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The Application of Finger Grip Therapy to Reduce Pain in Postoperative Patients in the Wijaya Kusuma Bawah Ward of Kardinah Regional General Hospital, Tegal City

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ABSTRACT

Background & Objective: Postoperative pain is a physiological response that patients can feel. Non-pharmacological pain management that can alleviate pain includes finger grip relaxation therapy. Finger grip relaxation techniques involve finger gripping and breath control. Energy flow is perceived as a stimulus for relaxation; reflex points on the hands provide reflex stimulation during the grip, and this stimulation redirects electrical waves to the brain, which processes them and transmits them to the nerves in the affected body organs. This study aims to investigate the application of finger grip therapy in reducing post-operative pain in the Wijaya Kusuma Bawah Ward of Kardinah General Hospital in Tegal City. **Method:** A descriptive method was used with the application of case study results. **Result:** Finger grip therapy was applied for 3 days to patients with post-debridement lymphadenopathy experiencing acute pain. The study showed that subjects experienced moderate pain before receiving finger grip therapy, and after the therapy, patients experienced a reduction in pain to mild pain. **Conclusion:** In this study, finger grip therapy was effective in reducing pain levels in post-operative patients.

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Introduction

Enlarged lymph nodes (KGB) or lymphadenopathy is defined as an enlargement exceeding 1 cm in size. Lymphadenopathy is a condition in which lymph nodes are affected in terms of size, shape, consistency, or number (Darne & Radja, 2016). Abnormalities in lymph nodes based on size are influenced by age and location. Generally, lymph nodes are considered abnormal if their size exceeds 1 cm. Lymph nodes located in the axilla, supraclavicular, popliteal, and iliac regions are considered

abnormal if they can be palpated. The abnormal threshold for the epicondylar lymph nodes is 0.5 cm, while for the inguinal lymph nodes it is 1.5 cm (Mohseni et al., 2014).

The incidence of lymphadenopathy in the general population in the Netherlands is 0.6%. Out of 2,556 lymphadenopathy patients studied, approximately 1.1% had malignancy. This low prevalence of malignancy is supported by two other studies, each reporting that three out of 238 lymphadenopathy patients were found to have malignancy. The prevalence of malignancy in all lymphadenopathy cases is less than 1% (Nagalli, S, 2022).

The surgical procedure performed was debridement, which is the process of removing dead tissue and foreign objects from a wound to expose the healthy tissue beneath. Dead tissue can include pus, crusts, eschar (in burns), or blood clots (Ariningrum, 2018).

According to the World Health Organization (WHO), the number of surgical procedures has increased significantly each year. It is estimated that 165 million surgical procedures are performed worldwide each year. In 2018, there were 140 million patients, and in 2019, this number increased to 148 million. In 2020, there were 234 million surgical patients in all hospitals worldwide (WHO, 2020). The Indonesian Ministry of Health (2021) stated that surgical procedures or surgeries rank 11th out of 50 disease treatments in Indonesia. In 2020, surgical procedures in Indonesia reached 1.2 million people, with the number increasing annually to over 800,000 people per year. The gender ratio shows that women account for 50.15%, men for 30.5%, and pediatric surgeries for approximately 10% to 15%.

Pain is the body's response to a painful stimulus. This serves as a stressor for patients and increases anxiety, which in turn exacerbates pain, as the patient's focus is on the pain. When pain occurs, management is needed to address it. Pain management is a method or approach used to reduce or alleviate the pain experienced by patients post-surgery. Non-pharmacological interventions also have a positive impact on pain response, as pain is also influenced by emotions (Kusuma Perwira, 2024).

An effective relaxation technique for reducing pain intensity in post-operative patients is the finger hold relaxation technique. The finger hold relaxation technique is a simple relaxation technique that anyone can perform, involving the fingers and the flow of energy within the body, with straightforward actions. The finger-holding relaxation technique is also commonly referred to as Finger Hold. This technique involves holding the fingers while regulating breathing for approximately 3–5 minutes. Finger-holding relaxation can reduce both emotional and physical tension, as holding the fingers warms the entry and exit points of meridian energy located on the fingers. The reflex points on the hands provide spontaneous stimulation during the grip. This stimulation sends electrical waves to the brain, which are then transmitted to the nerves of the affected body organs, thereby helping to clear blockages in the energy pathways. Finger hold relaxation is administered post-surgery, specifically 6-7 hours after the administration of analgesic medication for 2-4 hours. Finger grip relaxation is performed for 15 minutes once daily and administered for a minimum of 3 days. This relaxation technique reduces pain in all post-operative clients, except those with wounds on the palms of the hands or soles of the feet, who are not permitted to receive the therapy (Kusuma Perwira, 2024).

This is in line with the results of Mimi Rosiska's (2021) study, titled The Effect of Finger Grip Relaxation Techniques on Pain Reduction in Post-Op Patients. Half of the respondents experienced mild to moderate pain before receiving the finger grip

relaxation technique; more than half of the respondents experienced mild pain after receiving the finger grip relaxation technique; there was an effect of the application of the finger grip relaxation technique on pain reduction in post-operative patients in the surgical ward of RSU Mayjen H.A Thalib Kerinci in 2021.

Based on the issues raised, the researcher was interested in conducting a study on "The Application of Finger Grip Therapy on Pain Reduction in Postoperative Patients in the Wijaya Kusuma Bawah Ward of Kardinah General Hospital, Tegal City."

Objective

Based on this, the researcher was interested in conducting this study with the aim of determining the application of finger grip therapy on pain reduction in post-operative patients in the Wijaya Kusuma Bawah Room of Kardinah Regional General Hospital, Tegal City.

Method

This study used a descriptive research design with a case study approach. The case study was conducted by collecting data according to the nursing process, which includes assessment, determining nursing diagnoses, developing nursing interventions, implementing nursing actions, and evaluation. The research subjects in this study were post-operative patients with acute pain. The data collection methods used in this study included a literature review of journals and the application of finger-gripping therapy. This study was conducted in the Wijaya Kusuma Bawah Ward of Kardinah General Hospital in Tegal City.

Results

After conducting an assessment, the following data was obtained: the client is Ms. Z, a 19-year-old female residing at Jl Abimayu No. 2, Slerok, Tegal City. The client's highest level of education is high school. The client is currently unemployed, unmarried, and lives with her parents.

The client was admitted to the hospital on November 14, 2024, with a medical diagnosis of Left Axillary Lymphadenopathy, and an assessment was conducted on November 15, 2024. During the health status assessment, the client's primary complaint was pain in the post-operative wound area, described as a stabbing sensation in the left axilla, with a pain scale of 6. In the past health status assessment, the client had a history of asthma. In the family health history, no one in the family has ever experienced the same condition.

During the physical examination, the client's general condition was found to be fair, with a level of consciousness of compos mentis and a GCS score of E4V5M6. Vital signs were as follows: blood pressure 130/80 mmHg, pulse rate 85 beats per minute, temperature 36.7°C, and respiratory rate 20 breaths per minute. During the examination of the extremities, a post-operative wound was found on the left upper extremity.

Based on the data, the diagnosis for the client is acute pain related to a physical injury agent. The outcomes and nursing care plan for this nursing diagnosis are as follows: Acute pain related to a physical injury agent (D.0077) with the goal that after nursing interventions are implemented over 3x24 hours, the pain level is expected to decrease (L.08066) with the following outcome criteria: Decreased pain complaints, decreased grimacing, improved sleep patterns, and improved blood pressure.

Interventions include pain management (I.08238). Observation: Identify the location, characteristics, duration, frequency, quality, and intensity of pain; identify the pain scale. Therapeutic: Provide non-pharmacological techniques to reduce pain, such as finger relaxation techniques.

Nursing implementation conducted over three days for Ms. Z in Room Wijaya Kusuma Bawah Kardinah, Tegal City, with acute pain, on November 15, 2024, at 08:00 WIB, involved identifying the location, characteristics, duration, frequency, quality, and intensity of pain, identifying the pain scale, and providing finger relaxation therapy for 15 minutes once a day. The patient complained of post-operative wound pain, with a pain scale of 5, and appeared to be grimacing.

The nursing intervention was implemented over three days. On November 16, 2024, at 3:00 PM, the following were identified: the location, characteristics, duration, frequency, quality, and intensity of the pain, as well as the pain scale. Finger relaxation therapy was administered for 15 minutes once daily. The patient complained of post-operative wound pain, pain scale 4, appeared grimacing.

The nursing intervention implemented over three days, on November 17, 2024, at 8:00 AM WIB, involved identifying the location, characteristics, duration, frequency, quality, and intensity of pain, assessing the pain scale, and providing finger relaxation therapy for 15 minutes once daily. The pain in the post-operative wound area has decreased, pain scale 3.

The evaluation stage of the case study conducted on November 14, 2024 (10:00 AM WIB) yielded the following data: Subjective: The client reported pain in the post-operative wound area. Objective: The client appeared to be grimacing, with a bandage applied to the wound. PQRST: P: Pain in the post-operative wound area, Q: Pain like being pricked, R: Left axilla, S: Scale 6, T: Intermittent, BP: 130/80 mmHg, HR: 85 beats per minute, Temperature: 36.7°C, RR: 20 breaths per minute. Assessment: Acute pain issue not yet resolved, Plan: Continue intervention to identify pain scale, collaborate on analgesic administration, provide finger grip therapy.

On the second day of evaluation in the case study conducted on November 15, 2024 (5:00 PM WIB), the following data was obtained: Subjective: The client reported that the pain in the post-operative wound area had decreased, Objective: The client appeared calm, with a bandage applied to the wound. PQRST: P: Pain in the post-operative wound area had decreased, Q: Pain feels like being pricked, R: Left axilla, S: Scale 5, T: Intermittent, BP: 125/80 mmHg, N: 80 beats per minute, Temperature: 36.6°C, RR: 20 breaths per minute. Assessment: Acute pain issue partially resolved, Plan: Continue intervention to identify pain scale, collaborate on analgesic administration, provide finger grip therapy.

On the third day of evaluation in the case study conducted on November 16, 2024 (10:00 AM WIB), the following data was obtained: Subjective: The client reported that the pain in the post-operative wound area had decreased. Objective: The client appeared calm, with a bandage applied to the wound. PQRST: P: The pain in the post-operative wound area had decreased. Q: Pain feels like being pricked, R: Left axilla, S: Scale 3, T: Intermittent, BP: 120/78 mmHg, HR: 75 beats per minute, Temperature: 36.6°C, RR: 19 breaths per minute. Assessment: Acute pain issue resolved, Plan: Continue intervention to identify pain scale, collaborate on analgesic administration, provide finger grip therapy.

Discussion

According to a journal study written by Mimi Rosiska (2021), entitled The Effect of Finger Grip Relaxation Techniques on Pain Reduction in Post-Op Patients. Half of the respondents experienced mild to moderate pain before receiving the finger grip relaxation technique; more than half of the respondents experienced mild pain after receiving the finger grip relaxation technique; there was an effect of the application of finger grip relaxation techniques on pain reduction in post-operative patients in the surgical ward of RSU Mayjen H.A Thalib Kerinci in 2021.

According to a journal written by Indah Larasati (2022), titled Finger Grip Relaxation in Postoperative Patients. Finger grip relaxation was performed for 3 days, 15 minutes per session, with a frequency of 1 session per day. Pain scale measurements were taken before and after performing finger grip relaxation. After performing finger grip relaxation on patients I and II who experienced post-operative pain, the results showed a change in pain scale from moderate pain to mild pain. Finger grip relaxation was effective in reducing post-operative pain.

According to a journal article written by Adhe Septia Liestarina (2023), titled "The Application of Finger Grip Relaxation to Reduce Pain Intensity in Postoperative Patients at Ir. Soekarno Sukoharjo Regional General Hospital," finger grip relaxation was applied for 1 day, 15 minutes per session, with a frequency of 1 session per day. The results of the application showed that both patients who underwent the finger grip relaxation technique experienced a reduction in pain intensity.

Based on the three journals mentioned above, which align with the application conducted by the author, after the intervention of finger grip relaxation was performed for 15 minutes once a day and administered for three consecutive days, the assessment results before and after the finger grip relaxation technique were obtained. Ms. Z experienced a decrease in pain intensity from a scale of 6 to a scale of 5. From the assessment results of the second patient, Ms. Z, there was a decrease in pain intensity from a scale of 5 to a scale of 4. From the assessment results of the third patient, Ms. Z, there was a decrease in pain intensity from a scale of 4 to a scale of 3. Pain experienced by post-operative patients is a subjective experience that cannot be felt by others. Physical responses to pain are characterized by changes in general condition, body temperature, pulse rate, body posture, and shock. Psychological responses to pain stimulate stress responses that disrupt the immune system and healing. In post-operative patients experiencing acute pain, it must be controlled to ensure optimal care and prevent it from becoming chronic pain or complications. Efforts to manage pain include pain management strategies involving pharmacological and non-pharmacological interventions. Pharmacological interventions involve collaboration between nurses and doctors in administering analgesic medications, which are useful for managing pain that has persisted over an extended period (Pratiwi et al., 2020).

Finger-grip relaxation is a simple and easy technique that anyone can perform, involving the fingers and the flow of energy within the body. Gripping the fingers while breathing slowly can reduce physical and emotional tension, as the grip warms the points where energy enters and exits the meridians or energy channels located in the fingers. The reflex points on the hands provide reflexive or spontaneous stimulation during the grip. This stimulation sends a shockwave or electrical impulse to the brain. The brain quickly processes this wave and transmits it to the nerves of

the affected body organ, thereby clearing the blockage in the energy pathway (Sugiyanto, 2020).

Conclusion

Based on the application of the results of a case study conducted on post-operative patients with acute pain in the Wijaya Kusuma Bawah Ward of Kardinah General Hospital in Tegal City, the following conclusions can be drawn:

After reviewing previous research journals, it was found that acute pain issues were resolved. Over a three-day period, finger grip therapy was administered to post-operative patients, resulting in a reduction in pain intensity. Finger grip therapy was found to be effective in reducing pain in post-operative patients.

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