A descriptive study to assess the knowledge regarding prevention and management of cataract among patients attending eye OPD, with a view to develop an information booklet.

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Abstract- “A descriptive study to assess the knowledge regarding prevention and management of cataract among patients attending eye OPD, with a view to develop an information booklet”

Background: Health is an essential component irrespective of all the ages. The eye is a sensitive, highly specialized sense organ subject to various disorders, many of which can lead to impaired vision. Impaired vision affects individual in many ways, including their independence on self-care, sense of self-esteem, safety, and overall quality of life, it can affect all the age groups. The major cause of impaired vision is cataract. Cataract has a consequent effect on the individual, family, community, and the nation as a whole on visual disability. Different studies around the world showed that there is a gap in knowledge of cataract in both developed and developing countries. The lack of knowledge about the disease and its treatment is still a major obstacle in reducing blindness due to cataract in developing countries, particularly in rural areas. Objectives: To assess the existing level of knowledge regarding prevention and management of cataract among patients attending eye OPD, to find out the association between level of knowledge and with their selected demographic variables and to develop an information booklet. Methodology: A Quantitative research approach and descriptive research design was used. Convenience sampling technique was used to select 150 patients attending eye OPD in Vivekananda Polyclinic and Institute of Medical Sciences, Lucknow. Data was analyzed by using descriptive and inferential statistics. Results: In pre-test majority 53.30% had moderate knowledge, 40% had inadequate knowledge and 6% had adequate knowledge. Conclusion: The study concluded that further interventional researches should be conducted regarding prevention and management of cataract to enhance the knowledge.

Keywords: Prevention and management of cataract and information booklet.

INTRODUCTION

The sense of vision is very important to every single person in the world. Vision allows the individual to do the basic things such as reading and writing. It also allows the individual to do other activities such as learning, walking, buying and taking care of personal hygiene without help from others 1. The human eye is an important part of the human body, and it is a window that reveals the outside world to mankind 2. The proper functioning of visual sensory organs is necessary for leading a good quality of life. Visual impairment negatively affects the quality of life by making the affected person dependent on others. One of the most important problems with the human eye is blindness that can have hereditary or acquired causes. Many diseases, including fatal measles, retinopathy in premature infants, cataracts, etc. can cause blindness 3.

Problem Statement

“A descriptive study to assess the knowledge regarding prevention and management of cataract among patients attending eye OPD, with a view to develop an information booklet”.

Objectives

1. To assess the existing level of knowledge regarding prevention and management of cataract among patients attending eye OPD.
2. To find out the association between level of knowledge and with their selected demographic variables.
3. To develop an information booklet.

Operational Definition

Knowledge: It refers to the awareness of the patients regarding prevention and management of cataract as selected through the structured knowledge questionnaire.
Cataract: In this study cataract refers to an age related vision impairing disease characterized by gradual progressive clouding and thickening of the lens of the eye.
Patients: In this study patient refers to the patients who fall under age group of 20-40 years.
Information booklet: It refers to the written and valid information regarding cataract, causes, risk factors, clinical features, preventive steps, management (postoperative and follow up activities), and home care.
Hypothesis
The hypothesis is tested at 0.05 level of significance.
1. \( H_1 \): There is significant association between the knowledge regarding prevention and management of cataract with their selected demographical variables.

Assumptions
There may be significant knowledge regarding prevention & management of cataract.

Delimitation
The study is delimited to:-
1. The sample size is 150 only.
2. Samples are only selected from Vivekananda Polyclinic & Institute of Medical Sciences, Lucknow.

RESEARCH METHODOLOGY

Research approach- The Quantitative research approach has opted for the study.

Research design- Non-experimental descriptive research design was used for the present study

Variables
i. Socio- demographic variables- Socio-demographic variables are age, gender, religion, educational status, occupation, monthly family income, dietary pattern and previous knowledge.

ii. Research variables- In this study knowledge of patients regarding prevention of cataract and its management is research variables.

Setting
This study is conducted in eye OPD of Vivekananda Polyclinic & Institute of Medical Sciences, Lucknow U.P

Population
The population for the present study was Patients who are attending OPD, Lucknow.

Sample
In this study, the sample consisted of patients attending eye OPD in Vivekananda Polyclinic Institute of Medical Sciences, Lucknow.

Sampling Technique
The sample was selected through "Non-Probability convenience sampling technique".

Criteria for sample selection
Inclusion criteria
In this present study patients included who were-
✓ Attending eye OPD.
✓ Available during the time of data collection.
✓ In the age group of 20 – 40 year.
✓ Willing to participate in this study.

Exclusion criteria
Patients excluded who were-:
✓ Physically challenged patients.
✓ Cataract patients.
✓ Patients above 40 year.

Sample Size
✓ Total sample size:- 150

Research tool
The present study aim to enhance the knowledge regarding prevention and management of cataract by assessing the knowledge of patients with Self-structured knowledge questionnaire in eye OPD of Vivekananda Polyclinic & Institute of Medical Sciences, Lucknow U.P.

Description of tool
Section A: Socio-Demographic variables.
Section B: Self-structured knowledge questionnaire regarding prevention and management of cataract.

Section A: Demographic Variables
Socio demographic variables were developed by the researcher to collect base line information of samples. Information on demographic data was collected from patients. Master data sheet was prepared for demographic variables. This part consists of socio demographic variables such as;
Age, gender, religion, education status, occupation, monthly family income, dietary pattern, previous knowledge.

Section B: Self-structured Knowledge Questionnaire regarding prevention and management of cataract.
Self-structured knowledge questionnaire was developed by the researcher to assess the knowledge regarding prevention and management of cataract among patients. This tool consists of 30 multiple choice questions have four options. Out of four choices only one was correct.
Score Interpretation
For the self-structured knowledge questionnaire score 1 was awarded for each correct answer and 0 for wrong answer in all items. Thus a total 30 scores were allotted under knowledge aspects and to interpret the level of knowledge score were distributed as follows.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Score level</th>
<th>Percentage level</th>
<th>Level of knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>23-30</td>
<td>76-100%</td>
<td>Adequate</td>
</tr>
<tr>
<td>2.</td>
<td>16-22</td>
<td>51-75%</td>
<td>Moderate</td>
</tr>
<tr>
<td>3.</td>
<td>≤15</td>
<td>≤ 50%</td>
<td>Inadequate</td>
</tr>
</tbody>
</table>

Reliability
The tool was tested for the reliability by administering the self-structured knowledge questionnaire among 15 patients attending eye OPD of Vivekananda Polyclinic & Institute of Medical Sciences, Lucknow from 27/02/22. The reliability of the tool was established by using split half method. The reliability of the tool was found 0.8, which indicate that tool was reliable for the study.

Pilot study
Pilot study was conducted in Vaga hospital, Lucknow to assess the knowledge of the patients attending eye OPD and to decide the statistical analysis of the researcher. Prior to the study, formal permission was taken from the director of Vaga Hospital, Lucknow. 15 patients who meet the inclusion criteria was selected as sample by using convenience sampling technique. The pilot study continues for 1 days from 29/3/22. After taking consent from the patients, investigator collected socio-demographic data from the patients and then conducted pre-test.

Finding of pilot study
The data of self-structured knowledge questionnaire was analysed by using descriptive and inferential statistics. The result shows that majority of samples were having inadequate knowledge 13(86.66%), 2(13.33%) were having moderate knowledge and no one is having adequate knowledge. The mean value is 12.33 and SD is 2.67. During the pilot study the investigator did not face any problem and found that the study to be feasible. The pilot study also helped the investigator to estimate the total time required to conduct main study including the budget.

RESULTS
SECTION I: - Description of samples according to their demographic variables.
SECTION II: - Analysis of pre-existing level of knowledge score regarding prevention and management of cataract.
SECTION III: - Association between the pre-test knowledge score with their selected demographic variables.

Section I: Description of samples according to their demographic variables
n=150

Figure no.3. Cone diagram showing percentage distribution of samples according to age in years
Percentage distribution of samples indicates that majority of samples were in the age group of 31-35 year (28.6 %) followed by 20-25 years (26.7%), 26-30 years (22.7%) and (22%) were in the age group of 36-40 years. Thus above findings indicates that majority of samples were young adults.

**Figure no. 4. Pie diagram showing percentage distribution of samples according to gender.**

Percentage distribution of samples depicts that majority of samples were male 83 (55%) and only 67 (45%) were female.

**Figure no. 5. Bar diagram showing percentage distribution of samples according to the religion**

Percentage distribution of samples shows that majority of samples were Hindu 135 (90 %) followed by Muslim 14 (9.33%), others 1 (0.67%) and there was no samples who belongs from Christian religion. Thus above finding indicates that majority of Hindu adults were visiting OPD for eye checkup.
FIGURE NO. 6. PERCENTAGE DISTRIBUTION OF SAMPLES ACCORDING TO THE EDUCATION.

Figure no. 6. Cone diagram showing percentage distribution of samples according to the education
Percentage distribution of samples reveals that majority of samples were graduate and above 77 (51 %) followed by illiterate 28 (19 %), secondary education 27(18 %) and only 18 (12%) samples did primary education. Thus the above result shows that majority of the samples attending eye OPD were educated.

FIGURE NO.7. PERCENTAGE DISTRIBUTION OF SAMPLES ACCORDING TO THE OCCUPATION

Figure no.7. Line diagram showing percentage distribution of samples according to the occupation
Percentage distribution of samples shows that majority of samples were others 61 (40.67 %) (Out of 61samples, 50 were in private job, 2 were in business, 3 were teachers and 6 were in govt. job) followed by housewife 35 (23.3%), unemployed 28 (18.67%) and only 26 (17.33%) samples were farmer. Thus the above finding shows that majority of the samples were in private job.
Figure no. 8. Bar graph shows percentage distribution of samples according to the monthly income. Percentage distribution of samples reveals that majority of samples having monthly income <Rs. 10,000 were 26 (17.33%) followed by Rs.10001-Rs.25000 were 88 (58.67%), Rs.25001-Rs.50000 were 21 (14%) and only 15 were >Rs. 50000 (10%).

Figure no. 9. Pie diagram shows percentage distribution of samples according to the dietary pattern. Percentage distribution of samples indicates that majority of samples were vegetarian 119 (79.33%) and only 31 (20.67%) samples were non-vegetarian.
Figure no.10. Pyramid diagram shows percentage of samples according to the previous knowledge. Percentage distribution of samples depicts that majority of samples had no previous knowledge 76 (50.67 %) and 74 (49.33%) had previous knowledge regarding prevention and management of cataract.

SECTION II: - ANALYSIS OF PRE-EXISTING LEVEL OF KNOWLEDGE SCORE REGARDING PREVENTION AND MANAGEMENT OF CATARACT.

Table 3: Percentage distribution of sample according to the existing level of knowledge score

<table>
<thead>
<tr>
<th>S.NO.</th>
<th>Level of Knowledge</th>
<th>Number of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Inadequate (≤50%)</td>
<td>60</td>
<td>40%</td>
</tr>
<tr>
<td>2.</td>
<td>Moderate (51-75%)</td>
<td>80</td>
<td>53.30%</td>
</tr>
<tr>
<td>3.</td>
<td>Adequate (&gt;75%)</td>
<td>10</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>150</td>
<td>100%</td>
</tr>
</tbody>
</table>
The first objective of the study was to assess the existing level of knowledge regarding prevention and management of cataract among patients attending eye OPD.

**Figure no. 12.** Above bar diagram reveals that the majority of the samples had moderate knowledge 80 (53.30%), 60 (40%) had moderate knowledge and 10 (6%) had adequate knowledge regarding prevention and management of cataract. Thus above findings suggest that there is need to aware on knowledge regarding prevention and management of cataract.

**Section III: - Association between the pre-test knowledge score with their selected socio- demographic variables**

**Table 4:** Association between the pre-test knowledge score with their selected socio-demographic variables.

In order to determine association between the levels of pre-test knowledge score with their specific demographic variables, the following hypothesis (H1) was formulated.

<table>
<thead>
<tr>
<th>S. n o.</th>
<th>Socio-demographic variables</th>
<th>Knowledge score</th>
<th>Chi square test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Inadequate</td>
<td>Moderate</td>
</tr>
<tr>
<td>1.</td>
<td>Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-25 years</td>
<td>12 20%</td>
<td>26 33%</td>
<td>2 18.2%</td>
</tr>
<tr>
<td>26-30 years</td>
<td>15 25%</td>
<td>15 19%</td>
<td>4 36.4%</td>
</tr>
<tr>
<td>31-35 years</td>
<td>18 30%</td>
<td>21 26.5%</td>
<td>4 36.4%</td>
</tr>
<tr>
<td>36-40 years</td>
<td>15 25%</td>
<td>17 21.5%</td>
<td>1 9.0%</td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td>Male</td>
<td>32 53.33%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>28 46.67%</td>
<td>36 45.6%</td>
</tr>
<tr>
<td>3</td>
<td>Religion</td>
<td>Hindu</td>
<td>49 82%</td>
</tr>
<tr>
<td></td>
<td>Muslim</td>
<td>10 17%</td>
<td>5 6.3%</td>
</tr>
<tr>
<td></td>
<td>Christian</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>1 1.0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>4</td>
<td>Educational status</td>
<td>Illiterate</td>
<td>22 36.67%</td>
</tr>
<tr>
<td></td>
<td>Primary education</td>
<td>7 11.67%</td>
<td>10 12.7%</td>
</tr>
<tr>
<td></td>
<td>Secondary education</td>
<td>10 16.66%</td>
<td>14 17.7%</td>
</tr>
<tr>
<td></td>
<td>Graduate and above</td>
<td>21 35%</td>
<td>49 62.0%</td>
</tr>
<tr>
<td>5</td>
<td>Occupational Status</td>
<td>Housewife</td>
<td>21 35%</td>
</tr>
<tr>
<td></td>
<td>Farmer</td>
<td>12 20%</td>
<td>13 16.5%</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>11 18.33%</td>
<td>16 20.2%</td>
</tr>
<tr>
<td></td>
<td>Other and above</td>
<td>16 26.67%</td>
<td>36 45.6%</td>
</tr>
<tr>
<td>6</td>
<td>Monthly family income</td>
<td>&lt;Rs. 10,000</td>
<td>9 15%</td>
</tr>
<tr>
<td></td>
<td>Rs.10001-Rs.25000</td>
<td>45 75%</td>
<td>39 49.37%</td>
</tr>
<tr>
<td></td>
<td>Rs.25001-Rs.50000</td>
<td>4 6.67%</td>
<td>13 16.45%</td>
</tr>
<tr>
<td></td>
<td>&lt;Rs.50000</td>
<td>2 3.33%</td>
<td>12 15.2%</td>
</tr>
<tr>
<td>7</td>
<td>Dietary pattern</td>
<td>Vegetarian</td>
<td>54 90%</td>
</tr>
<tr>
<td></td>
<td>Non-vegetarian</td>
<td>6 10%</td>
<td>24 30.4%</td>
</tr>
<tr>
<td>8</td>
<td>Previous knowledge</td>
<td>Mass media</td>
<td>2 3.3%</td>
</tr>
<tr>
<td></td>
<td>Health personnel</td>
<td>1 1.7%</td>
<td>3 4%</td>
</tr>
<tr>
<td></td>
<td>Family member</td>
<td>10 16.7%</td>
<td>15 19%</td>
</tr>
<tr>
<td></td>
<td>Friends</td>
<td>2 3.3%</td>
<td>4 5.1%</td>
</tr>
<tr>
<td></td>
<td>Books, pamphlets</td>
<td>5 8.3%</td>
<td>18 22.8%</td>
</tr>
<tr>
<td></td>
<td>No knowledge</td>
<td>40 66.67%</td>
<td>32 40.1%</td>
</tr>
</tbody>
</table>

The data presented in table no. 4 shows that the chi square \( (\chi^2) \) test was used to find out the association between pre-test knowledge score with their selected demographic variables. The finding of the chi square test shows that there was an association between pre-test knowledge score with their specific demographic variables like educational status \( (\chi^2=23.5571) \), occupation \( (\chi^2=16.4352) \), monthly family income \( (\chi^2=16.5216) \) and dietary pattern \( (\chi^2=9.6086) \). Here the p-value in each case was <0.05 (level of significance).

There was no association between the pre-test knowledge score with their specific demographic variables like age in years \( (\chi^2= 5.4499) \), gender \( (\chi^2= 1.469) \), religion \( (\chi^2= 7.032) \) and previous knowledge \( (\chi^2= 23.557) \). Here the p-value in each case is >0.05 (level of significance).

The study concluded that there was significant association between pre-test knowledge score with their selected demographic variables like educational status, occupation, monthly family income and dietary pattern. So hypothesis (H1) is accepted.
SUMMARY

The main aim of study was to assess the level of knowledge regarding prevention and management of cataract among patients. The findings reveals that in pre-test majority 53.30% had moderate knowledge, 40% had inadequate knowledge and 6% had adequate knowledge. Thus, self-structured information booklet is distributed among patients to enhance the knowledge level of the patients.

CONCLUSION

A Quantitative research approach with descriptive research design is used. The sample size was 150 and was selected by non-probability convenience sampling technique. Self-structured knowledge questionnaire tool is used for data collection and the data was analysed by descriptive statistics i.e. frequency and percentage distribution and inferential statistics i.e. chi square test is used to find out association.

In the present study, the level of knowledge score was categorized into inadequate, moderate and adequate level of knowledge. Knowledge score among patients depicts the majority of samples (53.30%), (40%) had inadequate knowledge and only (6%) had adequate knowledge regarding prevention and management of cataract. The Chi square test was used to find out significant association between levels of knowledge score with their selected demographic variables. The finding of chi square shows that there is association between the level of knowledge score with demographic variables like educational status, occupation, monthly family income, dietary pattern. Here the p-value is less than 0.05 (level of significance). So the H1 is accepted whereas demographic variables like age in years, gender, and religion and previous knowledge is not having any association with pre-test score. Here the p-value is greater than 0.05 (level of significance).

The study concluded that further interventional researches should be conducted regarding prevention and management of cataract to increase the knowledge.

RECOMMENDATIONS

On the basis of the findings of the study the following recommendation are made:-

- The present study was conducted on a smaller sample, a more extensive study on large sample is recommended to arrive at generalization regarding cataract awareness.
- The study can be conducted in the different set ups like government and private hospitals and ophthalmic research centre hospitals.
- An experimental study can be carried out with different teaching methods to know the effectiveness of each teaching method on cataract awareness among the patients.
- A comparative study can be conducted to find out the difference and similarities between rural and urban clients with cataract.
- The teaching and demonstration materials can be videotaped and can be shown to the clients with cataract in out patients department and ophthalmic wards of the hospitals.
- To increase the awareness of cataract health information can be passed out to others by various sources like Voluntary organization, Government services, Private health cramps, Nursing personnel and other health professionals and Mass media.

BIBLIOGRAPHY