Effect of Slow Stroke Back Massage on Patients' Anxiety Level

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A B S T R A C T

Anxiety is a feeling of fear or anxiety from negative thoughts and excessive negative emotions that play a role in causing illness. This study aimed to determine the effect of Slow Stroke Back Massage on patient anxiety with various literature. The method used is Literature Review with database searches such as Google Scholar, Sage, and Pubmed. The journals used were 15 consisting of 6 national and 9 international journals. The results of the Literature Review Analysis showed that 15 journals stated there was a significant effect between Slow Stroke Back Massage in reducing anxiety. There is an effect of Slow Stroke Back Massage on reducing patient anxiety.

INTRODUCTION

According to the American Psychological Association, anxiety is an emotional state that arises when individuals are stressed and is characterized by feelings of tension, thoughts that make individuals feel worried, and accompanied by physical responses such as a racing heart, raised blood pressure, and so on (Putri & Wibowo, 2020). Anxiety is a feeling of fear or nervousness from negative thoughts and excessive negative emotions that take a role in causing illness and making the patient's recovery hampered and can worsen the disease (Putri & Wibowo, 2020). Anxiety triggers irregular production of the hormone cortisol so that the hypothalamus increases the production of Corticotropin-Releasing Hormone (CRTH), which in turn causes weakness and decreases endurance (Pujiani and Kristiyawati, 2017).

One of the complementary or non-pharmacological therapies is Slow Stroke Back Massage. Slow Stroke Back Massage (SSBM) is a massage technique taught in nursing academy by massaging the patient's back using the palm, especially the thumb, in a circular motion. The massage movements were carried out 60 times/minute for 10 minutes in each session and were carried out for 3 consecutive days (Lindquist et al., 2018). Slow Stroke Back Massage (SSBM) activates faster transmission of A-beta sensory nerve fibers as neurotransmitters. The neurotransmitter reduces pain transmission, delivered through small diameter C and A-delta fibers while closing the gate for pain impulse transmission, so anxiety does not occur.

Massage will reduce emotions, reduce feelings of nervousness, and provide an outstanding balance to the activity of the parasympathetic nervous system and the sympathetic nervous system. Massage can also increase the pressure on the tissue, then the pressure will increase between the tissue and blood vessels so that it can cause the movement of fluid between the tissues and blood vessels which regulates blood pressure and anxiety can decrease (Peng *et al.*, 2015).

Based on the description, it is interesting to study further, which makes researchers interested in conducting a Literature Review on Slow Stroke Back Massage (SSBM) for Anxiety. The purpose of this study was to analyze and determine whether Slow Stroke Back Massage affects anxiety in patients.

METHOD

This study design was *Literature Review*. Literature Review is a writing design by searching for literature from journals that have been published and reviewed. The Literature Review provides answers and opinions found in previous and current research. This literature search uses data or previous sources from existing databases such as Google Scholar, Sage, and Pubmed. It used keywords such as the effect of Slow Stroke Back Massage on anxiety. After obtaining the journals/articles, the articles were selected using the Inclusion Criteria and Exclusion Criteria. This process found 15 journals (6 National Journals and 9 International Journals). The data obtained will be used in a discussion to answer all the problems in this study. Data obtained from various anxiety patients collected in one document aims to answer the problems that have been formulated.

Table of Inclusion Criteria and Exclusion Criteria

Criteria	Inclusion	Exclusion
Population	Patient with Anxiety	Patient without Anxiety
intervention	Application of slow stroke back therapy	Application of other intervention
Outcome	Anxiety	without Anxiety
Period Journal	2016-2020	Other 2016-2020
Language	Indonesian and English	Other Language

RESULT

Table of Result

No	Author/year	Journal title	Objective	Design & samples	Conclusion	Databases
1	Anggraeni, CG, Nurwanti, E.Nabil (2020)	The Effect of Slow-Stroke Back Massage on Anxiety in Patients with Pre-endoscopy in the Surgery and Anesthesia Installation of Dr. Sardjito Yogyakarta	Knowing the effect of back massage on anxiety scores in heart failure patients.	D: quasi experimental S: Purposive sampling V: Slow-Stroke Back Massage Against Anxiety in Pre-Endoscopy Patients I: Hamilton Anxiety Rating Scale (HARS) A: Wilcoxon Signed Rank Test.	There is influence Slow-Stroke Back Massage Against Anxiety in Pre-Endoscopy Patients with a P-Value for male respondents of 0.001 (P Value <0.05). Female respondents 0.002 001 (P Value <0.05)	Google Scholar

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2	Putri, R. P., & Wibowo (2020)	Effect of Slow Stroke Back Massage (SSBM) on Anxiety in Patients Diabetes Mellitus Type 2 in the Work Area of the Juanda Health Center, Samarinda City	Knowing the effect of Slow Stroke Back Massage on the Anxiety of Patients with Type 2 Diabetes Mellitus	D: pre-experimental with the design used is One Group Pretest-Posttest design. S: purposive sampling technique. V: slow stroke back massage on anxiety in patients with type 2 diabetes mellitus. I: DASS-Anxiety questionnaire. A: Paired Sample T-test	There is influence Slow-Stroke Back Massage Against Anxiety of patients with Type 2 Diabetes mellitus with P-Value 0.000 (P Value <0.05). .	Google Scholar
3	Anuhgera, DE, Siregar, WW, Ritonga, NJ, & Pardede (2020)	Alternative Therapy for Pain Reduction and Anxiety Through Slow Stroke Back Massage (SSBM)At In-partum Stage I Active Phase	Knowing the effect of reducing pain and anxiety in in-partum patients through Slow Stroke back Massage.	D: quasi-experimental study S: purposive non-probability sampling technique. V: Slow Stroke Back Massage therapy to reduce pain and anxiety in the 1st stage of labor. I: numerical pain assessment scale and DASS (Depression, Anxiety and Stress Scale) A: Paired Sample T-test	There is influence Slow-Stroke Back Massage Against Anxiety in 1st stage of labor with a P-Value of 0.000 (P Value <0.05).	Google Scholar
4	Suwanto, Sugiyorini and Wiratmoko (2020)	Benson Relaxation Effectiveness and Slow Stroke Back Massage Against Anxiety Reduction In Hemodialysis Patients	Knowing the effect of Benson relaxation and Slow Stroke Back Massage on reducing anxiety in hemodialysis patients	D: quasi experimental one group pre-test and post-test S: purposive sampling V: Slow Stroke Back Massage therapy and Benson therapy for reducing anxiety in hemodialysis patients. I: that is HARS A: paired t-test.	There is influence Slow-Stroke Back Massage Against Anxiety in hemodialysis patients. with a P-Value of 0.000 (P Value <0.05).	Google Scholar
5	Rohmah (2020)	The Effect of Cutaneous Stimulation of Slow Stroke Back Massage on Anxiety in Preoperative Patients in the Edelweiss Room of RSD Dr. Soebandi Jember	Knowing the Effect of Cutaneous Stimulation of Slow Stroke Back Massage on Anxiety in Preoperative Patients in the Edelweiss Room, Dr. Soebandi Jember	D: pre-experimental one-group pre-post-test design. S: Data sampling quota V: Cutaneous Stimulation Slow Stroke Back Massage and Anxiety. I: HARS A: Wilcoxon Signed Ranks Test	There is influence Slow-Stroke Back Massage Against Anxiety in Anxiety Preoperative Patients with P-Value 0.000 (P Value <0.05).	Google Scholar
6	Pujiani and	The	Knowing the	D: Quasy	There is influence	Google

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	Kristiyawati (2017)	Effectiveness of Slow Stroke Back Massage and Guided Imagination on Reducing Anxiety Levels in Pre-Surgery Patients at Pantiwilasa Citarum Hospital	Effectiveness of Slow Stroke Back Massage and Guided Imagination on Reducing Anxiety Levels in Pre-Surgery Patients at Pantiwilasa Citarum Hospital	experiment: pre-post design, S: purposive sampling V: slow stroke back massage therapy, Guided Imagination and Anxiety of pre-surgery patients I: independent t test	Slow-Stroke Back Massage Against Anxiety in Pre-Surgery Patients at Pantiwilasa Citarum Hospital with a P-Value of 0.000 (P Value <0.05).	Scholar
7	Jalalodini et al., 2016	The Effectiveness of Slow-Stroke Back Massage on Hospitalization Anxiety and Physiological Parameters in School-Age Children: A Randomized Clinical Trial Study	Knowing the effect of Slow Stroke Back Massage on the anxiety of school-aged children who are hospitalized.	D: Quasi experimental S: sequential sampling V: slow stroke back massage therapy for anxiety and physiology of school-age children who are hospitalized I: (STAIC). A: T-test and Chi-square	There is influence Slow-Stroke Back Massage Against Anxiety in hospitalized school-age children with P-Value 0.000 (P Value <0.05).	Sage
8	Elkheshen, Ahmed and Abdelgawad (2017)	The Impact of Slow-Stroke Back Message on Anxiety Level of Low Risk Parturient Mothers in the Fourth Stage of Labor	Knowing the effect of Slow Stroke Back Massage on maternal anxiety during the 4th stage of labor	D: quasi-experimental. Settings S: randomized controlled trial V: slow stroke back massage on fourth stage labor anxiety. I: STAI A: -	There is influence Slow-Stroke Back Massage Against Anxiety on the fourth stage of labor anxiety with P-Value 0.000 (P-Value <0.05).	Sage
9	Mohammadpourhodki, Sargolzaei and Basirinezhad (2019)	Evaluating the effect of massage based on slow stroke back massage on the anxiety of candidates for cataract surgery.	Evaluating the effect of SSBM on anxiety in pre-cataract surgery patients	D: quasi-experimental. S: randomized controlled V: slow stroke back massage on the anxiety of patients undergoing cataract surgery. I: Spielberger state anxiety trait questionnaire. A: Independent t test and chi-square test	There is influence Slow-Stroke Back Massage Against Anxiety on the anxiety of patients undergoing cataract surgery. with a P-Value of 0.000 (P Value <0.05).	Pubmed
10	Basiri et al. (2016)	Effect of slow stroke back massage on anxiety of older women with breast cancer undergoing chemotherapy	Knowing the effect of Slow Stroke Back Massage on patient anxiety. Elderly women with breast cancer	D: quasi-experimental study S: continuous sampling method. V: slow stroke back massage therapy on the anxiety of women with breast cancer who are	There is influence Slow-Stroke Back Massage Against Anxiety on the anxiety of women with breast cancer who are undergoing chemotherapy.	Pubmed

				who are undergoing chemotherapy.	undergoing chemotherapy. I: The data collection instrument is a geriatric anxiety scale used to measure the subject's level of anxiety. A: Descriptive and inferential statistics were used to analyze the data with a 95% confidence level on the 21 spss	with a P-Value of 0.001 (P Value <0.05).	
11	Jahdi et al. (2016)	The Effect of Slow-Stroke Back Massage on the Anxiety Levels of Iranian Women on the First Postpartum Day	Knowing the effect of Slow Stroke Back Massage on the anxiety level of postpartum women on the first day.	D: Controlled clinical trial S: binary block. V: slow stroke back massage in Iranian women after the first day of delivery. I: Spielberger's state anxiety inventory (STAI) questionnaire.	There is influence Slow-Stroke Back Massage Against Anxiety in first day postpartum women, with P-Value 0.001 (P Value <0.05).	Pubmed	
12	Miladinia et al. (2016)	Anxiety Control in the Iranian Children with Chronic Leukemia: Use of a Non-drug Method	Knowing the effect of Slow Stroke Back Massage on children with Leukemia	D: In a randomized double-blind trial. S: children with chronic leukemia are placed in intervention or control group. V: control children's anxiety with non-pharmacological therapy I: Data collected using Revised Children's Manifest Anxiety Scale (RCMAS). A: ANOVA	There is influence Slow-Stroke Back Massage Against Anxiety in children with Leukemia with P-Value 0.001 (P Value <0.05).	Sage	
13	Nahamin, Akbarbegloo and Habibipur (2016)	The Impact of Slow-Stroke Back Massage on Anxiety Among Patients Receiving Hemodialysis: A Randomized Clinical Trial	Knowing the effect of Slow Stroke Back Massage on the anxiety of patients undergoing hemodialysis.	D: experimental or a control group through simple random allocation. S: patients who will undergo hemodialysis V: evaluation of slow stroke back massage on the anxiety of patients who will undergo cataract surgery. A: Independent-Sample T-Test	There is influence Slow-Stroke Back Massage Against Anxiety in patients who will undergo cataract surgery with P-Value 0.001 (P Value <0.05).	Pubmed	
14	Lali, Jouzi and Moghimian (2020)	The Effect of Back Massage on Anxiety	Knowing the effect of Slow Stroke Back	D: experimental S: convenience sampling method	There is influence Slow-Stroke Back Massage Against	Google Scholar	

	Components of Mothers with Preterm Infants.	Massage on the anxiety of mothers with premature babies.	V: slow stroke back massage on the anxiety of mothers who gave birth to premature babies I: Lehrer & Woolfolk demographic and somatic, cognitive, and cognitive questionnaire. A: paired sample t test	Anxiety of mothers who gave birth to premature babies with a P-Value of 0.001 (P Value <0.05).		
15	Mohaddes, Ehsanpour and Ghezeljeh (2018)	The effect of slow-stroke back massage on anxiety in female patients with heart failure	determine the effect of Slow Stroke Back Massage on female patients with heart failure.	D: quasi-experimental S: patients with heart failure randomized to control and intervention group. V: slow stroke back massage in heart failure patients I: Depression, Anxiety and Stress Scales (DASS-42) questionnaire. A: descriptive and inferential statistics	There is influence Sage Slow-Stroke Back Massage Against Anxiety in heart failure patients with P-Value 0.001 (P Value <0.05).	

DISCUSSION

The results showed that 15 journals (100%) stated the effect of Slow Stroke Back Massage on reducing anxiety with a significance value of P-Value <0.05. Based on the 100% percentage results obtained from 6 national and 7 international journals, as many as 9 showed an effect of Slow Stroke Back Massage with decreasing anxiety. Slow Stroke Back Massage (SSBM) will cause A-beta sensory nerve transmission as a neurotransmitter that reduces pain. Massage in the back area will trigger the release of endorphins, make you feel comfortable and calm, and reduce Anxiety (Putri, R. P., & Wibowo, 2020).

Stimulus Slow Stroke Back Massage (SSBM), which affects the peripheral nervous system, will be forwarded to the hypothalamus through the spinal cord pathway. The hypothalamus responds to these stimuli by secreting endorphins and reduces cortisol by releasing corticotropins. The activity reduces sympathetic nerve activity and increases parasympathetic nerve activity. The endorphins production will stimulate the production of hormones, namely serotonin and dopamine, which reduce anxiety and cause a relaxation response.

Massage will reduce emotions, reduce feelings of nervousness, and provide a great balance in the activity of the parasympathetic nervous system and the sympathetic nervous system (Elkheshen, Ahmed and Abdelgawad, 2017). According to the researcher, massage can provide therapeutic benefits in various

body systems such as integument, musculoskeletal, cardiovascular, lymphatic and nervous. The implication of this research can be applied to patients because Slow Stroke Back Massage is an easy non-pharmacological action, and minimal complications make SSBM readily accepted by patients because the benefits can immediately be felt.

CONCLUSION

Based on the literature review results of 15 journals consisting of 6 national journals and 9 international journals, it was found that there was an effect of Slow Stroke Back Massage on patient anxiety with p-value <0.05.

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