SURVEY ON THE PREVALENCE OF COMMON EYE DISEASE AMONG ADULT POPULATION IN DHAKA CITY.

[A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF BACHELOR OF PHARMACY]

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APPROVAL

It is a pleasure to certify that, the Project work, "The prevalence of common eye disease among adult population in Dhaka city". Submitted by ID: 151-29-744 to the Department of Pharmacy, Daffodil International University, is the outcome of the investigations which was conducted under my supervision. The study has been prepared under my guidance, approved as its style and contents and has been accepted as suitable in partial fulfillment of the requirement for the degree of Bachelor of Pharmacy (Honors). No part of this Project Report has been or is being submitted elsewhere for award of any Degree or Diploma.

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DECLARATION

I hereby declare that, this project report is done by me under the supervision of **Sharifa Sultana**, Assistant Professor Department of Pharmacy, Daffodil International University, positively fulfillment of the requirements for the degree of Bachelor of Pharmacy.

I am revealing that this Project is my original work. I also announce that neither this project nor any part there of has been submitted elsewhere for the award of Bachelor or any degree.

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ACKNOWLEDGEMENT

All praises are due to the almighty Allah, whose kindness kept me alive and enable me to complete the project for the fulfillment of the degree of Bachelor of Pharmacy (Honors).

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My special thanks to **A.S.M Abdur Rouf**, Department of pharmacy, Daffodil International University, Batch: 13th and all of my friends and to all well-wisher for their never ending assistance in my project and for making the work such an enjoyable and nurturing experience. I would also like extend my thanks to the office staff of Department of Pharmacy, Daffodil International University.

DEDICATED TO MY BELOVED PARENTS

Abstract

Eye disease is very common in our country. Cataract, low vision, acute macular degeneration, Glaucoma are the common Eye disease. Absence of awareness about the eye disease and unsuitable treatment services are the main cause of poor eye condition. Objective of this project is to determine the prevalence of common eye disease among adult population in Dhaka city. This survey was conducted by the total number of 200 respondent. Highest population age limit is 20-30year was found. Studies show that excess body weight influences a person to various systemic diseases that can cause vision loss. According to the survey total number of respondents 44% found with eye disorder and 56% respondents had not any eye problem. In those 44% respondents 5% left eye affected, 7% right eye affected and 32% both eye affected found from this survey. This study showed that 4% respondent had blindness/partial blindness, 6% respondent had cataract, 16% respondent had blurred vision, 1% respondent had glaucoma and 17% respondent had other eye disorder. From this study found that 15% of the respondent were specific reason for their eye problem. From this study found that 8% of the respondent were not any specific reason for their eye problem. This study shows that 21% of the populations were don't know about specific reason for their eye problem. Knowledge of common eye diseases is generally absent. Studies show that 28% respondents use glass, 5% respondents use lenses and 11% from the total respondents do not use either glass or lenses. Studies show that long time using screen can cause eye problem. According to the survey 5% respondents found with diabetes 28% respondents were not suffering from diabetes and 11% respondents don't know they have diabetes or not. It was found from study that 57% of the respondent were knowledge about glaucoma. Research enlighten us that 63% of the respondent were not any knowledge glaucoma. According to the survey 18% respondents use any treatment or operation to improve their eye condition found from this survey. It is a matter of concern that 26% respondents don't use any treatment or operation to improve their eye condition. Progress of eye disease rate was 20% found from this survey. This study showed that 9% respondents was fully recover and 35% respondents was not fully recover. Recovery rate was low. The government is in work to succeed goals set under Vision 2020.Good sight vision is essential to improve individual overall health and well-being. We should take necessary steps against these problems and create Eye diseases awareness among the people of Bangladesh.

Contents

CHAPTER 1

INTRODUCTION

1.Introduction

Eye disease is one of the most problem in our country. Absence of awareness about the eye disease and insufficient treatment facilities are the main reason for eye disorder. There are many different type of eye disorder. Objective of this project is to determine the frequency of common eye disease among adult population in Dhaka city.

Eye Disease:

There are many different situations that affect the eye. Some are minor and determined by themselves rapidly (e.g. viral conjunctivitis), but others could be thoughtful and lead to serious visual impairment (e.g. glaucoma).

Vision loss or impairment can be quick or gradual, and some serious eye problems can lead to complete loss of vision. A reduction in vision is usually one of the first giving symptoms and should always be examined.

Blindness can be the outcome of serious untreated eye problems. That said, 80% of blindness is unnecessary, which is why initial finding and treatment of eye problems are so essential.

Many eye diseases have no primary symptoms, and deviations in vision only occur when the disease is advanced, making treatment more harder.

The most common signs is redness of the eyeball – a result of swollen or expanded blood vessels. This creates the eye look bloodshot, and can be produced by allergies (allergic conjunctivitis) . A painful red eye is a regarding matter and should be inspected at all times.

Genetic inheritance can proliferation your risk for definite eye problems (e.g. glaucoma and color blindness).

1.1.Eye disorder:

1.1:Macular Degeneration :
Macular degeneration is the carnal trouble of the center of the retina called the macula.it is a state that affects the midpoint of the retina, called the macula.
Type :2type
A. Dry macular degeneration
B. Wet macular degeneration

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Symptoms :
- Blurred vision
- A dark or blank area in the central area of vision
- Alteration of straight lines
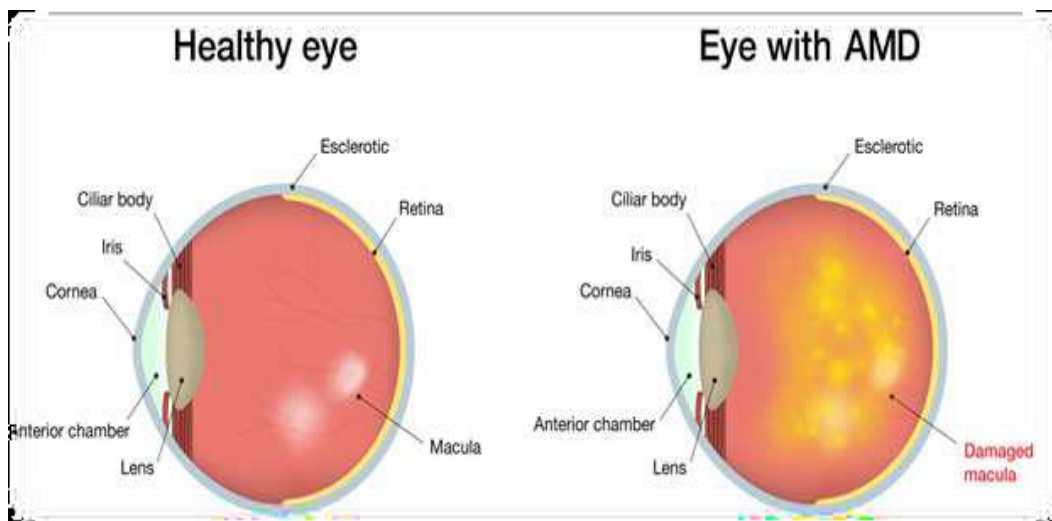
1.2.Cataract:
Cataracts are a worsening form of eye disease in which the lens slowly becomes opaque and vision mists over.

Collective symptoms of cataracts include:
- Cloudy or blurred vision
- Sensitivity to light and glare
- Regular prescription changes for glasses or contact lenses
- Poor night vision
- Color vision variations and darkening
- Twice vision in a single eye

Normal — Eye with cataract

Normal lens — Clouded lens

MAYO ©2014
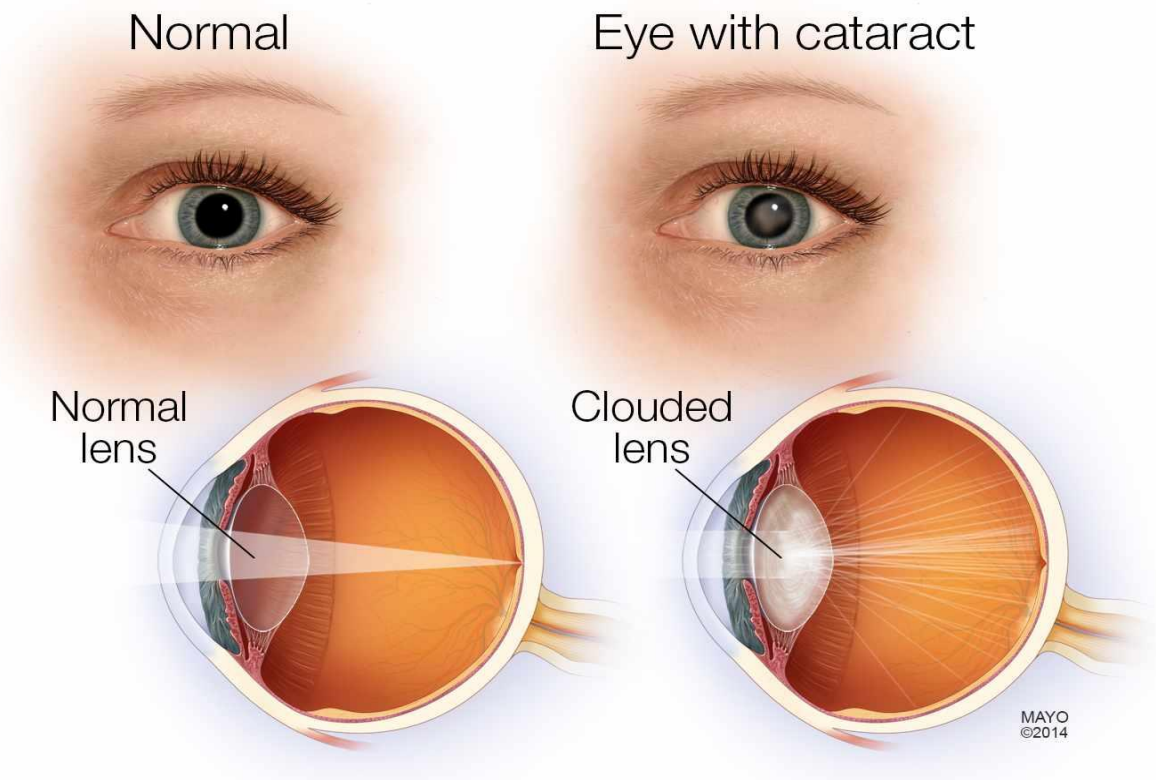
1.3. Acute Red Eye

Although many of us will grow acute red eye in our lifespan, the particular etiologic cause may be hard to define. Although the most likely finding of the red eye is acute conjunctivitis, the original cause may be elusive. A thorough history and check of the face, lids, conjunctiva, and cornea will offer a presumptive diagnosis guiding early treatment.

1.4. Graves Disease

Graves Disease is characterized by an optical expansion of the eye muscles which excites other fibroblasts.

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1.5. Glaucoma

Glaucoma happens when a build-up of fluid produces pressure in the eye, which then injuries the optic nerve. The optic nerve is accountable for the transmission of information from your eyes to your brain, and injury associated with it can lead to severe vision loss, and in the poorest case, blindness.

Type of glaucoma:

There are two main kinds:

Open-angle glaucoma. It's the maximum common type. It also call it wide-angle glaucoma. The drain construction in your eye -- it's called the trabecular meshwork -- looks usual, but fluid doesn't flow out like it should.

Angle-closure glaucoma. It's less common in the West than in Asia. It called acute or chronic angle-closure or narrow-angle glaucoma.

Symptoms of Glaucoma

Glaucoma often progresses with no symptoms, making it impossible for patients to notice until significant (and irreversible) injury has been done.

Symptoms will be sudden and severe, including:

- Severe eye pain.
- Nausea and vomiting
- Rapid onset of visual disturbance, often in low light.
- Blurred vision.
- Halos around lights.
- Reddening of the eye.

Normal Eye   **Eye with Glaucoma**

Build Up of Aqueous Humor Fluid

Trabecular Meshwork

PRESSURE

Damage to the optic nerve
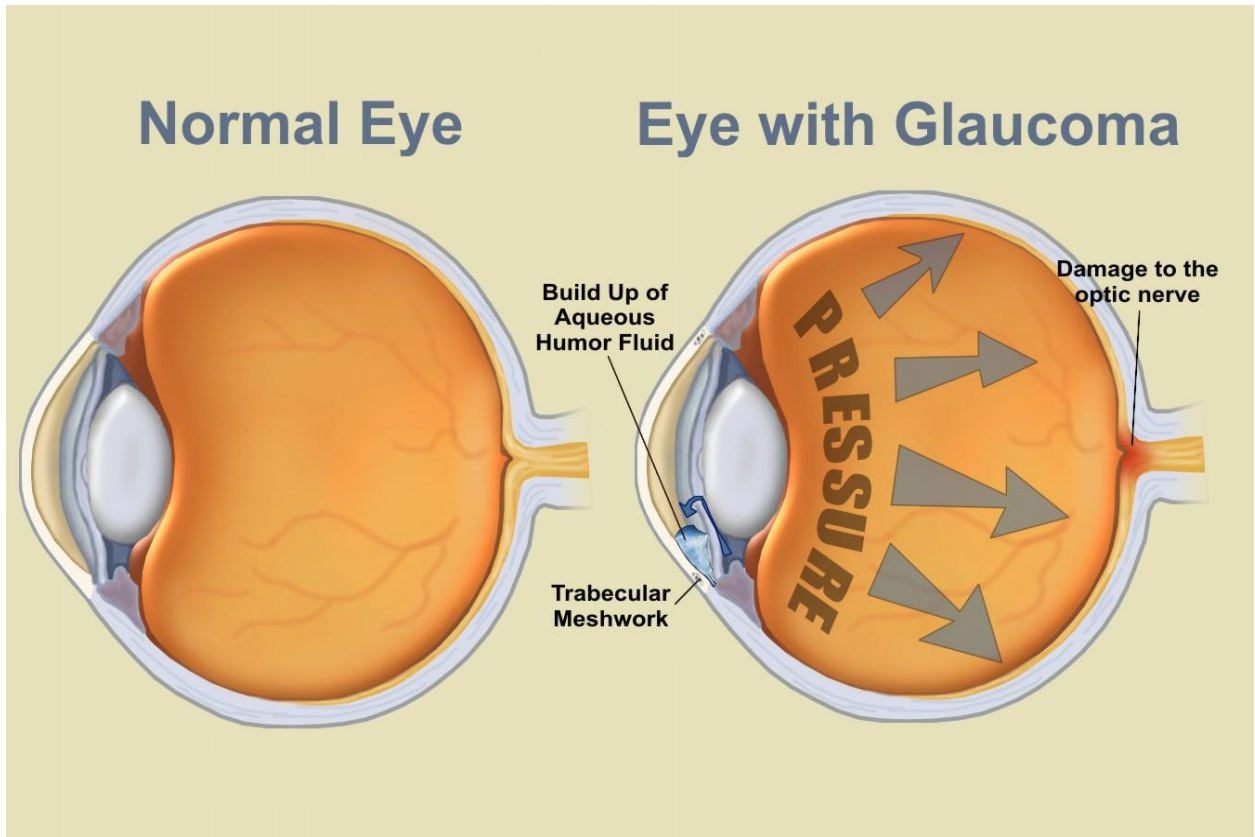
1.6. Optic Neuropathy

It is an acute seditious process of the optic nerve, commonly occurring in aged people. It produce visual loss of eye. It is developed within several days and cause worsen condition.

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Normal — Optic nerve, Myelin sheath

Optic Neuritis — Inflammation of optic nerve, Damaged myelin
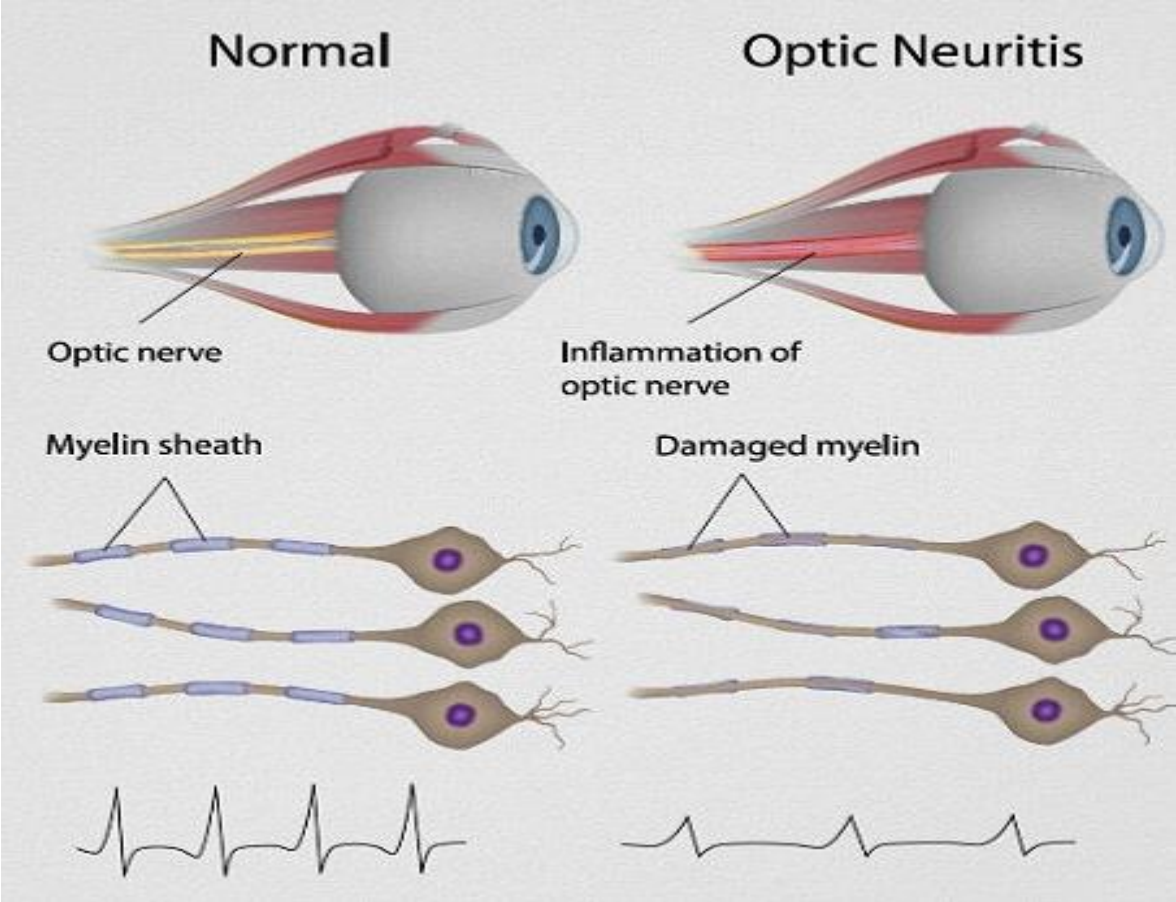
1.7. Eye allergies:

Eye allergies is very common eye disease. It cause redness of eye, itchy, irritation of eye.

Redness
Itchiness
Burning feeling
Watery eyes
Swollen eyelids

1.8.Blurry vision:

Blurry vision is the loss of sharpness of eyesight, creation objects seem out of focus and misty. The primary causes of blurred vision are refractive errors — shortsightedness, farsightedness and astigmatism or presbyopia. But blurry vision also can be a symptom of more thoughtful problems, including a hypothetically sight-threatening eye disease or neurological disorder. Blurred vision can affect both eyes, but some people knowledge blurry vision in one eye only.

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1.9. Conjunctivitis:

Conjunctivitis is an irritation or swelling of the conjunctiva. Conjunctivitis is a common eye disease, especially in children. It may affect one or both eyes.

Symptoms:

- sensation in one or both eyes

- Itching of eye

- Extreme tearing

- Increased sensitivity to light
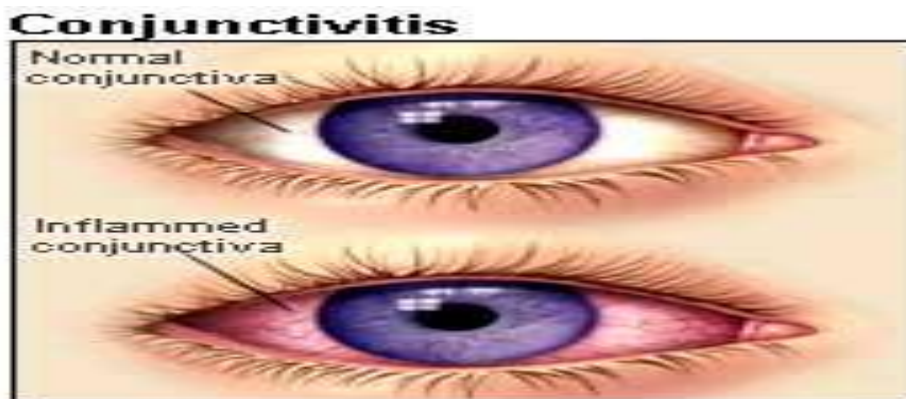
CHAPTER 2

LITERATURE REVIEW

2. Literature review:

From **R.A.Bourne, B.Dineen, S.M.Ali, D.M.N.Huq, J.G.Johnson** study it was found that over half a million people in Bangladesh are blind from cataract and the country has one of the highest reported rates of untreated cataract in the world. Due to severe poverty and a lack of awareness that cataract blindness is preventable and treatable, many people gratuitously become and remain blind. Diabetes is also an evolving public health problem. It can lead to diabetic retinopathy, an eye disease which reasons blindness if left unprocessed. Currently 1.54 million people in Bangladesh are at risk of diabetes-related blindness.

From **Hudda, S.M.Nazmul**study it was found that only 50% of the populations were co*n*scious of Glaucoma and only 30% had the awareness about Glaucoma. This study shows that 52% of the populations were conscious of Cataract and 81% people had the knowledge that risk of Cataract proliferations by getting elder. Another important problem is that most eye care services in Bangladesh are based in major cities. This generates a large gap in available help when more than three accommodations of the country's population live in rural areas. There's also a lack of trained professionals to provide screening and treatment, a lack of appropriate equipment, and minimal facilities to meet demand.

From Khalil A lakho&Atif B Mohamed Ali (Pattern of eye diseases at tertiary eye hospital in Sudan) study we found that the aim of the study was to determine the occurrence and pattern of eye diseases among patients presence the eye clinics of Makah Eye Hospital, Khartoum, Sudan. A retrospective study convoluted all the new cases presenting to the outpatient department of the

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hospital over a 22-month period from January 2012 to October 2013. A total of 64,529 patients were seen during this retro with a male to female ratio of 1:1.1. There were 30,464 males (47.21%) and 34,065 (52.79%) females. The most mutual eye diseases were cataract, allergic conjunctivitis, infective conjunctivitis, and glaucoma.

From Srilatha B (A Review on Age Related Eye Diseases and their Preventive Measures)study initiate that Age-related eye diseases, in many cases are not sudden but tend to progress slowly as a person ages. Of the many age-related eye diseases, there are four major ones that are predictable and that can be detected and treated . These four age-related eye diseases are Macular Degeneration, Cataracts, Glaucoma and Diabetic . However there are certain common preventive measures like taking Healthy Diet, avoiding Smoking and managing Health conditions. Other also such as given multivitamins, vision screening & protective lenses .

CHAPTER-3

METHOD

3. Method

3.1. Study design
Study design done by Descriptive cross sectional study.

3.2. Place of study
This survey conducted by two way. One is manual survey and another is online survey. At first conducted my survey on 100 people from Dhaka city specifically Dhanmondi area and various department student of Daffodil International University. 100 people done their survey online they can be from any place.

3.3. Sample selection
In this study,total number of 100 people are selected from Dhaka city specifically dhanmondi area and total number of 100 people done their survey online they can be from any place.

3.4. Selection criteria

Addition criteria

The contributors were Bangladeshi in origin.

They were 20-50 years of age.

3.5. Questionnaire development
Questionnaires were developed based on the study of different journal papers to study

Perception and behavior of the respondents about eye problems. Survey questionnaire form

has mainly different parts.

Personal information

Disease information

Symptoms

Survey Questionnaire

The prevalence of common eye disease among adult population in Dhaka city.

Name:…………………………………….

Age: ……………………………………

Gender: ………………………………………

Body Weight:…………………………..

1.Do you have any eye problem?

- Yes
- No

2.Which eyes are affected?

- Left
- Right
- Both

3. Have you been diagnosed with any of following?

- Blindness / partial blindness
- Cataract
- Blurred vision
- Glaucoma
- Conjunctivitis
- Other………………

4.Do you have any specific reason for your eye problem?

- Yes
- No
- Don't know

5. If yes, Please give details about your eye condition…………………………………………………………….

6. Do you use glasses or lenses?

- Glasses
- Lenses
- None

7. How long you use your phone, computer, laptop in a day? ....

8. Have you had diabetes?

- Yes
- No
- Don't know

9. Blood glucose level ……………………………………………………………………………………………………

10. Have you heard about glaucoma?

- Yes
- No

11. Have you experienced any of following problem in your life time?

- Loss of vision

- Eye pain

- Vision seen to be narrowed

- Eye become cloudy

- Eye color charge to red

- Others ……………………………………………..

12. Do you use any treatment or operation to improve your eye condition?

- Yes

- No

13. Name of the treatment and dosage…………………………………………………………………………..

14. Is there any improvement??

- Yes

- No

- Worse situation

15. Have you fully recovered?

- Yes

- No

3.6.Sampling technique

In this study random sampling was surveyed. By random sampling survey was done.

3.7.Study period

The study was started from December 17, 2018 to March16 ,2019.

3.8. Data Analysis

Data analysis is done by using Microsoft Excel 2007. Pie and column chart was use shown the

result and calculated the percentage of the study.

CHAPTER-4

PURPOSE OF THE STUDY

4. Purpose of the study

The specific purpose of this survey were:

- ➢ To determine the number of selected eye diseases and conditions.
- ➢ To determine condition of eye.
- ➢ To determine the Eye health related quality of life.
- ➢ To determine the reasons for eye diseases.
- ➢ To determine the people knowledge about eye diseases.
- ➢ To determine the reasons for eye disorder.
- ➢ To determine the symptoms for eye disorder.
- ➢ To determine the awareness of people about eye.

CHAPTER-5

RESULT AND DISCUSSION

5. Result And Discussion

5.1. Distribution of population to age

The age limit of the respondent within 20-30year was found 82% found from this survey and 18%respondents age within 31-40 found from this survey. Most of the respondents are young generation.

Table-1: Age wise distribution of population

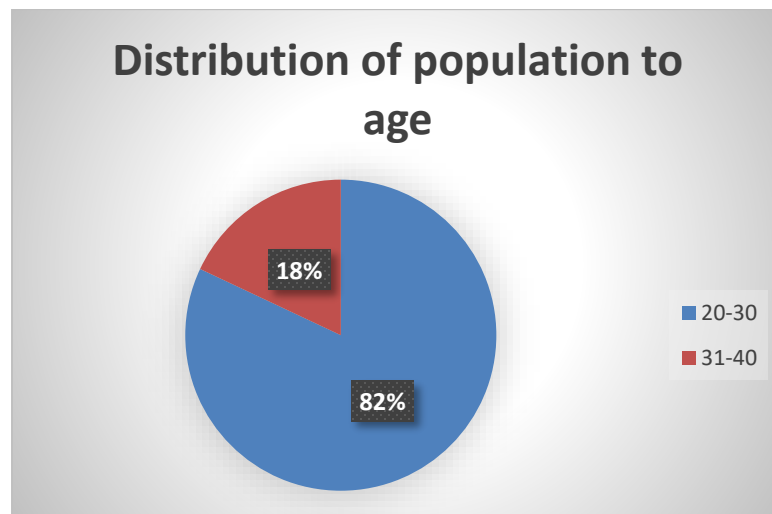| Age	Total respondent	Percentage %
20-30	164	82%
31-40	36	18%

Figure-1: Age wise distribution of population

5.2. Distribution of population to gender

Total respondents 53% was female and 47% was male found from this survey. Percentage of female respondent are more then male respondent.

Table-2: Distribution of population to gender

Gender	Total respondent	Percentage %
Female	106	53%
Male	94	47%

Distribution of population to gender
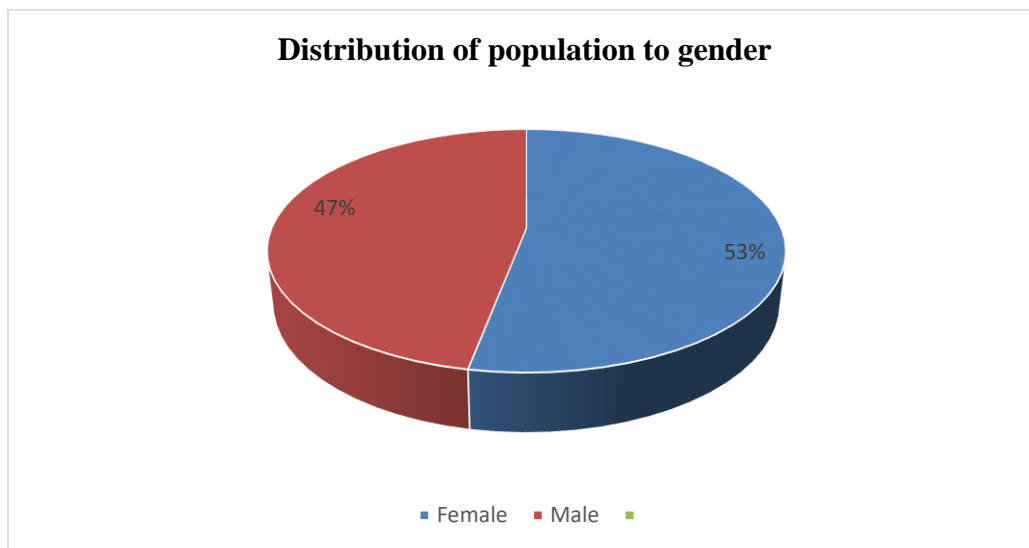
47%

53%

■ Female ■ Male ■

Figure-2: Distribution of population to gender

5.3. Body weight of the respondent

According to respondents body weight 15% respondents found within body weight range 40-50kg. 45% respondents found within body weight range 51-60kg. 26% respondents found within body weight range 61-70kg. 6% respondents found within body weight range 71-80kg. 8% respondents found within body weight range 81-90kg. From this survey found that extra body weight is harmful for human and obesity cause many other health problem. People should take healthy food and maintain their body weight.

Table -3: Body weight of the respondent

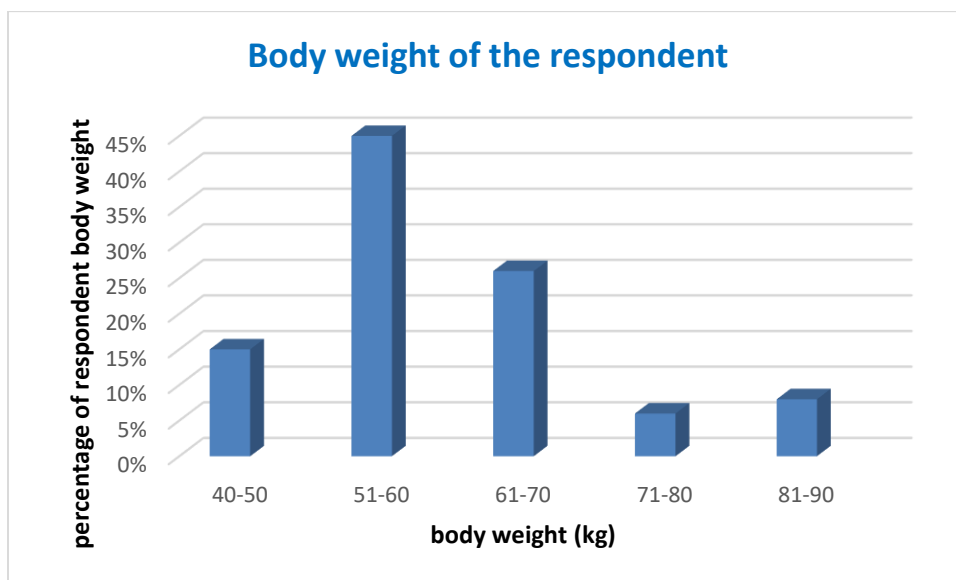| Body weight range	Total respondent	Percentage%
40-50	30	15%
51-60	90	45%
61-70	52	26%
71-80	12	6%
81-90	16	8%

Figure-3: Body weight of the respondent

5.4. Found Eye disorder

Total number of respondents 44% found with eye disorder and 56% respondents had not any eye problem.

Table -4: Found Eye disorder

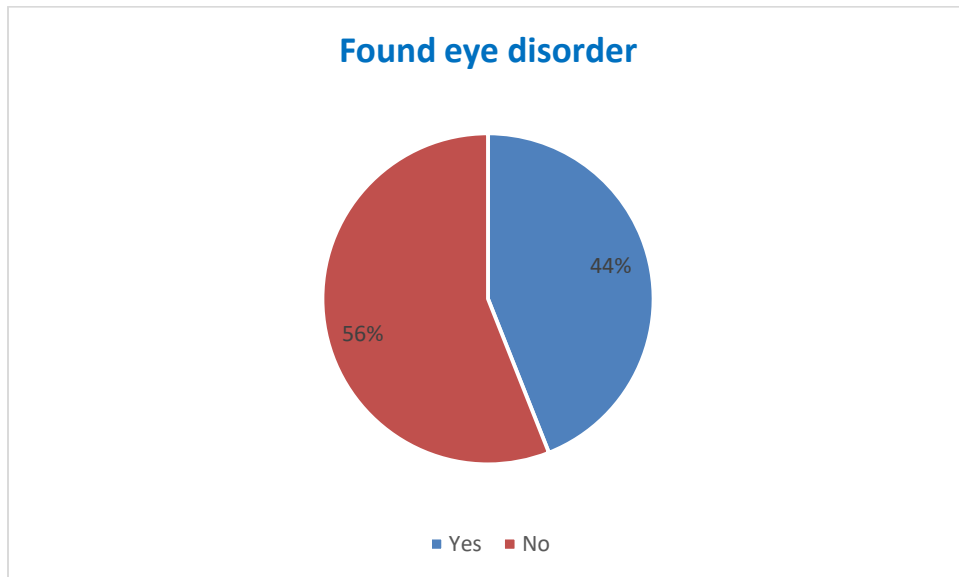| Eye problem	Total respondent	Percentage %
Yes	88	44%
No	112	56%

Found eye disorder

Figure -4: Found Eye disorder

5.5. Affected eye

Total number of respondents 44% found with eye disorder. In those 44% respondents 5% left eye affected found from this survey. 7% right eye affected found from this survey and 32% both eye affected found from this survey. From this survey found that most of the respondents both eye was affected.

Table -5: Affected eye of respondents

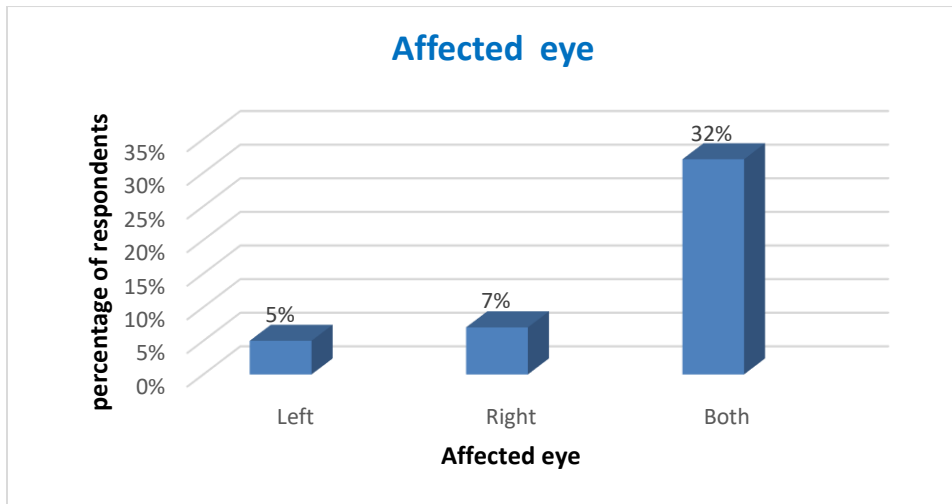| Affected eye	Total respondent	Percentage%
Left	10	5%
Right	14	7%
Both	64	32%

Figure -5: Affected eye of respondents

5.6. Diagnosis

This study showed that 4% respondent had blindness/partial blindness, 6% respondent had cataract, 16% respondent had blurred vision, 1% respondent had glaucoma and 17% respondent had other eye disorder. Most of the respondent are affected by blurred vision then second most affected disorder is cataract.

Table -6: Diagnosis

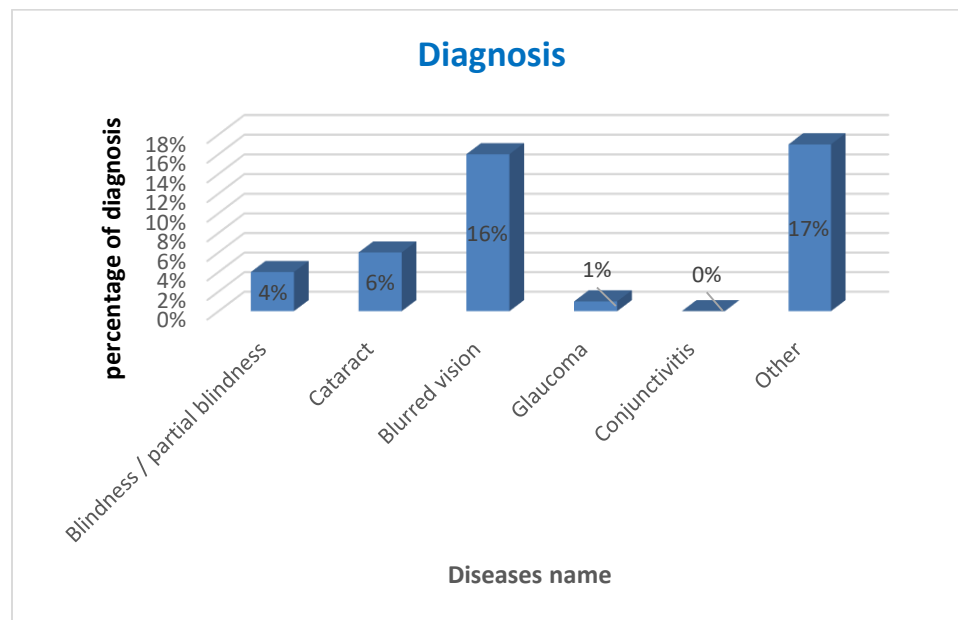| Disease name	Total respondent	Percentage %
Blindness / partial blindness	8	4%
Cataract	12	6%
Blurred vision	32	16%
Glaucoma	2	1%
Conjunctivitis	0	0%
Other	34	17%

Figure -6: Diagnosis

5.7. Reason for eye problem

From this study found that 15% of the populations were specific reason for their eye problem. From this study found that 8% of the populations were not any specific reason for their eye problem. According to the survey 21% of the populations were don't know about specific reason for their eye problem. There are many reasons behind eye disorder.one of them is poverty and unconsciousness. In our country many people are not serious about their eye problem and they don't take proper treatment for improve their eye condition.

Table -7: knowledge about respondent eye disorder

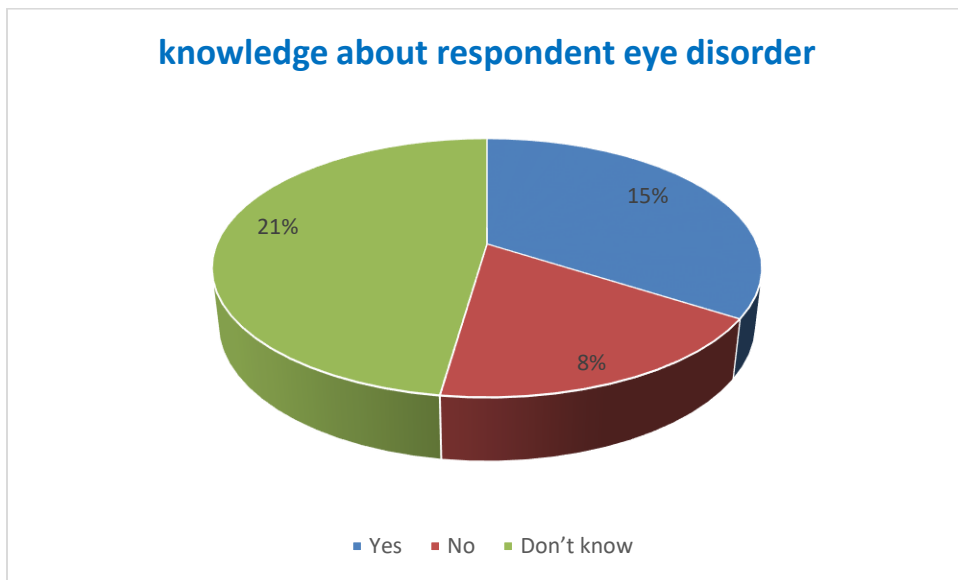| Specific reason	Total respondent	Percentage %
Yes	30	15%
No	16	8%
Don't know	42	21%

Figure -7: knowledge about respondent eye disorder

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5.8. Use of glasses or lenses

28% respondents use glass found from this survey. 5% respondents use lenses found from this survey and 11% from the total respondents do not use either glass or lense .Glasses and contacts change the direction of light so that it sensations the retina and creates a clear picture. Using lenses correct your vision by relocating light onto the retina, or back of the eye

Table -8: Use of glasses or lenses

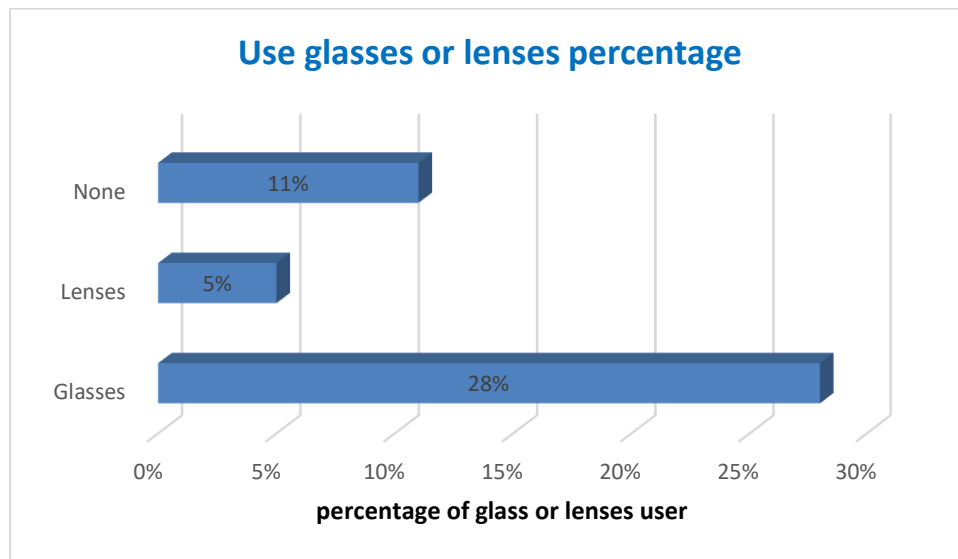| Type	Total respondent	Percentage %
Glasses	56	28%
Lenses	10	5%
None	22	11%

Figure -8: Use of glasses or lenses

5.9. Duration of using screen

11% respondents use screen 1-5hr found from this survey.22% respondents use screen 6-10hr found from this survey. 7% respondents use screen 11-15hr found from this survey and 4% respondents use screen 16-20hr found from this survey. Extensive time using screen can cause eye problem. Long time using screen can give negative effects on your eye condition. We should avoiding using screen long time because excessive time on your phone can cause to blurred vision, dry eyes, sore eyes, headaches, and even insomnia.

Table -9: Duration of using screen

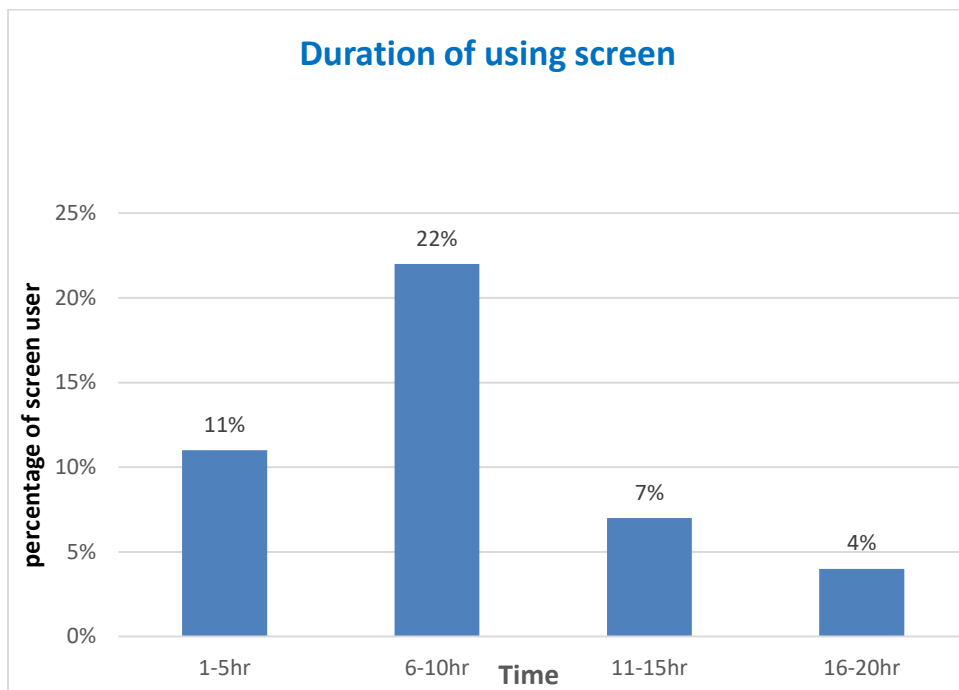| Time	Total respondent	Percentage%
1-5hr	22	11%
6-10hr	44	22%
11-15hr	14	7%
16-20hr	**8**	4%

Figure -9: Duration of using screen

5.10. Prevalence of diabetes

5% respondents found with diabetes from this survey.28% respondents were not suffering from diabetes and 11% respondents don't know they have diabetes or not. Uncontrolled diabetic can cause many eye problem and other health problem. Diabetic eye disease is a very common for those people who suffering from diabetes. These are diabetic retinopathy, diabetic macular edema, cataracts, and glaucoma. Those diseases can lead to poor vision or even blindness. We should take step to control diabetic eye disease by taking care of diabetes patients.

Table -10: Prevalence of diabetes

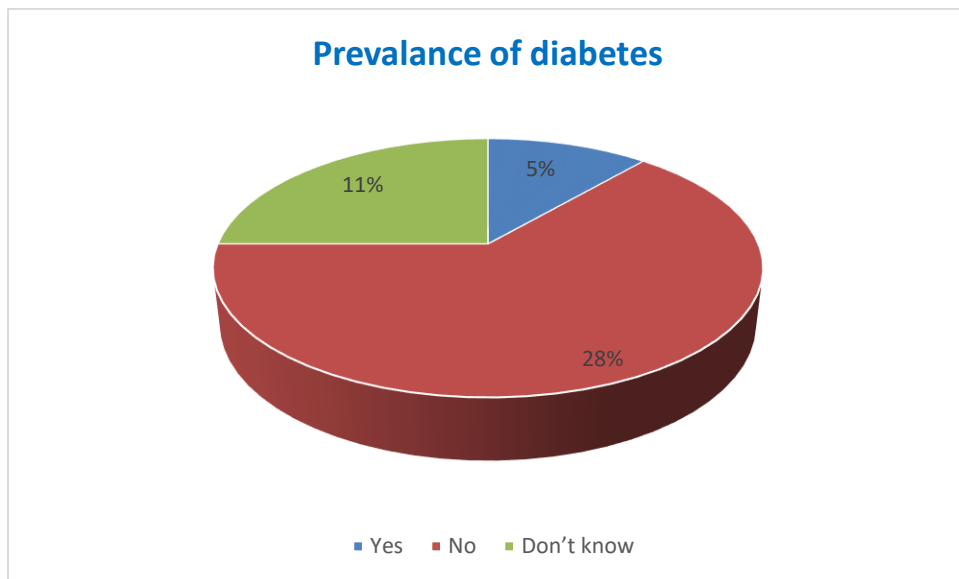| Diabetes	Total respondent	Percentage %
Yes	10	5%
No	56	28%
Don't know	22	11%

Figure -10: Prevalence of diabetes

5.11. Knowledge about glaucoma

According to study that 57% of the populations were aware of glaucoma and people had the knowledge that risk of glaucoma increases by getting older.63% of the populations were not aware of glaucoma and people had no knowledge about glaucoma. Knowledge was related to education level, work-related status and knowledge of other eye diseases. Knowledge of common eye diseases is usually lacking. Glaucoma, is a common cause of Sight loss among children and adults all over the world. Eye diseases are rarely life threatening, they do have an effect on the quality-of-life.

Table -11: Knowledge about glaucoma

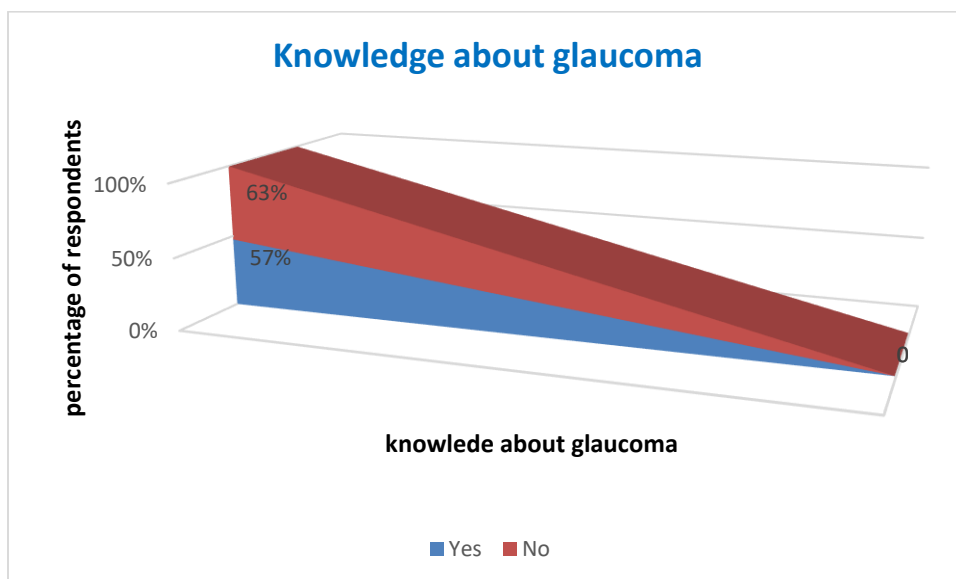| Knowledge about glaucoma	Total respondent	Percentage %
Yes	114	57%
No	126	63%

Figure -11: Knowledge about glaucoma

5.12. Disorder found

3% respondents experienced loss of vision problem in their life time found from this survey. 4% respondents experienced vision seen to narrowed problem in their life time found from this survey. 4% respondents experienced eye color change to red problem in their life time found from this survey. 19% respondents experienced eye pain problem in their life time found from this survey. 2% respondents experienced eye become cloudy problem in their life time found from this survey. 12% respondents experienced other eye problem in their life time found from this survey.

Table -12: Disorder found

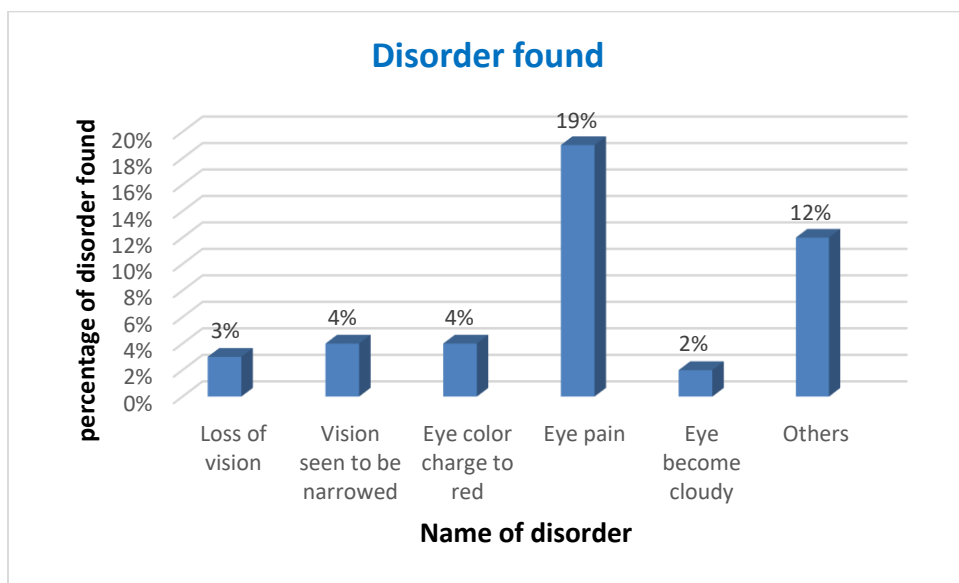| Name of disorder	Total respondent	Percentage %
Loss of vision	6	3%
Vision seen to be narrowed	8	4%
Eye color charge to red	8	4%
Eye pain	38	19%
Eye become cloudy	4	2%
Others	24	12%

Figure-12: Disorder found

5.13. Treatment

From this survey found that 18% respondents use any treatment or operation to improve their eye condition. 26% respondents don't use any treatment or operation to improve their eye condition found from this survey. According this survey found that people are not properly done their treatment.

Table -13: Treatment

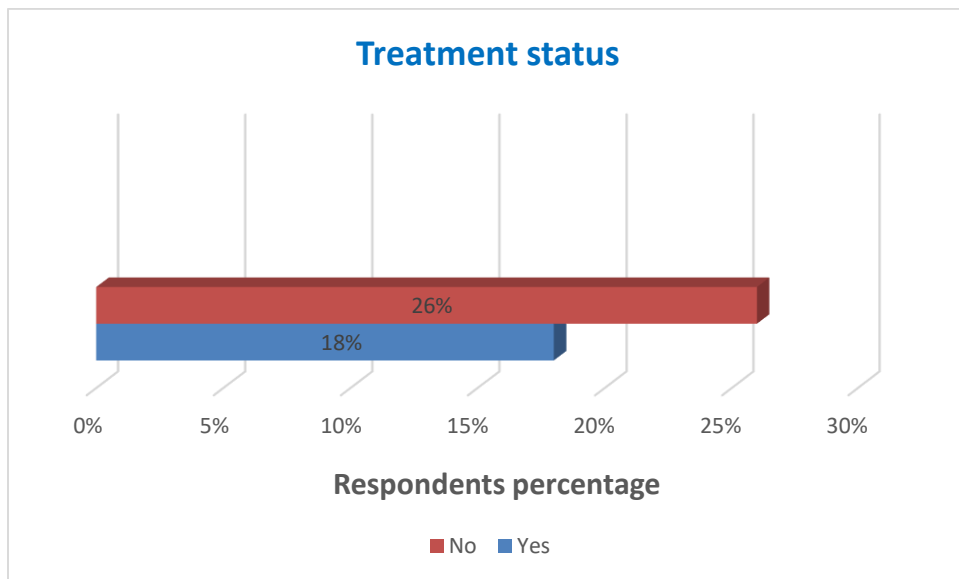| Type	Total respondent	Percentage %
Yes	36	18%
No	52	26%

Figure -13: Treatment

5.14. Progress of disease

Progress of eye disease rate was 20% found from this survey. 5% respondents was not any improvement in their eye disease found from this survey. 19% respondents eye disease condition became worse day by day found from this survey. The government is working to achieve goals set under Vision 2020. There are many eye hospital in our country for treat eye disorder some of those are free for poor people.

Table -14: Progress of disease

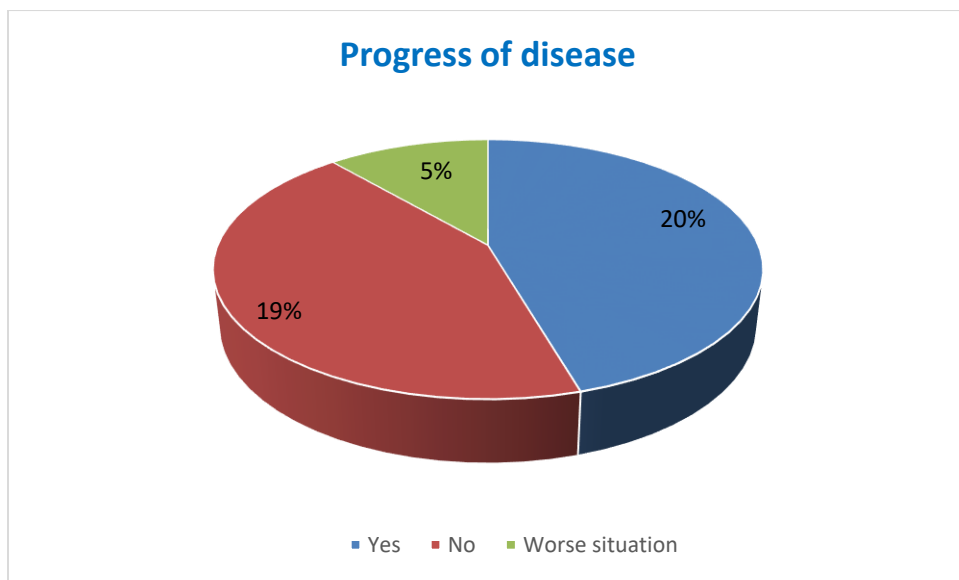| Progress of disease	Total respondent	Percentage %
Yes	40	20%
No	38	19%
Worse situation	10	5%

Figure -14: Progress of disease

5.15. Recovery rate

This study showed that 9% respondents was fully recover and 35% respondents was not fully recover. Recovery rate was low.

Table -15: Recovery rate

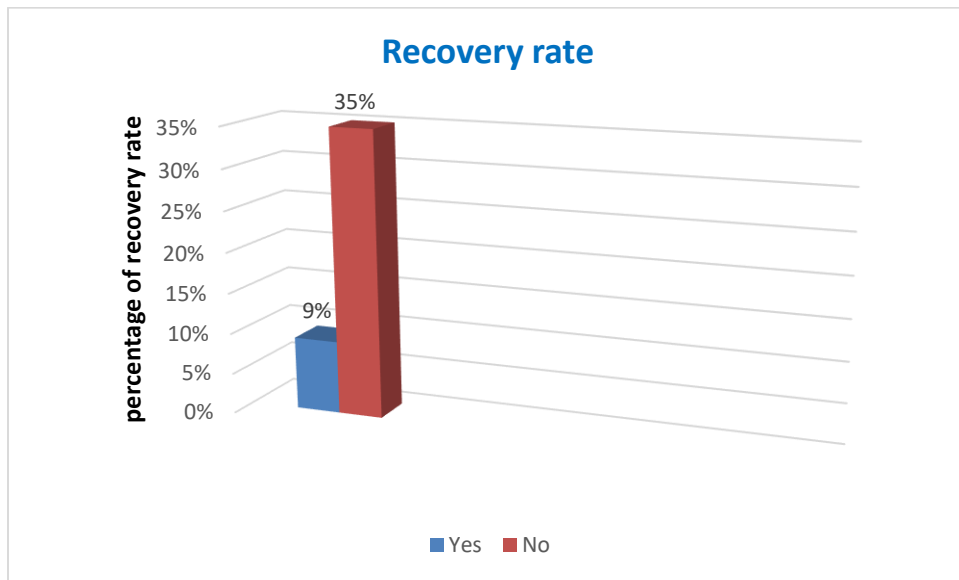| Fully recover	Total respondent	Percentage %
Yes	18	9%
No	70	35%

Figure -15: Recovery rate

CHAPTER-6

CONCLUSION

6. Conclusion

From this survey found that many people are suffering from different type of eye problem. Lacking knowledge about eye disorder, poverty, improper treatment are main reasons behind this problem. Studies show that excess body weight predisposes a person to various systemic diseases that can cause vision loss. Extensive time using screen can cause eye problem. Blurred vision is the commonest Eye problem in Bangladeshi people according to present study. The second most Eye problem is cataract. Glaucoma, blindness due to uncontrolled diabetes. Males and females are similarly affected with slight variations in the nature of problems among both genders. This is due to minor awareness of Eye diseases among the people. It is a matter of concern that many people don't use any treatment or operation to improve their eye condition. Progress of eye disease rate was very low and recovery rate was low. Good sight vision is essential to progress individual overall health & well-being. We should take necessary steps against these complications and create Eye diseases awareness among the people of Bangladesh. The government is functioning to achieve goals set under Vision 2020.

CHAPTER-7

REFERENCE

7.Reference

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