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The Effect Of Hypnopuncture On Stress Response In Final Students In The Pandemic Era Of COVID-19

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ABSTRACT

At the end of 2019, the world was shocked by the emergence of a new virus, SARSCoV-2 which causes COVID-19. Changes that occur in students due to COVID-19 certainly have an impact on student psychology. Hypnopuncture is a combination method of Hypnosis and Acupuncture therapy, which is expected to be effective in dealing with health complaints. The purpose of this study was to determine the effect of Hypnopuncture on stress response in final year students in the era of the COVID-19 pandemic. This research was conducted at STIKes Cirebon, in September 2020-March 2021. This research is a Quasy experiment with pretest and posttest design. The sample in this study was final year students at STIKes Cirebon, which was 43 students. T-test dependent or Paired Sample T-test can be known the level of significance in reducing student stress levels. The results of the Paired Sample T-test on the pretest and posttest obtained a value of $p < 0.000$, so there is an influence of hypnopuncture on stress in final year STIKes Cirebon students. Hypnopuncture therapy using a combination of hypnosis and acupuncture affects stress in final year STIKes Cirebon students.

I. INTRODUCTION

SARSCoV-2 is a new virus that emerged at the end of 2019 and causes COVID-19. COVID-19 is an acute respiratory disease with a short incubation period and also has rapid transmission. Data as of April 30, 2020, COVID-19 has been confirmed in 3,096,686 people with 72,955 new cases worldwide, while the death rate

is around 9,859, bringing the total deaths from COVID-19 to 223,198 people⁽¹⁾.

Indonesia has made various efforts to prevent and reduce morbidity and mortality rates caused by COVID-19. One of the government's efforts is to establish a large-scale social restriction policy (PSBB) and also a recommendation to carry out physical distancing, which is to

distance from other people at least one meter for less than 15 minutes to protect themselves from COVID-19 disease transmitted through droplets⁽²⁾.

The Distance Learning Program (PBJJ) is an alternative currently used by every university to carry out the teaching and learning process even though it is not face-to-face. The change in the learning process from face-to-face to PBJJ is a decision that must be made by the university so that educational goals can be implemented effectively and efficiently. The university is a modern organization must adapt to environmental changes. Universities in the midst of the COVID-19 pandemic must continue to carry out the teaching and learning process by changing it to PBJJ. This Distance Learning Program (PBJJ) is a challenge for every university to continue to carry out the goals of Education⁽³⁾.

This sudden change has an impact on the health of workers, students, and students, both physically and mentally. The health impact that can occur due to the change of direct learning methods to the Distance Learning Program (PBJJ) is stress. That is a condition when someone feels so depressed that may occur due to heavy or excessive workload. Changes that occur in students due to COVID-19 certainly have an impact on student psychology. The results of research by Cao et al., on 7,143 students showed that 0.9% of students experienced severe anxiety, 2.7% experienced moderate anxiety, and 21.3% experienced mild anxiety⁽⁴⁾.

Increasing the amount of academic stress according to Jain and Singhai (2017) will reduce academic ability which affects the achievement index⁽⁵⁾. The burden of stress that is felt too heavy can trigger impaired memory, concentration, decreased problem-solving ability, and academic ability. In addition, stress that is felt heavy can also trigger the emergence of health problems such as depression and excessive anxiety. Students who

experience stress will experience negative impacts that will interfere with lectures and disrupt their performance. Students who experience extreme stress or depression need serious attention⁽⁶⁾.

Hypnotherapy is a therapy using hypnosis methods. Hypnosis is a state of heightened attention in which psychotherapy or suggestion is used as a treatment to achieve goals. Hypnotherapy is one of the proven and highly effective methods of dealing with stress. Indeed, there are several methods that besides hypnotherapy are used to deal with stress but are less effective and take a long time to be able to feel significant changes. Less effective because other methods do not touch the root of the problem and only play at the level of the conscious mind. Even though the source of stress in a person is stored in the subconscious mind⁽⁷⁾.

Based on research conducted by Hendriyanto et al., showed the results that hypnotherapy is effective in reducing stress levels and is expected to provide input to educational institutions, and other research to overcome stress in students with hypnotherapy⁽⁸⁾.

According to Yang et al., Acupuncture is one of the traditional Chinese medicine that has been used in Eastern countries to treat several diseases⁽⁹⁾. Acupuncture therapy has an effect similar to antidepressant drugs through the Extracellular signal-Regulated Kinase (ERK) signaling pathway resulting in increased expression of serotonin (5-HT) in the dorsal raphe nucleus, suppressing increased stress due to neural activity at the ceruleus locus and increasing the action of antidepressant drugs. In addition, acupuncture has better safety than antidepressant drugs because it does not cause severe side effects⁽¹⁰⁾.

Hypnopuncture is a combination method of Hypnosis and Acupuncture therapy, which is expected to be effective in dealing with health complaints. Hypnopuncture is done by providing hypnosis therapy which is then carried out puncture

of acupuncture needles on patients according to complaints⁽¹¹⁾.

II. METHODS

In this research, it uses a quasi-experimental with a pretest and posttest design which is used to determine the Effect of Hypnopuncture on Stress Response in final year STIKes Cirebon students during the COVID-19 pandemic during February to March 2021. Research using quasi-experimental aims to reveal the possibility of causal relationships between variables without manipulation of a variable.

The population in this study was final year DIII students at STIKes Cirebon, which was 75 students. The sampling technique in this study uses proportional random sampling, which requires a random sampling method from each sub-population of 43 students with the following details: 3 students of the D III Midwifery study program, 9 students of D III Physiotherapy, 25 students of D III Nursing.

Questionnaires are used as a tool to assess the stress of final-year students. The questionnaire consists of favorable statements. Academic stress variables were measured using the Educational Stress Scale for Adolescents (ESSA). ESSA consists of 16 statement items.

III. RESULT

Based on univariate and bivariate analysis, the following results were obtained:

Table 1. Frequency distribution based on Gender of final year students of STIKes Cirebon

Gender	Frequency	Presented
Law Law	13	30.2%
Woman	30	69.8%

Based on table 1 above, it shows that the characteristics of research subjects based on gender show that most of them are female, namely 30 people

(69.8%), while research subjects with male sex, which is 13 people (30.2%).

Table 2. Frequency distribution of research subjects based on the stress level of final year students of STIKes Cirebon before the intervention

Stress Level	Frequency	Presented
Stress	43	100%
Total	43	100%

Based on table 2 above, it shows the frequency distribution of research subjects based on stress levels before the intervention of all final year students of STIKes Cirebon experienced stress, which 43 people (100%).

Table 3. Frequency distribution of research subjects based on the stress Level of final year students

Stress Level	Frequency	Presented
No Stress	38	88.4%
Stress	5	11.6%

Based on Table 3 above, the distribution of the frequency of research subjects based on stress levels after the Hypnopuncture intervention showed that most of the final year students of STIKes Cirebon experienced a decrease in stress levels, namely 38 students (88.4%), while those who still experienced stress amounted to 5 students (11.6%).

From the T-test dependent or Paired Sample T-test, it is known the level of significance in reducing student stress levels. The results of the Paired Sample T-test on the pretest and posttest obtained a value of $p < 0.000$, so that there is an influence of hypnopuncture on stress in final year STIKes Cirebon students.

IV. DISCUSSION

1. Gender

The results showed that the subjects in this study who experienced academic stress were mostly female, namely 30

people (69.8%), while the study subjects with male sex, namely 13 people (30.2%). Several popular psychological terms are often obscured as "stress". In essence, of course, this word refers to a condition of a person who experiences excessive emotional demands or time that makes it difficult to function effectively in all areas of life. This situation can result in the appearance of quite a lot of symptoms, such as depression, chronic fatigue, irritability, anxiety, impotence, and low quality of work⁽¹²⁾.

Academic stress is a response of learners to pressing school demands that cause feelings of discomfort, tension and changes in behavior. Academic stress can arise due to academic demands, difficulty keeping up with academic demands and failing to pretend that is not in accordance with expectations⁽¹³⁾.

According to traditional acupuncture, Qi, or vital energy, flows like a river along pathways or meridians throughout the body. This imbalance of energy flow along certain channels will affect the organ systems of the body, leading to physical, mental and emotional symptoms. Emotion are mental stimuli that affect our body. In normal situations, they do not cause disease. However, if emotions become excessive or "accumulate" over a long period, illness can occur⁽¹⁴⁾.

Women are indeed easier and have the potential to experience stress. Physiologically and psychologically women are different from men, especially in the face of a problem, women are emotionally more vulnerable than men.

2. Stress levels before being given intervention

Based on the research results, it shows that the frequency distribution of research subjects based on stress levels before the intervention of all final year students of STIKes Cirebon experienced stress, which was 43 people (100%). Stress is formed from various things that can come from inside the body or from outside the body. Stress occurs when the

stressor is perceived and perceived as a threat, causing anxiety which is the beginning of physical and psychological health disorders in the form of changes in physiological, cognitive, emotional, and behavioral functions⁽¹⁵⁾.

Academic stress is stress that occurs in students due to failure to develop effective coping to meet academic and social demands. Failure of coping effectiveness can be due to a lack of adjustment to academic demands⁽¹⁶⁾.

According to Nurmaliyah (2014) there are two types of academic stress that are often experienced by students in facing students' schoolwork, namely "eustress or positive stress and distress or negative stress". First is Distress (Negative Stress), this type of stress is a type of bad stress (bad stress). This stress comes from stressful situations that occur (experienced) continuously so that it can cause a deterioration in one's physical health. If stress occurs continuously, a person will be sick, both physically and mentally. Being stressed is unpleasant stress. Stress is perceived as a state in which the individual experiences anxiety, fear, worry, or anxiety. So that individuals experience a negative, painful psychological state, or a desire to avoid it. The second is Eustress (Positive Stress), This is a type of stress commonly referred to as good stress. It is called good stress because this type of stress can provide challenges so that a person can be motivated to achieve his goals by working at his best. Eustress does not cause adverse effects either physically or psychologically. Eustress is pleasant and is a satisfying experience. Eustress can improve an individual's alertness, cognition, and performance. Eustress can also increase an individual's motivation to create something⁽¹⁷⁾.

3. Stress levels after being given intervention

The results showed that the frequency distribution of research subjects

based on stress levels after the Hypnotherapy intervention showed that most of the final year students of STIKes Cirebon experienced a decrease in stress levels, namely 38 students (88.4%), while those who were still experiencing stress amounted to 5 students (11.6%). Richard (2010) states that stress is a process that assesses an event as threatening, or dangerous and individuals respond to the event at physiological, emotional, cognitive and behavioral levels. Stressful events can be positive (e.g., planning a marriage) or negative (e.g., family death)⁽¹²⁾.

According to traditional acupuncture, the body can become healthy by balancing its energy flow. About 2,000 different acupuncture points are located along the body's energy channels. Stimulating these points reduces the obstruction of energy flow, allowing the body to recover. This form of acupuncture is often effective for the treatment of a variety of physiological and psychological health problems. Traditional Chinese medicine is effective in relieving stress through acupuncture, herbal remedies and massage therapy. The heart helps regulate our emotions. When the flow of Liver-Qi is interrupted, emotional disturbances such as depression, frustration, anger, and mood swings can occur. Therefore, it is important to ensure the smooth flow of Liver-Qi in the treatment of stress-related conditions. Acupuncture treatments can help restore energy to our body's circulation, especially in the stagnant Liver-Qi circulation. Late nights and irregular eating habits can stress us heavily. Untreated Liver-Qi stagnation will produce internal fire, which can radiate upward to the head area and disrupt sleep, suppress appetite, or cause other disharmony. In these cases, treatment usually focuses on cleaning our internal fire to restore balance (Dissipating Heat or internal fire)⁽¹⁴⁾.

Stress management can be done using Hypnotherapy. This is in accordance with research conducted by Hendriyanto (2011) on the Effect of Hypnotherapy on

the stress level of students of the Faculty of Nursing, Padjadjaran University, class of 2011. This study shows the results that hypnotherapy has an influence on reducing the stress level of students of the Faculty of Nursing, Padjadjaran University, class of 2011.

4. Bivariate

The results of this study showed a p value of < 0.05 , so it can be concluded that there is an influence of hypnotherapy on stress in final year STIKes Cirebon students in the era of the COVID-19 pandemic. Hypnotherapy is a combination of hypnosis and acupuncture using GV 20 (Baihui), CV 14 (Ju Que), PC 6 (Nei Guan) and HT 7 (Shen Men) points in stress cases in final year STIKes Cirebon students in the COVID-19 pandemic era.

Sim (2002) says that there are seven types of emotions that can affect the process of disease progression. For example, negative emotions can aggravate the patient's illness, even causing the disease to worsen rapidly. However, positive emotions can speed up the healing process of the disease. If the heart works well and blood is sufficient, mental activity will be normal, emotional life will be balanced, consciousness is good, memory is good and thinking is sharp and sleep is good. Conversely, if the heart is weak and blood is insufficient, there will often be mental disorders, such as depression, reduced memory, dull thinking, insomnia, sleepiness, and if in severe conditions there will be loss of consciousness or fainting. The heart is easily damaged by external causes, namely heat, so the heart is protected by the pericardium as a personal guard that functions to protect the heart from the influence of heat. (Saputra, 2017).

Academic stress is stress that arises due to pressures to show achievement and excellence in conditions of increasing academic competition so that they are increasingly burdened by various

pressures and demands⁽⁸⁾. Academic stress experienced by students is the result of subjective perceptions of the mismatch between environmental demands and actual resources owned by students⁽¹⁸⁾.

According to Sun et al., there are five aspects of academic stress, the first is Learning Pressure. Learning pressure is related to the pressure that individuals experience while studying at school and at home. The pressure experienced by individuals can come from parents, school-mates, exams at school and higher education levels. The second is Task Load. Task load relates to tasks that must be done by individuals in school. The burden experienced by individuals is in the form of homework (homework), assignments at school and exams/tests. Third, Concerns about Value. The intellectual aspect relates to a person's ability to acquire new knowledge. This aspect also deals with the cognitive processes of the individual. Individuals who are experiencing academic stress will find it difficult to concentrate, easily forget and there is a decrease in work quality. The four expectations are self-expectation. Self-expectation relates to a person's ability to have expectations or expectations of himself. Someone who has academic stress will have low expectations of himself such as feeling that he always fails in academic grades and feels that he always disappoints parents and teachers if academic grades are not as desired. And the fifth is Despair. Hopelessness is related to a person's emotional response when he feels unable to achieve goals in life. Individuals who experience academic stress will feel that they are unable to understand lessons and do assignments in school.

Some signs that stress has had an impact on the physical include sleep disturbances, increased heart rate, muscle tension, dizziness and fever, fatigue, and lack of energy. The impact on cognitive aspects is characterized by confusion, frequent forgetfulness, worry, and panic.

In the emotional aspect, the impact of stress includes being easily sensitive and irritable, frustrated, and feeling helpless. In the behavioral aspect, stress has an impact on the loss of desire to socialize, the tendency to want to be alone, the desire to avoid others, and the emergence of laziness⁽²⁰⁾.

Carwin (2008) mentions that the pathophysiology of stress is so complex, experts often use more than one approach to explain it. For example, mechanisms are endocrinological, immunological (including neurotransmitters), psychological, and psychosocial. The endocrinological and immunological approach can be explained by Guyton as follows: once the stressor is recognized by the body, the stressor will affect our body system. One mechanism is by an increase in ACTH (Adrenocorticotropin hormone) by the anterior pituitary gland. Stress can stimulate the hypothalamus to secrete corticotropin-releasing hormone (CRF). Furthermore, CRF is secreted into the main capillary plexus of the pituitary portal system at the apex of the hypothalamus media, and then carried to the anterior pituitary gland (this CRF will stimulate ACTH secretion). When there is no CRF, then this anterior pituitary gland can only secrete a small amount of ACTH⁽²¹⁾.

Long-term stimulation of the adrenal cortex by ACTH not only increases its secretory activity, but also causes hypertrophy and proliferation of Adrenocortical cells, particularly in the fasciculate and reticular zones, where cortisol and androgens are secreted. From the secretion of ACTH by CRF stimulation cortisol will be produced by the adrenal cortex, so glycolysis will occur. The glucose produced from glycolysis is what is used as energy for greater stress needs. This process will continue until there is a mechanism that immediately addresses the stressors that arise. If it is too long, the glucose reserve will run out, resulting in signs of illness⁽²¹⁾.

In traditional Chinese medicine, stress affects the free flow of Qi in the body, resulting in stagnation, excessive internal heat, and poor blood circulation. Excessive and prolonged stress can disrupt the balance of the body and trigger severe health problems. The most common manifestations of stress include restlessness, anxiety disorders, fatigue, sleep disturbances, headaches, indigestion, hypertension, acne, poor or excessive appetite, decreased sexual ability, and cravings for sweet foods and dessert. In some cases, long-term stress can also lead to weight loss or weight gain problems⁽¹⁴⁾.

Acupuncture is one of the most effective stress treatments. It helps by calming the mind and relaxing the muscles. In the Huang Di Nei Jing (Book of the Yellow Emperor), the Heart is said to be the ruling organ of Zang-fu, the ruler of the mind or spirit (Shen) and the center of consciousness and intelligence. Heart Health affects the Shen and in turn can cause emotional disorders such as anxiety, insomnia and heart palpitations. Therefore, maintaining heart health is very important to maintain emotional balance. Acupuncture and massage of the head and feet can also help improve heart function. "GI" acupuncture therapy plays a role in suppressing stress symptoms, prospectively as an alternative or complementary therapy for stress sufferers⁽²²⁾.

In the brain there are chemicals that can work to carry out biochemical changes and neurophysiological changes (electrical activity) called neurotransmitters. Some known and important neurotransmitters are Dopamine (DA), Norepinephrine (NE), serotonin (5 HT) and Acetylcholine (Ach). Neurotransmitter substances function as messengers to various nerve cells. Each neurotransmitter has a concentration in certain locations in the brain which in turn will influence a person's behavior according to the part it influences, for example to reduce pain, anxiety, restlessness, insomnia. Stabbing

at certain points will result in the release of certain neurotransmitters in large quantities which will influence a person's behavior⁽²³⁾.

Management depressive disorders can be carried out comprehensively in the form of pharmacological therapy, somatic therapy, psychotherapy, psychoreligious therapy, and acupuncture. Recent research shows that acupuncture can have an antidepressant effect by increasing the release of serotonin and norepinephrine in the synaptic cleft⁽²⁴⁾.

According to Saputra (2017), points that can be used in stress management include the GV 20 (Baihui) point, located at the vertex right at the midline of the meeting line between the right and left ears. It is the meeting point of the GV and BL meridians which functions to calm the mind and mental disorders⁽²³⁾.

Point CV 14 (Ju Que), located on the medial sagittal line, 6 cun cranial to the umbilicus. It is a large studio point and the Mu point in front of the heart which is located at the level of the front organs of the body which functions for mental disorders, chest pain, heart pain, palpitations, and epilepsy⁽²³⁾.

PC point 6 (Nei Guan), is located two cun proximal to the wrist crease, between the palmaris longus tendon and the flexor carpi radialis tendon. It is the inner gate point and luo point of the pericardium meridian and a special point of the Yin Wei meridian which functions for mental disorders, calming the soul, heart, insomnia, epilepsy, and pain⁽²³⁾.

HT 7 (Shen Men) point, located on the curve of the ulnar side of the wrist fold, on the radial edge of the carpi ulnaris tendon. It is the Shu point of the heart meridian and the Yuan point of the heart meridian which functions to calm, hysteria, amnesia, insomnia, mania, dementia, epilepsy, improve heart circulation, open all channels in the heart⁽²³⁾.

Research shows that acupuncture can be of therapeutic value in the management of stress, anxiety, depression, and

related health problems. Psychological health problems such as anxiety and depression are thought to be caused by low levels of the body's mood-enhancing chemicals (neurotransmitters) such as dopamine, noradrenaline, serotonin and GABA. Acupuncture has been shown to increase levels of these neurotransmitters. Chronic stress also causes overstimulation of the sympathetic nervous system which causes excessive release of stress hormones such as cortisol. Stress hormones can interfere with the secretion of mood-enhancing neurotransmitters, resulting in emotional imbalance. Acupuncture can influence sympathetic nerve impulses, reduce the negative impact of stress, and restore balance⁽¹⁴⁾.

Hypnopuncture is a powerful combination of two proven healing techniques of Hypnosis and Acupuncture. Dr Fernandes developed a unique style of healing work utilizing both Acupuncture and Hypnosis which is a powerful combination to target the physical as well as the mental and emotional aspects of any disharmony. Maximum results and positive changes are obtained when these two methods are combined. The effectiveness of this therapy is tenfold when hypnosis and acupuncture are used together. When hypnopuncture is used, subconscious communication will be used to create healthy thoughts so that behavior becomes healthy⁽¹¹⁾. The limitations of this study are the absence of a control group, a population that is not yet extensive and a limited sample during the pandemic.

V. CONCLUSION

Based on research that has been conducted on the effect of hypnopuncture on stress in final year STIKes Cirebon students in the Covid-19 pandemic era using the GV 20 (Baihui), CV 14 (Ju Que), PC 6 (Nei Guan) and HT 7 (Shen) points. Men), conclusions can be drawn:

1. The characteristics of the research subjects based on gender show that the majority are female, namely 30 people (69.8%), while the research subjects are male, namely 13 people (30.2%).
2. Frequency distribution of research subjects based on stress level before the intervention, all final year students of STIKes Cirebon experienced stress, namely 43 people (100%).
3. Frequency distribution of research subjects based on stress levels after the Hypnopuncture intervention showed that the majority of final year STIKes Cirebon students experienced a decrease in stress levels, namely 38 students (88.4%), while 5 students still experienced stress (11.6%).
4. From the dependent T-test or Paired Sample T-test, the level of significance in reducing student stress levels can be determined. The results of the Paired Sample T-test on the pretest and posttest showed a p value <0.000, so there was an effect of Hypnopuncture on stress in final year STIKes Cirebon students.

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