Knowledge, attitude, and self-care behaviors of cataract out-patients at Thammasat University Hospital.

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Purpose: *The purpose of this research was to study personal factors, evaluate and compare the relationships between personal factors, knowledge, attitude and self-care behaviors of cataract patients in out-patient ophthalmology clinic at Thammasat University Hospital in Thailand.*

Method: *Survey-based observational study. Data was collected from the out-patient ophthalmology clinic at Thammasat University Hospital in 2015. One hundred and fifteen cataract patients participated in this study and were asked to complete the following questionnaires 1) a sociodemographic self-report; 2) a questionnaire on knowledge, attitude and self-care behaviors of cataract patients. The content validity index and the reliability coefficient of these questionnaires were acceptable. Data were analyzed using descriptive statistics and the Pearson's product moment correlation coefficient.*

Results: *1) Most participants had knowledge points at low level ($\overline{X}$ = 11.88, SD = 5.602) and self-care behaviors points at lowest level ($\overline{X}$ = 14.42, SD = 6.912). But 100 percent of the participants had attitude points at high level ($\overline{X}$ = 17.2, SD = 1.506). 2) There was a significant relationship between personal factors, in terms of the age and knowledge, attitude and self-care behaviors of cataract patients. But there was not a significantl relationship between personal factors, in terms of gender, occupation, cataract patients and their family income per month, and duration of disease with cataract and knowledge, attitude and self-care behaviors of cataract patients, at the .05 level. 3) There was significant relationship between knowledge and attitude. But there was no significant relationship between knowledge and self-care behaviors. Lastly, there was no significant relationship between attitude and self-care behaviors, at the .05 level.*

Conclusion: *The result of this study offers basic information on caring for cataract patients to increase knowledge about cataract and how to take care of themselves at home. Also, these findings could be a foundation for developing a nursing care plan to enhance the knowledge management process for self-care for patients. And nursing planning improves the correct self-care behaviors of cataract patients. In addition, the research data can be used for further research.*

Conflict of interest: *the authors declare no conflict of interest.*

Keywords: *Cataract, Knowledge, Attitude, Self-care behaviors.*

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Introduction

The eyes are a critical organ in the daily life of human beings that makes humans sense visually. Each day, approximately 80 percent of our senses are owed to our visibility, enabling us to perform various activities and to interact with the society and environment efficiently. If the visual sense is faulty or does not function, it will inevitably result in not being able to perform everyday activities efficiently or having to rely on others to provide assistance for one's living. The latter may pose a burden to families and the society.[1, 2] A survey of the status and illness tendency in Thai people by the National Statistical Office Thailand of 1996-2007 found that eye-related diseases ranked as the seventh most common cause of the illnesses in Thai people, and the most common disability resulting from eye diseases was bilateral dim sight, followed by unilateral dim sight, and that the main disease causing visual disabilities was cataracts,[2] which is a disease of the turbid eye lens. This turbidity is a barrier to light passing into the eye, scattering the light and resulting in reduced visibility,[3] which in turn may affect quality of life of the patient or at least complicate activities of daily living.[4,5,6] If left untreated, cataracts may result in blindness. The most common cause of cataracts arises from degenerative processes. Cataracts are found more with increasing age and often in people aged 60 and above. This disease, however, can be found earlier than the age of 55. Other causes of the formation of cataracts include complications of diseases, particularly diabetes mellitus, and eye accidents as well as cataracts that occurs following eye surgery.[7,8]

The Ophthalmology clinic at Thammasat University Hospital provides management for all eye diseases. Among all of the patients there, cataracts have been found to be the most common disease. [9] Currently, there is no evidence from studies that pharmacotherapy can prevent or inhibit the development of cataracts. Rather, the patients can resume their visibility by means of surgery only.[3] Part of cataract treatment includes education, providing basic healthcare knowledge and counseling. For patients with more severe cataracts where their visibility has decreased and their everyday lives are interfered with, surgical treatment is needed. Success in treating patients with cataracts depends on the patients' self-care under the advice of doctors and nurses.[10] The researcher was, therefore, interested in studying the knowledge, attitudes, and self-care behavior of patients with cataracts, and the relationships among these factors in the patients at the Ophthalmology clinic at Thammasat University Hospital in Thailand, in order to apply the study results for improving the care for such patients so that the they have the ability to take care of themselves properly. This, in turn, would lead to the efficient treatment of cataracts and the patients resuming their visual sense and normal lives.

Objectives

1. To study the knowledge, attitudes, and self-care behavior of cataract patients in the Ophthalmology clinic at Thammasat University Hospital
2. To study the relationships among the knowledge, attitudes, and self-care behaviors of patients with cataracts and their demographic data
3. To study the relationships among the knowledge, attitudes, and self-care behaviors of cataract patients in the Ophthalmology clinic at Thammasat University Hospital

Methods

The sample group was comprised of 115 patients in the Ophthalmology clinic at Thammasat University Hospital. The entire group was selected according to the selection criteria.

The research tools included one questionnaire on the knowledge, attitudes, and self-care behaviors of cataract patients comprised of the following two parts.

Part 1: A general information query of the sample group, concerning the sex, marital status, level of education, highest level of education, occupation, individual monthly income, family monthly income, period for which the cataracts had been diagnosed, and the proximity of the infirmary to the patient's residential property. The 10 questions were in multiple-choice format.

Part 2: The information query on the knowledge, attitudes, and self-care behaviors of the cataract patients was adapted from an interview form by Yairaungsri, Kwanyuen and Khruasukhont[11] concerning the knowledge, attitudes, and self-care of monks about five most common diseases found at Priest Hospital in Thailand. The study was approved by the Subcommittee on Ethics in Human Research Thammasat University in Thailand, and was considered by the principle of the International Conference on Harmonization-Good Clinical Practice.

Tool Validation

1. Content validity

The researchers had three experts in the evaluation, research, and care of patients with ophthalmologic disorders, particularly cataracts, determine the accuracy and coverage of the content, the language used to convey the intended meaning, and content validation. The content validity index was 0.89.

2. Reliability

The questionnaire on knowledge, attitudes, and self-care behaviors of the cataract patients passed the above content validity and was revised before the researcher tried out this questionnaire by using 30 cataract patients similar to those in the sample group. The precision of the questionnaire was determined using Cronbach's alpha coefficient and it was found to be 0.9. The precision of the actual sample group was 0.93.

Data was collected by asking the 115 patients at the Ophthalmology clinic, Thammasat University Hospital, to respond to the developed and validated questionnaire about their knowledge, attitudes, and self-care behaviors.

Analysis

1. The personal data of the samples were analyzed by using frequency distribution statistics and determining percentage values and standard deviations.

2. The analyses of the relationship among the knowledge, attitudes, and self-care behaviors of the patients with cataract, and the relationships among these factors and the demographic data were performed using Pearson's product-moment correlation coefficient and pearson's chi-squared test.

Results

The results in this study were collected from 115 out-patients in an ophthalmology clinic at Thammasat University Hospital. The results revealed that most of cataract patients were women and the youngest of them was 40 years and the oldest was 99 years. The average age was 70.12 years.

Most participants were married (together) (56.5%). Their main occupation were housewives/retired (33%). Their education was mostly at the primary level (57%). They earned an average income per month of 0-10,000 baht and an average monthly income per household of 30,000 baht. (Table 1)

Table 1: Patient demographics: shows that the number and percent of cataract out-patients ophthalmology clinic at Thammasat University Hospital personal information in terms of the Age, Gender, Status, Education, average income per month and average monthly income per household.

Personal information	**Participants**	
	Number (persons)	**Percent**
Age	70.12 (Mean)	11.63 (SD)
Gender		
Male	32	28.8
Female	79	71.2
Status		
Single	9	7.8
Marriage (Together)	65	56.5
Marriage (Not together)	11	9.6
Widowed/Divorced	30	26.1
Educational background		
Primary school	57	49.6
High school	25	21.7
Diploma	11	9.6
Bachelor	19	16.5
Higher education	3	2.6
Occupation		
Not working	35	30.4
Employee	3	2.6
Agriculturalist	13	11.3
Government/State enterprise	13	11.3
Average income per month (Baht)		
0-10,000	69	61.6
10,000-20,000	19	17
20,000-30,000	14	12.5
> 30,000	10	8.9
Average income per household per month (Baht)		
0-10,000	16	14.5
10,000-20,000	18	16.4
20,000-30,000	24	21.8
> 30,000	52	47.3

Table 2: Cataract patient self-care attributes: shows the numbers and percentages of personal information of cataract out-patients ophthalmology clinic at Thammasat University Hospital by number of years with cataract, having a health care center near home, a person who take care when you got sick and where were you got knowledge about health care.

Personal information	Participants	
	Number (person)	Percent
The number of years with cataract		
0-1 Yr.	32	28.6
1-3 Yrs.	29	25.9
3-5 Yrs.	22	19.6
5-10 Yrs.	13	11.6
> 10 Yrs.	16	14.3
Having a health care center near home		
Yes	81	73
No	30	27
Person who takes care of you when you get sick?		
Yourself	10	8.7
Spouse	30	26.1
Descendant	69	60
Relative	4	3.5
Friends	1	0.9
Other (neighbor)	1	0.9
Where did you receive knowledge about health care?		
Doctor, Nurse, other health care personnel	83	55.3
Other Cataract patients at ophthalmology clinic	26	17.3
Media (TV, Radio, Books, Internet)	34	22.7
Never received health care information	7	4.7

Results from table 2 showed that most participants were cataract patients for about 0-1 year (32%). Their child would take care of them when they got sick (60%). The participants received health care knowledge from doctors, nurses and other health care personnel (72.2%).

Table 3: The knowledge level of cataract out-patients

Knowledge level	Participants	
	Number (person)	Percent
Lowest	8	7
Low	65	56.5
Medium	42	36.5
High	0	0
Mean = 11.88, SD = 5.602		

Table 3 showed that most participants had knowledge points at low level (56.5, Medium level 36.5% the lowest level was 7% and no one had knowledge points at high level (0%) %), (X = 11.88, SD = 5.602).

Table 4: the attitude point of cataract out-patients.

Attitude level	Participants	
	Number(person)	Percent
Lowest	0	0
Low	0	0
Medium	0	0
High	115	100
Maximum 25, Minimum 14 Mean = 17.20, SD = 1.506		

Table 4 showed that all of the participants had a high level of attitude points for self-care (100%), (X = 17.2, SD = 1.506).

Table 5: The level of self-care behavior levels of cataract out-patients

Self-care behavior level	Participants	
	Number(person)	Percent
Lowest	85	73.9
Low	29	25.2
Medium	1	0.9
High	0	0
Maximum 38, Minimum 2 Mean = 14.42, SD = 6.912		

Table 5 showed that most participants had self-care behaviors points at the lowest level (73.9%), low level (25.2%), medium level (0.9%) and no one had self-care behaviors points at high level (0%), ($\overline{X}$= 14.42, SD = 6.912)

Table 6: Shows the relationship between personal factors in terms of age and knowledge, attitude and self-care behaviors of cataract out-patients (Pearson's product-moment correlation coefficient)

Variable	Age	Knowledge	Attitude	Self-care behaviors
Age	1			
Knowledge	0.009	1		
Attitude	-0.144	-0.196*	1	
Self-care behaviors	-0.081	0.071	0.115	1

Table 6 showed there was a significant relationship between personal factors in terms of age and knowledge of cataract out-patients in ophthalmology clinic.

Table 7: Shows the distinction of gender between personal attributes in terms of knowledge, attitude and self-care behaviors of cataract out-patients.

Variable	Gender(person)		
	Male	Female	p - value
Knowledge	32	79	0.251
Attitude	32	79	0.427
Self-care behavior	32	79	0.428

Table 8: Shows the relationship between personal factors in terms of the occupation and the knowledge, attitude and self-care behaviors of cataract out-patients in ophthalmology clinic.

Variable	Occupation(person)						
	Unemployed	Employee	Agriculture	Government/ State enterprise	Housewife/ retired	Other	p - value
Knowledge	35	3	13	13	38	13	0.247
Attitude	35	3	13	13	38	13	0.611
Self-care behaviors	35	3	13	13	38	13	0.688

Table 8 results revealed that there was no significant relationship between personal factors in terms of the occupation and the knowledge, attitude and self-care behaviors of cataract out-patients.

Table 9: shows that the relationship between the personal factors in term of an educational background and the knowledge, attitude and self-care behaviors of cataract out-patients.

Variable	Educational background(person)					
	Primary school	High school	Diploma	Bachelor	Higher education	p - value
Knowledge	57	25	11	19	3	0.032
Attitude	57	25	11	19	3	0.593
Self-care behaviors	57	25	11	19	3	0.600

Table 9 results revealed there was a significant relationship between personal factors in terms of the educational background and the knowledge of patients ($p = 0.032$). But there were no significant relationships between personal factors in term of the educational background and the attitude, self-care behaviors of cataract out-patients.

Table 10: shows the relationship between the personal factors in terms of cataract patients average income per month and the knowledge, attitude and self-care behaviors of cataract out-patients.

Variable	Average income per month(person)				
	0-10,000 baht	10,000-20,000 baht	20,000-30,000 baht	> 30,000 baht	p - value
Knowledge	69	19	14	10	0.217
Attitude	69	19	14	10	0.584
Behavior	69	19	14	10	0.417

Table 10 results revealed that there was no significant relationship between personal factors in terms of the cataract patients average income per month and the knowledge, attitude and self-care behaviors of cataract out-patients.

Table 11: Shows the relationship between the personal factors in term of the cataract patient's household average income per month and the knowledge, attitude and self-care behaviors of cataract out-patients.

Variable	Cataract patient household Average income per month(person)				
	0-10,000 baht	10,000-20,000 baht	20,000-30,000 baht	> 30,00(baht	p - value
Knowledge	16	18	24	52	0.257
Attitude	16	18	24	52	0.436
Self-care behaviors	16	18	24	52	0.664

Table 11 results revealed that there was no significant relationship between personal factors in term of the cataract family average income per month and the knowledge, attitude and self-care behaviors of cataract out-patients.

Table 12: Shows that the relationship between the personal factors in terms of the duration of cataract disease and the knowledge, attitude and self-care behaviors of cataract out-patients.

Variable	Duration of cataract disease						Chi-square Test	
	0-1 Yr.	1-3 Yrs.	3-5 Yrs.	5-10 Yrs.	> 10 Yrs.	Total	Pearson Chi-Square	p - value
Knowledge	32	29	22	13	16	**112**	**87.310**	**0.619**
Attitude	32	29	22	13	16	**112**	**92.473**	**0.467**
Self-care behavior	32	29	22	13	16	**112**	**230.395**	**0.517**

Table 12 results revealed that there was no significant relationship between personal factors in term of the period of illness is Cataract and the knowledge, attitude and self-care behaviors of cataract out-patients.

Table 13: shows the relationship between the knowledge, attitude and self-care behaviors of cataract out-patients in ophthalmology clinic at Thammasat University Hospital.

Variable	Knowledge	Attitude	Self-care behaviors
Knowledge	1		
Attitude	-0.196*	1	
Self-care behaviors	0.071	0.115	1

Table 13 There was no significant relationship between knowledge, attitude and self-care behaviors.

Discussion

The majority of the samples were seen to have some ability to help themselves. However, when the patients have a severe illness and access to the hospital, their children or in some cases are their caretakers. Due to the success of cataract patients treatment depends on the patient's self-care behaviors. On the advice of doctors and nurses. So this information can be used as a basis. That in developing a Cataract patient care program. Must focus on the knowledge and development of self-care ability with Cataract patients is important.

All of the samples had good attitude levels towards their self-care. Their levels of knowledge on cataracts and self-care, however, were low and their self-care behaviors were at the lowest level. This data suggest that cataract patients at the Ophthalmology clinic at Thammasat University Hospital realize the importance of self-care regarding cataracts and wish to take care of themselves correctly. Most of the patients, however, have low levels of knowledge about cataracts and self-care practices regarding them, and this knowledge was not seen to have a relationship with the length of time that they had had their cataracts. This shows that even those that have had cataracts for a long time may not have more knowledge than those that have recently been diagnosed with them. Additionally, patients with the lowest level of self-care behavior may be due to low levels of correct self-care knowledge. This is consistent with the findings of Kitsripisarn, Peepratoom, and Pooributr,[12] who studied the perceptions and need for knowledge for care of patients and their relatives during ambulatory cataract surgery at Thammasat University Hospital. The study found that the knowledge most needed by the patients and their relatives concerned their practices and self-care following surgery. So from the data. It should be used as a basis for the development of nursing programs. To increase knowledge, the self-care ability of Cataract patients. This may help Cataract patients have higher self-care behaviors

The samples appear to have gained knowledge on healthcare mainly from the health team. This information can be used as a basis for developing a nursing care plan for Cataract patients. Should enhance the knowledge management process of self care for patients It helps to cure Cataract patients. More successful and reduce eye loss from cataract.

Conclusion

The research results have revealed important issues in the nursing development to enhance the abilities of the proper self-care of cataract patients. This development may include nursing plans and nursing management to improve the patients' knowledge and to develop their self-care behavior. This will increase nursing efficiency with maximum benefit for the care of cataract patients. This is consistent with an article by Watkinson,[13] which states that an important role of nurses in helping patients after cataract surgery in order to take care of themselves properly is to educate them and their relatives through teaching, demonstrating important self-care principles for preventing complications, describing unusual symptoms that should be consulted on with doctors, emphasizing the importance of scheduled clinic visits, and ensuring that the patients adhere to such visits.

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