

Application of Interventions Progressive Muscle Relaxation to Lower Pain Post OP Appendectomy in RSUD Tenriawaru

Mardiana

ABSTRACT

AKPER Batari Toja Watampone

Email:

dianaizzan@gmail.com

Appendicitis can occur at any age, but the incidence of appendicitis increases in adolescence and adulthood. Age 20-30 years, which at that age do a lot of activities. This causes the person to ignore dietary nutrition, resulting in difficulty defecating and causing increased pressure in the intestinal cavity and eventually causing blockage of the appendix. The purpose of this study was to apply nursing care to clients post op appendectomy with acute pain problems: therapy Progressive Muscle Relaxation. This study used a case study design with data collection techniques through interviews, physical examination and documentation study. The results of this case study indicate that in the assessment it was found that there were differences in the assessment data obtained for the five clients, the nursing diagnosis that was enforced was acute pain. The intervention arranged is therapy Progressive Muscle Relaxation, the implementation was carried out for three days on the five clients. The conclusion from the results of this study is the results of the evaluation for 3 days of implementation that nursing care to the five clients who experienced it post op appendectomy with acute pain problems. Progressive Muscle Relaxation can reduce pain from a moderate scale (3) to a scale of none (5) according to outcome which will achieved by the author.

Keywords: Post Op Appendectomy, Acute Pain, Progressive Muscle Relaxation

INTRODUCTION

Appendixitis is the most common abdominal surgical emergency. Appendixitis is an inflammation of the appendix vermiformis, and is the most common cause of acute abdomen. The appendix is also the tuft of the worm. The term appendix, which has been known and used in society, is not accurate, because what is actually an appendix is the cecum. (Arifuddin, 2017)

Appendicitis can occur at any age but rarely occurs in late adulthood and under five the incidence of appendicitis increases in adolescence and adulthood. The age of 20-30 years can be categorized as productive age, where people at that age do a lot of activities. This causes the person to ignore the nutrition they eat. As a result of difficulty defecating, it will cause increased pressure in the intestinal cavity and ultimately lead to blockage of the appendix tract (Arifuddin, Salmawati, & Prasetyo, 2017).

Based on the causes of appendicitis above, the incidence of appendicitis in the world reaches 3442 million cases each year, statistics in America record that every year there are 30-35 million cases of appendicitis, 10% of the population in the United States underwent appendectomy (surgery to remove the appendix). A survey in Indonesia in 2014 showed that the number of appendicitis hospitalized was 4,351 cases. This number has increased dramatically compared to the previous year, in 2013, which was as many as 3,236 people (Depkes RI, 2013).

From the incidence of appendicitis in dealing with this problem it is necessary to treat the problem surgically. This needs to be done surgery, where surgery or surgery is all treatment that uses an invasive way by opening or showing the body part to be handled and generally done by making an incision and ending with closing and suturing the wound. The resulting incision or wound is a trauma for the sufferer and this can cause various complaints and symptoms (Lasender, Rumende, & Huragana, 2016). The problem that often arises in post appendectomy patients is pain.

One of the non-pharmacological therapies to treat pain is progressive muscle relaxation therapy. This can be seen in several studies on the effectiveness of progressive muscle relaxation therapy, namely according to research by Fitriani & Ambrawati (2015), regarding the difference in pain scales between before and after progressive muscle relaxation was declared significant, this is evidenced by the presence of progressive muscle relaxation therapy, there is a decrease in the average pain scale. -an average of 2.00. Meanwhile, to determine the strength of the relationship or influence between variables, it can be stated that it has a strong influence, namely 0.76. Thus it can be concluded that progressive relaxation techniques can effectively reduce pain in postoperative patients.

According to Fitriani & Achmad's 2017 study, the pain scale before progressive muscle relaxation was 4.23 in the moderate pain category and after progressive muscle relaxation the pain scale decreased to 2.00 in the mild category. Statistical test showed that there was an effect of progressive muscle relaxation intervention on pain reduction with a p-value of 0.0001. The aim of this study was to carry out nursing care to clients who experienced post-op appendectomy with acute pain problems, with progressive muscle relaxation intervention.

RESEARCH METHODS

This research uses a case study design. The number of cases in this case study were 5 cases of Post Op appendectomy. This research was conducted in the surgical treatment room of the Tenriawaru Hospital, Bone Regency. This research took place in the month that took place in December 2019. The samples in this study were patients who experienced post op appendectomy on the second day, 5 (moderate) pain scale, clients who were > 18 years old and willing to be the subject of a case study. Data obtained from medical records, assessment and observation of pain levels. The intervention applied in this study was the progressive muscle relaxation technique.

RESEARCH RESULT

Case 1, Mr. "S", aged 28 year old male complained of pain in postoperative wounds, the client said that the pain increased when moving, the client said that the pain was stabbing and the client complained of nausea. The pain that is felt is intermittent with a duration of more than 5 minutes, the client grimaces, there is a vertical surgical wound with 14 stitches and a drain attached, the client holds the abdominal area when the pain appears.

The nursing diagnosis that is established is acute pain associated with physical (postoperative) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscle relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

The implementation that is done is by providing a progressive relaxation technique of muscle relaxation. This implementation is done once a day. The implementation is still considering the patient's analgesic drug administration schedule, namely by providing a progressive relaxation technique of muscle relaxation 1 hour before the drug administration schedule.

Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

Case 2, Mrs. "S" aged 45 years complained of postoperative wound pain in the abdomen. The client said he had never had surgery before, the client said the pain increased when moving. The client said that the pain was felt like prickling, the client also said that the pain was getting worse with movement, the pain was felt continuously. The client's face looks grimacing, pain scale 5 (moderate) there is a horizontal surgical wound with 16 stitches and a drain attached. There is an increase in blood pressure of 160/90 mmHg.

The nursing diagnosis is established, namely acute pain associated with physical (post-surgical) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscle relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

The implementation that is done is by providing a progressive relaxation technique of muscle relaxation. This implementation is done once a day. The implementation is still considering the

patient's analgesic drug administration schedule, namely by providing a progressive relaxation technique of muscle relaxation 1 hour before the drug administration schedule.

Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

Case 3, Mr. "A", aged 35-year-old man complained of pain in postoperative wounds, the client said the pain increased when moving, the client said the pain was stabbing, the client said he was worried about the pain he experienced because this was his first experience of undergoing surgery. The pain that is felt is intermittent with a duration of 5-10 minutes, the client grimaces, there is an operation wound and a drain is attached, the client holds the abdominal area when the pain appears.

The nursing diagnosis that is established is acute pain associated with physical (postoperative) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscle relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

The implementation that is done is by providing a progressive relaxation technique of muscle relaxation. This implementation is done once a day. The implementation is still considering the patient's analgesic drug administration schedule, namely by providing a progressive relaxation technique of muscle relaxation 1 hour before the drug administration schedule.

Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

Case 4, Mr. "K", aged 32 year old man, complained of pain in the postoperative wound radiating to the buttocks, the client said the pain increased when he moved a lot, the client said the pain was like a cut. The pain that is felt is intermittent with a duration of 5-10 minutes, the client grimaces with a pain scale of 5 (moderate), there is an operation wound on the abdomen and a drain is attached, the client holds the abdominal area when the pain appears.

The nursing diagnosis that is established is acute pain associated with physical (postoperative) agents. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscle relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

The implementation that is done is by providing a progressive relaxation technique of muscle relaxation. This implementation is done once a day. The implementation is still considering the patient's analgesic drug administration schedule, namely by providing a progressive relaxation technique of muscle relaxation 1 hour before the drug administration schedule.

Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

Case 5, Ms. "M" aged 20 years old complained of postoperative wound pain in the abdomen. The client said this was the client's first experience of undergoing surgery so he felt anxious with the healing process of the wound, the client says the pain increases with movement. The client said that the pain felt like being stabbed, the client also said that the pain was getting worse when moving, the pain was felt continuously and there was an increase in blood pressure when the TTV was examined, namely 160/80 mmHg. The client's face looks grimaced, pain scale 5 (moderate) there is a horizontal surgical wound with 14 stitches and a drain attached.

The nursing diagnosis is established, namely acute pain associated with physical (post-surgical) agents. According to Wilkinson (2016), nursing diagnoses are enforced based on characteristic limitations, namely subjective: reporting pain with cues (using a pain scale), reporting pain while objective data: autonomic response, distraction behavior, expressive behavior, face mask and protective attitudes. In nursing intervention, one of the non-pharmacological measures is determined, namely the progressive relaxation technique of muscle relaxation. The outcome to be achieved is that pain is reported from moderate (3) to non-existent (5). Facial expression from the sendang scale (3) to absent (5).

The implementation that is done is by providing a progressive relaxation technique of muscle relaxation. This implementation is done once a day. The implementation is still considering the

patient's analgesic drug administration schedule, namely by providing a progressive relaxation technique of muscle relaxation 1 hour before the drug administration schedule.

Evaluation of nursing care for 3 days of giving implementation found that acute pain was resolved according to the determined outcome.

DISCUSSION

The results of the pain assessment of the five cases using the Number Rating Scale (NRS) pain measurement scale and the Wong Baker Scale (facial expression) assessment obtained the same results. This is because the sample selection is in accordance with the established inclusion criteria.

In the first and fifth cases, different data were obtained from other cases, namely the client experienced an increase in blood pressure and there were complaints of nausea. This is due to an increase in the pain scale experienced by clients while complaints of nausea arise due to the effects of anesthesia given during surgery. One study explained that the increase in blood pressure in postoperative patients was due to the pain felt by the client due to a stimulus to the tissue injury felt by the client due to surgery (Baharuddin, 2017). According to Kumaat's (2015) research, Post Operative Nausea and Vomiting (PONV) is a feeling of nausea that is felt within 24 hours after anesthetic and surgical procedures. This nausea can occur in 10-80% of patients undergoing surgery and anesthesia. This can occur because of the large number of individual risk factors and risk factors for anesthesia.

In the third and fifth cases, data were obtained from both clients experiencing anxiety or anxiety about the pain experienced after surgery. One of the results of the study explains that there is a significant relationship between anxiety level and pain intensity in low back pain sufferers (Wibowo, G. A. 2012).

In both cases, different complaints were found, namely pain that was felt continuously. This is due to the different physiological and psychological responses of each individual in perceiving pain. The difference in pain felt by each individual is influenced by the presence of several factors, namely the meaning of pain, pain perception, pain tolerance, and reactions to pain (Kasiati & Rosmalawati, 2016).

The main nursing diagnosis made is acute pain. Referring to the book Herman and Kamitsuru (2015) in the nursing diagnostics book 2015-2017, it mentions nursing problems which include the pain and comfort domains. In the five cases discussed the main nursing diagnosis was acute pain.

The main intervention is using one of the non-pharmacological therapies, namely progressive muscle relaxation. This is evidenced by several research results on the effectiveness of the application of relaxation therapy, namely research conducted by Fitriani & Ambrawati (2015), proving that the difference in pain scales before and after progressive muscle relaxation was significant. With this therapy there was a decrease in the pain scale on average by 2, 00. Meanwhile, to determine the strength of the relationship or influence between variables, it can be stated that it has a strong influence, namely 0.76. Another study conducted by Fitriani and Achmad (2017).

stated that the pain scale before progressive muscle relaxation was 4.23 in the moderate pain category and after progressive muscle relaxation the pain scale dropped to 2.00 in the mild category. This shows that there is an effect of progressive auto relaxation intervention on pain reduction.

In the third and fifth cases there were differences in the results obtained on the second day of implementation, where in the two clients there was no decrease in the pain scale or the pain remained on a scale of 5 (moderate) while other cases experienced a decrease in the pain scale, namely a scale of 4. The difference was caused by factors age and gender. Another factor that can influence is the anxiety experienced by clients. One of the studies that looked at the relationship between age and gender on the type of headache in RSUP Haji Adam Malik Medan explained that the relationship between age and type of headache showed a value of $p = 0.002$ and the relationship between sex and headache showed a value of $p = 0.021$. There is a relationship between age and sex on the type of headache ($p < 0.05$) (Loshini & Ranganazan, 2015).

In the second case there was also no reduction in pain on the second day of implementation. The implementation results obtained that the pain scale remains on a scale of 5, this is due to the client's ability to perform different relaxation techniques. This is proven in one study that the difference in pain scale reduction in each individual is different. This is influenced by several factors ranging from differences in age, operating experience, and different abilities of clients in carrying out the progressive relaxation techniques taught so that it has an impact on the scale of pain felt by the client

(Cahyono, 2014). On the third day of implementation, the results obtained in the five cases were resolved by the pain criteria that were reported to be absent and facial expressions relaxed.

Evaluation of the application of progressive relaxation techniques of muscel relaxation to treat acute pain in post-op appendectomy patients is said to be successful marked with the outcome achieved as specified in the application of the intervention. Several research results that explain the effectiveness of progressive muscel relaxation therapy are one of the studies that looked at the effectiveness of progressive muscel relaxation therapy, which is an adjuvant therapy to reduce pain and fatigue in cancer patients who are hospitalized. The results of this study prove that PMR along with standard routine treatment is effective in reducing pain and fatigue in hospitalized cancer patients receiving radiotherapy (Baharuddin, M. (2017). Other research on the effects of progressive muscle relaxation with exercise accompanied by music on low back pain and quality of life during pregnancy. The results of this study indicate that PMR accompanied by music can be an effective therapy to reduce pain and improve quality of life (Cahyono, A. D. (2014).

REFERENCES

- 1) Arifuddin, A., Salmawati, L., & Prasetyo, A. (2017). Faktor Risiko Kejadian Apendisitis Di Bagian Rawat Inap Rumah Sakit Umum Anutapura Palu, 8(April), 26–33.
- 2) Baharuddin, M. (2017). Patofisiologi Nyeri (Pain), 13, 7–13
- 3) Cahyono, A. D. (2014). J urnal AKP, 5(2), 13–18.
- 4) Depkes RI. (2013). Angka Kejadian Apendisitis Di Indonesia.
- 5) Fitria, C. N., & Ambarwati, R. D. (2015). Efektifitas Tehnik Relaksasi Progresif Terhadap Intensitas Nyeri Pasca Operasi Laparatomi, (26). Retrieved from journal.akpergshwng.ac.id/index.php/gsh/article/view/10/8
- 6) Fitriani, H., & Achmad. (2017). Pengaruh Intervensi Relaksasi Otot Progresif Terhadap Disminore Primer Pada Remaja, 4, 149–152.
- 7) Herdman, T. H., & Kamitsuru, S. (2017). *Diagnosis Keperawatan Definisi & Klasifikasi 2015-2017*. (M. Ester, Ed.) (10th ed.). Jakarta: EGC.
- 8) Hidayat. (2010). *Buku Ajar Kebutuhan Dasar Manusia Health*. Surabaya: Books.
- 9) Kasiati, & Rosmalawati, N. wayan dwi. (2016). *Kebutuhan Dasar Manusia I*. Jakarta Selatan: Pusdik SDM Kesehatan.
- 10) Kumaat, L. (2015). Perbandingan Mual-Muntah Pada Premedikasi Dengan Pemberian Ondansetron Dan Dengan Deksametason Pasa Operasi Sectio Caesarea Dengan Anestesi Regional, 3.
- 11) Lasander, C. L., Rumende, R. R. H., & Huragana, J. (2016). Pengaruh Teknik Distraksi Terhadap Penurunan Intensitas Nyeri Pada Pasien Post Operasi Apendiksitis Di Rs Pancaran Kasih Manado, 3(2), 1–6.
- 12) Loshini & Rangganazan. (2015). Hubungan Usia Dan Jenis Kelamin Terhadap Jenis Nyeri Kepala Di Rsup Haji Adam Malik Medan.
- 13) Wibowo. G. A. (2012). Hubungan Tingkat Kecemasan Dengan Intensitas Nyeri Pada Penderita Nyeri Punggung Bawah (Low Back Pain) Di Plo Saraf Rsud Bayumas.
- 14) Wijaya, A. S., & Putri, Y. M. (2013). *Kmb Keperawatan Medikal Bedah* (1st ed.). Yogyakarta: Nuha Medika.
- 15) Wilkinson, J. M. (2016). *Diagnosa Keperawatan*. (W. Praptiani, Ed.) (10th ed.). Jakarta: EGC