The Impact of Attitude and Knowledge on Consent Decisions for Cataract Surgery: A Study at Siloam Hospitals Lippo Village, Building B

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Abstract

Introduction: Cataracts account for 77.7% of blind cases in Indonesia, indicating that many cataract patients have not had surgery. Low levels of knowledge, attitude, and decision-making among cataract patients regarding surgery may limit the number of procedures performed in Indonesia. Therefore, this study aims to assess cataract patients' knowledge, attitude, and decision-making concerning surgery at Siloam Hospitals Lippo Village in Tangerang. Objective: To determine the relationship between knowledge, attitude, and decision-making regarding cataract surgery among Siloam Hospitals Lippo Village Building B patients.

Methods: This cross-sectional study involves 64 cataract patients visiting Siloam Hospitals Lippo Village Building B. The collected data were analysed using SPSS Statistics bivariate analysis.

Results: Out of the 64 respondents, 7 (10.9%) demonstrated low knowledge, 4 (6.3%) displayed a negative attitude, and 4 (6.3%) indicated unwillingness to undergo surgery. A significant relationship exists between knowledge and attitude, attitude and decision, and knowledge and decision regarding cataract surgery, with a p-value of 0.000 as determined by the Pearson Chi-Square test.

Conclusion: A significant relationship exists between knowledge, attitude, and the decision to undergo cataract surgery.

Introduction

Cataract is a degenerative process that causes cloudiness in the eye's lens of resulting in blurred vision. Lens cloudiness can be caused by degenerative processes that change the nature and coagulate proteins in the eye's lens through various mechanisms, resulting in loss of transparency and, ultimately forming cataracts. Cataracts can cause multiple complications, one of which is blindness.[1] Based on data from the World Health Organization (WHO), globally, there are at least 2.2 billion people who experience near or far vision problems with the main cause of visual impairment being cataracts with a prevalence of 94 million out of 1

billion people.[2] In Indonesia, cataracts cause 77.7% of blindness cases. In population aged ≥50 years, the prevalence of blindness caused by cataract has reached 1.9%. Results of the Rapid Assessment of Avoidable Blindness (RAAB) survey conducted by the Indonesian Ophthalmologist Association (PERDAMI). The high prevalence of blindness caused by cataracts in Indonesia suggests that there are still many cataract sufferers who have not undergone surgery. This is also supported by the Cataract Surgical Rate (CSR) data, namely the number of cataract surgeries per million population per year in Indonesia which is calculated using data from *JKN/BPJS Kesehatan*.[3] Lack of knowledge regarding cataract disease and treatment is still a major Obstacle in developing countries. However, research regarding awareness, knowledge about cataracts and their surgery, and public attitudes towards cataract surgery has yet been carried out. Therefore, this study aims to assess patients' knowledge, attitudes, and decisions of patients towards cataract surgery at Siloam Hospitals Lippo Village, Tangerang

Material And Methods

Research Design and Variables

This study is a cross-sectional study. The independent variable in this study is the level of knowledge of cataract patients regarding cataract surgery with the dependent variable being attitude and patient decision toward cataract surgery. Confounding variables include the level of education and income level.

Research Subjects

Cataract patients at Siloam Hospitals Lippo Village Building B who were 50 years old and over in 2024 were included in this study. This study excluded patients who could not speak Indonesian and patients who were diagnosed with memory or mental disorders. A minimum of 60 samples were required in this study. A total of 64 subjects were obtained.

Research Materials and Methods

Informed consent sheets, research subject identity sheets, cataract surgery knowledge level questionnaire, and attitude toward cataract surgery questionnaire were utilized. Cataract knowledge was evaluated using a questionnaire consisting of 20 questions with true or false answer choices. Attitude questionnaire towards cataract surgery consisting of 15 questions with answer choices strongly agree, agree, disagree, or strongly disagree. These questionnaires have been previously validated to cataract patients at the Siloam Hospitals Lippo Village Eye Clinic Building B.

Research Ethics

This study adhered to the principles of the Declaration of Helsinki and was approved by the ethics committee of Pelita

Harapan University (Ethics number 116/K-LKJ/ETIK/II/2024).

Data Processing and Statistical Analysis

The collected data were tabulated into Microsoft Excel 2022 and analyzed using the Statistical Package for the Social Sciences 26 (SPSS 26) using the chi-square analysis.

Result

Characteristics of Research Subjects

Table 1. Characteristics of Research Subjects

	Variable	Frequency (n)	Percentage (%)
Gender	Male	29	45.3%
	Female	35	54.7%
Age[a]	50-59	5	7.8%
	60-74	50	78.1%
(In years)	75-90	9	14.1%
Recent Education	Elementary	7	10.9%
	Junior High School	18	28.1%
	High School	21	32.8%
	Undergraduate	3	4.7%
	Bachelor	15	23.4%
Occupation	Employee	1	1.6%
	Housewife	32	50%
	Unemployed	2	3.1%
	Self-employed	4	6.3%
	Retiree	25	39.1%
Monthly Income (IDR)	≥ 3.500.000	25	39.1%
	2.500.000-3.500.000	22	34.4%
	1.500.000-2.500.000	12	18.8%
	≤ 1.500.000	5	7.8%

[a] Age categories based on WHO, **44-60**: *middle age*, **60-75**: *elderly age*, **75-90**: *senile age*.[4]

Of the 64 respondents, there were more female respondents than male respondents, where there were 35 (54.7%) female respondents and 29 (45.3%) male respondents. The oldest respondent was 80 years old and the youngest was 50 years old with most respondents being 67 years old, which was 13 (20.3%) respondents. The last level of education undertaken by most respondents was high school / vocational school with a result of 21 (32.8%) respondents, then junior high school, which was 18 (28.1%) respondents, bachelor's degree with 15 (23.4%) respondents, elementary school with 7 (10.9%) respondents, and finally diploma with 15 (23.4%) respondents. A total of 32 (50%) respondents were housewives, 25 (39.1%) respondents were retirees, 4 (6.3%) respondents worked as entrepreneurs, 1 (1.6%) respondents were private employees, and 2 (3.1%) respondents were unemployed. Most of the respondents, namely 25 (39.1%), had a very high income level, 22 (34.4%) respondents had a high income level, 12 (18.8%) had a medium income level, and 5 (7.8%) had a low income level.

Research Results

Table 2. Respondents' Level of Knowledge, Attitude, and Decisions Regarding Cataract Surgery

Parameter	Frequency (n)	Percentage (%)
Level of Knowledge		
Level of Knowledge Regarding Cataract Surgery		
High	57	89.1%
Low	7	10.9%
Attitude		
Attitude towards Cataract Surgery		
Good	60	93.8%
Bad	4	6.3%
Decisions		
Decisions towards Cataract Surgery		
Willing	60	93.8%
Not willing	4	6.3%

Of the 64 respondents, 57 (89.1%) respondents had a high level of knowledge, while 7 (10.9%) respondents had a low level of knowledge regarding cataract surgery. Most respondents had a good attitude towards cataract surgery, namely 60 (93.8%), while 4 (6.3%) others had a bad attitude towards cataract surgery. For the respondents' decision regarding cataract surgery, 60 (93.8%) respondents were willing, and 4 (6.3%) respondents were not willing to undergo cataract surgery.

Table 3. The Relationship between Attitudes and Decisions regarding Cataract Surgery

Attitude	Willingness to Undergo Cataract Sugery				Total	P value
	Willing		Not willing			
	n	%	n	%		
Good	57	89,1	0	0	57	0,000
Bad	3	4,7	4	6,2	7	
Total	60	93,8	4	6,2	64	

A P value of 0.000 was obtained after analyzing attitude with patient decision. This value indicates the presence of a significant statistical relationship between attitudes and decisions regarding cataract surgery. (Table 3)

Table 4. The Relationship between Knowledge Level and Decisions Regarding Cataract Surgery

Level of Knowledge	Willingness to Undergo Cataract Surgery				Total	P value
	Willing		Not willing			
	n	%	n	%		
High	60	93,8	0	0	60	0,000
Low	0	0	4	6,2	4	
Total	60	93,8	4	6,2	64	

A P value if 0.000 was also obtained after analyzing knowledge with patient decision, indicating presence of a significant statistic relationship between the two variables. (Table 4)

Table 5. The Relationship between Recent Education and Decisions on Cataract Surgery

Recent Education	Willingness to Undergo Cataract Surgery			
	Willing	Not willing	Total	P Value
Elementary	6	1	7	2,777
Junior High School	16	2	18	
High School	20	1	21	
Undergraduate	3	0	3	
Bachelor	15	0	15	
Total	60	4	64	

Table 5 shows the relationship between the last level of education and the decision on cataract surgery. A P Value of 2.777 was obtained from the indicating no significant relationship between level of education and patient decision on cataract surgery.

Table 6. The Relationship between Income Level and Decisions on Cataract Surgery

Level of Income	Willingness to Undergo Cataract Surgery			
	Willing	Not willing	Total	P Value
Very High	25	0	25	3,672
High	20	2	22	
Average	11	1	12	
Low	4	1	5	
Total	60	4	64	

Table 6 discusses the relationship between income level and the decision on cataract surgery. A P Value of 3.672 was obtained, indicating that there is no significant relationship between income level and the decision on cataract surgery.

Discussion

This research showed that majority of cataract patients in Siloam Hospitals Karawaci Building B had high knowledge and good attitude regarding cataract. This study also found a significant relationship between patient attitudes towards the decision to undergo cataract surgery which can be seen from the P value of 0.000. This indicates that patient attitudes have an important role in their decision to undergo or refuse cataract surgery. Thus it can be said that a bad attitude towards cataract surgery significantly increases the likelihood of patients being unwilling to undergo cataract surgery.

A significant relationship was found between the level of patient knowledge about cataracts and their willingness to undergo surgery. According to the theory of knowledge-attitude-behavior, information and knowledge about health are the foundation for developing active and appropriate beliefs and attitudes towards a disease, this attitude can be a motivation to change behavior.[5] Respondents in this study had educational backgrounds ranging from elementary school, junior high school / MTs, high school/vocational school, diploma, and bachelor's degree. The results of the analysis showed no significant correlation between the level of education and the decision to undergo cataract surgery. The results of the analysis showed no significant relationship between income level and the decision to undergo cataract surgery. Access to medical information is not always directly correlated with education level, particularly in Indonesia. Regardless of their level of formal education, patients are frequently given additional information on the advantages of cataract surgery through programs like BPJS Kesehatan, which cover the expenses of the treatment. Healthcare professionals, family members, or community-based navigators such as BPJS Watch, Jaminan Kesehatan Watch, and POSKO JKN-KIS also plays a role in assisting patients in understanding and utilizing BPJS Kesehatan services and also help to spread awareness among patients regarding their benefits and entitlements, which may help patients with lesser educational backgrounds to make educated decisions according to a research done in Jakarta in 2022.[6]

This study was conducted in Tangerang, Banten, with a population of cataract patients residing in the area. The Regional Minimum Wage (UMR) of Banten in 2024 was set at IDR 2,995,421 per month.[7] With this level of income, patients living under the Banten UMR standard may face financial constraints that limit their access to healthcare facilities. However, the availability of financial assistance, such as cataract surgery covered by BPJS, is one of the factors influencing these outcomes. This

assistance enables respondents to adopt positive attitudes and make favorable decisions regarding cataract surgery, as they are not burdened by the cost of the procedure. These findings align with a study conducted by Darius Erlangga, Shehzad Ali, and Karen Bloor in 2018, which found that the JKN/BPJS Kesehatan program increases patients' willingness to undergo outpatient and inpatient treatments, including surgeries.[8]

The decision of cataract patients towards cataract surgery as a whole can be influenced by various factors outside of their level of knowledge and attitude. One of the factors is the social support factor where it was found that the role of the patient's family and environment is very important in providing motivation and reducing patient anxiety before undergoing surgery, this will also influence the patient's final decision to undergo surgery.[9]

The limitation of this study is that it was implemented using interview techniques rather than filling out questionnaires by respondents themselves, making it prone to risk of biased or inaccurate respondent answers.

Conclusion

There is a significant relationship between the level of knowledge and attitude, attitude and decision, and the level of knowledge and decision of cataract patients at Siloam Hospitals Lippo Village Building B towards cataract surgery. By conducting this study, health services are expected to improve educational efforts to the community regarding cataracts and cataract surgery in order to increase public knowledge and desire for cataract surgery as a preventive measure for blindness due to cataracts. For further researchers, it is hoped that they can reconsider the techniques used in the sample collection process.

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References

1. World Health Organization East Mediterranean Region. Cataract [Internet]. World Health Organization. 2023. Available from: https://www.emro.who.int/health-topics/cataract/
2. World Health Organization. Blindness and vision impairment [Internet]. World Health Organization. 2023 Aug 10. Available from: https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment

3. Infodatin. Situasi Gangguan Penglihatan. Pusat Data dan Informasi Kementerian Kesehatan Republik Indonesia; 2018. p.1–10.
4. Dyussenbayev A. Age Periods of Human Life. *Adv Soc Sci Res J*. 2017 Mar 25;4(6): 258-263. https://doi.org/10.14738/assrj.46.2924
5. Aghaji AE, Gilbert C, Ihebuzor N, Faal H. Strengths, Challenges and Opportunities of Implementing Primary Eye Care in Nigeria. *BMJ Global Health*. 2018;3(2):e000846. https://doi.org/10.1136/bmjgh-2018-000846
6. Raharja DP, Hanani R, Joyoadisumarta FS, Jessani NS, Mathauer I. The impact of informal patient navigation initiatives on patient empowerment and National Health Insurance responsiveness in Indonesia. *BMJ Glob Health*. 2022;7(Suppl 6):e009526. https://doi.org/10.1136/bmjgh-2022-009526
7. Badan Pusat Statistik. Upah Minimum Kabupaten/Kota per Bulan di Provinsi Banten [Internet]. 2023. Available from: https://banten.bps.go.id/id/statistics-table/2/MTg1IzI=/upah-minimum-kabupaten-kota-per-bulan-di-provinsi-banten.html
8. Erlangga D, Ali S, Bloor K. The impact of public health insurance on healthcare utilisation in Indonesia: evidence from panel data. Int J Public Health. 2019;64:603–13. https://doi.org/10.1007/s00038-019-01215-2
9. Fitria A. Hubungan Umur, Sikap, Pengetahuan, Biaya Terhadap Tindakan Untuk Melakukan Operasi Katarak. 2016 Dec 31. Available from: http://download.garuda.kemdikbud.go.id/article.php?article=600652&val=7403&title=The%20Relationship%20of%20age%20attitude%20knowladge%20cost%20to%20cataract%20surgery

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