



EFFECT OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING EARLY DETECTION AND PREVENTION OF GLAUCOMA AMONG MIDDLE AGED ADULTS

Nursing

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ABSTRACT

INTRODUCTION Eye is the organ which gives us the sense of sight, allowing us to learn more about the surrounding world than we do with any of the other senses¹. It allows us to see and interpret the shapes, colors and dimensions of objects in the world by processing the light they reflect or emit. Good vision is critical and essential to conducting activities of daily living easily. Vision loss or blindness can change life dramatically. Everyday activities may be difficult or impossible without normal vision. Vision loss can affect people of all ages, but approximately two third of people aged above 65 years are more affected. There are many types of vision impairment and each has a different effect on a person's ability to perceive and direct them. Some vision loss can be hereditary but others may be acquired by various causes and that can be prevented⁴. Glaucoma is an eye disorder which is discovered during 17th century. Glaucoma is considered the 'sneak thief of sight'. Glaucoma is a group of diseases in which there is high ocular pressure and it causes damage to the very sensitive optic nerve at the retina⁷. Lack of awareness and delay in early identification of glaucoma leads to impairment in vision or loss of vision.

MATERIALS AND METHODS

- **Research approach:** Quasi experimental approach was used in this study.
- **Research design:** One group pre-test post-test design.
- **Sampling technique:** Convenience sampling was used in this study.
- **Sample:** 150 adult populations between 36 to 55 yrs who met the inclusion criteria.
- **Tools:**

Section A – Socio – demographic proforma.

Section B – Self-administered knowledge questionnaire

RESULT The data were analyzed using both descriptive and inferential statistics on the basis of the hypotheses of the study. The result showed that mean knowledge score was increased from 9.55 ± 3.574 to 15.41 ± 2.959 and was statistically significant at 0.001 levels and there was significant association between level of knowledge of middle aged adults and selected socio demographic variables like age ($p < 0.01$), educational status ($p < 0.001$) and occupation ($p < 0.001$).

CONCLUSION The structured teaching programme regarding early detection and prevention of glaucoma help the middle aged adults to manage their condition effectively and take appropriate measures to prevent glaucoma. Based on the study findings, following conclusions were derived. The knowledge of middle aged adults were improved after the structured teaching programme and also revealed that there was significant association between level of knowledge of middle aged adults and selected socio demographic variables like age, education and occupation.

KEYWORDS

structured teaching programme; early detection and prevention of glaucoma; middle aged adults

INTRODUCTION

Vision is important for growth and development, language, communication, learning, work, health and quality of life. It is very important to take care of eyes and vision. Loss of vision and visual impairment are common among elderly. Eighty two percentages of people living with blindness are aged 50 years and above and the elderly constitutes about 20% of the world population. Glaucoma is identified as one of the main cause of blindness in elderly. The people may not seek health care until he or she experiences blurred vision or 'halos' around lights, difficulty in focusing, difficulty in adjusting eyes in low lighting, loss of peripheral vision, aching or discomfort around the eyes, headache, failure to detect color changes, lacrimation, photophobia, enlargement of eye, nausea and vomiting.

MATERIALS AND METHODS

Quasi experimental approach with one group pre-test post-test design was used in this study. Institutional ethics clearance was obtained from Sivagiri Sree Narayana Medical Mission College of Nursing and formal permission from District medical officer, Trivandrum and Medical officer, Community health center, Ottor. The study was carried out during the period from 14.01.2019 to 14.02.2019. The samples were selected conveniently. Each respondent was briefed with the research objectives and informed written consent was obtained from the participants to ensure the right of the subject. Confidentiality was maintained throughout the study. Samples were asked to give baseline information. Pre- test knowledge was assessed in 150 middle aged adults using self-administered knowledge questionnaire. Structured teaching programme was imparted to the samples for 30 minutes. Doubts were cleared during the session. Posttest knowledge was assessed after 2 weeks. The data collection was terminated by thanking the participants for their co-operation. The data collected was then compiled for analysis.

RESULTS

Section I: Socio demographic proforma

Table 1 Distribution of the middle aged adults based on the age in years. (n = 150)

Age (in years)	f	%
36-40	4	2.7
41-45	15	10
46-50	28	18.7
51-55	103	68.6

Table 2 Distribution of the middle aged adults based on gender (n = 150)

Gender	f	%
Male	27	18
Female	123	82

Table 3 Distribution of the middle aged adults based on education (n = 150)

Education	f	%
Primary education	25	16.7
High school	106	70.7
Higher secondary	17	11.3
Graduation & above	2	1.3

Table 4 Distribution of the middle aged adults based on occupation (n = 150)

Occupation	f	%
Govt. employee	3	2
Private employee	6	4
Self-employee	22	14.7
Daily wages	16	10.7
Unemployed	103	68.6

Table 5 Distribution of the middle aged adults based on monthly income (N=150)

Monthly income	f	%
≤ 5000	125	83.4
5001-10000	18	12
10001-15000	5	3.3
>15000	2	1.3

Section II: Level of knowledge of middle aged adults regarding early detection and prevention of glaucoma.

Table 6 Distribution of the middle aged adults based on pre-test knowledge level (N=150)

Knowledge	f	%
Poor	85	56.6
Average	55	36.7
Good	10	6.7

Table 7 Distribution of the middle aged adults based on post-test knowledge level (N=150)

Knowledge	f	%
Average	94	62.7
Good	56	37.3

Section III: Effect of structured teaching programme on knowledge among middle aged adults regarding early detection and prevention of glaucoma.

Table 8 Mean, standard deviation and paired t value on knowledge regarding early detection and prevention of glaucoma among middle aged adults (N=150)

Groups	Mean	SD	Mean difference	t	P
Pre-test	9.55	3.574			
Post-test	15.41	2.959	5.860	23.686***	<0.0001

***Significant at 0.001 level

Section IV: Association between knowledge of middle aged adults regarding early detection and prevention of glaucoma and selected socio demographic variables

Table 9 Association between level of knowledge of middle aged adults and age (N=150)

Age	Level of knowledge						χ^2	p
	poor		average		good			
	f	%	f	%	f	%		
36-40	2	1.3	1	0.7	1	0.7		
41-45	3	2	10	6.7	2	1.3		
46-50	10	6.7	16	10.7	2	1.3	21.169**	0.002
51-55	70	46.7	28	18.7	5	3.3		

**Significant at 0.01 level

Table 10 Association between level of knowledge of middle aged adults and gender. (N=150)

Males and females (N = 105)								
Gender	Level of knowledge						χ^2	p
	poor		average		good			
	f	%	f	%	f	%		
Male	19	12.7	7	4.7	1	0.7	2.561 ^{NS}	0.278
Female	66	44	48	32	9	6		

Not significant

Table 11 Association between level of knowledge of middle aged adults and education. (N=150)

Education	Level of knowledge						χ^2	p
	poor		average		good			
	f	%	f	%	f	%		
Primary education	14	9.3	7	4.7	4	2.7		
High school	71	47.3	33	22	2	1.3	37.974***	<0.001
Higher secondary	0	0	13	8.7	4	2.7		
Graduation & above	0	0	2	1.3	0	0		

***Significant at 0.001 level

Table 12 Association between level of knowledge of middle aged adults and occupation (N=150)

Occupation	Level of knowledge						χ^2	p
	poor		average		good			
	f	%	f	%	f	%		
<u>Govt. employee</u>	0	0	3	2	0	0		
<u>Pvt. employee</u>	2	1.3	2	1.3	2	1.3	25.821**	0.001
<u>Self employee</u>	9	6	8	5.3	5	3.3		
Daily wages	11	7.3	5	3.3	0	0		
Unemployed	63	42	37	24.7	3	2		

**Significant at 0.001 level

Table 13 Association between level of knowledge of middle aged adults and family income (N=150)

Family Income	Level of knowledge						χ^2	p
	poor		average		good			
	f	%	f	%	f	%		
≤ 5000	70	46.7	46	30.7	9	6		
5001-10000	10	6.7	7	4.7	1	0.7	2.013 ^{NS}	0.919
10001-15000	3	2	2	1.3	0	0		
>15000	2	1.3	0	0	0	0		

Not significant

DISCUSSION

The present study focused on the assessment of middle aged adults knowledge regarding early detection and prevention of glaucoma with a view to develop a structured teaching programme. The first objective of the study was to assess the level of knowledge regarding early detection and prevention of glaucoma among middle aged adults. The results showed that in the pre-test 56.6% had poor knowledge, 36.7% had average knowledge and 6.7% of samples had good knowledge regarding early detection and prevention of glaucoma. The study finding was supported by a study conducted by Sathyamangalam RV, Paul PG, George R, Baskaran M, Hemamalini A, Madan RV, Augustian J, Prema R, Lingam V on determinants of glaucoma awareness and knowledge among 3850 subjects aged 40 years or above. The second objective was to determine the effect of structured teaching programme regarding early detection and prevention of glaucoma among middle aged adults. From the present study it was found that mean knowledge score was increased from 9.55±3.574 to 15.41±2.959 and was statistically significant at 0.001 levels. The study finding was supported by a study conducted by E.A. Mohamed, O.R. Bayoumi and S.F. Draz on effect of educational programme on knowledge, beliefs, practices and expectations about care among adolescent glaucoma patients. It revealed that satisfactory knowledge score was very low before implementation of the educational programme (12%). The third objective was to find out the association between level of knowledge and selected demographic variables. From the present study it was found that there was significant association between knowledge and socio demographic variables like age ($p<0.01$), education and occupation ($p<0.001$). The study finding

was supported by a study conducted by Alemu DS, Gudeta AD, Gebreselassie KL on awareness and knowledge of glaucoma and associated factors among 701 adults aged above 35 years revealed that 50.4% of participants had poor knowledge. Data were collected using self-administered knowledge questionnaire. Data were analyzed using Statistical Package for Sciences (SPSS) version 16.

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