

A STUDY TO ASSESS THE KNOWLEDGE REGARDING GLAUCOMA AMONG ADULTS RESIDING IN THE SELECTED AREAS OF PUNE CITY

Dr. Bhagyashree Jogdeo¹, Mr. Abhishek Ranjane², Ms. Pooja Maurya³, Mr. Prathmesh Borse⁴, Mr. Jibin Rajan⁵, Mr. Nikhil Kadole⁶

Article History: Received: 05.03.2023 Revised: 22.04.2023 Accepted: 30.05.2023

Abstract

Glaucoma is the condition in which vision loss is caused due to damage to the optical nerve. A study was conducted with an aim to assess the knowledge regarding glaucoma among adults in selected areas of Pune City. Previous researches conducted in other parts of India it is seen that knowledge related to glaucoma is very low, so researchers aims to provide some knowledge related to causes, sign and symptoms, treatment and prevention of glaucoma to the samples participating in the research. Study title: "A Study to assess the knowledge regarding glaucoma among adults residing in selected areas of Pune City." The objective of the study was to assess the knowledge regarding glaucoma and to find association between selected demographic variables.

Material and methods: The quantitative research approach was used for this study. The sample size was 200. It included adult from selected areas of Pune City of age 40-60 years. The self structured questionnaire tools used to collect data. The tool was evaluated and validated by 5 experts. The questionnaire consist 16 items and two section (Demographic section & knowledge section).

Result: Majority 62.5% are from 40-50 years age & 37.5% are from 51-60 years of old. The knowledge regarding glaucoma among adults. Majority 66.55 having poor knowledge, 25% are having good & 8.5% having excellent knowledge regarding glaucoma. Education have association with knowledge regarding glaucoma at the level of significance at 0.05. **Conclusion**: Knowledge regarding glaucoma in selected areas of Pune City is found out low. Adults knowledge and Education was found out to be correlated.

Recommendation: - 1. A similar study to Descriptive study to assess the attitude regarding glaucoma care among adults can be done. 2. A comparative study of glaucoma & cataract care among elderly people can be done.

¹Incharge Principal, Bharati Vidyapeeth (Deemed to be University) College of Nursing, Pune. ^{2,3,4,5,6}Bsc Nursing students, Bharati Vidyapeeth (Deemed to be University) College of Nursing, Pune.

DOI: 10.31838/ecb/2023.12.s3.434

1. Introduction

Glaucoma is the condition that causes damage to the optical nerve. It is one of the leading cause of blindness in the world. There are around 45 million people in the world suffering from blindness report by WHO¹. According to the WHO, glaucoma is the cause of blindness in 4.5 million individuals². Glaucoma is just the third most common cause of permanent blindness in India.

Since glaucoma frequently has no early symptoms, most of those who have it are unaware they have it. The damage caused by glaucoma cannot be reversed but early diagnosis, regular check- ups can help to prevent further complications of vision loss. In glaucoma optic nerve which carries information from the eyes to the brain gets impaired generally due to increased pressure inside the eyes which makes glaucoma terrible among many other eye diseases is its underhanded. By the time people perceive that there vision is being loss most of the eye vision has been decreased and damage is already happened. Commonly In most cases the optic nerve is destroyed when there is a rise in the intraocular pressure inside the front of the eye. In most of the cases the optic nerve gets damaged because there is a rise in the intraocular pressure in front of eve. Glaucoma associated with eye damage can also take place when the intraocular pressure is normal. According to WHO statistics, the prevalence of glaucoma Estimated in India is 2.6% to 4.13.

Primary open-angle glaucoma and acute/angle closure glaucoma are the two forms of glaucoma that are most prevalent impacts the eyes. It is well known that glaucoma results in a continuous, painless loss of eyesight. There is still no treatment for it. The second most frequent worldwide cause of treatable blindness is glaucoma.

The Individuals with glaucoma will have difficulty start losing the peripheral vision slowly. If it is not treated then the patient will not have the proper vision of objects on the side by to him. The patients might have the feeling that objects are viewed across the burrows and after sometimes slowly there central vision also starts destroyed it can cause loss of vision by completely. The individual above 40 years of age and having the family history of glaucoma should consult of the ophthalmologist a conduct an eye check-up. Getting the information about how much knowledge does adults from pune city are having about glaucoma it the purpose of researchers.

Need of the Study

As per previous researches we get the idea that large number of population in India is unaware and having less knowledge about The studies done earlier glaucoma. concludes that it continue to Make it even more Weird after eye pressure is being under control. This is why research is done to enhance the scientific understanding of the condition and finding the treatments is necessary. According to the American Academy of Ophthalmology, 2.7 million peoples are diagnosed with glaucoma⁴. This can lead to the conclusion that glaucoma is an age-related disease in which the fluids inside the eye are under growing pressure, which can permanently damage the optic nerve and result in blindness. Glaucoma may include more than just eye pressure, according to a study. A study taken place in rats conclude that chemical protecting nerve cells can slow down glaucoma, the leading cause of irreparable loss of eye vision.

The study conducted by NYU Grossman school claims that, the present watery fluid inside the eye function of eye is depended fluid can make up in patients having glaucoma, molding down cells in the eye and it connects the nerve between them to the brain, as claimed by researchers ⁵. Therefore an eye check-up should be conducted twice in a year or at least once in a year. It is recommended to visit the ophthalmologist because of having any family history. So by conducting research we will be able to get the idea about how

many adults in selected community areas of Pune city are aware and having knowledge regarding glaucoma.

This will also beneficial to provide knowledge and hence making population aware about risk factors, early sign and symptoms of glaucoma.

Some early signs of glaucoma are -1. Blurred vision

- 2. Water discharge from eyes
- 3. Redness of eyes

Aim of the Study

By this study researcher aims to find out extent of knowledge regarding glaucoma among adults residing in selected areas of Pune City, also to find association between knowledge and selected demographic variables.

2. Material and Method

Research approach; in order to achieve the desired objectives of this study, a quantitative research was adopted, research design. In this study the researcher selected a non experimental exploratory research design.

Setting of the study was at selected Areas of Pune city (Balajinagar, Dhankawadi, Dattanagar). The population of the present study was adults of age 40-60 years in selected areas of Pune city. The sample selected for data collection were those who fulfilled the criteria laid down for the selection of the sample and were available during the period of the data collection. The

sample technique adopted was non-probability sampling purposive sampling. To ensure content validity tool was submitted to 5 expert from medical surgical nursing department, As value of r is +0.85 the test was reliable. After the pilot study, main study was found to be feasible.

3. Result and Discussion

Majority 62.5% are from 40-50 years age & 37.5 % are from 51-60 years of old. Majority 59.5% are male, 39.5% female & 1% is transgender. majority 33% are having primary education, 31% having secondary education, 25.55 are having graduation and 10.5% are having higher education. Majority 51% are working in private sector, 36% are self employed and 13% are government servant. Majority 56% are having no co-morbidity present. Equal 15.55 are having co-morbidity <1 year & 2.5 year, 10.55 are having from 6-9 years & 2.5% having >10 years of co-morbidity. Majority 66.55 are having poor knowledge, 25% are having average & 8.5 % having Excellent knowledge regarding glaucoma. Above table shows association between knowledge regarding glaucoma among adults with selected demographic variable. Education have association with knowledge regarding glaucoma at the level significance at 0.05.age, occupation & co-morbidity are associated with selected demographic variable at the level of significance at 0.05.

Table 1: Findings related to knowledge regarding glaucoma.

Knowledge regarding glaucoma		N = 200	
	Frequency	Percentage	
a) POOR	133	66.5	
b) GOOD	50	25	
c) EXCELLENT	17	8.5	



Figure 1: Showing Distribution Of Adults According To Age Wise

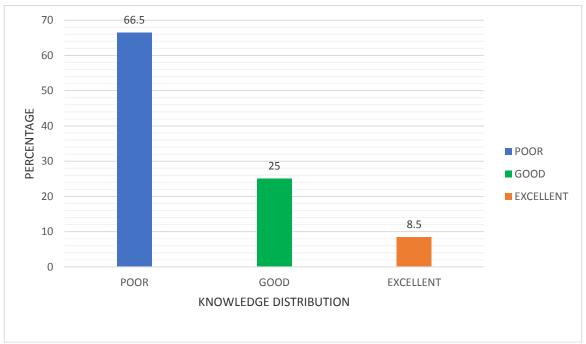


Figure 2: Knowledge Regarding Glaucoma Among Adults

4. Discussion

Glaucoma is highly prevalent disease condition of the eye caues due to natural caues and leads to blindness. Previous studies shown that awareness and knowledge is needed to be improved for prevention at earlier stages of this disease. The study shown that knowledge of glaucoma is very low in adults of age group 40-60 years of age, as compared to similar studies conducted in other areas the results are relevant.

This study can be compared to Prafulla K. Maharana's study on glaucoma awareness

and knowledge among visitors to an outpatient ophthalmology clinic in a tertiary care facility in central India. People who were 18 years of age or older who visited ophthalmology outpatient clinics between October 2014 and September 2015 were the subjects of a questionnaire-based Findings suggest study. that participants took part in the survey. Participants' average ages ranged from 43 to fifteen years (range, 18-85). 53% of the participants in the study were men, and 47% were women. Of the participants, only 27% (n = 380/1400) were aware of glaucoma. Age, sex, and whether or not a

person has vision problems had. No effect on how aware they were of glaucoma. According to the report, there is lack of glaucoma awareness in India. The two main risk factors for late-onset glaucoma are low socioeconomic position and lack of education. In order to prevent glaucomarelated blindness, determined and strong strategy to raise awareness of glaucoma is required due to persistently low level of awareness and same variables that contribute to it ⁶.

There are some limitations to our study. Firstly, sample size was small, so for next studies we recommend to increase sample size. This study was limited to adults of age group of 40-60 years, similar study can be done to different age group of samples.

5. Conclusion

This study provides data related knowledge regarding Glaucoma. Result shows that knowledge regarding glaucoma is low in most of selected samples and very small number of samples having excellent knowledge. Adults knowledge of glaucoma and education about it were found to be significantly correlated.

After assessing the findings we propose that community education can be effective and feasible public health strategy to enhance and improve knowledge and awareness regarding glaucoma specially with the ones who are having family history and risk factors of glaucoma. This measures ultimately help in improving knowledge and diagnosing the disease at early stage and ti prevent complications of blindness. Increasing awareness programs related to eye conditions intended for better education can be given to people with lower socioeconomic status. This will help people understand importance of regular eye check-up and eye examination for early detection of glaucoma.

Even if adults had inadequate awareness about glaucoma, the community's residents lacked accurate information of the disease. Therefore, the subject of community health

nursing and medical surgical nursing in the curriculum needs to empathise more on this topic. The population should be made more aware of glaucoma through health education, which should receive more attention from medical experts.

Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source

"There is no funding Source for this study"

Acknowledgements

We would acknowledge the teaching faculty and non-teaching members of Bharati Vidyapeeth (Deemed to be University) College Of Nursing Pune for their support and guidance throughout the study.

6. References

https://www.who.int/news/item/09-10-2003-up-to-45-million-blind-people-globally---and-growing

https://www.nhp.gov.in/world-glaucomaweek_pg#:~:text=Glaucoma%20is% 20the%20second%20most,people%2 0blind%20from%20the%20disease

https://www.longdom.org/open-access/impact-of-health-education-programs-on-awareness-of-glaucoma-in-a-tertiary-care-hospital-in-south-india-52083.html#:~:text=Prevalence%20of%20glaucoma%20in%20India,of%20their%20condition%20%5B6%5D

Dangi Ravi Rai,,N Sujita Devi "The knowledge regarding paediatric drug calculation\among the staff nurses" The Pharma Innovation Journal 2019; 8(5): Peer Reviewed Journal, ISSN Online: 2277-7695, Print ISSN: 2349-8242, NAAS Rating: 5.03 UGC Approved Journal. Page no. 444-449

- https://www.aao.org/newsroom/eyehealth-statistics
- https://nyulangone.org/news/citicolineprotects-against-glaucoma-withoutreducing-fluid-pressure-eye
- https://journals.lww.com/apjoo/fulltext/20 17/05000/awareness_and_knowledge of_glaucoma_in_central.5.aspx
- Dr, Veena Sakhardande, Ashwini Patil et all, A study to assess the knowledge regarding side effects and coping strategies adopted among patient receiving chemotherapy of selected hospital of Pune city International Journal of Applied Research ISSN Print: 2394-7500 ISSN Online: 2394-5869 Impact Factor: 5.2 IJAR 2020; 6(7): 431-433.
- https://www.researchgate.net/publication/2 68813739_Glaucoma_Awareness_a mong_patients_at_outpatient_depart ment_of_Ophthalmology_in_SmtKa shibai_Navale_Medical_College_an d_General_Hospital_Narhe_Pune
- https://www.tnoajosr.com/article.asp?issn =25894528;year=2019;volume=57;is sue=3;spage=203;epage=207;aulast= Ahmed;type=0
- https://www.researchgate.net/publication/3
 48710738_Awareness_and_Knowled
 ge_about_glaucoma_among_the_cas
 es_attending_Ophthalmology_outpat
 ient_department_in_a_Tertiary_care
 _center
- https://journals.lww.com/ijo/Fulltext/2009/ 57050/Determinants_of_glauoma_a wareness_and_knowledge.5.aspx
- https://ijmrr.medresearch.in/index.php/ijmrr/article/view/689/1235
- https://www.researchgate.net/publication/3
 44851834_Knowledge_and_Awaren
 ess_about_Glaucoma_and_Its_Deter
 minants_A_Lesson_Learned_from_a
 _Community-

- based_Survey_of_a_Developing_Nat ion
- https://www.google.com/url?sa=t&source =web&rct=j&url=https://medpulse.in /Ophthlmology/Article/Volume12Iss ue1/Opth_12_1_3.pdf&ved=2ahUK EwjLsozi_6_9AhX_1DgGHbPhBdg QFnoECAsQAQ&usg=AOvVaw04F HGp27qWpkyabHw5wi42
- https://www.google.com/url?sa=t&source =web&rct=j&url=https://www.resear chgate.net/publication/23151723_Ra pid_Assessment_of_Avoidable_Blin dness_India_Study_GroupRapid_As sessment_of_Avoidable_Blindness_i n_India&ved=2ahUKEwik_ZejgLD9 AhVP6jgGHZjOA9wQFnoECA4QA Q&usg=AOvVaw3_xP98B6C6GzIc ZEuzaLRO
- https://www.google.com/url?sa=t&source =web&rct=j&url=https://www.resear chgate.net/publication/236338620_Pr evalence_and_causes_of_low_vision _and_blindness_in_an_urban_popula tion_The_Chennai_Glaucoma_Study %23:~:text%3DCataract%2520was% 2520the%2520leading%2520cause, %2525)%2520and%2520cataract%2 520(22%2525).&ved=2ahUKEwin4I TTgLD9AhX58TgGHZozDXIQFno ECAkQBQ&usg=AOvVaw0_TtKK5 bKd9Xo 36A2GO S
- https://www.msjonline.org/index.php/ijrms/article/view/2271
- https://www.google.com/url?sa=t&source =web&rct=j&url=https://jcdr.net/arti cles/PDF/15760/50978_CE%5BRa1 %5D_F(SHU)_PF1(SC_KM)_PFA3 (SC_SHU_KM)_PN(KM).pdf&ved= 2ahUKEwidk_ungbD9AhW41TgGH Vn_CGYQFnoECAkQAQ&usg=AO vVaw0YmGVE5ytGNJhFM-LiWVu9