



Comparison of Pain Intensity in Post-Operating Wound Treatment Using Distraction and Relaxation Techniques at Imelda Pekerja Indonesia General Hospital Medan City

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ABSTRACT

The purpose of this study was to determine the intensity of pain in postoperative wound care using distraction and relaxation techniques at Imelda Workers' Hospital in Medan 2018. This type of research was quantitative research and the research design used was a quasi-experimental before and after treatment and the therapy given was distraction therapy and relaxation therapy. The study was carried out in the postoperative inpatient ward of Imelda Indonesian Workers Hospital Medan from June to August 2018. The results of this study were: 1. The average pain intensity before distraction techniques was moderate (NRS 5.11) while the average intensity pain before relaxation techniques were in moderate pain (NRS 5.38). 2. The average pain intensity after the distraction technique was on the moderate pain scale but decreased in scale (NRS 3.11) while the average pain intensity after the relaxation technique was on moderate pain but the scale decreased (NRS 4.192). 3. There are differences in the effectiveness of distraction and relaxation techniques on changes in pain intensity of postoperative patients at the Indonesian Migrant Worker General Hospital Imelda Medan in 2018 (p value 0.001).

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Kata kunci:

Intensitas Nyeri
Teknik Distraksi
Relaksasi

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ABSTRAK

Tujuan penelitian ini adalah untuk Mengetahui intensitas nyeri dalam perawatan luka pasca operasi dengan menggunakan tehnik distraksi dan relaksasi di RSU Imelda Pekerja Indonesia Medan 2018. Jenis penelitian ini adalah penelitian kuantitatif dan desain penelitian yang digunakan adalah eksperimen semu sebelum dan sesudah perawatan dan Terapi yang diberikan adalah terapi distraksi dan terapi relaksasi. Penelitian dilaksanakan di ruang rawat inap pasca operasi Rumah Sakit Imelda Tenaga Kerja Indonesia Medan pada bulan Juni sampai Agustus 2018. Hasil penelitian ini adalah: 1. Rata-rata intensitas nyeri sebelum dilakukan teknik distraksi pada nyeri sedang (NRS 5.11) sedangkan rata-rata intensitas nyeri sebelum teknik relaksasi berada pada nyeri sedang (NRS 5,38). 2. Rata-rata intensitas nyeri setelah teknik distraksi berada pada skala nyeri sedang tetapi mengalami penurunan skala (NRS 3.11) sedangkan rata-rata intensitas nyeri setelah teknik relaksasi berada pada nyeri sedang tetapi skalanya mengalami penurunan (NRS 4.192). 3. Terdapat perbedaan efektivitas teknik distraksi dan relaksasi terhadap perubahan intensitas nyeri pasien post operasi di Rumah Sakit Umum Tenaga Kerja Indonesia Imelda Medan Tahun 2018 (p value 0,001)

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INTRODUCTION

Surgery is all treatment measures that use an invasive method by making an incision and ending with closure and suturing of the wound. The resulting incision or wound is a trauma for the sufferer and can cause various complaints and symptoms. Complaints and symptoms that are often found by patients after surgery are pain. Postoperative pain is caused by surgical wounds, but other causes must be considered (Sjamsuhidajat, 2005).

Surgery causes changes in the continuity of body tissues. To maintain homeostasis, the body performs a mechanism to immediately restore the injured body tissue. In this recovery process, chemical reactions occur in the body so that pain is felt by the patient (Farida and Ani, 2010).

The incision process that occurs after surgery will cause an incision wound that causes unpleasant experiences such as pain sensations (Sjamsuhidajat, 2005). Wounds are damage to the normal anatomical structure and function of the skin due to processes that originate from internal and external and affect certain organs (Potter & Perry, 2006). The incision wound will stimulate chemical mediators such as histamine, bradykinin, acetylcholine, and prostaglandins which are thought to increase the sensitivity of pain receptors and will cause the pain (Smeltzer & Bare, 2002). Wounds resulting from a surgery will be treated. Wound care is an action to prevent infection and accelerate the wound healing process, but in practice it can increase the intensity of pain (Swarihadiyanti, 2014). Many people think that wound care is painful (Sinaga, 2012). Pain during wound care is caused by the procedure for removing dressings or bandages, mechanical stimulation due to wound cleaning, besides pain can also be caused because the wound is still in the inflammatory phase. Variations in the intensity of pain felt by patients can occur, this is because the ability of each individual is different in responding and perceiving the pain experienced (Swarihadiyanti, 2014). Pain is one of the most common complaints in patients after experiencing a wound care procedure (Brunner & Suddart, 2008). Post-surgery pain is one of the most common patient complaints in the hospital. As many as 77% of postoperative patients received inadequate anti-pain medication with 71% of patients still experiencing pain after being given medication and 80% of them described still experiencing moderate to severe pain (Agung, Andriani and Sari 2013).

Pain felt by post-surgical patients is a subjective experience or cannot be felt by others (Potter & Perry, 2006). Pain is annoying and troubles more people than any other disease. Patients who feel pain will feel suffering or depressed and look for efforts to reduce the pain they feel (Nurhayati, Herniyatun & Safrudin, 2011). One of the actions taken by nurses will be to intervene in pain or relieve pain to return the patient to a comfortable state (Potter & Perry, 2006). Pain based on the attack is divided into two, namely acute pain and chronic pain (Potter & Perry, 2006). Acute pain felt by post-surgical patients must be controlled by health workers so that treatment does not take longer and does not develop into chronic pain. Post-surgical pain if not treated will slow down the healing or treatment period, cause stress and tension that will cause physical and emotional responses, psychic (Potter & Perry, 2006). The physical response is characterized by changes in general condition, body temperature, face, pulse, posture, breathing, cardiovascular collapse and shock when breathing gets heavier. The psychological response that arises will stimulate the stress response so that it can interfere with the immune system in inflammation and inhibit the healing

process, and a more severe response will threaten self-destruction (Potter & Perry, 2006).

Efforts that can be made to overcome pain are pain management which is divided into two actions, namely pharmacological and non-pharmacological measures (Potter & Perry, 2006). Pharmacological action is a collaborative action between nurses and doctors, which emphasizes the administration of analgesic drugs (Perry & Potter, 2006). Pain management with non-pharmacological measures is a method that is simpler, cheaper, more practical, and without adverse effects (Potter & Perry, 2006).

Non-pharmacological pain relief methods usually have a very low risk. This action is needed to shorten the episode of pain that lasts only a few seconds or minutes (Karendehi, Rompas and Bidjuni, 2015). Non-pharmacological actions can be done using relaxation and distraction techniques. Relaxation techniques can be used when individuals are healthy or sick and are preventive measures to help the body recover by minimizing pain (Potter & Perry, 2005). Relaxation techniques used in overcoming pain are deep breathing. The advantages of deep breathing relaxation techniques, among others, can be done any time anywhere and anytime, the method is very easy and can be done independently by the patient without any media (Smeltzer, 2001). Deep breathing relaxation technique is one of the actions that can stimulate the body to secrete endogenous opioids, namely endorphins and enkefalins which have morphine-like properties with analgesic effects (Smeltzer & Bare, 2002).

Deep breathing relaxation techniques are believed to reduce pain intensity through a mechanism, namely by relaxing skeletal muscles that experience spasm caused by an increase in prostaglandins, resulting in vasodilation of blood vessels and will increase blood flow to areas experiencing spasm and ischemia. Another statement states that the decrease in pain by deep breathing relaxation techniques is caused when someone relaxes deep breaths to control the pain felt, the body will increase the parasympathetic nervous component stimulants, then this causes a decrease in cortisol and adrenaline hormone levels in the body which affect stress levels. someone so that it can increase concentration and make the client feel calm to regulate the rhythm of breathing to be regular (Smeltzer & Bare, 2002).

In addition to deep breathing techniques, it can also be done using distraction techniques, namely by listening to the holy verses of the Qur'an (murrotal). Listening to music or the holy verses of the Qur'an can stimulate delta waves in the brain which causes listeners to feel calm, peaceful and comfortable. A person can tolerate, endure pain or pain tolerance or can recognize the number of painful stimuli (Ekawati, 2013). Murrotal Al-Qur'an therapy or recitation of the Qur'an with regular rhythm and correct reading is able to bring peace and minimize anxiety 97% for those who hear it, 65% get peace from reading the Qur'an and 35% get peace from Arabic reading (Wahida, Nooryanto & Andarini, 2015). According to Potter & Perry (2006), the time required in auditory therapy (hearing therapy) in order to provide a therapeutic effect is at least 10 minutes.

Based on a preliminary study conducted by researchers at Imelda Indonesian Workers Hospital in Medan, through observation and interviews, data obtained that there were 288 operations. Based on interviews and observations with 4 postoperative patients at the time of wound care said that 2 patients experienced pain on a scale of 3 and 2 people experienced pain on a scale of 5. Patients said the pain came and went marked by a verbal response, namely complaints of pain felt by the patient and the response nonverbal, i.e. the patient grimaced in pain. The patient said that there had been

no non-pharmacological intervention from nurses to reduce pain during wound care.

Murrottal therapy and relaxation techniques can reduce pain intensity. Whether murrottal therapy reduces pain intensity more quickly than relaxation techniques is unknown, so researchers are interested in researching the effectiveness between murrottal therapy and relaxation techniques.

Based on the description above, the researcher is interested in conducting a study with the title "Comparison of pain intensity in postoperative wound care using distraction and relaxation techniques at Imelda Indonesian Workers Hospital in Medan".

METHOD

Types of research

This type of research is quantitative research and the research design used is quasi-experimental before and after treatment and the treatment given is distraction therapy and relaxation therapy.

The aim is to examine the comparison between Distraction Therapy and Relaxation Therapy in reducing pain in postoperative patients. Thus, two groups will be compared, namely postoperative patients who received Distraction Therapy, and those who received Relaxation Therapy.

Research Location and Time

The study was carried out in the post-operative inpatient room at Imelda Indonesian Workers Hospital in Medan from June to August 2018.

Population and sample

The population in this study were all patients who had undergone surgery and were treated in the inpatient room at Imelda Workers' Hospital in Medan 2018 totaling 52 patients in a month. The sample in this study were patients who were about to undergo surgery in the inpatient room at Imelda Workers' Hospital in Medan. Sampling using purposive sampling technique with the following criteria:

1. Not an emergency operation (emergency)
2. Patients over 17 years old
3. Willing to be a respondent

Method of collecting data

Data were collected directly using a questionnaire that was submitted in writing to respondents to get answers to different levels of pain using distraction and relaxation

Data processing

After the data has been collected, the researchers carried out data processing through several stages. The first stage is editing to check or evaluate the completeness and consistency of all respondents' answers to the questionnaire given by the respondent. Then do the coding of each answer to make it easier for researchers, after that give a score to determine the score or value of light, medium and heavy. After completing the assessment, then tabulation is carried out by entering all the answers into the table to facilitate data analysis.

Data analysis

Univariate

This is done by making a table and the frequency distribution of each variable, namely the independent variable and the dependent variable. This analysis is used to describe the anxiety and sleep quality of preoperative patients.

Bivariate

Bivariate analysis was conducted to prove the research hypothesis. Before conducting the bivariate analysis, the researcher first conducted an equivalence test to identify the variable variance between the intervention groups. The equivalence test was carried out with the aim of identifying equivalence regarding pain conditions between the intervention group before the intervention and after the intervention was given. The equivalence test of respondents' pain condition variables in the intervention group was measured by paired t-test.

Table 1
Average of Pain Intensity Before-after Distraction and Relaxation Technique

Variable	mean	SD	Min-Max	95% CI
Before Distraction Technique	5.11	0.908	4-7	4.74-5.48
Before Relaxation Techniques	5.38	0.852	4-7	5.04-5.73
After Distraction Technique	3.11	0.908	2-5	2.74-3.48
After Relaxation Techniques	4.192	0.895	3-6	3.83-4.55

RESULT AND DISCUSSION

This chapter describes the results of the research after data collection was carried out from 13 June 2018 to 27 August 2018 at Imelda Indonesian Workers Hospital in Medan. The results of this study compare between Distraction Therapy and Relaxation Therapy in reducing pain in postoperative patients.

The results of the analysis showed that the average pain intensity before the distraction technique was 5.11 with a standard deviation of 0.908. The lowest pain is 4 and the

highest is 7. The interval estimation results can be concluded that it is 95% believed that the intensity of pain before the distraction technique before counseling is between 4.74-5.48. The results of the analysis showed that the average pain intensity before relaxation techniques was 5.38 with a standard deviation of 0.852. The lowest pain is 4 and the highest is 7. The interval estimation results can be concluded that it is 95% believed that the intensity of pain before relaxation techniques before counseling is between 5.04-5.73 (table 1).

The results of the analysis showed that the average pain intensity after the distraction technique was 3.11 with a standard deviation of 0.908. The lowest pain is 2 and the highest is 5. The interval estimation results can be concluded that it is 95% believed that the intensity of pain after distraction techniques after counseling is between 2.74-3.48. The results of the analysis showed that the average pain

intensity after relaxation techniques was 4.192 with a standard deviation of 0.895. The lowest pain is 3 and the highest is 6. The results of the interval estimation can be concluded that it is 95% believed that the intensity of pain after relaxation techniques after counseling is between 3.83-4.55 (table 1).

Table 2
Differences in the Effectiveness of Distraction and Relaxation Techniques on Changes in Pain in Surgical Patients at Imelda General Hospital, Medan, Indonesia

Variable	mean	SD	Min-Max	p Value	N
Distraction Techniques	2,000	0.848	0.166	0.001	26
Relaxation Techniques	1.192	0.749	0.146		26

The results showed that the average decrease in pain intensity in respondents who were given distraction techniques was 2 with a standard deviation of 0.848. While the decrease in pain intensity in respondents who were given relaxation techniques was 1.192 with a standard deviation of 0.749, so it can be concluded that there is a difference in the average decrease in pain intensity between respondents who were given distraction and relaxation techniques. The results of the statistical test obtained a value of = 0.000 (p count <), meaning that at = 5% it can be interpreted that there are differences in the effectiveness of distraction and relaxation techniques on changes in the intensity of pain in postoperative patients at Imelda Workers Hospital Indonesia in 2018 (table 2).

DISCUSSION

Pain Intensity After Distraction Technique

The results of the analysis showed that the average pain intensity after the distraction technique was 3.11 with a standard deviation of 0.908. The lowest pain is 2 and the highest is 5. The interval estimation results can be concluded that it is 95% believed that the intensity of pain after distraction techniques after counseling is between 2.74-3.48.

According to Hartanti (2005) distraction is a method to divert the patient's attention to other things so that the patient will forget what he is experiencing, one of which is by listening to music. Music is one of the distraction techniques that can make you feel comfortable and calm, has a tempo of 60-80 beats per minute and is very appropriate to use because it is in harmony with the human heartbeat, namely classical music (Suherman 2010).

Music also stimulates the release of endorphins, body hormones that provide feelings of pleasure that play a role in reducing pain so that music can be used to divert pain so that patients feel the pain is reduced (Salampessy, 2004). Distraction is thought to reduce pain perception by stimulating the descending control system, which results in fewer painful stimuli being transmitted to the brain as well as relaxation techniques believed to reduce pain intensity by relaxing muscle tension that supports pain (Smeltzer and Bare, 2002).

Pain Intensity After Relaxation Techniques

The results of the analysis showed that the average pain intensity after relaxation techniques was 4.192 with a standard deviation of 0.895. The lowest pain is 3 and the

highest is 6. The results of the interval estimation can be concluded that it is 95% believed that the intensity of pain after relaxation techniques after counseling is between 3.83-4.55. According to Potter and Perry (2006), relaxation techniques (relaxation) are mental and physical freedom from tension and stress. Deep breathing relaxation is the easiest and simplest relaxation technique, with slow, conscious and deep breathing and can be done normally without the need to think or feel doubt (Widyastuti 2003,).

There is ample evidence that relaxation is effective in relieving back pain. Relaxation techniques, as well as other non-invasive pain relief measures, may require practice before the patient becomes skilled at using them (Smeltzer and Bare, 2002). Almost all people with chronic pain benefit from relaxation methods. Regular periods of relaxation can help to combat the fatigue and muscle tension that occurs with chronic pain and that increases pain (Smeltzer and Bare, 2002).

Research by Alfarini and Sukasari (2012) has shown that relaxation is effective in reducing postoperative pain. This may be due to the relatively small role of skeletal muscles in post-operative pain or the patient's need for these relaxation techniques to be effective. The technique is impossible to practice if it is taught only once, immediately before surgery. Patients who already know about relaxation techniques may just need to be reminded to use these techniques to reduce or prevent pain from increasing. The effectiveness of distraction depends on the patient's ability to receive and generate sensory input other than pain.

Based on research conducted, respondents experienced changes in the pain scale after relaxation because respondents felt the muscles of the body became relaxed and comfortable, especially after breathing in pain decreased. Thus it can be concluded that with relaxation techniques, postoperative patient pain can be reduced. Giving distraction was given not only once but many times until the respondent felt the pain was reduced.

Differences in the Effectiveness of Distraction and Relaxation Techniques on Changes in Pain Intensity in Post-Operative Patients at Imelda Hospital, Indonesian Workers, Medan

The results showed that there were differences in the effectiveness of distraction and relaxation techniques on changes in pain intensity of post hernia surgery patients at the Menggala Regional General Hospital in 2013 (p value 0.001). Pain is an uncomfortable feeling condition caused by a certain stimulus. Pain stimuli can be physical or mental stimuli. Pain is subjective, so that everyone's response is not the same when they feel pain. Pain cannot be measured objectively, for

example by using a blood test. People who feel pain can measure the level of pain they are experiencing (Potter & Perry, 2006).

According to Perry & Potter (2006), distraction technique is a distraction from things that cause pain, for example: singing, praying, telling pictures or photos on paper, listening to music and playing a game. While relaxation is a technique of loosening or releasing tension, for example: deep and slow breathing. The results of this study are supported by research by Alfardini and Sukasari (2012), entitled the difference in the effectiveness of the use of distraction (classical music) and relaxation (deep breathing) techniques to reduce anxiety levels in patients with postoperative wound care for lower extremity fractures at Kota and Pekalongan District Hospitals, showed that there was a difference in the effectiveness of the use of distraction (classical music) and relaxation (deep breathing) techniques to reduce anxiety levels in patients with postoperative lower extremity fracture treatment at RSUD Kota and Kabupaten Pekalongan (p value 0.008).

Distraction, which focuses the patient's attention on something other than pain, can be a very successful strategy and may be a mechanism for other effective cognitive techniques. Distraction is thought to decrease pain perception by stimulating the descending control system, which results in fewer painful stimuli being transmitted to the brain. Relaxation techniques are believed to reduce pain intensity by relaxing muscle tension that supports pain.

The Systematic Review on quality of life is sourced from various studies published online, surveys and scientific articles showing that alternative actions to improve quality of life are very helpful for patients to make decisions.

Fear is one of the problems that comes from the client's spiritual side. At the beginning of being diagnosed with breast cancer, it is normal for breast cancer patients to experience anxiety or rejection. This should be the focus of the family to carry out more intensive assistance, including approaches from a spiritual perspective.

Another problem that arises is the number of myths circulating about breast cancer, including; Breast cancer inevitably causes the sufferer to die, women diagnosed with breast cancer pass down from their families, only older women will get breast cancer, any lump in the breast is cancer, and bras can cause breast cancer. This leaves the sufferer confused and frustrated. Lack of information makes breast cancer sufferers vulnerable to become victims of advertisements and propaganda that promise a cure. This problem is usually faced by women who have just been diagnosed with breast cancer or someone who is concerned about their chances of developing breast cancer.

Breast cancer patients use various ways to deal with the anxiety they face, including refusing to take action before receiving an explanation about chemotherapy actions. This shows that patients indirectly expect a detailed explanation of chemotherapy actions from doctors before they carry out the therapy. Respondents who underwent chemotherapy caused side effects such as hair loss (alopecia), black nails, nausea, vomiting and loss of appetite. The symptoms that occur in patients are not exactly the same, this is related to physical endurance. Ideally, this condition should be well understood by every patient so as not to reduce chemotherapy adherence (Halimatussakdiah & Junardi, 2017).

So not infrequently, breast cancer sufferers stop medical therapy and switch to alternative medicine which is currently booming. According to Kuntari (2012), the paradigm of understanding alternative medicine is actually an expression of frustration and the public's response to the high cost of

medical treatment and health. If it is calculated carefully, efforts to seek healing by going to shamans, psychics and other religious services, the cost can be more expensive, when compared to scientific medical treatment and not a few also end up with unwanted things such as the disease getting worse, and death. Often patients return to medical treatment when the effects of the treatment show that the symptoms are getting worse. There are so many doctors who have to accept patients after the patient's body undergoes and receives various types of therapy that have a bad effect on the body and further slow down the provision of scientific therapy.

CONCLUSION AND RECOMMENDATIONS

The average pain intensity before the distraction technique was in moderate pain (NRS 5.11) while the average pain intensity before the relaxation technique was in moderate pain (NRS 5.38). The average pain intensity after the distraction technique is in moderate pain but has decreased in scale (NRS 3.11) while the average pain intensity after the relaxation technique is in moderate pain but has decreased in scale (NRS 4.192). There are differences in the effectiveness of distraction and relaxation techniques on changes in pain intensity of postoperative patients at Imelda Indonesian Workers General Hospital Medan in 2018 (p value 0.001)

SUGGESTIONS

While the suggestions that can be recommended from the results of this study are as follows:

1. For Health Workers
Provide surgical nursing care for post-hernia surgery patients by providing distraction techniques to reduce patient pain during wound care for 4 days, namely by encouraging patients to listen to music.

2. For Further Research
It is expected to conduct research related to other distraction techniques so that the most effective type is known to be used in reducing postoperative pain in patients.

ETHICAL CONSIDERATIONS

Funding Statement.

The author declares that no funding was received in connection with this research.

Conflict of Interest statement

The author declares that there is no conflict of interest related to this research and that there are no ethical issues arising from this research.

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