

LITERATUR REVIEW: EFFECTIVENESS OF BACK MASSAGE THERAPY ON REDUCING PAIN INTENSITY IN ELDERLY WITH LOW BACK PAIN

Nurul Huda*, Bagus Dwi Cahyono, Evy Aristawati

D3 Nursing Study Program, Faculty of Nursing, Universitas Jember, Jl. Kalimantan Tegalboto No.37, Krajan Timur, Sumbersari, Sumbersari, Jember, East Java 68121, Indonesia

*nurulhuda.akper@unej.ac.id

ABSTRACT

Low back pain is one of the musculoskeletal disorders due to poor activities that cause pain that is often suffered by the elderly. Back pain is a structure originating from the spine, namely in the spinal area (lower back), muscles, nerves or others around the area. Usually accompanied by radiating from the feet and legs. One of the efforts to reduce the intensity is by doing a back massage. Massage stimulation can release the body to release endorphins which are natural pain relievers and generate nerve fibers that close the synaptic gate so that impulses to the spinal cord and brain are inhibited. this study was to determine the effectiveness of back massage therapy on reducing the intensity of low back pain in the elderly. used in this final report is a literature review by reviewing 2 international articles and 8 national articles, the data collection process uses the PRISMA (Preferred Reporting Items For Systematic Review and Meta Analysis) method and performs data analysis using Thematic Analysis with doing the stages of comparing, contrasting, and criticizing, got the results that, 10 journal articles that the author took for literature review research. back massage therapy can reduce back pain in the elderly. The results of the review showed that 10 articles demonstrated a reduction in back intensity. Lower back pain has decreased due to touch as a stimulus to relax, then a relaxation response will appear in the back area so that you can rest in peace and the level of pain felt has decreased.

Keywords: back massage therapy; elderly; low back pain; pain

INTRODUCTION

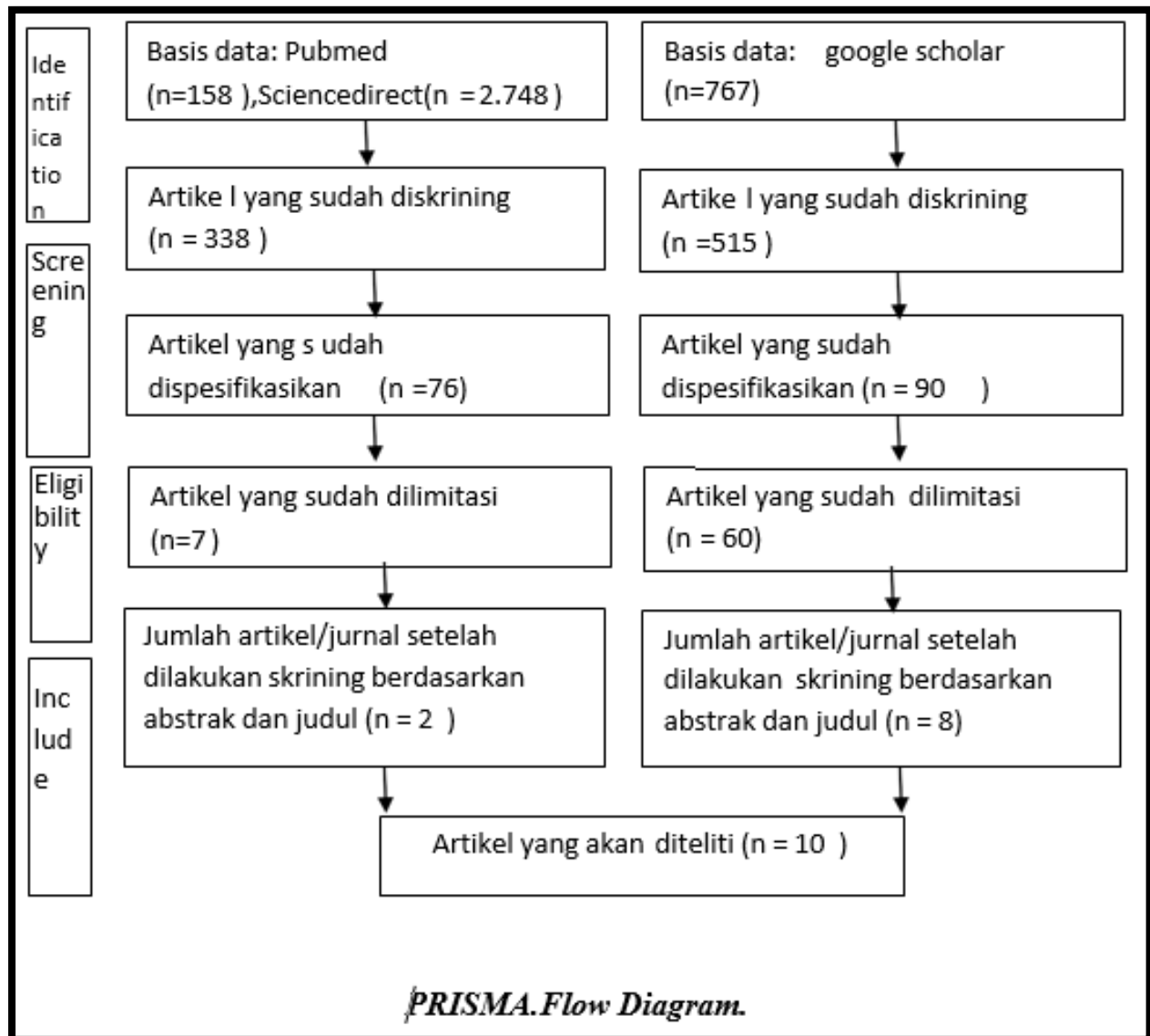
The aging process is a natural stage in human life that runs continuously and continuously from the beginning of life to old age. As we age, several changes arise, including anatomical, physiological and biochemical changes in the body that affect the body's functions and abilities (Maryam et al., 2020). One of the changes in physiological conditions that occurs is a decrease in the musculoskeletal system which is characterized by limited movement due to pain in the joints and back. Low Back Pain is pain in the lower back that originates from the spine, namely in the spinal region (lower back), muscles, nerves or other structure around the area. Usually accompanied by transmission from the direction of the feet and legs. The risk factors that can affect the occurrence of low back pain include age, gender, body mass index, smoking habits, and lack of exercise (Patrianingrum & Oktaliansah, 2015). The number of elderly is projected to reach 27.08 million in 2020, 33.69 million in 2025, 40.95 million in 2030 and 48.19 million in 2050, which is directly proportional to the increase in life expectancy. Musculoskeletal disorders are one of the most common disease in the elderly according to WHO data. Four musculoskeletal disorders in the elderly are osteoarthritis, rheumatoid arthritis, osteoporosis, and low back pain (Lucky, 2017).

Low back pain is a manifestation of a pathological conditions experienced by the back of the body. Symptoms of low back pain vary, characterized by the main symptom of pain to a stabbing or shooting sensation. In addition to the severe pain caused by low back pain, other impacts are caused by lifelong disabilities such as kyphosis if not treated properly. Several studies have shown that nonpharmacological therapy can effectively reduce pain intensity in the elderly with low back pain,

one of the simple therapies in an effort to reduce pain intensity by doing back massage therapy. Massage is a sensory integration technique that affects the activity of the autonomic nervous system then a relaxation response appears and can provide a sense of comfort to the patient. This study aims to determine the effectiveness of back massage therapy on reducing the intensity of low back pain in the elderly.

METHOD

The research method used is literature review. Literature review is a research methodology that aims to collect and take the essence of previous research and analyze several overview of experts written in text (Synder, 2019). Researches collected data through the PubMed, Science Direct, dan Google Scholar databases. After collecting data through the database, researches used the PRISMA method (prioritizing report items for systematic review and metaanalysis).



RESULTS AND DISCUSSION

The first article is entitled "The Effect of Back Massage with Lemon Essential Oil on Low Back Pain in the Elderly" (Utami et al., 2020). Based on statistical tests in this study there was an influence on the head pain scale before and after being given warm compress therapy on the back (P value 0.003). The second article is entitled "The Effect of Back Massage on Back Pain Levels in the Elderly" (Masrurroh et al., 2018). The results of the statistical test analysis in this study using the Wilcoxon test obtained a p value of 0.005 so that it was found that there was an effect of back massage on the level of back pain in the elderly. The third article is entitled "The Effect of Cutaneous Stimulus Massage Therapy Slow Stroke Back Massage on Pain Intensity in Patients with Low Back Pain in the Medical Rehabilitation Polyclinic of Embung Fatimah Hospital Batam in 2018" (Huryah & Susanti, 2018). This study shows that cutaneous stimulus slow stroke back massage affects the pain intensity of patients with low back pain.

The fourth article is entitled "The Effectiveness of Ice Massage and Back Massage Therapy on Changes in Pain Intensity in Low Back Pain Patients at Grandmed Lubuk Pakam Hospital in 2020". (Hayati & Devi, 2020). The results of statistical tests in this study indicate that back massage is more effective than ice massage therapy to reduce pain intensity. The fifth article is entitled "The Effect of Cutaneous Stimulus Slow Stroke Back Massage on Pain Intensity in Rattan Craftsmen Suffering from Low Back Pain" (Mahasih, 2020). This study shows that there is an effect between pain intensity before and after cutaneous stimulus intervention slow stroke back massage in 1 week 3 times in a row for 4 weeks on rattan craftsmen suffering from low back pain. The sixth article is entitled "The Effect of Cutaneous Stimulus Slow Stroke Back Massage on Low Back Pain" (Syahrul & Hayati, 2018). This study shows that there is an effect of cutaneous stimulus slow stroke back massage on pain intensity in patients with low back pain with a p value of 0.0005.

The seventh article is entitled "The Effect of Back Massage on the Intensity of Back Pain of Rubber Tappers in Lubuk Ketepeng Village, Jejawi District, Ogan Komering Ilir Regency"(Admin & Mujahidin, 2021). This study shows the results of the analysis using the Wilcoxon test, it is known if the p value is 0.000, which means it shows that there is a significant effect of back massage therapy on reducing the intensity of back pain. The eighth article is entitled "The Effectiveness Of Traditional Thai Massage Versus Massage With Herbal Compress Among Elderly Patients With Low Back Pain: A Randomised Controlled Trial" (Laoseea et al., 2020). This study showed results that there was no additional benefit of including herbal compresses in a Thai massage regimen for the treatment of low back pain in the elderly. The ninth article is entitled "Effect of Massage on Clinical and Physiological Variables During Muscle Fatigue Task in Participants With Chronic Low Back Pain: A Crossover Study" (Daneau et al., 2019). This study showed results that pain perception was significantly reduced after massage (p 0.004) but did not appear to affect the increase in pain scores that occurred after the Sorensen protocol. The tenth article is entitled "Differences in Deep Breath Relaxation Techniques and Slow Stroke Back Massage Techniques on Pain Scale in Patients with Low Back Pain at Jaya Loka Health Center" (Saidi & Andrianti, 2021). This study shows that there are differences in deep breath relaxation techniques and slow stroke back massage techniques on the pain scale in patients with low back pain.

Based on the 10 articles that have been reviewed, the results of the characteristics of respondents based on age show that the majority of respondents are elderly aged 60 years. Age is a factor that aggravates the occurrence of low back pain, so it is usually suffered by elderly people due to a

decrease in body functions, especially bones so that they are no longer elastic. The risk of low back pain increases in the elderly who are getting older (Nurlis et al., 2012). With increasing age, there will be a process of fibrosis and classification in the spine in sequence and close together, making it easier for pain to occur in the spinal region. Women have a greater risk of suffering from low back pain than men, indicating that the pain response is more felt by women because in women menstruation and the menopause process causes bone density to decrease due to a decrease in the hormone estrogen.

Some ordinary people have started using non-pharmacological therapies in the treatment of various diseases. Nonpharmacological therapy began to be used because it is considered safer, reduces dependence and costs less than using pharmacological therapy. Nonpharmacological therapy that can be done to reduce low back pain complaints is back massage therapy. After reviewing 10 articles, researchers found facts about non-pharmacological therapies that can reduce the scale of low back pain complained of by the elderly, namely by using back massage therapy. Massage can stimulate the body to release endorphin compounds which are natural pain relievers and stimulate nerve fibers that close the synapse gate so that the transmission of pain impulses to the spinal cord and brain is inhibited. In its application, back massage therapy is also easy to do and does not require large costs.

CONCLUSION

One of the non-pharmacological therapies to reduce the intensity of low back pain is by doing back massage therapy. Back massage therapy can reduce the intensity of low back pain from severe and moderate pain to mild pain. The application of back massage therapy can be done for 10 minutes. When a back massage is done, the respondent feels relaxed and the stiffness in the back is reduced. It can be explained that the decrease in pain levels is due to the relaxation of the muscles in the back area so that they can rest calmly and the level of pain felt has decreased.

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