International Journal of Research in Engineering and Science (IJRES)
ISSN (Online): 2320-9364, ISSN (Print): 2320-9356
www.ijres.org Volume 11 Issue 3 ǁ March 2023 ǁ PP. 181-184

An Analysis Of The Interventions For Early Mobilization On Changes In Pain Levels In Postoperative Appendicectomy Patients At The Royal Prima Hospital In Medan In 2022

Yun Linjun[1*], Fioni[2], Liena[3]
[*1]*Master of Public Health Study Program, University of Prima, Medan, Indonesia*
[2]*Faculty of Medicine, University of Prima, Medan, Indonesia*
[3]*Faculty of Medicine, University of Prima, Medan, Indonesia*

Abstract
Appendicectomy surgery is an operation to remove an infected appendix or appendix (appendicitis) that cannot be treated with medication. Surgery can cause postoperative pain in clients, usually felt 12 to 36 hours post-surgery. Early mobilization is a prominent factor in accelerating post-surgical recovery and can prevent post-surgical complications. The aim is to analyze the effect after and before performing early mobilization on changes in pain in postoperative appendicectomy clients. The research was conducted at Royal Prima Medan Hospital in November 2022. The population was 17 people; the sample used total sampling. For data analysis used is univariate analysis, Bivariate with a paired t-test to test the difference in pain scale before and after early mobilization; the meaning limit is 0.05. The pain level changes score of the Wilcoxon test results when the pre-test results in a mean value of 3.83; when tested in the post-test, the mean value is 2.31. So the results obtained Z value = -2.112. The p-value is 0.000 <0.05, so it is concluded that Ho is rejected and Ha accepts, which means that early mobilization affects changes in pain in clients post appendicectomy surgery. So it is supposed that early mobilization will involve changes in pain in postoperative appendicectomy clients in patients in the Royal Prima Hospital in 2022.

Keywords:*Appendicectomy, Early mobilization, pain.*

Date of Submission: 01-03-2023 Date of acceptance: 11-03-2023

I. INTRODUCTION

Surgery is the act of treatment by making an incision or making a wound in the body tissue to remove a specific part of the body as a treatment. For example, appendicectomy surgery is an operation to remove an infected appendix or appendix (appendicitis) that cannot be treated with medication. If appendicitis is not treated promptly, the appendix may rupture and endanger the patient's life. As surgery can involve multiple body systems directly or indirectly and is a complex experience for the client, nursing diagnosis focuses on various actual, potential, and collaborative problems. Problems often found in the postoperative period are circulation, urinary, wound, gastrointestinal, and safety and comfort problems(1).

Surgery can cause postoperative pain in clients, usually felt 12 to 36 hours after surgery. Severe pain is caused by surgery on the intra-abdominal region (inner abdomen). About 60% of patients suffer from severe pain, 25% from moderate pain, and 15% from mild pain. Pain is subjective, no two individuals experience the same pain, and no two instances of the same pain produce identical responses or feelings in an individual. Pain is a source of frustration for clients and health workers. Pain control is significant in postoperative patients; pain relief can reduce anxiety, and breathing is more profound and accessible, thus tolerating rapid mobilization. Pain assessment and analgesic appropriateness should be used to ensure that the pain of postoperative patients can be relieved. The overall goal in pain management is to reduce pain as much as possible with the least possible side effects(2).

There is two pain management in postoperative patients, namely pharmacology or with drugs and non-pharmacology or without drugs, one of which is early mobilization intervention(3). Early mobilization in postoperative patients is a policy to guide the patient out of bed as soon as possible and guide him as quickly as possible to walk and shift the patient's focus from the pain experienced to his mobilization activities. Early mobilization is a prominent factor in accelerating postoperative recovery and can prevent postoperative complications. The results of Masraini's research (2019), which examined the effectiveness of early mobilization on wound healing after appendicectomy surgery, showed that there was the effectiveness of early mobilization on wound healing with a sig value of 0.005 (sig <0.05)(4). Based on the above problems, the authors are

interested in researching "The effect after and before performing early mobilization on changes in pain in postoperative appendicectomy clients at Royal Prima Hospital."

II. LITERATURE REVIEW

Pain is one of the body's most important adaptive and protective mechanisms and is a complex phenomenon that cannot simply be described as a response to injury. Appendicectomy is the surgical or surgical removal of the appendix. Appendicectomy is a treatment through a surgical procedure only for appendicitis or the removal of an infected appendix. Appendicectomy is performed immediately to reduce the risk of further perforation, such as peritonitis or abscess(5). There are two types of appendicectomy:

a) Open appendectomy. An open appendicectomy is performed by making a 2-4inch incision on the lower right side of the abdomen. This cut removes the appendix, and the amount is closed again. An open appendicectomy should be performed if the patient's appendix has ruptured and the infection has spread. Open appendicectomy is also the preferred method for patients who have had abdominal surgery.
b) Laparoscopic appendectomy. Laparoscopic appendicectomy is performed by making 1-3 small incisions in the lower right side of the abdomen. After the abdominal incision, a laparoscope is inserted into the incision to remove the appendix. The laparoscope is a long thin tube-shaped instrument with a camera and surgical tools. At the time of laparoscopic appendicectomy, the doctor will decide whether an open appendicectomy is needed(5).

Mobilization is a process of activities carried out after surgery, starting with light exercises on the bed (breathing exercises, practical coughing exercises, and moving limbs) until the patient can get out of bed, walk to the bathroom and walk out the room. Early mobilization is intended to accelerate healing from an injury or certain diseases that have changed the way. For example, early mobilization can improve ventilation and prevent blood stasis by increasing the speed of circulation in the extremities and the rate of wound healing(6).

III. RESEARCH METHODS

This type of research uses a descriptive correlational research design, namely the effect of early mobilization on changes in pain in postoperative appendicectomy clients in the Royal Prima Hospital inpatient room using the One Group Pretest-Postest approach. The location of this research was conducted at RSU Royal Prima Jalan Ayahanda Number 68A, Sei Putih Tengah, Medan Petisah, North Sumatra. The implementation of this research is planned for November 2022. The population in this study were all postoperative appendicectomy patients who were hospitalized at Royal Prima Hospital, totaling ± 17 patients, determining the sample size using total sampling. In univariate analysis, Bivariate with a paired t-test to test the difference in pain scale before and after early mobilization, the meaning limit is 0.05 so that the p-value ≤ 0.05, then the statistics are called "meaningful," and if p> 0.05 then the results of the count are "not meaningful."

IV. RESULT AND DISCUSSION

Table1 Frequency and Percentage Distribution of pain Levels of Postoperative Appendicectomy Clients Before Early Mobilization at Royal Prima Medan Hospital in 2022

No	pain Level	Sum(n)	Percentage (%)
1	Severe pain	**4**	**24**
2	painful Once	**6**	**35**
3	More pain	**7**	**41**
	TOTAL	**17**	**100**

Based on table 1, it is known that before early mobilization, the majority of respondents felt more pain, while the minority of respondents experienced severe pain.

Table 2. Frequency and Percentage Distribution of Early Mobilization of Postoperative Appendicectomy Clients at Royal Prima Medan Hospital in 2022

No	Early Mobilization	Sum(n)	Percentage (%)
1	Can Do Well	**9**	**53**
2	Can't Perform Well	**8**	**47**
	TOTAL	**17**	**100**

Based on table 2. It is known that the majority of respondents can do early mobilization well, while the minority cannot do it well.

Table 3. Frequency and Percentage Distribution of pain Levels of Postoperative Appendicectomy Clients After Early Mobilization at Royal Prima Medan Hospital in 2022

No	pain Level	Sum(n)	Percentage (%)
1	More pain	**6**	**35**
2	Slightly More painful	**11**	**65**
	TOTAL	**17**	**100**

Based on table 3. It is known that after early mobilization, the majority of respondents felt a little more pain, and the minority of respondents felt more pain again.

Table 4. pain Levels Before and After Early Mobilization in Postoperative Appendicectomy Clients at Royal Prima Hospital

No	pain Level	Sum(n)	Mean	SD	MinMax
1	Early Pre-Mobilization	**17**	**3.83**	**0.814**	**3-5**
2	Early Post-Mobilization	**17**	**2.31**	**0.485**	**2-3**

Table 4 shows that the average pain level before early mobilization is 3.83, and after early mobilization is an average of 2.31; there is a difference of 1.48 decrease. The minimum value of pain level in pre-early mobilization is three, and the maximum value is 5; in post-early mobilization, the minimum value of pain level is two, and the maximum value is 3. Based on the research results on the effect of after and before performing early mobilization on changes in pain in clients after appendicectomy surgery at Royal Prima Medan General Hospital in 2022.

Table 5. Descriptive Test Results Wilcoxon Signed Ranks Test Changes in pain Levels Before and After Early Mobilization in Postoperative Appendicectomy Clients at Royal Prima Medan Hospital in 2022

No	pain Level	Sum(n)	Mean	Z	*p-value*
1	Pre-MobilisasiDini	**17**	**3.97**	**-2.112**	**0,000**
2	Post-Mobilisasi Dini	**17**	**2.39**		

Based on table 5. It is known that the score of changes in pain levels from the Wilcoxon test results when tested pre-test the mean value is 3.83; when tested post-test, the mean value is 2.31. So the results obtained Z value = -2.112. The p-value is 0.000 <0.05, so it is concluded that Ho is rejected and Ha accepts, which means that early mobilization affects changes in pain in postoperative appendicectomy clients in the Royal Prima Hospital in 2022. pain is a highly individualized and subjective experience that can affect everyone at any age. Pain can occur in children and adults. The causes of pain are disease processes, injuries, procedures, and surgical interventions.

Based on the results of research on 17 respondents about the effect of providing early mobilization on changes in pain in postoperative appendicectomy clients in the hospital room of Royal Prima Hospital in 2022, it is known that before the early march, the majority of respondents felt more pain again while the minority of respondents experienced severe pain. Pain can be defined as something difficult to understand and a complex phenomenon. Although universal, but still a mystery where. Pain is one of the human body's defense mechanisms that indicates the experience of problems.Pain is an individual's belief and how he responds to the pain he experiences. Pain is a highly individualized and subjective experience that can affect all people of all ages. pain can occur in children and adults. The causes of pain are disease processes, injuries, procedures, and surgical interventions. pain in patients after appendicectomy surgery is acute pain caused by tissue damage from the surgical incision and previous trauma, indicative of an operative orthopedic fracture. Nurses have a role in managing pain, pain response, and side effects from administering pain relief therapy. pain management is a collaboration of all provider services for the patient's benefit.

Based on the results of research on 17 respondents about the effect of early mobilization on changes in pain in postoperative appendicectomy clients in the hospital room of Royal Prima Hospital in 2022, it is known that after being given early march, the majority of respondents felt a bit of pain. However, the minority of respondents felt more pain again. The results of the Wilcoxon Rank Test showed ρ-value = 0.000 < α = 0.05; this means that H0 is rejected and Ha is accepted; there is an effect of early mobilization on changes in pain in clients after appendicectomy surgery in patients in the Royal Prima Hospital in 2022. The results of this study are the opinion of Masraini et al. (2019), who conducted research on the effectiveness of early mobilization on

wound healing after appendicectomy surgery, from the results of the study showed that there was the effectiveness of early mobilization on wound healing with a sig value of 0.005 (sig <0.05)(4).

In line with this, similar research was also conducted by Dewi (2019), stating that there is a meaningful wound healing process after giving early mobilization to patients after appendicectomy surgery in the RST Tk. III Dr. Reksodiwiryo Padang Surgical Room in 2019. From the results of statistical tests in the case group, the P value was 0.000, where P <0.05. There was no significant wound-healing process in the control group or group without early mobilization treatment. From the statistical test results in the control group, the P value was 0.081, where P>0.05. There is a significant difference between the pre-test of early mobilization and the post-test of early mobilization on the wound healing process in patients after appendicectomy surgery(7).

Another study conducted by Muzzakir (2021) stated that there was a significant difference with a p-value of $0.001 \leq 0.05$, indicating a significant difference between the average score from before the intervention and after the intervention on changes in the level of pain of Postoperative Appendectomy Clients in the Surgical Room of Raja Ahmad Tabib Hospital in 2019. Furthermore, from the results of field observations after the mobilization, the patient's pain level decreased because he could move his extremities and others(8).

V. CONCLUSION

Based on the results of research and discussion, it can be concluded that in the pain level before early mobilization in postoperative appendicectomy clients, the majority felt more pain, and the minority experienced severe pain. However, in the story of pain after early mobilization in postoperative appendicectomy clients, the majority is slightly more painful, and the minority feels more pain.Therefore, thereis an effect of early mobilization on changes in pain in postoperative appendicectomy clients in patients in the Royal Prima Hospital in 2022.

REFERENCES

[1]. Ogawa R, Akita S, Akaishi S, Aramaki-hattori N, Dohi T, Hayashi T, et al. Diagnosis and Treatment of Keloids and Hypertrophic Scars — Japan Scar Workshop Consensus Document 2018. 2019;1–40.

[2]. Sao CH, Chan-Tiopianco M, Chung KC, Chen YJ, Horng HC, Lee WL, et al. Pain after laparoscopic surgery: Focus on shoulder-tip pain after gynecological laparoscopic surgery. J Chinese Med Assoc. 2019;82(11):819–26.

[3]. Nur S, Hakam M. Guided Imagery Relaxation for Acute Pain in Pre- Operative Paralytic Ileus Patient : A Case Study. 2023;2(February):74–89.

[4]. Masraini Daulay N, Angraini Simamora F. Efektivitas Mobilisasi Dini Terhadap Penyembuhan Luka Paska Operasi Apendiktomi. J Educ Dev [Internet]. 2019;7(4):245–245. Available from: http://journal.ipts.ac.id/index.php/ED/article/view/1404

[5]. Cudzik M, Soroka E, Olajossy M. Dissociative identity disorder as a wide range of defense mechanisms in children with a history of early childhood trauma. Curr Probl Psychiatry. 2019;20(2):117–29.

[6]. Burgess LC, Wainwright TW. What is the evidence for early mobilisation in elective spine surgery? A narrative review. Healthc. 2019;7(3):1–19.

[7]. Dewi Susilaningsih IN. PENGARUH MOBILISASI DINI TERHADAP PROSES PENYEMBUHAN LUKA PASIEN PASCA OPERASI APENDIKTOMI DI RUANG BEDAH RST TK. III Dr. REKSODIWIRYO PADANG Dewi. 2019;9–25.

[8]. Muzzakir. Pengaruh Mobilisasi Dini Terhadap Perubahan tingkat Nyeri Klien Post Operasi Apendektomi Di Ruang Bedah RSUD Raja Ahmad Tabib Tahun 2019. Enhanc a J Heal Sci. 2021;1(3):100–10.