doctor gives you and keep all of your follow up appointments.

Note that this heat laser is different than the laser used to improve vision (such as with LASIK eye surgery). That type of laser is more like a knife, which is used to cut or sculpt eye tissue, ^{7}.

On the day of your procedure, you will come to the Kellogg Eye Center Retina clinic. A technician will first take a few measurements of your eyes. Next s/he will instill eye drops to numb your eye and prepare you for the laser. Your eye doctor will bring you back to the laser room.

You will remain awake and comfortable during the procedure. Most patients describe the laser as having a mild “sting.” Once the procedure is over, most patients have no pain. It usually takes about 30 minutes to complete, ^{7}.

Eyelid Surgery:

The skin loses its elasticity and our muscles slacken with age. For the eyelids this results in an accumulation of loose skin which collects as folds in the upper lids and forms deepening creases in the lower lids. At the same time there is slackening of the muscle beneath the skin allowing the fat, which cushions the eyes in their sockets, to protrude forward to give the appearance of bagginess. In some families there is an inherited tendency for bags to develop during early adulthood before any skin changes, ^{12}.

The problem often seems worse in the morning particularly with prolonged stress and lack of sleep. Fluid that is normally distributed throughout the upright body during the day, tends at night to settle in areas where the skin is loose, such as the eyelids. Drooping of the eyelids is also an effect of the ageing process and aggravates the accumulation of the skin in the upper eyelids. Sometimes so much skin accumulates in the upper lids that it hangs over the eyelashes to obstruct vision, ^{12}.

Bags are caused by an accumulation of fat and with age the skin stretches and the muscles around the eye weaken.

An eyelid reduction (blepharoplasty) removes the surplus skin and protruding fat to produce a more alert appearance and reduces the morning swelling. Sometimes it is only necessary to reduce the skin, sometimes the skin and the fat and sometimes just the fat. If only the fat is being removed from the lower eyelids, then this can be removed from the inside of the lower eyelid avoiding an external excision (transconjunctival blepharoplasty), ^{12}.

The Operation:

Both upper and lower eyelid surgery can be carried out under local anaesthesia or under general anaesthesia in a hospital.

In a typical procedure the surgeon makes incisions following the natural lines of your eyelids; in the creases of upper lids and just below the lashes in the lower lids. Through this incision surplus fat is removed and excess skin and sagging muscle removed.

If you have a pocket of fat beneath your lower eyelids without surplus skin then the fat may be removed through the inside of the lower eyelid.

The resurfacing laser can be used at the same time as a transconjunctival blepharoplasty to tighten the external skin and reduce wrinkles, although there is no external scar there is residual redness in the skin which will last a few months, ^{12}.

Following surgery it would be best to keep your head elevated for a few days to reduce swelling. Cold compresses can also help. The surgeon will normally apply some suture strips or steri-strips as support to the eyelids after surgery and if these become crusted they can be replaced. Cleaning the eyes with water is useful and the surgeon may advise the use of eye drops or ointment, ^{12}.

The sutures are usually removed after 3 to 5 days and soon after you will be able to use make-up. Sometimes you will be advised to use the suture strips or steri-strips as support to the lower eyelids for a week or so.

The closure of the eyes appears tight after surgery because of the swelling and because skin has been removed. If closure is not complete at night the patient should apply some eye ointment before going to sleep. This sensation will settle as the swelling goes down, ^{12}.

The eyes appear watery after surgery, partly because of swelling under the conjunctiva (chemosis) and partly because the tear ducts are swollen and do not drain as readily. This will last a few weeks. Although there is bruising it can

quite readily be disguised with make-up and dark glasses. The scars will be pink for a few months, but eventually they become almost invisible, ^{12}.

Eye Muscle Surgery:

Strabismus surgery consists of 2 general types of operations. One is a weakening procedure of the muscle which is called a recession, and the other is a strengthening procedure which is called a resection. The technique for doing these operations is as follows:

To expose the eye muscle, an incision is made in the conjunctiva, which is a thin, whitish skin over the surface of the eyeball. The conjunctiva is that tissue which becomes red and blood shot when the eyes get irritated. The eye muscles are located underneath this conjunctival tissue. Therefore, incisions through the skin of the face or the eyelids are not necessary to reach the eye muscles, ^{13}.

A common misconception is that the eye is removed from its bony cradle called the orbit and placed on the face during the operation. This is completely untrue. There are far too many attachments and tissue holding the eye in place to remove it from the socket, and there is no need to do this to access the eye muscles. The muscles are located approximately $\frac{1}{4}$ of an inch from where the clear dome of the eye (called the cornea), meets the white tissue of the eye (called the conjunctiva). Therefore, it is not difficult to get to the eye muscles. 3 If a recession is planned for a particular muscle, a suture is placed in the tendinous portion of the muscle and the muscle is removed from its attachment to the eye. It is then recessed or moved backward $\frac{1}{4}$ to $\frac{1}{2}$ an inch and reattached to the eye. This movement from its original position to a position further back on the eye effectively relaxes the pull of the muscle and allows the eye to come into a straighter position, ^{13}.

Before and after surgery care:

After the muscle is sewn back to the eye, the conjunctiva is repositioned to its original place with stitches that are later absorbed. There are no stitches that have to be removed at a later date.

In a resection or strengthening procedure, a ¼ to ½ inch piece of muscle is removed and the muscle is reattached at its original location, ^{13}.

Muscle resection:

The amount that the muscles are moved is determined prior to the surgery. The technique takes a great deal of skill to move the muscles correctly and is best performed by someone with extensive experience. The time estimate for the surgery varies but usually runs around 20 minutes per muscle. This is actual 4 operating time; it does not include the time necessary to put the patient to sleep or wake him/her up, ^{13}.

Postoperative period:

Instructions will be given to you at the time of surgery with regard to how to take care of the eyes in the postoperative period. Eyes vary in appearance and comfort depending on the type of operation and the previous condition of the eyes prior to surgery. You can expect the eyes to be somewhat sore and irritated for at least several weeks after the operation. The conjunctiva will be red and swollen, and it may feel like you have sand or other foreign objects in the eye.

Sometimes, the upper and/or lower eyelids will also accumulate fluid and swell. This usually resolves within several days. If both eyes are operated on, neither eye will be patched. If however, just one eye is operated on or if the surgery is done with adjustable sutures, a patch may be used to increase comfort.

It is recommended that most people refrain from employment or school for up to one week following the surgery. While you may be able to resume your normal activities within a day or two, it is better to anticipate a longer recovery period in case it is needed. Specific details for how to take care of the eyes are given on the postoperative eye care information sheet, ^{13}.

Activities:

The 2 basic principles that should guide activities for the first week after surgery are:

1. Nothing gets in the eye.
2. Avoid any possible injury to the eye.

If you apply these 2 rules to the planned activities and neither is an issue, then the activity is OK. Otherwise, Don't the treatment involves surgery and the main aim of surgery is to seal holes in the retina and reattach the retina. The two methods used in retinal detachment surgery are vitrectomy or scleral buckle or a combination of the two.

Vitrectomy:

A vitrectomy involves removing the vitreous gel (that has caused the retinal tear) from inside the eye. Then to seal the tear the surgeon uses either laser or a freezing probe to make a scar around the tear. A gas or silicone oil bubble is then inserted into the eye to support the retina while it heals. A gas bubble slowly absorbs over 2 to 8 weeks but a silicone oil bubble will need a small operation to remove it at a later date. Your vision will be very blurred initially due to the presence of the gas or oil bubble.

To use the gas or oil bubble to its best effect your surgeon may ask you to posture and this will be covered in a following section, ^{7}.

Scleral buckle:

The retinal holes can also be sealed and supported by stitching a piece of silicone rubber or sponge to the outside of the eye. This acts as a 'splint' and produces a dent within the eye and pushes the outer wall of the eye up to the hole in the retina. The buckle is not visible on the outside of the eye and usually remains in place permanently, ^{7}.

If patient have been given any posturing instructions then these should be followed. You can bath or shower, but avoid splashing water near the eye. Generally you may do anything with which you are comfortable. Most people choose not to drive over the first few weeks.

Patient must not fly until the gas bubble has gone and you must inform the anaesthetist if you require a general anaesthetic for any operation while there is gas in your eye. surgery as any stitches gradually dissolve. The redness, eyelid swelling and watering will gradually improve, ^{7}.

Vision in the operated eye will usually be very blurred for the first few weeks but will slowly improve. The final visual result may take several weeks or months and you may require new glasses. Your surgeon will discuss with you the expected final outcome of your vision.

Most people will need at least two weeks off work after surgery. Sometimes this may be longer. While there is gas in the eye the vision is quite poor and the ability to judge distance is affected. The amount of time off work will depend on the kind of work you do and the kind of surgery that is done. This will need to be discussed with your surgeon, ^{7}.

Common complication post eye surgery:

Bleeding, infection, inadvertent injury to the operative site, increase intraocular pressure, pain from the affected eye, flashes of light of light, floaters or the sensation of curtain being drawn over the eye (indicators of retinal detachment) and cloudy appearance to the cornea (corneal edema), ^{14}.

Chapter Three

Methodology

3. Methodology

3.1. Study design:

This was Descriptive, hospital-based study, done to determine the effectiveness of discharge instruction among patient post eye surgery In Elmak Nimer university hospital.

3.2. Study duration:

This study was done during the period which extended from August to December 2016.

3.3. Study area:

This study was done in Shendi city, river Nile state, Sudan, which located in the north of Khartoum about 176Km, its population about 80000 persons (WHO 2003) most of them are farmers. Shendi city now is one of the rich cities in health care facilities; it contains three main hospitals, Elmak Nimer University hospital. Shendi teaching hospital and military hospital, and also there is hoshbannaga hospital and elmiseiktab hospital.

3.4. Setting:

The is study was carried out at Elmak Nimer University hospital. This hospital was established since 2002. And it's the second university hospital in Sudan. The hospital provides most types of medical services (medicine, surgery, Obs/Gyne, and pediatric). Beside these there are cardiac, renal, and oncology centers). In the hospital there is a big theater complex in which most type general operations can be done (caesarean, GIT surgery and orthopedic surgery, eye surgery ...etc.). There was 32 eye operation done per month, 8 operation done weekly, there was an outpatient clinic in the hospital established science 2009.

The hospital system frame work, for nursing staff, morning shift for 8 hours in duration, and afternoon, evening shift for 16 hours, and is the distribution of nursing staff according to need of hospital departments, nurses they will rotated frequently without fixed intervals according to the need.

Intensive care unit is important part of the hospital and contains 9 beds to involved critical medicine case and the nurse who work in it very skillful.

Cardiac care unit is another important part and it divided into three parts.

3.5. Study population:

The study involves all age groups of eye surgery patient in Elmak Nimer hospital. During study period.

3.6. Sampling & Sample size:

The study group was chosen using convenience sampling from all patients whom undergoing eye surgery. They were fourty surgery patients are included in this study.

3.7. Data collection tools:

One tool was used in this research questionnaire. Standard closed ended questioner was been developed by researcher; and it can fill by face to face, based on the Literature review composed from two part.

Part one: demographic data (age, residence, education level, occupation).

Part two: regarding knowledge of patient, include(discharge instruction post eye surgery).

3.8. Scoring system:

Scoring system was established by researcher which the data was distributed three categories to determine the effectiveness of discharge instructions among patient post eye surgery, if the patients respond to (4, 3) choice it consider good knowledge, (2) choice consider fair knowledge, (1, 0) choice consider poor knowledge.

3.9. Data collection technique:

The data was collected during five weeks twice per week, the filled questioner by the researcher, no one refuse to participate and there was no missing.

3.10. Data analysis:

The data was coded and analyzed by SPSS program version (22) by using statistical measure: percentage, frequency, standard deviation and chi square test and result presented in forms of tables and figures.

3.11. Ethical consideration:

The proposal was approved from the scientific committee board, and then permission was taken from general hospital manger and the head nurse to conduct the research.

The purpose of the study has been explained verbally clearly to participant and their information should be used for the purpose of study only and there have chance to continuous, or stopped at any time they wish.

Chapter Four

Results

4. Results

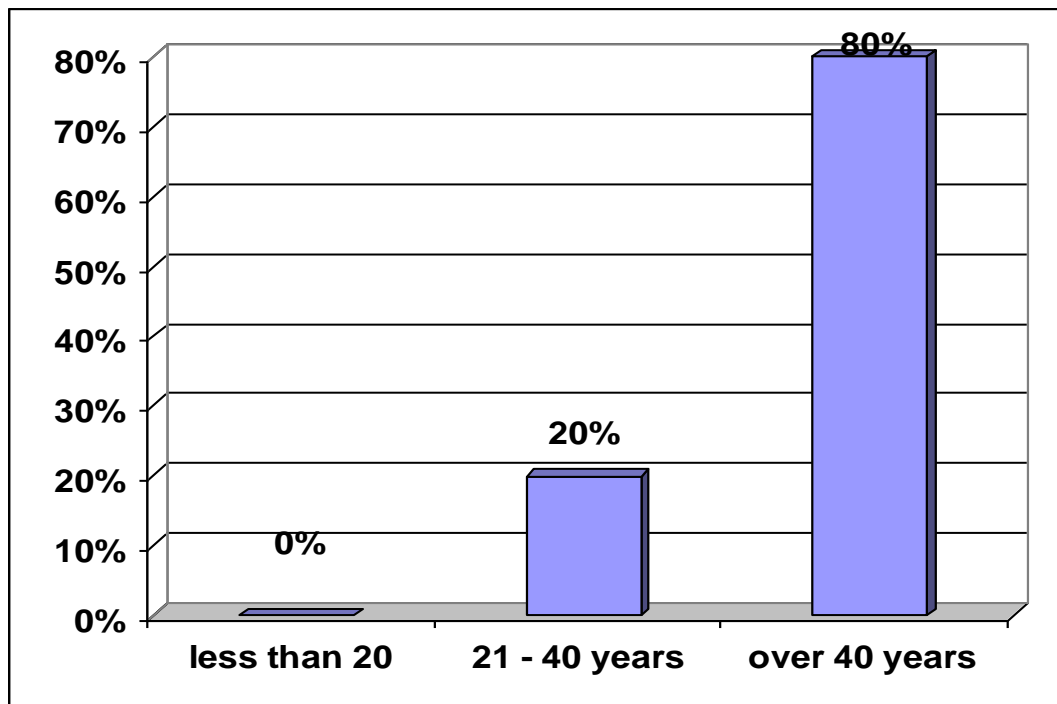


Figure {1}: Distribution of study group according to their age:

Figure above showed that the number of patient from 21-40 years(20%) and over 40 years of patient (80%).

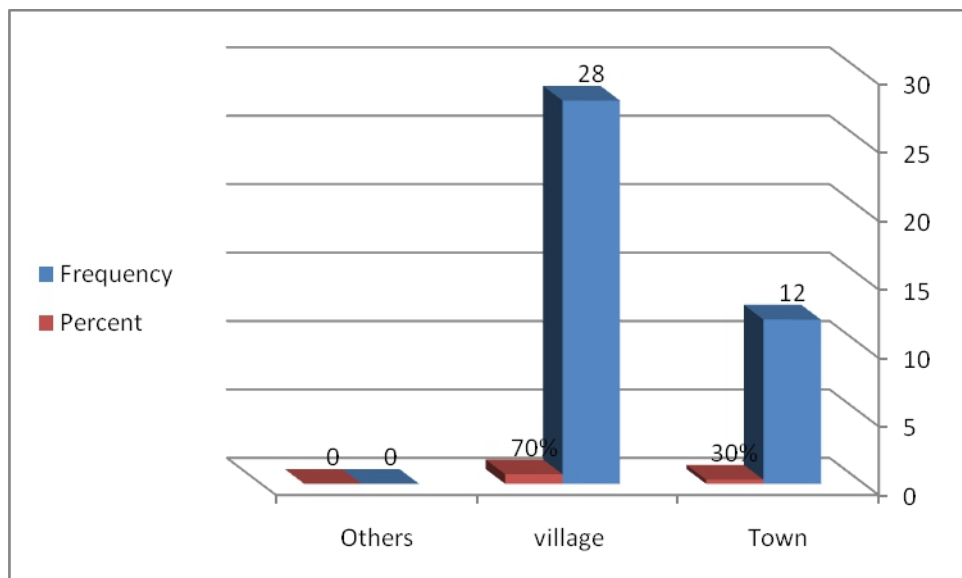


Figure { 2}: Distribution of study group according to their residence:

Figure above showed that about (30%) of patient living in town and (70%) in the village.

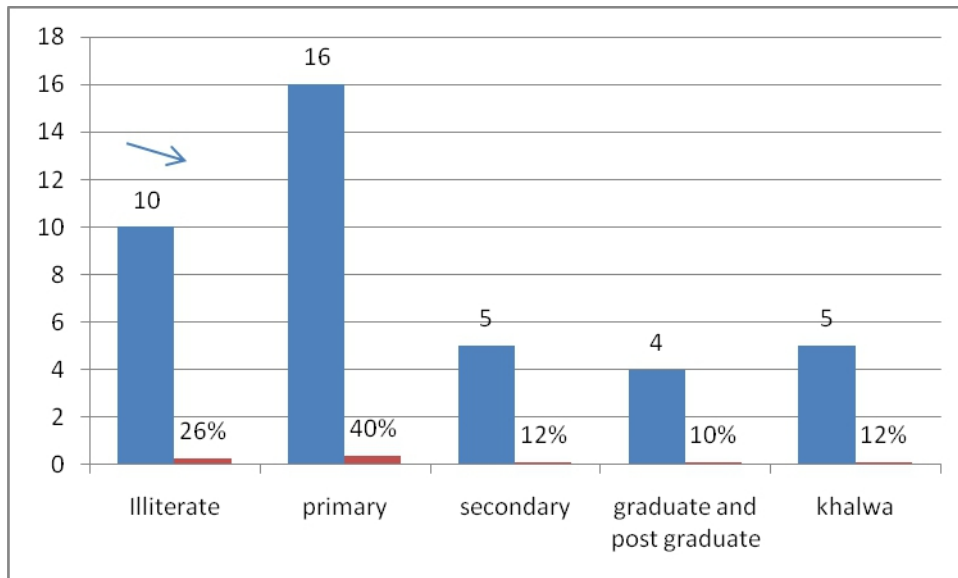


Figure { 3}:Distribution of patient according to their education level:

Figure above showed that about (13%) of patient had khalwa education, (25%) illiterate, (40%) had primary education,(12%)had secondary education and (10%)of patient had graduate education

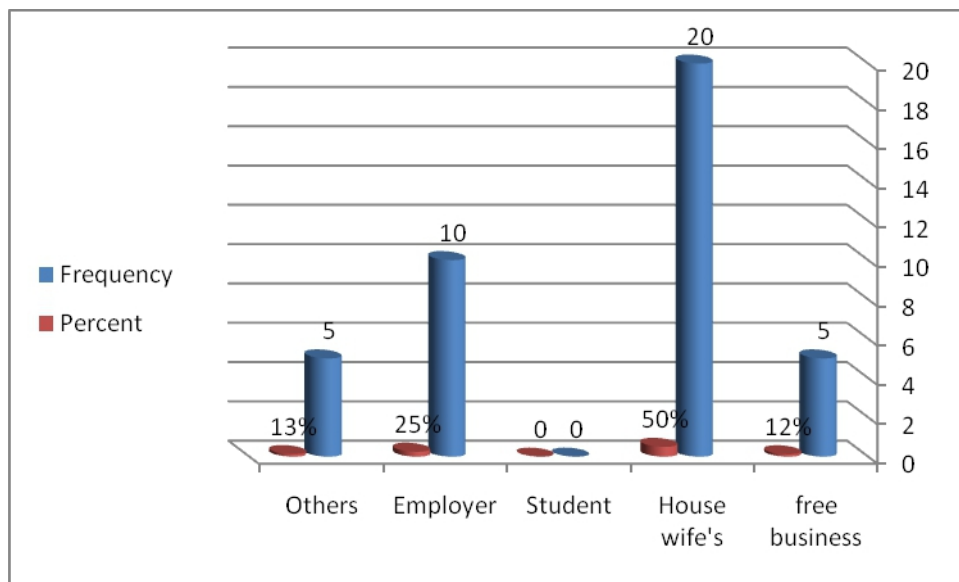


Figure { 4}:Distribution of study group according to their occupation:

Figure above showed that about (12%) of patient free business, (50%) house wife, (25%) employer and (13%) of patient had other occupation.

Table{ 5}: Distribution of patient to their knowledge regarding medication:

Items	Frequency	Percent
Clear	36	90%
not clear	1	3%
prior experience	3	7%
Total	40	100%

The table above showed that more of the patient (90%) receive clear information about medication while (3%) not clear and (7%) have prior experience

Table{ 6}: Distribution of patient according to their knowledge regarding source of knowledge

Items	Frequency	Percent
Doctor	29	72%
Nurse	8	20%
mass media	3	8%
Total	40	100%

Above table showed that about (70%) of patient get the knowledge from the doctor while (20%)from the nurse and (8%) get the knowledge from mass media

Table { 7}: Distribution of patient according to their knowledge regarding uses of medication:

Items	Frequency	Percent
Good	17	42%
Fair	12	30%
Poor	11	28%
Total	40	100%

Above table showed that more of patient (42%) had good knowledge about uses of medication while (30%) had fair knowledge and (28%) of patient had poor knowledge about uses of medication.

Table {8}: Distribution of patient according to their knowledge regarding eye glass:

Items	Frequency	Percent
Good	30	75%
Fair	7	17%
Poor	3	8%
Total	40	100%

Table above showed more of them (75%) had good knowledge about eye glass while (17%)had fair knowledge and (8%)had poor knowledge about eye glass.

Table { 9}: Distribution of patient according to their knowledge regarding the time of uses of eye glass:

Items	Frequency	Percent
Once	2	5%
Twice	11	28%
Always	27	67%
Not wear	0	0
Total	40	100%

The table above showed about (5%) of patient wear the glass once, (28%) twice, (67%) always and no one not wear the eye glass

Table { 10}:Distribution of patient according to their knowledge regarding complication post eye surgery:

Items	Frequency	Percent
Bleeding	0	0%
Redness	19	47%
Edema	2	5%
feeling of foreign body	7	18%
I don't know	12	30%
Total	40	100%

The table above showed that about (47%) of patient said the complication post eye surgery is redness, (30%) said un known, (18%) said feeling of foreign body,(5%)said edema and (0%) of patient said the complication post eye surgery is bleeding.

Table{ 11}:Distribution of patient according to their knowledge regarding care of complication:

Items	Frequency	Percent
Go to doctor	34	85%
use prescribe medication	6	15%
Total	40	100%

Table above showed that majority (85%) of them go to the doctor and (15%) use prescribe medication.

Table{ 12}:Distribution of patient according to their knowledge about the Duration of fallow up:

Items	Frequency	Percent
Two week	22	55%
Four week	17	42%
Six week	1	3%
Total	40	100%

Above table showed that more of them (55%) the duration of follow up after tow weeks,(42%) after four week and (3%) of patient the duration of follow up after six weeks.

Table { 13}:Distribution of patient according to their knowledge about eye cleans:

Items	Frequency	Percent
Clear	24	60%
not clear	1	3%
little information	6	15%
not explain	7	17%
prior experience	2	5%
Total	40	100%

Above table showed that (60%) have clear explanation about eye cleans, (3%) not clear, (15%) have little information, (17%) not explain and (5%) have prior experience.

Table {14 } :Distribution of patient according to their knowledge regarding exposure to hazard factors.

Items	Frequency	Percent
Good	33	82%
Fair	6	15%
Poor	1	3%
Total	40	100%

Above table showed that more of patient (82%) had good knowledge about hazard factors, (15%) had fair knowledge and (3%) had poor knowledge about hazard factors.

Table { 15}:Distribution of patient according to their knowledge regarding explanation the hazard of the exposure:

Items	Frequency	Percent
Explain	23	57%
not explain	16	40%
little information	1	3%
Total	40	100%

Above table showed that more of the patient (57%) explain the hazard of exposure while (40%) not explain and (3%) had little information.

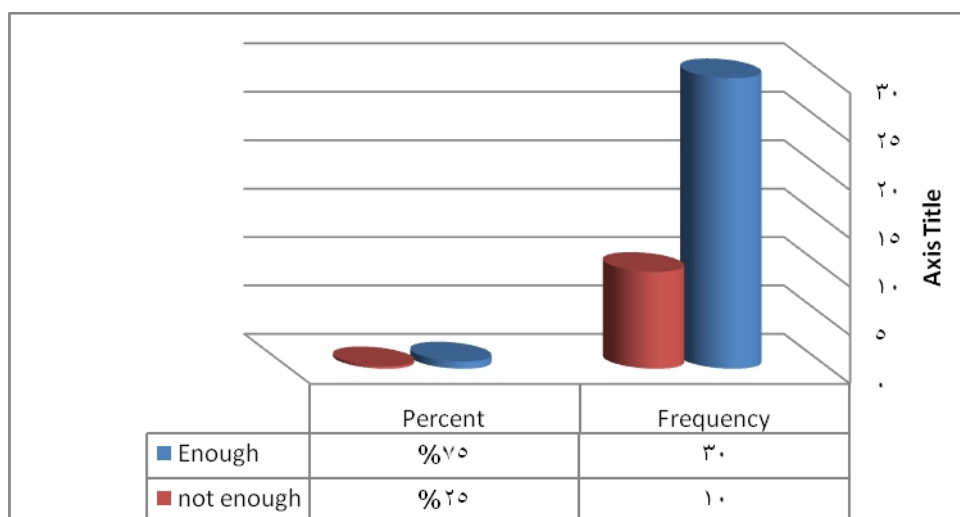


Figure { 5}: Distribution of patient according to their knowledge regarding information:

Above figure showed that more of patient (75%) said enough information and (25%) said this information was not enough.

1. Cross tabulation between age and medication.

Item			Age		Total	P value
			21-40	above 40		
	Good	Count	4	13	17	.566
		% of Total	10.0%	32.5%	42.5%	
	Fair	Count	3	9	12	.526
		% of Total	7.5%	22.5%	30.0%	
	Poor	Count	1	10	11	.393
		% of Total	2.5%	25.0%	27.5%	
Total		Count	8	32	40	
		% of Total	20.0%	80.0%	100.0%	

P value >0.05 no significant

2- Cross tabulation between residence and medication:

Item		Residence			Total	P value
		Town	Village			
	Good	Count	8	9	17	.079
		% of Total	20.0%	22.5%	42.5%	
	Fair	Count	1	11	12	.061
		% of Total	2.5%	27.5%	30.0%	
	Poor	Count	3	8	11	.185
		% of Total	7.5%	20.0%	27.5%	
Total		Count	12	28	40	
		% of Total	30.0%	70.0%	100.0%	

P value >0.05 no significant.

3- Cross tabulation between educational level and medication:

Item		Education level					Total	P value
		Illiterate	primary	secondary	graduate and post graduate	khalwa		
Good	Count	3	5	3	3	3	17	.489
	% of Total	7.5%	12.5%	7.5%	7.5%	7.5%	42.5%	
Fair	Count	2	7	1	1	1	12	.434
	% of Total	5.0%	17.5%	2.5%	2.5%	2.5%	30.0%	
Poor	Count	5	4	1	0	1	11	.053
	% of Total	12.5%	10.0%	2.5%	0.0%	2.5%	27.5%	
Total	Count	10	16	5	4	5	40	
	% of Total	25.0%	40.0%	12.5%	10.0%	12.5%	100.0%	

P value >0.05 no significant

4- Cross tabulation between age and eye glass:

Item		Age		Total	P value
		21-40	above 40		
Good	Count	4	26	30	.178
	% of Total	10.0%	65.0%	75.0%	
Fair	Count	3	4	7	.213
	% of Total	7.5%	10.0%	17.5%	
Poor	Count	1	2	3	.123
	% of Total	2.5%	5.0%	7.5%	
Total	Count	8	32	40	
	% of Total	20.0%	80.0%	100.0%	

P value >0.05 no significant

5- Cross tabulation between eye glass and residence.

Item		Residence		Total	P value
		Town	Village		
Good	Count	8	22	30	.696
	% of Total	20.0%	55.0%	75.0%	
Fair	Count	3	4	7	.707
	% of Total	7.5%	10.0%	17.5%	
Poor	Count	1	2	3	.537
	% of Total	2.5%	5.0%	7.5%	
Total	Count	12	28	40	
	% of Total	30.0%	70.0%	100.0 %	

P value>0.05 no significant

6- Cross tabulation between eye glass and educational level:

Item		Education level					Total	P value
		Illiterate	primary	secondary	graduate and post graduate	khalwa		
Good	Count	10	12	3	2	3	30	.026
	% of Total	25.0%	30.0%	7.5%	5.0%	7.5%	75.0%	
Fair	Count	0	4	0	2	1	7	.026
	% of Total	0.0%	10.0%	0.0%	5.0%	2.5%	17.5%	
Poor	Count	0	0	2	0	1	3	.028
	% of Total	0.0%	0.0%	5.0%	0.0%	2.5%	7.5%	
Total	Count	10	16	5	4	5	40	
	% of Total	25.0%	40.0%	12.5%	10.0%	12.5%	100.0%	

P value>0.05 no significant

7- Cross tabulation between age and exposure to hazard factors:

Item		Age		Total	P value
		21-40	Above 40		
Good	Count	5	28	33	.076
	% of Total	12.5%	70.0%	82.5%	
Fair	Count	2	4	6	.115
	% of Total	5.0%	10.0%	15.0%	
Poor	Count	1	0	1	.041
	% of Total	2.5%	0.0%	2.5%	
Total	Count	8	32	40	
	% of Total	20.0%	80.0%	100.0%	

P value >0.05 no significant.

8- Cross tabulation between residence and exposure to hazard factors.

Item		Residence		Total	P value
		Town	Village		
Good	Count	8	25	33	.091
	% of Total	20.0%	62.5%	82.5%	
Fair	Count	4	2	6	.097
	% of Total	10.0%	5.0%	15.0%	
Poor	Count	0	1	1	.234
	% of Total	0.0%	2.5%	2.5%	
Total	Count	12	28	40	
	% of Total	30.0%	70.0%	100.0%	

P value >0.05 no significant.

9- Cross tabulation between educational level and exposure to hazard factors.

Item		Education level					Total	P value
		Illiterate	primary	secondary	Graduate and post graduate	khalwa		
Good	Count	10	15	2	2	4	33	.030
	% of Total	25.0%	37.5%	5.0%	5.0%	10.0%	82.5%	
Fair	Count	0	1	2	2	1	6	.075
	% of Total	0.0%	2.5%	5.0%	5.0%	2.5%	15.0%	
Poor	Count	0	0	1	0	0	1	.053
	% of Total	0.0%	0.0%	2.5%	0.0%	0.0%	2.5%	
Total	Count	10	16	5	4	5	40	
	% of Total	25.0%	40.0%	12.5%	10.0%	12.5%	100.0%	

P value >0.05 no significant

Chapter Five

Discussion

Conclusion

Recommendations

5.1 Discussion

Education of patient post eye surgery no need long time and very important because when good health education is delivered, it will enable the patient to take care of themselves and provide excellent and high quality of care.

Above two third of patient over 40years (80%), living in village (70%), less than half of them had primary education (40%), also half of patients house wife (50%) also majority (90%) of patients receive clear explanation about the medication, also tow third of them get the knowledge from the doctor (72%). The following results indicated that the study group haven't any previous experience and didn't depended on other, also nurses had limited role in patient education, and these negative finding related to their role because most of postoperative care is patient dependent.

Less than half of them had good knowledge about medication, route of administration and drug instruction (42%), about (30%) had fair knowledge and quarter of them (28%) had poor knowledge while more of them had good knowledge about the eye glass (75%) while (17%) had fair knowledge and (8%) had poor knowledge about eye glass.

More than half of patients wear the glass all the day (67%), (28%) twice per day, once per day (5%), and no one not wear the glass this finding in agreement with the study ('Do not rub the operated side and must wear eye.

Shield while sleeping and wear sun glasses when going out).^{11} regarding complication after surgery less than half (47%) said redness, (18%) said feeling of foreign body, (5%) said edema, (30%) said un known and no one said bleeding, this finding disagree related to the literature review the common complication is bleeding but if this complication occur more of patient (85%) go to the doctor also about the duration of follow up half of them after tow week (55%) while more of half receive clear explanation about eye cleans (60%), regarding the exposure to the hazard factor more of patient not exposed (82%), also more than half of them (57%) have receive explanation of hazard of this exposure.

Most of patient see this information enough (75%) and quarter of them (25%) see not enough.

There was no statistical significant relationship between study group age and their attitude regarding medication administration ($p=566$), in spite of this no complication occur post-surgery, also there was no statistical significant relationship between the residence and medication ($p=.79$), as indicate on that all patient un known about the administration of eye drop ,while there was no statistical significant relationship between the educational level and medication ($p=.489$) this is mean that all patients educated and non educated un known about the administration of eye drop, also there was no statistical significant relationship between the age and eye glass as indicate on that all study group age not expose to light source ($P=.178$), there was no statistical significant between the incidence and eye glass ($p=.707$),but there was no statistical significant between the educational level and eye glass ($p=.26$), also there was no statistical significant between the study group age and their attitude regarding barrier post eye surgery ($p=.76$) this is finding correlated with all the subjects knew that they are not supposed to bend forward while washing hair and face after surgery (previous study),also there was no statistical significant between the residence and hazard factors post eye surgery ($p=.91$),finally there was no statistical significant relationship between the educational level and hazard factors post eye surgery as indicate on that all study group not expose to dust and bending ($p=.053$).

5.2 Conclusion

Based on the finding of present study, it concluded that:

Most of Patient had poor knowledge about the rout of administration of eye drop, but more of them had good knowledge About eye glass (not expose to source of light), regarding the eye cleans and complication after surgery more of patient had poor knowledge about the complication after surgery and eye cleans, in spite of this the patient known about the hazard factor post eye surgery and not known about the hazard of exposure to hazard factors.

5.3 Recommendations

- The administration of the hospital should arrange training courses for the nurses.
- Encourage the nurses to provide good advises to the patients and also provide written instructions. For example books and leaflet.
- Further study could be conducted among larger number of patients to generalize the findings. The study could be conducted to determine the effectiveness of discharge instruction post eye surgery because this instructions are very important to prevent complication post eye surgery.

Chapter Six

References

Appendix

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بسم الله الرحمن الرحيم

Shendi university

Faculty of graduate studies and scientific research

Medical surgical nursing

*Questionnaire about effectiveness of discharge instruction among
patient post eye surgery*

1. Age:

Less than 20 () 21-40 () above 40 ()

2. Residence

Town () village () others ()

3. Education level

Illiterate () primary () secondary ()
graduate and post graduate () khalwa ()

4. Occupation:

Student () employer () farmer () house wives ()
free business () others ()

5. If their explain for your medication can:

Clear () not clear () little information () not explain ()
prior experience ()

6. From where you have a knowledge:

Doctor () nurse () mass media () other person ()

7. Are you know that about your medication:

Medication	Known	Little information	Un known
Type			
Route			
Instruction			

8. What you known about eye glass:

Source of exposure	Exposed	Some times	Not exposed
Sun light			
Light			
TV			

9. How many wear the eye glass in the day:

Once () twice() always () not wear ()

10. What is complication occur after surgery:

Bleeding () redness oedema () feeling of foreign body ()

11.If the complication occur what your doing:

Go to doctor () use prescribe medication () not known ()

12.Duration of fallow up after

Two week () four week () six week () not known ()

13.The explain of eye cleans are

Clear () not clear () little information () not explain ()
prior experience ()

14. Are you exposed to:

	Exposed	Sometimes	Un exposed
Light			
Bending			
Dust			

15. Are you explain the hazard of this exposure:

Explain () not explain () little information ()

16.If this information are:

Enough () not enough ()