

The Effect of Hospital Support on Nurse Anxiety in Isolation Room for COVID-19 Patients

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ABSTRACT

The increasing number of cases of COVID-19 can affect health workers as a group that tends to have contact with COVID-19 patients at high risk of contracting it. This may affect the psychological aspects of health workers. It is important to explore the various factors that can affect the mental health of health workers who provide health services to patients with COVID-19. Therefore, this study aims to analyze the effect of perceived organizational support on the psychology of health workers who provide care for COVID-19 patients at RSU. Royal Prima Medan. This Research uses the DASS-42 Questionnaire and the 8-POS Questionnaire to assess mental health and perceptions of hospital support for nurses who provide health services to COVID-19 patients. The results of this study indicate that there is a significant relationship between the perception of hospital support (Perceived Organization Support) on the level of depression (P-value: 0.002; OR [95 % CI]: 5.23 [1.92-14.23]), anxiety (P-value < 0.05; OR [95 % CI]: 12.26 [3.89-38.60]), and stress (P < 0.05; OR [95% CI]: 8.79 [3.03-25.48]) on nurses at the Royal Prima General Hospital, Medan. So it can be concluded that the perception of hospital support for nurses can restore the mental health of nurses who provide health services to COVID-19 patients.

Keywords: Perceived Organization Support, Stress, Depression, Anxiety, Royal Prima

INTRODUCTION

At the end of 2019, the world was shocked by cases of severe pneumonia found in several adults in Wuhan which is

the capital of Hubei province in China. These cases have some similarities in the form of joint exposure from the Huanan seafood market. As a result, on December 31, 2019, China confirmed this outbreak to the World Health Organization (WHO), and on January 7, 2020, the etiology of this case was identified as resembling the structure of the SARS-CoV virus. (Singhal, 2020).

Based on the results of the identification that was carried out on January 7, 2020, a new type of SARS-CoV virus was identified which was later referred to as 2019-nCoV by WHO through throat swab samples. However, the nomenclature was changed to Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV-2) by the Coronavirus Study Group while the disease experienced was later named Coronavirus Disease 2019 (COVID-2019) by WHO. (Hope et al., 2020).

Currently, cases of COVID-19 have become a pandemic and can be found on various continents. This case is the third occurrence of zoonotic infection by a coronavirus in the last three decades. The number of cases of COVID-19 continues to increase, on May 25, 2020, alone 5,204,506 global cases and 337,687 deaths were found, with the center of the outbreak in Wuhan. Various studies have been conducted and show that increasing age will increase mortality with the peak mortality rate being found in the age group > 80 years, namely 14.80%. This can be seen in the age and

mortality bar chart below. (Bala and Kumar, 2020).

Not only in the world, Indonesia is the country with the 4th largest population in the world. From December 2019-February 2020, there were no cases of COVID-19. However, on March 2, 2020, the President of Indonesia declared the first two confirmed cases of COVID-19 in Indonesia. Then, on April 2, 2020, COVID-19 cases in Indonesia had reached 1,790 confirmed cases, 113 new cases, 170 deaths, and 112 recovered cases.(Djalante et al., 2020)

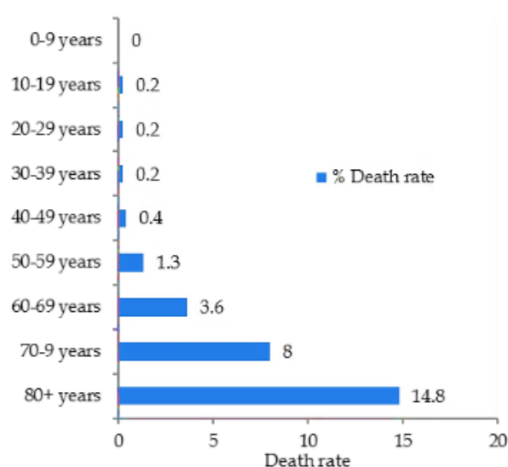


Figure 1. Mortality and Age Bar Chart as of May 25, 2020

Based on the description of the background above, the researcher's problem is formulated as follows: How is the influence of hospital support on depression, anxiety, the stress of nurses in the isolation room for COVID 19 patients at the Hospital Royal Prima Medan in 2021.

LITERATURE REVIEW

2.1 Perceived Organizational Support (POS)

Perception of organizational support is a theory developed based on the basic theory proposed by Eisenberger, namely an employee's perception of how much the organization has appreciated employee contributions and the organization's concern for the conditions and needs of employees. (Sharma and Dhar, 2016) This employee perception assesses that the organization has

appreciated contributions, listened to complaints, paid attention to the lives and welfare of employees, and treated employees fairly. Employees perceive the organization to be a source of socioemotional needs such as appreciation, care, and tangible benefits (salaries and benefits). In addition, employees develop perceptions of organizational support to meet the needs for approval, appreciation, and membership.(Honorata Ratnawati Dwi Putranti, Suparmi, 2021)

Employees' perceptions of organizational support are considered to influence employee performance. Employees who believe that the organization values contributions and care about employee well-being are likely to reciprocate by doing a good job. (Chiang and Hsieh, 2012) Even when employee performance is judged to be unsatisfactory, organizations can improve employee performance by paying attention to employee needs. Employees will improve their performance and sense of responsibility towards their work so that organizational goals can be achieved. In addition, the perception of organizational support makes employees have an extra role (extra-role) or work beyond the duties and responsibilities assigned by the organization. These extra roles include helping fellow employees, taking actions that reduce risks to the company, providing constructive advice, and acquiring knowledge and skills that are beneficial to the organization.(Honorata Ratnawati Dwi Putranti, Suparmi, 2021)

An analysis conducted by Honorata & Suparmi (2021) shows that employees perceive three organizational treatments that have a relationship with perceptions of organizational support, namely fairness, supervisor support, and organizational rewards and favorable job conditions.).

2.2. Definition Depression.

Depression is a syndrome characterized by a number of clinical symptoms whose manifestations can vary in

each individual. Depression is a mental disorder that is generally characterized by feelings of depression, loss of interest or pleasure, decreased energy, feelings of guilt or low self-esteem, difficulty sleeping or decreased appetite, feelings of fatigue and lack of concentration. The condition can become chronic and recurrent, and can substantially impair an individual's ability to carry out day-to-day responsibilities. At its most severe level, depression can lead to suicide.(Ktut Dianovinina, 2018; Mandasari and Duma L.Tobing, 2020).

2.3. Classification of Depression

- a. Major Depressive Disorder - unipolar and bipolar.
- b. Other specified mood disorders: (1) Minor dysthymic-depressive disorder; (2) Current or recent cyclothymic-depressive and hypomanic disorder (continuous for 2 years); (3) atypical depressive disorder; (4) postpartum depression; (5) Depression by season.
- c. Depressive disorder due to a general medical condition and substance-induced depressive disorder.
- d. Adjustment disorder with depressive mood; depression induced by psychosocial stressors. (Nurmiati Amin, 2013).

2.4. Definition of Anxiety (Anxiety)

According to the Dorland Medical Dictionary, the word anxiety or what is called anxiety is an unpleasant emotional state, in the form of psychophysiological responses that arise in anticipation of an unreal or imaginary danger, apparently caused by an intrapsychic conflict that is not directly realized.(Albert et al., 2012)

Anxiety is a feeling of fear of something happening caused by the anticipation of danger and is a signal that helps individuals to prepare to take action against threats. The influence of demands, competition, and disasters that occur in life can have an impact on physical and psychological health. One of the psychological effects is anxiety or

anxiety.(Sutejo, 2018) Anxiety is a tension that arises from tissue conditions in the body that are actually caused by external causes. (Semiun, 2006).

2.5. Pathophysiology

Anxiety is a response to the perception of threats received by the central nervous system. This perception arises as a result of external and internal stimuli in the form of past experiences and genetic factors. These stimuli are perceived by the five senses, transmitted and responded to by the central nervous system according to the lifestyle of each individual. In the central nervous system, this process involves the Cortex Cerebral – Limbic System – Reticular Activating System – Hypothalamus pathway which gives impulses to the pituitary gland to secrete hormonal mediators against the target organ, namely the adrenal glands, which then stimulates the autonomic nervous system through other hormonal mediators. Mention that in the central nervous system which are the main mediators of anxiety symptoms are norepinephrine and serotonin. Another neurotransmitter and peptide, corticotropin-releasing factor, is also involved. The peripheral autonomic nervous system XVIII, particularly the sympathetic nervous system, also mediates many of the symptoms of anxiety.(Kusuma, 2012)

METHOD OF RESEARCH

This research is research with a quantitative approach. The quantitative design used in this study is a cross-sectional or cross-sectional design. (Widiana, 2015; Sugiyono, 2016) and conducted at the Hospital Royal Prima, Medan. With the consideration that the hospital is a teaching hospital in collaboration with Prima Indonesia University.

The target population of this study was all nurses in the isolation room for COVID-19 patients at various hospitals in Medan and sample size in the study was determined according to the size of the population in this study. From the results of

the initial survey, it was found that the population in this study was 99 nurses spread from qualifications from Diploma III to Nursing Professional Education. From the sample size, several samples were taken, namely 79 nurses with a confidence interval value of 85% and a margin of error for sampling 5%. (Taherdoost, 2016)

The method of data collection in this study was to use a questionnaire given to each nurse online. Thus, the data obtained in this study are primary. The questionnaire in this study consisted of 3 parts, namely: the part about the respondent's self-identity, Depression Anxiety Stress Scales (DASS 42), and Perceived Organizational Support.

- a. Self-identity contains initials of the respondent's name, age, gender, and length of work.
- b. Depression Anxiety Stress Scales (DASS 42) used to determine the category of each research variable given statement questions where the answer choices are 0 = never, 1 = sometimes, 2 = often, 3 = very often. Each variable is described as follows: (1) The anxiety variable is proposed 14 items of statement questions, namely at numbers 2,4,7,9,15,19,20,23,25,28,30,36,40,41 so that it is known score of normal anxiety = 0-7, mild anxiety = 8-9, moderate anxiety = 10-14, severe anxiety = 15-19, very severe anxiety 20; (2) The stress variable proposed 14 items of statement questions, namely at numbers 1,6,8,11,12,14,18,22,27,29,32,33,35,39 so that it is known that the normal stress score = 0-14, mild stress = 15-18, moderate stress = 19-25, severe stress = 26-33, very severe stress 34; (3) The depression variable was submitted for 14 statement questions, namely at numbers 3, 5, 10, 13, 16, 17, 21, 24, 26, 31, 34, 37, 38, (Hu et al., 2020; Cui et al., 2021)
- c. Perceived organization support assessment was carried out using 8 statements that were assessed through a score of 0-6 (0 = Strongly Disagree; 1 = Slightly disagree; 2 = Slightly Disagree;

3 = Neither Agree nor Disagree; 4 = Slightly Agree; 5 = Slightly Agree; 6 = Strongly Agree). In this section, there are 8 question items with 4 statements having a score with reverse assessment. (Rhoades and Eisenberger, 2002; Worley, Fuqua, and Hellman, 2009).

RESULT & DISCUSSION

Hospital Royal Prima Medan is one of the largest private hospitals that have the aim of being a referral center for the entire community, especially the people of Medan City and the people of North Sumatra in general. On May 17, 2011, by the Deputy Minister of National Education of the Republic of Indonesia, Prof. Dr. Fasli Jalal, Ph.D. laid the groundwork for the construction of the Royal Prima Hospital in Medan. Then, on February 14, 2013, the Head of the North Sumatra Province Health Service issued a Temporary Operational Permit to the Royal Prima Hospital Medan No. 440.442/1641/II/the YEAR 2014. Furthermore, on February 16, 2014 RS. Royal Prima Medan was inaugurated by the Deputy Governor of North Sumatra Province, Mr. Ir. H. Tengku Erry Nuradi, M. Si with a Permanent Operational Permit from the North Sumatra Provincial Health Office signed by the Head of the North Sumatra Provincial Health Office, dr. Siti Hatati Surjantini, M. Kes.

Hospital Royal Prima Medan now has more than 500 workers, more than 23 polyclinics, and more than 200 partners with the best specialization services in the fields of Orthopedics, Eyes, Neurology, Internal Medicine, Obstetrics and Gynecology, Heart, Lung, Children, ENT – KL, and Urology as well as providing room services in the form of Delivery Rooms, Endoscopy Rooms, Emergency Room, Physiotherapy, Baby Rooms, NICU, ICU, Class III Inpatient Rooms, Class II Inpatient Rooms, Class I Inpatient Rooms, VIP Inpatient Rooms, and SVIP Inpatient Room.

The vision of the Hospital Royal Prima Medan is to become a Leading Hospital in the field of health services,

education and research, and health development by prioritizing the interests of public health. Meanwhile, there are several missions of the Royal Prima General Hospital, namely as follows:

- a. Organizing quality and professional plenary health services based on evidence and scientific research.
- b. Continuously improve the competence of human resources by the development of science and technology in medicine, dentistry, and other health.
- c. Improving the quality and quantity of health, education, and research facilities/infrastructure by technological developments and community needs.

- d. Carry out comprehensive and integrated research and evidence-based education function in the health sector.
- e. Creating a work environment that synergizes and upholds human and religious values as well as improves the welfare of the parties concerned.
- f. Establish partnerships with various parties to strengthen the role of hospitals in health services and education.
- g. Carry out service to the interests of public health.

The relationship between perceived organization support and depression can be analyzed using the Chi Square test and is shown in the following table.

Table 1. The Relationship between Perceived Organization Support and Depression Levels in Nurses in the Isolation Room of the Royal Prima General Hospital Medan

Perceived Organization Support	Depression		Total	P value	OR (95% CI)
	Normal	Depression			
Good	40 (50.0)	13 (16.3)	53 (66.3)	0.001	5.23 (1.92-14.23)
Bad	10 (12.5)	17 (21.3)	27 (33.8)		
Total	50 (62.5)	30 (37.5)	80 (100.0)		

From data The table above can be seen that there is a significant relationship between perceived organization support and the level of depression of nurses in the isolation room of the Royal Prima General Hospital, Medan, this can be seen from the P value < 0.05 (P value = 0.001). The majority of nurses with normal levels of depression have good perceived organization support as many as 40 people (50%). Meanwhile, for nurses with depression, the majority had poor perceived organization support, namely 17 people (21.3%). Then, the analysis was continued with logistic regression analysis as a multivariate analysis and before the analysis was carried out, a feasibility analysis of the logistic regression model was carried out.

Tables 2. Overall Model Fit Test between Perceived Organizational Support and Depression

Value - 2 Log Likelihood	Statistical Value	df	Table X2 Value
Block 0	105.852	79	100.749
Block 1	94.30	74	95.081

From data the table above can be seen that the value of -The 2 log likelihood before entering the independent variable

into the analysis model is 105,852, the value of -2 log likelihood (105,852) > the X2 table value (100,749). This shows that the analysis model before the independent variables were included in the analysis model did not fit the data. Meanwhile, the value of - 2 log likelihood of the analysis model after entering the variables into the analysis model is 94.30, the value of - 2 log likelihood (25.875) < the value of X2 table (95.081). This shows that the analysis model after inserting the independent variables into the analysis model is fit with the data. In addition, the difference between the two values - 2 log likelihood is 11,552 which indicates a decrease and indicates that the regression model is better or in other words the hypothesized model fits the data.

Meanwhile, from the value of the regression coefficient, it is found that the regression coefficient value of perceived organization support is 1,695. This shows that the relationship between perceived organization support and the level of depression is a positive or unidirectional relationship, which means that an increase

in perceived organization support will restore nurses' depression to normal.

Tables 3. The Relationship between Perceived Organization Support and Anxiety Levels in Nurses in the Isolation Room of the Royal Prima General Hospital Medan

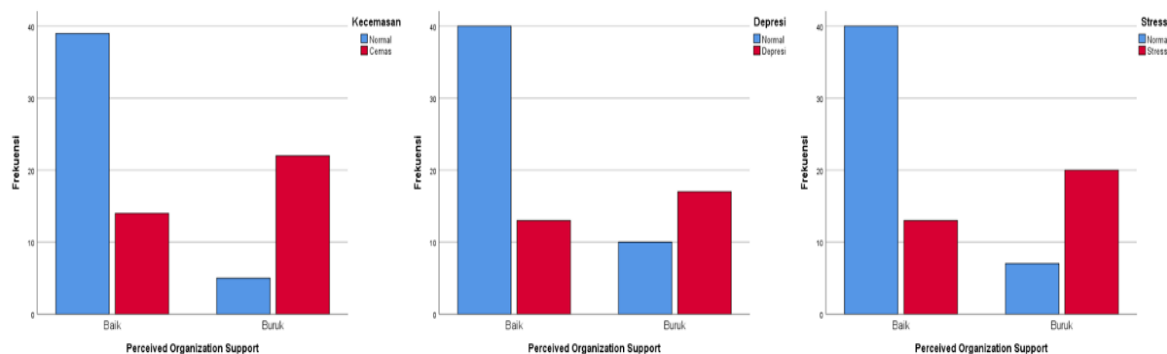
Perceived Organization Support	Worry		Total	P value	OR (95% CI)
	Normal	Worried			
Good	39 (48.8)	14 (17.5)	53 (66.3)	< 0.05	12.26 (3.89-38.60)
Bad	5 (6.3)	22 (27.5)	27 (33.8)		
Total	44 (55.0)	36 (45.0)	80 (100.0)		

From data The table above can be seen that there is a significant relationship between perceived organization support and the level of anxiety of nurses in the isolation room of the Royal Prima General Hospital, Medan, this can be seen from the P value < 0.05. The majority of nurses with normal levels of anxiety had good perceived organization support as many as 39 people (48.8%). Meanwhile, for nurses with anxiety, the majority had poor perceived organization support, namely 22 people (27.5%). Then, the analysis was continued with logistic regression analysis as a multivariate analysis and before the analysis was carried out, a feasibility analysis of the logistic regression model was carried out. One of the analyzes carried out to assess the feasibility of the logistic regression model is the overall model fit test, which is shown in the following table.

During the COVID-19 pandemic, the workload of health workers in various health facilities became increasingly heavy, therefore support from organizations, namely their workplaces, became very

important. Perceived organization support (POS) is an employee's/worker's perception of the extent to which the organization (workplace) is taking steps to protect the physical and psychological well-being of workers. In addition, the implications of Perceived organization support are related to job satisfaction, organizational performance, and absenteeism(Chatzittofis et al., 2021).

Results This study clearly shows that Perceived Organization Support is a very significant factor influencing the mental health aspects of nurses in the isolation room of the Royal Prima General Hospital, Medan. This can be seen from the P value and Odd Ratio value of Perceived Organization Support against Depression (P value: 0.002; OR [95% CI]: 5.23 [1.92-14.23]), Anxiety (P value < 0.05; OR [95% IK]: 12.26 [3.89-38.60]), and depression (P < 0.05; OR [95% CI]: 8.79 [3.03-25.48]). An illustration of the relationship between Perceived Organization Support on depression, anxiety, and stress can be seen in the following bar chart.



Figures 2. Bar Diagram of the Relationship between Perceived Organizational Support on Depression (Left), Anxiety (Center), and Stress (Right) on Nurses in the Isolation Room of Royal Prima General Hospital Medan

Several of these studies have been conducted to focus the evaluation on differences in perceived organization support between health workers and

administrative staff. Only a few hospitals implement organizational support regulations at the individual and organizational levels. This support can take the form of meeting basic needs (such as food), child care, mental health support, and COVID-19 screening, rather than addressing other types of support, such as participation in decision-making (Chatzittofis et al., 2021; Jin and Tang, 2021).

CONCLUSION

The conclusions in this study are arranged by the research objectives that have been formulated previously, namely as follows:

1. The majority of nurses in the COVID-19 isolation room at Royal Prima General Hospital Medan had a good perception of hospital support, namely 53 people (66.3%) and the remaining 27 people (33.8%) had a bad perception.
2. The majority of nurses in the COVID-19 isolation room at the Royal Prima General Hospital Medan had depression levels within normal limits of 50 people (62.5%) and the least nurses with severe depression were only 6 people (7.5%).
3. The majority of nurses in the COVID-19 Isolation Room at the Royal Prima General Hospital Medan had anxiety levels within normal limits of 44 people (55.0%) and the least was mild which was only 2 people (2.5%).
4. The majority of nurses in the COVID-19 isolation room at the Royal Prima General Hospital Medan had stress levels that were still within normal limits of 47 people (58.8%) and the least amount of mild stress was only 3 people (3.8%).
5. There is a significant relationship between the perception of hospital support (Perceived Organization Support) on the level of depression (P value: 0.002; OR [95 % CI]: 5.23 [1.92-14.23]), anxiety (P value < 0.05; OR [95% CI]: 12.26 [3.89-38.60]), and stress (P<0.05; OR [95% CI]: 8.79

[3.03-25.48]) on nurses at the Royal Prima General Hospital Medan.

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REFERENCES

1. Albert, D. et al. (2012) *Dorland's Illustrated Medical Dictionary*. Philadelphia: Elsevier Saunders.
2. Asmadi (2008) *Basic Concepts of Nursing*. Jakarta: EGC.
3. Bala, VC and Kumar, P. (2020) 'Review on COVID-19: Rise of SARS-CoV-2 Pandemic Outbreak', *Borneo Journal of Pharmacy*, 3(1), pp. 103–120. doi:10.33084/bjop.v3ispecial-1.1412.
4. Chatzittofis, A. et al. (2021) 'The Role of Perceived Organizational Support in Mental Health of Healthcare Workers During the COVID-19 Pandemic: A Cross-Sectional Study', *Frontiers in Psychiatry*, 12(707293), pp. 1–6. doi:10.3389/fpsy.2021.707293.
5. Chiang, C.-F. and Hsieh, T.-S. (2012) 'The impacts of perceived organizational support and psychological empowerment on job performance: The mediating effects of organizational citizenship behavior', *International Journal of Hospitality Management*, 31(1), pp. 180–190.
6. Conti, C. et al. (2020) 'Fragile heroes. The psychological impact of the COVID-19 pandemic on health-care workers in Italy', *PLoS ONE*, 15(11 November), pp. 1–17. doi: 10.1371/journal.pone.0242538.
7. Cui, S. et al. (2021) 'Impact of COVID-19 on Anxiety, Stress, and Coping Styles in Nurses in Emergency Departments and Fever Clinics: A Cross-Sectional Survey', *Risk Management and Healthcare Policy*, Volume 14, pp. 585–594. doi: 10.2147/rmhp.s289782.
8. Djalante, R. et al. (2020) 'Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020', *Progress in Disaster Science*, 6, p. 100091. doi: 10.1016/j.pdisas.2020.100091.
9. Hope, H. et al. (2020) 'Coronavirus disease 2019 (COVID-19): A literature review', *Journal of Infection and Public Health*, 13(5), pp. 667–673.

10. Honorata Ratnawati Dwi Putranti, Suparmi, SS (2021) 'Analysis of Perceived Organizational Support, Quality Culture, and Job Satisfaction as Second-Order Factors on Turnover Intention of Generation Y Employees at ATC (Air Traffic Control)', *Maksipreneur Journal*, 10(2) , pp. 258–277.
11. Hu, D. et al. (2020) 'Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study', *EClinicalMedicine*, 24. doi: 10.1016/j.eclinm.2020.100424.
12. Huang, L. et al. (2020) 'Emotional responses and coping strategies in nurses and nursing students during Covid-19 outbreak: A comparative study', *PLoS ONE*, 15(8), pp. 1–12. doi: 10.1371/journal.pone.0237303.
13. Jin, J. and Tang, J. (2021) 'Exploring the Effect of Perceived Organizational Support and Resilience on Chinese Pharmacists' Engagement in Stressful and Competitive Pharmaceutical Work at Hospitals', *Saudi Pharmaceutical Journal*, 29(9), pp. 931–938. doi: 10.1016/j.jsps.2021.08.003.
14. Ktut Dianovinina (2018) 'Depression in Adolescents: Symptoms and Problems', *Journal of Psychogenesis*, 6(1), pp. 70–71.
15. Kusuma, YM (2012) The Relationship between Anxiety Levels and Student Achievement in Class IX SMP Negeri 2 Semarang. UNIMUS.
16. Mandasari, L. and Duma L. Tobing (2020) 'Level of depression with suicidal ideation in adolescents', *Indonesian Journal of Health Development*, 2(1), pp. 21–26.
17. Musabiq, SA and Karimah, I. (2018) 'An Overview of Stress and Its Impact on Students', *InSight*, 20(2), pp. 75–83.
18. The Fate of Tua Lumban Gaol (2016) 'Stress Theory: Stimulus, Response, and Transactional', *Psychology bulletin*, 24(1), pp. 1–11.
19. Nasir, A. and Muhith, A. (2011) *Basics of Mental Nursing: Introduction and Theory*. Jakarta: Salemba Medika.
20. Nurmiati Amin (2013) 'Depression in General Medical Conditions', in *Textbook of Psychiatry*, pp. 117–119.
21. Redayani, P. (2015) 'Complete Anxiety Disorder', in *Textbook of Psychiatry Second Edition*. Jakarta: Faculty of Medicine, University of Indonesia, pp. 253–257.
22. Reitz, KM et al. (2021) 'Healthcare Providers' Perceived Support from Their Organization is Associated with Lower Burnout and Anxiety Amid the COVID-19 Pandemic', *PLoS ONE*, 16(11), pp. 1–15. doi: 10.1371/journal.pone.0259858.
23. Rhoades, L. and Eisenberger, R. (2002) 'Perceived Organizational Support: a Review of the Literature', *Journal of Applied Psychology*, 87(4), pp. 698–714.
24. Rossadea Atziza (2015) 'Factors Affecting the Incidence of Stress in Medical Education', *J Agromed Unila*, 2(3), pp. 317–320.
25. Santoso, S. (2018) *Mastering Statistics with SPSS 25*. Jakarta: PT Elex Media Komputindo.

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