RELATIONSHIP BETWEEN SELF-EFFICACY AND ANXIETY LEVEL IN PRE OPERATIVE CATARACT PATIENT AT BALUNG HOSPITAL JEMBER

Siswoyo1*, Kushariyadi2, Deka Isnatu Raka Joni3
1,2,3Nursing Science Study Program, Nursing Faculty, Univeristas Jember
Jl. Kalimantan No 37 Jember, Jawa Timur, Indonesia
*email: siswoyoys@yahoo.com

ABSTRACT

Surgery caused health problems that is anxiety, factors that influence anxiety is self-efficacy. Self-efficacy will increase human achievement in taking actions, reduce stress and depression. This study aimed to analyze the relationship between self-efficacy and anxiety levels in pre-operative cataract patient at Balung Hospital Jember. This study used cross sectional approach, samples in this study were 63 and obtained with purposive sampling. This study consisted of 2 variables, the independent variable of the study was self-efficacy and the dependent variable was the level of anxiety. Data collection used a pre-operative self-efficacy scale (PSES) to assess self efficacy and the Amsterdam pre-operative anxiety and information scale to determine the level of patient anxiety. Analysis the relationship self-efficacy with anxiety levels using the Spearman rank test with p value <0.05. The results showed median was 146.00, percentage of self-efficacy was 53 (84.1%) respondents had good self efficacy and 10 (15.9%) had poor self-efficacy, percentage of patient anxiety was 39 (61.9%) respondents have mild anxiety levels. There was a significant correlation between self-efficacy and anxiety level (p=0.001 r= 0.691) with negative correlation which means the higher self-efficacy, the lower anxiety level. Self-efficacy associated with anxiety in patients with cataract surgery because self-efficacy plays an important role in controlling anxiety. Someone who has high trust and believes will be able to control what happens so they will have low anxiety level.

Keywords: anxiety level pre-operative cataract self-efficacy

BACKGROUND

Cataract is the condition where there is clouding in eye lens that may lead to visibility decrease and blindness (Depkes, 2014). Blindness may be prevented by performing surgery, although it may cause health problem in the form of mental emotional aspect, that is, anxiety (Ramirez et al, 2017; Tahmassian & Moghadam, 2011). Anxiety is a normal reaction when a surgery is nearing to take place (Ramirez, 2017). However, if the high level of anxiety is not properly taken care of, it may affect the physiological and psychological condition of the patient (Bedaso & Ayalew, 2019). Bandura stated that one of the factors that affect anxiety is the self efficacy which determine how an individual thinks, motivates himself, as well as acts in order that self efficacy becomes strong and leads to the improvement of a human’s act as well as the decrease of the stress and depression risk (Bandura, 2007).

The data taken from Ministry of Health demonstrates that 1 million Indonesians experience blindness caused by cataract. The result of the rapid assessment of avoidable blindness (RAAB) survey reveals that the blindness rate in Indonesia reaches 3% found at the age of over 50 years (Ministry of Health, 2018). The prevalence of blindness in 2017, in East Java reaches 41 thousand cases (2.9%) (Putri, 2018).

In Jember region, the prevalence of cataract in Balung Regional Hospital is found as many as 568 cases as cited from the literature study (Havivah, Siswoyo, & Sutawardana, 2019).

Cataract surgery is efficient to lower the risk of blindness. However, there are so many cataract
patients who have not taken surgery due to the fear of surgery procedure (8.1%) (Infodantin, 2014). The patients who gets anxious prior to surgery may experience increased stress through the activation release of neuroendocrine (Ekinci et al, 2017). The patients who gets anxious prior to surgery may experience increased stress through the activation release of neuroendocrine (Ekinci et al, 2017) which affects patient’s blood pressure so as to influence episcleral pressure that is vital in controlling the flow of aqueous humor in passing through the trabecular meshwork to the schlemm canal. This allows intraocular pressure (IOP) to increase (Klein et al, 2005). The increase of IOP may impose the difficulty in the lens implant and increase the complication risk that may harm the vision like retinal occlusion of the blood vessel, progressive loss of visual field and neuropathy optic (Parnanda, 2017). Anxiety is affected by self efficacy. When a person’s self efficacy is high, his level of anxiety is low. In contrast, when a person’s self efficacy is low, he will doubt his ability and tend to avoid hard actions that are taken as thread. This type of person has low motivation and commitment in regaining health (Tahmassian & Moghadam, 2011).

The attempt of lowering the level of anxiety is done by improving self efficacy which can be done by replicating other people's success as the benchmark of patients survivability, as well as to encourage the patients verbally (done by closest persons) in convincing him to perform a task, and to provide the condition where someone who has not experience anxiety to be informed about the actions taken regarding cataract (Prahara & Budiyani, 2018).

RESULTS

Age

According to the table 1 the average age of respondent was 59.92 years old with a minimum age of 36 and a maximum age of 84.

Gender, Marital Status, Recent Education and Employment

Table 2 shows that most respondents were female as many as 34 respondents (54%), the most recent education was elementary school 52 respondents (82.5%), and the type of respondent's occupation was farmer 28 respondents (44.4%).

According to the table 3 shows the average value of respondents self-efficacy is 131.48.

In table 4 shows that most respondents have good self-efficacy 53 respondents (84.1%).

Table 5 shows the level of anxiety of 39 respondents (61.9%) had mild anxiety levels.

Table 6 shows Spearman rank correlation test obtained p value 0.001 with a correlation value \( r = -0.691 \) alpha value (alpha = 0.05) then the result obtained p value < alpha so that alternative hypotheses are accepted which means there is a relationship between self-efficacy and anxiety levels in pre-operative cataract patient at Balung Hospital Jember. The value \( r = -0.691 \) with negative correlation which means if the patient has a good self-efficacy, the anxiety level will be lower.

DISCUSSION

Age

Getting older causes protein in the eye lens clumping so the eye lens become no more elastic, not clear, and causes the light cannot enter through the pupils of the eye (Hutauruk, 2017). Researchers argue that getting older will making our organ body's function become weak including eye function so we are more at risk of developing cataracts.

Gender

The amount of the estrogen in women will decrease with age and the reduction in estrogen levels influences the cataracts because estrogen is protective (Zetterberg, 2014). Gender is not a major risk factor for cataract because the incidence of cataracts continues to increase with age both in men and women. Researchers argue the difference in results with other studies is in the time to collecting data and research locations (Zhangs, 2003).
The level of education has an impact on the presence or absence of understanding and awareness of cataracts. Individuals who have a high level of education tend to have greater attention in health, and individuals will have a good attitude towards health services. Researchers argue that the level of education affects the development of cataracts due to the lack of health information obtained by respondents and the lack of health awareness (Alimaw, 2019).
Employement

Based on research at case Western Reserve University in Cleveland, work outside the building is more at risk of suffering cataracts because exposure from ultraviolet rays can damage lens proteins called glycation that are usually seen in cataracts. Ultraviolet rays can trigger dangerous oxidative reactions to the lens (National Eye Institute, 2014). Researchers argue that farmers are one of the jobs outside the building so their will be more often exposed to sunlight. Moreover, the lack of using personal protective equipment such as hats and glasses causes the eyes will be exposed directly with sunlight without any barrier so it will increasing the risk of cataracts.

Self-Efficacy

According Nolla J. Pender’s theory about the concept of health promotion model (HPM) self-efficacy influences the assessment of personal ability to regulate and carry out someone’s behavior so their commitment to taking action will increase. Good self-efficacy will reduce barriers of their behavior so the goals of behavior change can be achieved. In this case the researcher believes that if the individual believes the surgery will succeed, they will have confidence about the possibility of the results to be achieved and what they can do after the surgery.

Anxiety Level

Anxiety in surgical procedures is a normal reaction, but if the patient have a severe anxiety level and not treated immediately it will affect the patient’s physiological and psychological conditions (Bedaso & Ayalew, 2019). In this study, most patients have mild anxiety levels. Researchers believe that patients who have mild anxiety levels will have a high desire to achieve recovery so they can beat their fear of surgery.

Relationship between Self-Efficacy in Pre-Operative Cataract Patient

Anxiety level in patients with cataract surgery can cause discomfort and increase blood pressure, so that will make surgery to be canceled (Sari et al., 2018). Anxiety is influenced by self-efficacy. Efficacy plays an important role in anxiety control. High self-efficacy helps individuals motivate themselves to deal with stressors which is it will affect their quality of life. Researchers argue if this theory is same as the results of the study that respondents who have mild anxiety level said they want to recover quickly so they have self-efficacy or good confidence in taking action that must be done after surgery to achieve optimal recovery (Chen, 2017).

CONCLUSION

The value of the respondent’s self-efficacy variable obtained a median value 146.00 with an average 131.48 and most of them had good self-efficacy 53 respondents (84.1%), with a minimum value 25 and a maximum value 175. The highest level of patient anxiety was at mild anxiety level with 39 people (61.9%). There is a significant relationship between self-efficacy with anxiety levels in pre-operative cataract patient at Balung Hospital Jember with p value 0.001 (r) -0.691, it means patient who have a good self-efficacy score they will have mild anxiety level. The strength of the relationship is strong. The next researcher is expected to be able to find more effective measurement tools for measure the patient’s self-efficacy so that will make it easier for respondents to fill in and be able to look for other characteristics such as those that can affect self-ef-

---

Table 5. Percentage of Anxiety Level in Pre-Operative Cataract Patient

| Variable         | Frequency | Percentage |
|------------------|-----------|------------|
| Mild anxiety     | 39        | 61.9       |
| Moderate anxiety | 14        | 22.2       |
| Severe anxiety   | 10        | 15.9       |

Table 6. Data Analysis of the Relationship between Self-Efficacy and Anxiety Level in Pre-Operative Cataract Patient

| Variable | P-Value | R    |
|----------|---------|------|
| Self-Efficacy | 0.001  | -0.691 |
ficacy such as the experience of success, the experience of others, and social persuasion of the patient so they can find out efforts to improve self-efficacy of pre-operative cataract patient.

ACKNOWLEDGEMENT

All of respondent and staff in Balung Hospital Jember, Mrs. Puji Astuti from Nursing Faculty in Univeristy of Indonesia, Mr. Muhammad Fikri Firdaus from Medical Faculty University of Indonesia

REFERENCES

Alimaw, Y., Hussen, M., Tefera, T., & Yibekal, B. 2019. Knowledge About Cataract and Associated Factors Among Adults in Gondar Town Northwest Ethiopia. Journal Cogent Medicine. 14(4):1-10.

Astri, P. 2011. Pengaruh Edukasi Preoperasi Terstruktur (dengan Teori Kognitif Sosial Terhadap Self Efficacy dan Perilaku Latihan Post Operasi pada Pasien Fraktur Ekstermitas Bawah dengan Pembedahan di Surabaya. Tesis. Depok : Fakultas Ilmu Keperawatan Universitas Indonesia.

Bandura, A. 2007. Self Efficacy Conception on Ophtalmology. Anxiety Research: International Journal. 1(2):77-98.

Bedaso, A., & Anyalew, M. 2019. Preoperative Anxiety among Adults Patients Undergoing Elecctive Surgery: a Prospective Survey at a General Hospital in Ethiopia. Patient Safety in Surgery. 13 (18):2-8. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6454677/pdf/13037_2019_Article_198.pdf [Diakses pada tanggal 30 September 2019].

Chen, H.L., Liu, K., & You, Q.S. 2017. Effect of Couple based Coping Intervention on Self Efficacy and Quality of Life in Patient with Lung Cancer Surgery. Patient Education and Counseling. 100 (12):2297-3302.

Depkes. 2018. Jumlah Penderita Katarak di Indonesia Tinggi, Menkes Ingatkan Perilaku Hidup Sehat. http://www.depkes.go.id/article/view/18110500001/jumlah-penderita-katarak-di-indonesia-tinggi-menkes-ingatkan-perilaku-hidup-sehat.html [diakses pada 30 Agustus 2019 pukul 00.53].

Ekinci, M., Emre, B., & Dulgero, O. 2017. The Relationship Between Preoperative Anxiety Levels and Vasovagal Incidents During The Ad-

ministration of Spinal Anesthesia. 67(4):388-394.

Firdaus, M. 2014. Uji Validitas Konstruksi dan Reliabiilitas Instrumen The Amsterdam Preopretavive Anxiety and Information Scale (APAIS) Versi Indonesia. Tesis. Jakarta: Fakultas Kedokteran Universitas Indonesia.

Haviah,, Siswoyo,., & Sutawardana, J.H. 2019. Gambarn Tingkat Kecemasan Pasien Pre- Operasi Katarak di Kabupaten Jember. Skripsi. Jember : Fakultas Keperawatan Universitas Jember.

Hutauruk, J., & Siregar, S. 2017. Katarak : 101 Jawaban atas Pertanyaan Anda. Jakarta: EGC.

Infodantin. 2014. Situasi Gangguan Penglihatan dan Kebutaan. Jakarta: Kemenkes.

Klein, B., Klein, R., & Knudtson, M. 2005. Intraocular Pressure and Systemic Blood Pressure: Longitudinal Perspective: The Beaver Dan Eye Study. Journal Ophthalmol. Vol 89 : 285-287.

National Eye Institute. 2014. New Research Sheds Light in How UV Rays May Contribute to Cataract. https://www.nei.nih.gov/about/news-and-events/news/new-research-sheds-light-how-uv-rays-may-contribute-to- cataract.

Parnanda, D. 2017. Perbedaan Tekanan Intra Okular (TIO) Sebelum dan Sesudah Operasi Fakoemulsifikasi pada Pasien Katarak Senilis di RSUP Fatmawati Tahun 2016. Skripsi. Fakultas Kedokteran dan Ilmu Kesehatan Universitas Islam Negeri Syarif Hidayatullah Jakarta.

Pender, N. 2011. Health Promotion Model Manual. https://deepblue.lib.umich.edu/bitstream/handle/2027.42/85350/HEALTH_PROMOTION_MANUAL_Rev_5-2011.pdf [diakses pada 10 Januari 2019].

Prahara S., & Budiyani, K. 2018. Pelatihan Efikasi Diri untuk Meningkatkan Efikasi Diri Terhadap Kemampuan Berwirausahaan Anak Down Syndrom pada Orangtua. Insight. 20 (1):1-14.

Ramirez, D., Brodie, F., Nussbaumer, J., & Ramanathan, S. 2017. Anxiety in patients undergoing cataract surgery: a pre- and postoperative comparison. Pubmed. 11:1979-1986.

Sari, A., Masriadi, & Arman. 2018. Faktor Risiko Kejadian Katarak pada Pasien Priia Usia 40-55 Tahun di Rumah Sakit Pertamina
Balikpapan, Jurnal Kesehatan. 1(2):61-67.
Tahmassian, K., & Moghadam, N.J. 2011. Relationship Between Self Efficacy and Symptoms of Anxiety, Depression, Worry and Social Avoidance in a Normal Sample of Students. 5(2):91-98.
Zetterberg, M. 2014. Gender and Cataract-The Role of Esterogen. Jurnal Current Eye Research.
Zhang, X. 2003. Sex Hormones and Their Receptors in Patient With Age Related Cataract. NCBI. 29(1) 71-77.