



Association between Knowledge with Anxiety Level of Pre Operating on Patients with Cataract

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Abstract

Background: pre anxiety cataract surgery could affect the majority of patients. From the preliminary study, it was found that 6 out of 10 patients felt anxious, if the anxiety in preoperative patients was not overcome it could interfere with the healing process.

Aim: To identify association between the level of knowledge about the process of perioperative management with the level of anxiety in patients with pre cataract surgery.

Research methods: This research used cross sectional design with an observational approach. Sampling technique using non-probability with accidental sampling method, total samples obtained 82 respondents.

Results: There was association between The level of knowledge of the perioperative management process related to the level of anxiety in patients with pre cataract surgery at the National Eye Center Hospital in Bandung, Indonesia with $p\text{-value } 0,007 \leq \alpha 0,05$.

Conclusions: There was association between The level of knowledge of the perioperative management process related to the level of anxiety in patients with pre cataract surgery at the National Eye Center Hospital in Bandung, Indonesia.

Keywords: Knowledge; Anxiety; Cataract Patients

Introduction

Based on data from the World Health Organization (WHO), the most common causes of blindness in the world are cataracts (51%), glaucoma (8%) and followed by age-related macular degeneration (AMD) (5%). WHO estimates that nearly 18 million people from the world's population suffer from blindness due to cataracts. These data make cataracts the leading cause of blindness and an important cause of visual impairment worldwide [1]. These data make cataracts the leading cause of blindness and an important cause of visual impairment worldwide [1]. Indonesia has the second highest prevalence of blindness and visual impairment in the

world after Ethiopia [2].

Cataract is any state of cloudiness in the lens that can occur due to hydration (addition of fluid) of the lens, lens protein denaturation occurs due to both [3]. At first, glasses and stronger lighting can help with cataracts, but if visual disturbances interfere with normal activities, cataract surgery may be necessary [4]. Cataract surgery is generally a safe and effective procedure. Cataract surgery consists of removing most of the lens and replacing the lens with a plastic implant. Some use extracapsular cataract extraction (ECCE), intracapsular cataract extraction (ICCE), small incision cataract extraction (SICE), and most recently

phacoemulsification (FAKO) [5,6].

Surgery is a form of therapy that can pose a threat, both potential and actual, to a person's body, integrity and soul that can trigger anxiety in the patient. Anxiety that arises during surgery is more common in the preoperative period. Preoperative anxiety is a feeling before performing surgery that is already known, and arises from intrusion disturbances (disturbing thoughts) that are felt. Pre-cataract surgery anxiety can affect most patients even though there have been advances in surgical techniques and in anesthesia [7,8].

Preoperative anxiety is caused by several factors, namely fear of pain, death, fear of ignorance, fear of disability and other threats that can have an impact on body image. The fear and anxiety felt by preoperative patients was characterized by physical changes such as increased pulse and respiratory rates, uncontrolled hand movements, moist palms, restlessness, asking the same questions repeatedly, difficulty sleeping, and frequent urination. If anxiety in preoperative patients is not overcome, it can interfere with the healing process [9,10].

There are many factors that influence anxiety, one of the most influencing factors is knowledge [11,12]. If the knowledge of preoperative patients is good, they usually do not have anxiety problems because they have good knowledge of surgical procedures, the course of surgery, and postoperative care, marked by the client looking calm and not restless. Otherwise, when patients have low knowledge about procedures that can affect the blood pressure [13,14]. High blood pressure can result in delays or cancellations of operations, so the practical benefits that can be obtained by conducting research on these problems are identifying cataract perioperative knowledge related to anxiety level on patients with pre cataract surgery [15,16].

The results of the preliminary study that the researchers conducted on 10 pre-cataract surgery patients at the Day Care Installation were interviewed, the results obtained were 6 lacking knowledge. After cataract surgery, 3 of them experienced high anxiety, they said they were worried about the cataract surgery that would be carried out and they also looked restless. The average patient feels anxious because of lack of knowledge, fear of failure and side effects of surgery. Based on the background above, the researchers are interested in conducting research on "Association between Knowledge with Anxiety Level of Pre Operating on Patients With Cataract at National Eye Center Hospital in Bandung".

Method

This research design uses the method *cross sectional* with an observational approach [17,18]. The population in this study

were all patients who performed cataract surgery at the Day Care Installation of the National Eye Center of Cicendo Eye Hospital for the period January-February 2021. The sample in this study amounted to 82 respondents using the technique non-probability with accidental sampling method. The research instrument used a cataract perioperative knowledge level questionnaire and a Zung Self-Rating Scale (ZSAS) questionnaire. Analysis using statistical tests chi square, because the results of the chi square test did not meet the requirements, so the fisher exact test was carried out as an alternative test [19,20].

Results

Knowledge level	Frequency (n=87)	Percentage
Well	12	14.60%
Enough	40	48.80%
Not enough	30	36.60%
Total	82	100.00%

Table 1: Frequency Distribution of Process Knowledge Levels Cataract Perioperative Process Management.

Based on table 1 the results of univariate analysis is known that the level of patient knowledge about the management of the cataract perioperative process is mostly sufficient as many as 40 people with a percentage of 48.8%, then there are 12 people (14.6%) who have a good level of knowledge category, and there are still many patients who have poor knowledge. that is, there are 30 people (36.6%) of the total 82 respondents who were sampled in this study.

Anxiety Level	Frequency (n=87)	Percentage
Normal/No Anxiety	38	46.30%
Mild Anxiety	41	50.00%
Moderate Anxiety	3	3.70%
Severe Anxiety	0	0.00%
Total	82	100.00%

Table 2: Frequency Distribution of Anxiety Levels in Pre Cataract Surgery Patients.

Based on table 2 the results of univariate analysis is known that the anxiety level of pre cataract surgery patients at the Day Care Installation National Eye Center Cicendo Eye Hospital Bandung most of them had mild anxiety level as many as 41 people with a percentage of 50.0%, normal/not anxious as many as 38 people (46.3%), then as many as 3 people (3.7%) who were included in the category of moderate anxiety, and none included in the category of severe anxiety.

Knowledge level	Anxiety Level								Total		p-value
	Normal/No Anxiety		Mild		Moderate		Severe				
Well	11	91.70%	1	8.30%	0	0.00%	0	0.00%	12	100%	0.005
Enough	19	47.50%	19	47.50%	2	5.00%	0	0.00%	40	100%	
Not enough	8	26.70%	21	70.00%	1	3.30%	0	0.00%	30	100%	
Total	38	46.30%	41	50.00%	3	3.70%	0	0.00%	82	100%	

Table 3: Frequency distribution of the relationship between knowledge about the management of the perioperative process and the level of anxiety in patients with pre cataract surgery at the Day Care Installation of the National Eye Center, Cicendo Eye Hospital, Bandung.

Previously, researchers had used chi square (χ^2) analysis, but the results obtained did not meet the requirements. So the researchers then used the Fisher exact test. Categorization is done by combining the category column of the level of knowledge about perioperative cataract. The combination

of the category column for the level of knowledge about perioperative cataracts is simply combined with the good category column, and the merging of the mild anxiety level column is combined with the moderate category column.

Knowledge level	Anxiety Level				Total		p-value
	Normal/ No Worry		Mild-Moderate				
	n	%			n	%	
	Well-Enough	30	57.70%	22	42.30%	52	
Not enough	8	26.70%	22	73.30%	30	100.00%	
Total	38	46.30%	44	53.70%	82	100.00%	

Table 4: Frequency distribution of the relationship between knowledge about the management of the perioperative process and the level of anxiety in patients with pre cataract surgery at the Day Care Installation of the National Eye Center, Cicendo Eye Hospital, Bandung.

Table 4 shows that of the 52 respondents with a fairly-good level of knowledge, 57.7% were found to be normal/not anxious, and 42.3% with mild-moderate anxiety levels. Meanwhile, with a low level of knowledge, 30 respondents were found, 26.7% were found to be normal/not anxious and 73.3% with mild-moderate anxiety levels. The results of the fisher exact test obtained a significance value or p-value 0.007 ($< 0,05$), so it can be concluded that there is a significant association between the level of knowledge about the perioperative management process and the level of anxiety in pre cataract surgery patients with a value of Pearson correlation of 0.623 shows a positive correlation with strong correlation strength.

Discussion

It is known that the results of research on the level of patient knowledge about the management of the cataract perioperative process are mostly quite marked by the percentage of answers of 48.8%, the results are mostly good, it could be because there is a factor in the level of education of the most patients is high school with a percentage of

44.8%. This is because of the 82 respondents, the most recent education level of patients is 38 people (46.3%) who have the last education of elementary and junior high school, the last education is high school as many as 37 people (45.1%), meanwhile those who have diploma education as many as 3 people (3.7%) and S1 as many as 4 people (4.9%).

Based on the results of the analysis of this study, it indicates that education has an influence on a person's level of knowledge, this is in accordance with the theory put forward by Sriningsih [21] the higher a person's education, the faster they receive and understand information so that the knowledge gained owned is also higher. Education is one of the important factors to get and digest information more easily [22]. Finally understanding a change in conditions will be easier to understand [23]. A higher level of education has a better adaptation response because the response given is more rational and also affects awareness and understanding of the stimulus [24,25].

The results showed that most of the respondents had mild and moderate levels of anxiety, from 82 respondents who

were not anxious as many as 38 respondents, 41 respondents had mild anxiety, and 3 respondents were moderately anxious and helpless. Behavioral theory states that anxiety is the result of frustration due to various things that affect individuals in achieving the desired goals, for example a patient who wants to recover from his illness by undergoing surgery, then these results will trigger anxiety [26-28].

The research of Ramirez et al., (2017) & Wahyuningtyas (2020) also shows the same results. As many as 55.6% of respondents felt anxious before surgery for different reasons, namely, worried because they were worried that their vision would not recover fully, complications occurred during surgery, anesthesia, surgery, fear of failure surgery, and being blind [29]. Anxiety can occur in some patients who will undergo cataract surgery for various reasons. The average level of anxiety in pre-cataract surgery patients was mild anxiety, none experienced severe anxiety or panic.

Based on calculations using fisher exact analysis, it is known that there is a significant association between the level of knowledge about the management of the perioperative process with the level of anxiety in pre cataract surgery patients at the National Eye Center Day Care Installation, Cicendo Eye Hospital, Bandung. This can be seen from the probability value (p-value) which is 0.007 and this value is less than 0.05. From the table it is also seen that patients with good enough knowledge do not have high anxiety. On the other hand, patients with less knowledge tend to have mild-moderate stress levels. So it can be said that the better the patient's knowledge about the management of the perioperative process, the lower the level of anxiety. Thus, the hypothesis which states that there is an "Association between the level of knowledge about the management of the perioperative process and the level of anxiety in pre-cataract surgery patients at the Day Care Installation, Cicendo Eye Hospital Bandung National Eye Center" is acceptable [30-34].

Conclusion

Based on the results of the study, it can be concluded that there is a significant association between the level of knowledge about the perioperative management process and the level of anxiety in pre cataract surgery patients at the National Eye Center Day Care Installation, Cicendo Eye Hospital, Bandung. Where the better the patient's knowledge about the perioperative management process, the lower the level of anxiety.

Suggestions

For Hospital

It is recommended that the hospital can add facilities for providing health education about cataract perioperative

in the form of videos about cataract perioperative on the display of the National Eye Center of Cicendo Eye Hospital, as well as the development of existing leaflets and banners by adding interesting supporting images in language that is easily understood by the public about cataract perioperative information.

For Patients

It is recommended that pre cataract surgery patients need to explore information and knowledge about the concept of cataract disease and cataract surgery procedures that can be accounted for in order to be able to face surgery well without any anxiety.

For Nurse

Nurses are advised to provide good education to pre cataract surgery patients about perioperative cataracts, so that patients can overcome their anxiety levels.

For Further Researchers

For further researchers, it is recommended to conduct a study that identifies the level of anxiety of patients after post-surgery or compares the level of anxiety of pre-operative patients with post-surgery after providing education.

References

1. World Health Organization (2012) Global data on visual impairments. World Health Organization.
2. Ministry of Health of the Republic of Indonesia (2014) Ministry of health data and information center: Situation of visual impairment and blindness [online series].
3. Ilyas S, Yulianti S (2019) Ophthalmology. 6th (Edn.), Jakarta: FKUI Publishing Agency.
4. Majid A, Judha M, Istianah U (2011) Perioperative nursing. Yogyakarta: Gosyen Publishing.
5. Bare BG, Smeltzer SC (2010) Medical-surgical nursing: Textbook for Brunner and Suddarth. Waluyo Agung (Trans.), Ester M (Ed.), Jakarta: EGC.
6. Motley WW, Asbury T (2011) Vaughn & Asbury's general Ophthalmology. 2th (Edn.), New York: Mc. Graw Hills Lange.
7. Hawari D (2012) Stress management of anxiety and depression. Jakarta: FKUI Publishing Center.
8. Kaplan HI, Saddock BJ, Grabb JA (2010) Synopsis of psychiatry the behavioral science of clinical psychiatry. Tangerang: Literature Development.
9. Pieter HZ, Lubis NL (2010) Introduction to psychology in nursing. Jakarta: Kencana.
10. Potter PA, Perry AG (2020) Nursing Fundamentals. 9th

- (Edn.), Novieatsari E (Ed.), Singapore: Elsevier.
11. Prasetyo Adji B (2019) Relationship between knowledge and anxiety in pre-cataract surgery patients at Mitra Husada Hospital, Pringsewu Regency, Lampung Province.
 12. Suswanti, Kafil FR (2019) The relationship between perioperative knowledge and anxiety levels of pre cataract surgery patients at Dr Yap. Eye Hospital.
 13. Riyanto A Budiman (2013) Capita selecta questionnaire: knowledge and attitudes in health research. Jakarta: Salemba Medika.
 14. Rondonuwu R, Moningga L, Patani R (2014) Relationship between knowledge and anxiety levels before cataract surgery at the Manado Community Eye Health Center (BKMM). *Journal of Nursing*.
 15. Katona C, Claudia C, Robertson M (2012) At a glance at psychiatry. 9th (Edn.), Jakarta: Erlangga Medical Series.
 16. Roh YH, Lee BK, Noh JH, Oh JH, Gong HS, et al. (2014) Effect of anxiety and catastrophic pain ideation on early recovery after surgery for distal radius fractures. *J Hand Surg Am* 39(11): 2258-64.e2.
 17. Arikunto S (2010) Research procedure: a practical approach. Jakarta: Rineka Cipta.
 18. Saryono (2010) Practical guiding health research methodology for beginners. Yogyakarta: Scholar Partners.
 19. Dahlan MS (2016) Statistics for medicine and health. Jakarta: Salemba Medika.
 20. Sugiyono (2012) Qualitative research methods and R&B. Bandung: Alfabeta.
 21. Sriningsih L (2015) Demographic factors of mother's knowledge about breast milk and exclusive breastfeeding. *Journal of Public Health*.
 22. Wahyuni SA (2015) The relationship between the level of knowledge about perioperative cataract and the level of anxiety in pre cataract surgery clients at Dr Soebandi Hospital Jember.
 23. Nurcahyani Ni Made, Adnyani, Dewi IGA (2016) The effect of compensation and motivation on employee performance with job satisfaction as an intervening variable at PT. Sinar Sosro Bali Factory.
 24. Mubarak WI (2011) Health promotion. Yogyakarta: Graha science.
 25. Notoatmodjo S (2011) Health research methodology. Jakarta: Rineka Cipta.
 26. Koziar B, Glenora E, Berman A, Snyder SJ (2010) *Fundamental nursing textbooks, translated: Esty Wahyu Ningsih, Devi Yulianti, Yuyun Yuningsih, Ana Lusyana*. Jakarta: EGC.
 27. Kusumawati F, Hartono Y (2010) *Textbook of psychiatric nursing*. Jakarta: Salemba Medika.
 28. Stuart GW (2013) *Stuart's mental health nursing principles and practice Book I*. Budi Anna K (Ed.). Singapore: Elsevier.
 29. Wahyuningtyas SP, Sudaryanto A (2020) Relationship of knowledge level of phacoemulsification with anxiety in cataract patients at Solo Eye Hospital [dissertation].
 30. Carducci BJ (2009) *The psychology of personality: viewpoint, research, and application*. New Jersey.
 31. Fudyartanta Ki (2012) *Personality psychology*. Yogyakarta: Student Library.
 32. Long BC (2012) *Medical-surgical care: A Nursing Process Approach, translated: Foundation for Nursing Education Alumni Association of Padjadjaran University*. Bandung.
 33. Nursalam (2014) *Nursing management application in professional nursing practice*. 4th (Edn.), Jakarta: Salemba Medika.
 34. (2019) P2PTM Ministry of Health RI What is cataract?