

## **Relationship Between Anxiety Levels With Increased Blood Pressure In Preoperative Patients In The Operating Room At The Undaan Eye Hospital**

**Nuridayah<sup>1\*</sup>, Dewi Retno Puspitosari<sup>2</sup>, Juwariyah Point<sup>3</sup>**

STIKES Ganesha Husada Kediri

Email: [nuridayah@stikesganesshusada.ac.id](mailto:nuridayah@stikesganesshusada.ac.id)

### **Abstrak**

Kecemasan merupakan suatu istilah yang menggambarkan suatu gangguan psikologis yang dapat mempunyai ciri-ciri yaitu ketakutan, kekhawatiran terhadap masa depan, kekhawatiran yang berkepanjangan, dan rasa gugup yang dapat menyebabkan peningkatan tekanan darah. Hasil penelitian menunjukkan bahwa 23 pasien yang mengalami kecemasan mengalami kecemasan sedang (79,3%), sedangkan 27 pasien mengalami peningkatan tekanan darah (93,1%). Berdasarkan nilai sig.(2-tailed) diketahui bahwa nilai sig(2-tailed) mempunyai hubungan antara tingkat kecemasan dengan peningkatan tekanan darah sebesar 0,001. Berdasarkan latar belakang masalah di atas dan mengingat pentingnya tingkat kecemasan, maka menarik untuk melakukan penelitian tentang hubungan tingkat kecemasan dengan peningkatan tekanan darah pada pasien pra operasi di ruang operasi Rumah Sakit Mata Undaan Surabaya.

**Kata Kunci :** *Kecemasan, Peningkatan tekanan darah, Pasien Pra Operasi*

### **Abstract**

Anxiety is a term that describes a psychological disorder which can have characteristics, namely fear, concern about the future, prolonged worry, and nervousness which can cause an increase in blood pressure. The research results showed that 23 patients who experienced anxiety experienced moderate anxiety (79.3%), while 27 patients experienced increased blood pressure (93.1%). Based on the significant sig.(2-tailed) value, it is known that the sig(2-tailed) value has a relationship between anxiety levels and an increase in blood pressure of 0.001. Based on the background of the problem above and considering the importance of anxiety levels, it is interesting to conduct research on the relationship between anxiety levels and increased blood pressure in preoperative patients in the operating room at the Undaan Eye Hospital in Surabaya.

**Keywords:** *Anxiety, Increased blood pressure, Preoperative Patients*

### **INTRODUCTION**

Surgery or operation is all follow treatment with use procedure invasive, with stages open or displays part body being handled. Opening part the body does action surgery in general done with make incision, after which is handled looks, then will done repair with closing as well as sewing luk a (Sjamsuhidayat & Jong, 2016). Surgery is a complex event that is stressful and causes both physical and psychological stress. One psychological response is anxiety. When individuals are sick and have indications of surgery, they need strong emotional readiness for all forms of surgical procedures (Long, 2012).

In the preoperative phase, individuals will experience anxiety (Gezer & Arslan, 2018). The anxiety experienced by patients has various reasons, including: anxiety about facing the operating room and operating equipment, anxiety about facing body image in the form of deformed body parts, anxiety and fear, dying while under anesthesia, anxiety if the operation fails, anxiety about rising costs. Some patients who experience severe anxiety are forced to postpone their surgery schedule because the patient feels they are not mentally ready to face the operation (Rahmayati, 2018).

A study states that 80% of patients who will undergo surgery experience anxiety and changes in vital signs (Arini, 2017). Based on data at the Undaan Eye Hospital, Surabaya, in the operating room there were 731 surgical patients for the period July 2021 to December 2021. The highest number of eye operations involved immature cataract disease (moderate surgery) or around 86% (RSMU Data, 2021). A preliminary study conducted by researchers on January 10-14 2022 on 10 patients who were about to undergo surgery, it turned out that 9 experienced anxiety levels ranging from mild to severe, with details of 3 (30%) patients with mild anxiety, 5 (50%) of patients with moderate anxiety, 1 (10%) experienced severe anxiety and 1 (10%) patient did not experience anxiety.

The source of stress that can become anxiety is usually related to surgical actions or procedures; The patient has never felt or experienced surgery before, which is a complex procedure involving various multidisciplinary professions who are members of the operating team. Patients are more sensitive and impulsive to verbal or spoken or nonverbal words or behavior, patients are also more sensitive to changes in environmental situations. This is a psychological response of the patient's body to a perceived threat or stressor and this is experienced by most patients who will undergo surgery (Anderson et al., 2016). Smeltzer & Bare (2013) explain that anxiety can increase blood pressure because stimulation of the sympathetic nervous system affects cardiac output and vasoconstriction of arterioles, as a result blood pressure increases.

The patient's excessive pre-operative anxiety causes the operation to not be carried out because in patients who experience anxiety before the operation it will cause abnormalities such as increased blood pressure, so that if the operation is carried out it will result in difficulties, where the effect of the anesthetic drug given causes the patient to regain consciousness within a short time. for a long time due to problems with blood pressure. Brezinzki in Rahmalia (2019) defines that blood pressure is the pressure measured in millimeters of mercury in the body's major arterial system which is divided into systolic and diastolic blood pressure.

Meanwhile, hypertension or often called high blood pressure is defined as an increase in systolic blood pressure exceeding 130 mmHg and diastolic blood pressure exceeding 80 mmHg in two repeated measurements with a five minute interval in a calm condition or at rest (Whelton, AHA, 2018). It is feared that this excessive response caused by anxiety can affect the success of surgery, especially an increase in blood pressure because it can trigger a greater response, besides that it can also affect health status and can change the diagnostic procedures that have been determined (Nurjanah et al, 2018). Nurses have a very important role in every surgical procedure, both before, during and after surgery. Appropriate nursing interventions are needed to prepare clients both physically and psychologically (Hipkabi, 2014). According to Paryanto in Saputri (2020), the success rate of surgery really depends on each stage experienced and the interdependence between the relevant health team (surgeon, anesthesiologist and nurse) in addition to the patient's cooperative role during the perioperative process. The factors that influence anxiety include: 1) age, 2) physical condition, 3) social culture, 4) level of education, 5) level of knowledge. Operation or surgery is an experience that can cause anxiety, therefore various bad possibilities can occur which will endanger the patient. Anxiety is related to all kinds of foreign procedures that the patient must undergo and also threats to life safety due to surgical procedures and anesthesia. Pre-operative nursing is the initial stage of perioperative nursing. This is because this phase is the beginning which becomes the foundation for the success of the following stages (Nurjanah, 2018).

To be able to overcome the patient's further anxious response, increasing the patient's self-confidence in facing an operation needs to be done, including by providing support to the patient, building effective communication relationships and patient-nurse therapy, helping problem solving, so that the patient can choose alternative coping options. positive for him to overcome the anxiety he is experiencing (Nurjanah et al, 2018). For this reason, researchers are interested in conducting research to determine the relationship between anxiety levels and increased blood pressure in pre-operative patients in the operating room at the Undaan Eye Hospital, Surabaya.

## METHODS

In the application method section, describe clearly and concisely the methods used to achieve the goals set out in the service activities. The results of the service must be measurable and the author was asked to explain the measuring instruments used, both descriptively and qualitatively. Explain how to measure the level of success of community service activities. The level of achievement can be seen in terms of changes in attitudes, socio-culture and economy of the target community.

## RESULTS AND DISCUSSION

This research was conducted on 14 March 2021 to 31 March 2021 with patient research respondents before surgery at the hospital. Mata Undaan Surabaya which meets the inclusion criteria. Research respondents consisted of 29 research respondents. In this research, two parts of data will be discussed, namely general data and special data.

**Table 1 Characteristics of respondents at Undaan Eye Hospital, Surabaya in March 2022**

No.	Characteristics of respondents	Amount	Percentage
1	<b>Gender</b>		
	Man	13	44.8%
	Woman	16	55.2%
2	<b>Age</b>		
	20-29 Years	5	17.2%
	30-45 Years	8	27.6%
	46-55 Years	16	55.2%
	>55 Years	0	0%
3	<b>Education</b>		
	Elementary School	4	13.8%
	Junior High School	6	20.7%
	Senior High School	12	41.4%
	College	7	24.1%
4	<b>Surgical history</b>		
	Once	13	44.8%
	Never	16	55.2%
	Amount	29	100%

*Primary Data Source for 2022*

Based on table 1, it was found that the majority of respondents study consists from 16 patient Woman (55.2%) And a small portion consisted of 13 male patients (44.8%). Based on table it was found that the majority of research respondents consisted of 16 patients aged between 46-55 years (55.2%),

almost half with 8 patients aged between 30-45 years (27.6%), a small part consisting of 5 patients aged 20-29 years (17.2%), and there were no respondents (0 patients) aged >55 years (0%). Based on table 1 it was found that almost half of the research respondents consisted of 12 people with the highest level of education SMA (41.4%), a small proportion of respondents were 7 people with a tertiary education (24.1%), 6 people with a junior high school education (20.7%), and 4 people with a final elementary school education (13.8%). Based on table it was found that the majority of respondents had never had surgery, 16 patients (55.2%) and a small portion, consisting of 13 patients, had surgery (44.8%).

**Table 2 Anxiety in preoperative patients at Undaan Eye Hospital, Surabaya in March 2022**

No.	Worry	Amount	Percentage
1.	No Anxiety	0	0%
2.	Mild Anxiety	4	13.8%
3.	Moderately Anxious	23	79.3%
4.	Severe Anxiety	2	6.9%
Amount		29	100%

*Primary Data Source 2022*

Based on table 2, it shows that almost all respondents have moderate anxiety as many as 23 respondents (79.3%), while some 4 respondents (13.8%) had less mild anxiety and 2 respondents (6.9%) had severe anxiety.

**Table 3 Increase in preoperative blood pressure in patients at Undaan Eye Hospital, Surabaya in March 2022**

No.	Increased Pressure	Blood	Amount	Percentage
1.	Still		2	6.9%
2.	Increase		27	93.1%
3.	Decrease		0	0%
Amount			29	100%

*Primary Data Source 2022*

Based on table 3 it shows that almost all respondents with increased blood pressure were 27 respondents (93.1%), while a small percentage experienced increased blood pressure as many as 2 respondents. (6.9%).

**Table 4 Relationship between anxiety levels and increased blood pressure at Undaan Eye Hospital, Surabaya in March 2022**

		Increased Blood Pressure							
		Not Increasing		Increase		Decrease		Total	%
Anxiety Level		0	%	0	%	0	%	0	0
	Not Anxious	0	0	0	0	0	0	0	0
	Light	2	100	2	7	0	0	4	14.3
	Currently	0	0	23	85	0	0	23	80.0
	Heavy	0	0	2	7	0	0	2	5.7

*Primary Data Source 2022*

Based on table 5.7, it shows that the majority of respondents who experienced anxiety and increased blood pressure were 27 respondents (93.1%), and the small number of respondents who did not experience increased anxiety and did not experience increased blood pressure were 2 respondents (6.9%).

**Table 5 Statistical test results of *Bivariate Spearman Correlation analysis* of the relationship between anxiety levels and increased blood pressure at Undaan Eye Hospital, Surabaya in March 2022**

Correlations

			Blood Pressure	Anxiety Level
<b>Spearman's rho</b>	<b>Blood Pressure</b>	Correlation	1,000	,576**
		Coefficient Sig. (2-tailed)	.	,001
		N	29	29
	<b>Anxiety Level</b>	Correlation	,576 **	1,000
		Coefficient Sig. (2-tailed)	,001	.
		N	29	29

\*\*Correlation is significant at the 0.01 level (2-tailed).

Based on table 5 the statistical test results of *Spearman's Bivariate Correlation analysis* obtained:

1. Based on the sig significance value. (2-tailed), Known sig value. (2-tailed) between anxiety levels and blood pressure is  $0.001 < 0.05$ , meaning it can be concluded that there is a correlation which is significant between the Anxiety Level variables with Increased Blood Pressure
2. Based on value t-count, It is known that the t-calculated value for the relationship between anxiety level and blood pressure is  $0.576 > t$  table (0.95; 29) 1.699, so it can be concluded that there is a **correlation between the variable Anxiety Level and Increased Blood Pressure**
3. Based on the asterisk (\*) SPSS, From the output above, it is known that the Pearson Correlation value between each linked variable has two asterisks (\*\*), this means that there is a correlation between the linked variables with a significance level of 1%.

## CONCLUSION

Based on data analysis and discussion of the relationship between anxiety levels With Enhancement Pressure Blood On Patient Pre-operative in The following conclusions can be drawn from the Operating Room of the Undaan Eye Hospital, Surabaya:

1. The pre-operative anxiety level of patients at the Undaan Eye Hospital in Surabaya mostly had a moderate level of anxiety, namely 23 respondents (79.3%), and a small percentage of 4 respondents (13.%) experienced mild anxiety and 2 respondents experienced severe anxiety. (6.9%).
2. The increase in blood pressure of pre-operative patients at the Undaan Eye Hospital, Surabaya, namely the majority of respondents with an increase in blood pressure, 27 respondents (93.1%) and a small number of 2 respondents (6.9%) did not experience an increase in blood pressure. 0 respondents had a decrease in blood pressure. blood.
3. There is a relationship between anxiety levels and increased blood pressure in pre-operative patients in the operating room at Undaan Eye Hospital, Surabaya. The significance result is  $p = 0.001 < \alpha 0.05$  with *Correlation Coefficient*  $r = 0.576$ , which means there is a significant correlation in the direction of a positive relationship, the level of relationship is moderate, so that  $H_a$  is accepted or there is a relationship between the level of anxiety and an increase in blood pressure in pre-operative patients in the operating room at the Undaan Eye Hospital. Surabaya.

### **ACKNOWLEDGMENTS (If Necessary)**

The author would like to thank xxx who has provided financial support for this service.

### **BIBLIOGRAPHY**

Aini, A. Santik, Y. (2018). The incidence of senile cataracts in Tugurejo District Hospital. *Higela Journal of Public Health Research and Development*, 6 (3).

Arini, F., Adriatmoko, W., Novita, M. (2017). Changes in Vital Signs as a Symptom of Anxiety before Carrying Out Tooth Extraction in Professional Students at the Oral Surgery Clinic, RSGM, University of Jember. *e- Journal of Health Literature*, 5 (2). Anderson, V., Cieslak, R., Bock, J., Moore, B. A.,

Peterson, A. L., & Right, C. C. (2016). *Book teach nursing community theory And practice: Edition 3* . Jakarta: EGC.

Arikunto, S. (2016). *Procedure Study Something Approach Practice*. Jakarta: Rineka Cipta.

Ayu, H. (2014). *Review of the Use of Antihypertensive Drugs in Outpatients at the Internal Medicine Clinic, RSUD Dr. H. Abdul Moeloek Bandar Lampung During 2014*. ( Thesis ), UNILA, Lampung.

Bae, J. Shin, D. Hwang, I. (2015). Sodium Intakes and Socioeconomic Status US Risk Factors for Development of Age-Related Cataracts. *The Korea National Health and Nutrition Examination Surgery*, 3 (8), 237-242.

Bhisma, M (2013). *Design and Sample Size for Quantitative and Qualitative Research in Field Health* . Yogyakarta: Elephant Mada University Press.

Cushman, W. Ford, C. Cutler, J. Margolis, K. Davis, B. Grimm, R (2012). Success and predictors of blood pressure control in diverse North American settings: the antihypertensive and lipids lowering treatment to prevent heart attacks trials. *AllHat*, 105 (100).

Davies, R. Gabbert, S. Riggs, P. (2015). Anxiety disorders in neurology Current Treatment Options in Neurology. *Neurology Treatment*, 3 (5), 333- 346.

Furwanti, E. (2014). *Description of the Anxiety Level of Patients in the Emergency Room (IGD) of Panembahan Senopati Hospital, Bantul* . (S1), Yogyakarta Muhamadiyah University , Yogyakarta

Gezer, Derya, & Arslan, Sevban . 2018. *The Effect of Education on the Anxiety Level of Patients Before Thyroidectomy* . *Journal of Perianesthesia Nursing*. 2019 Apr;34(2):265-271

Gunarso , S, D., Gunarso , Y, D. (2015). *Nursing Psychology* . Jakarta: BPK GunungMulia.

Hamdayani, Irma. (2016). *Level Worry Scale HARS (Hamilton Ratings Scale For Anxiety)* (Thesis), Brawijaya University, Poor.

Hasanah, N (2017). Relationship between patient knowledge about pre-information Surgery with Preoperative Patient Anxiety. *Health Scientific Journal*, 6 (1).

- HIPKABI. (2014). *Book Skills Base For Nurse Room Surgery* . Jakarta: Hipkabi Press.
- Keltner, Schwecke, Bostrom. (2012). *Psychiatric Nursing* . Philippines: Mosb Inc. Long, C. (2012). *Medical and surgical nursing critical thinking in client care.*(Vol. 3).
- Michael, R. Bron, A. (2015). The Aging Lens and Cataract: a Model and Pathological Aging. *Philosophical Transactions of the Royal Society. Biological Science*, 336 (1568), 1278-1292.
- Nurjanah . 2018 . *An Overview of Anxiety Levels Patients Who Experience Delay in Operation Start Time Elective in the Rajawali Room at RSUP dr. Kariadi Semarang* . Indonesian Journal of Public Health edition 11. Unimus: Semarang.
- Nursalam. (2013). *Concept of Application of Research Methods in Nursing Science* Jakarta: Salemba
- Potter, P. A., Perry, A. G. (2012). *Fundamentals of Nursing*. Jakarta EGC.
- Potter, A. Perry, A (2012). *Nursing Fundamentals Textbook: Concepts Process, and Practice* (5 ed. Vol. 3). Jakarta: EGC.
- Price, S. Wilson, L (2015). *Pathophysiology, Clinical Concepts and Disease Processes* (8 ed.). Jakarta: EGC
- Rahmayati, E, Silaban, RN, Fatonah, S. (2018). *The Effect of Spiritual Support on Anxiety Levels in Pre-Operation Patients* . *Journal of Health* 9(1), 138-142.
- Situmorang, P. (2015). Factors related to incidence of hypertension in inpatients at Sari Mutiara General Hospital Medan in 2014. *Nursing Scientific Journal*, 1 (1), 67-72.
- Sugiyono. (2012). *Quantitative Qualitative Research Methods and R&D* . Bandung: Alfabeta
- Sopiyudin, Dahlan. (2014). *Statistics For Medicine And Health* (6 ed.). Jakarta: Salemba Medika.
- Smeltzer, S. Bare, B (2012). *Brunner & Suddarth's Textbook of Medical Surgical Nursing. Edition 8 Volume 4* (ME Kuncara, Yasmin Asih Ed.). Jakarta: EGC.
- Srinayanti, Y. Kusumawaty, J. Nugroho, A. (2017). Level Worry Patient Pre-Surgery for Cataracts in the Surgical Room of Ciamis District Hospital 2016. *Motor*, 12 (24).
- Stuart, G. W. (2016). *Stuart Mental Health Nursing Principles and Practices* (B. A. Look Ed.
- Stuart, G. . (2012). *Handbook of Psychiatric Nursing: Revision* (5 ed.). Jakarta: EGC.
- Sheps, S. (2015). *Mayo Clinic: Overcome Pressure Blood High* . Jakarta: Essence.
- Situmorang, P (2015). Factors Which relate with incident hypertension in inpatients at the Sari Mutiara General Hospital, Medan, 2014. *Nursing Scientific Journal*, 1 (1),

67-72.

Sugiyono. (2012). *Quantitative Qualitative Research Methods and R&D* . Bandung: Alfabeta.

Sjamsuhidajat R, De Jong W, Editors. *Sjamsuhidajat-De Jong's Textbook of Surgery: Organ Systems and Surgical Procedures (1). 4th ed* . Jakarta: EGC Medical Book Publishers; 2016

Smeltzer, S. C. & Bare, B. G. (2013). *Brunner & Suddarth's Textbook of Medical Surgical Nursing, 8th edition* . Jakarta : EGC.

Saputri, NAS. 2020. *The relationship between pre-anesthesia waiting time and anxiety levels in general anesthesia patients at the Central Surgical Installation at Rs Pku Muhammadiyah Yogyakarta* .

<http://eprints.poltekkesjogja.ac.id/id/eprint/2468> accessed 10 February 2022 at 15:36

Yundini . (2016). *Hypertension Risk Factors and Control of Non-Communicable Diseases* .