



Mobilization Intervention for Post-operative Appendectomy Recovery Process in Appendicitis Patients

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Submitted: 15 Mar 2023, Revised: 2 Apr 2023, Accepted: 9 Apr 2023, Published: 12 May 2023



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ABSTRACT

Objective: This case study aims to describe the effect of early mobilization on the post-appendectomy recovery process in appendicitis patients. **Method:** The research design used was a case study with a nursing care approach covering assessments, formulating diagnoses, interventions, implementation, and evaluation, which were carried out for 4 days from Mar 30 to Apr 3, 2023, in the Orchid Room of the Banjar City BLUD. The enforcement of nursing diagnoses refers to the IDHS, SIKI, and SLKI, and nursing evaluations are documented using the SOAPIER method. This case study uses a descriptive method with one respondent involved, with data collection techniques including observation, interviews, documentation, and physical examination. **Result:** Nursing diagnosis of decreased physical mobility (D.0054) associated with postoperative physical weakness. 4 days of mobilization interventions were carried out with a duration of 30 minutes per day. After intervention, nursing problems related to patient mobility disabilities were resolved by increasing muscle strength, which was initially muscle strength in the upper extremities, namely 4 and 3 in the lower extremities, to 5 in the muscle strength of the upper extremities and 4 in the lower extremities, as well as an increase in the patient's independent activity patterns. **Conclusion:** The provision of mobilization interventions is useful in improving the recovery process after appendectomy, and the benefits of therapy will be maximized if it is carried out regularly and gradually.

Keywords: appendicitis, appendectomy, mobilization

Introduction

The Indonesian Biorisk Association said that Indonesia is a developing country with problems with infectious diseases. One of the most common diseases is appendicitis or often called appendicitis (Zurimi, 2019). The appendix is a small pouch in the intestine that can

become inflamed and possibly rupture. This disease is a stomach crisis and the main complaint is continuous lower right abdominal pain and increasing pain (Arif et al., 2021).

WHO (World Health Organization) states that the prevalence of gastrointestinal diseases accompanying appendicitis is quite high throughout the world (Kurniawati & Kadir, 2020). In the United States, 70,000 cases of appendicitis are diagnosed each year. A study conducted in 15 provinces in Indonesia in 2014 found 4,351 cases of appendicitis treated in hospitals. According to the Ministry of Health of the Republic of Indonesia (RI), this number has increased compared to last year's 3,236. In West Java Province, appendicitis sufferers accounted for 4.16% of all hospitals in West Java in 2011. The West Java Health Service reported that in 2020 the number of cases of appendicitis in West Java was 5,980 patients which caused 177 deaths (Erianto et al., 2020). According to patient registration data at the BLUD Hospital in Banjar City in 2016 and 2017, appendicitis ranks fifth out of ten surgical diseases. In 2016, there were 61 cases of appendicitis and the prevalence reached 6.3% of the top 10 operating rooms. In 2017, there were 38 cases in the operating room, an incidence of 6.9% of the top ten cases. Based on the records of BLUD patients at RSUD Kota Banjar, the age range of appendicitis patients is 15-44 years, and most of the patients underwent appendectomy.

Appendicitis is inflammation of the appendix. People experience inflammation of the appendix due to several factors, such as worm or parasite infections, intestinal obstruction due to feces, abdominal injuries, and enlarged lymph nodes in the walls of the digestive tract (Ditya et al., 2016). Not only that but eating certain types of food can also cause appendicitis. One of them is red meat which can cause appendicitis (Theofanidis, 2007). Milder cases can improve without treatment, but in many cases, the inflamed appendix must be removed, one of which is an appendectomy. Appendectomy is surgery to remove an infected appendix (appendix) that cannot be treated with drugs (Kiik, 2013). Appendicitis is the most common cause of emergency surgery that can endanger the patient's life. Appendectomy incisions cause large and deep wounds that require a long recovery time. Postoperative appendicitis patients require maximum care to accelerate postoperative wound healing and even physical recovery in post appendicitis patients occurs with early mobilization exercises after surgery. However, there are not a few patients who do not dare to move their bodies after surgery because they are afraid of torn stitches from the operation or are afraid that the surgical wound will take longer to heal. This opinion is wrong because if the patient moves quickly after surgery, it will stimulate intestinal activity more quickly so that the patient farts quickly. Another benefit is the prevention of contractures (Firmansyah et al., 2021).

The results of the intervention are supported by the results of research conducted by Wijaya, Eranto, and Alfarisi (2020) that mobilization can increase the patient's activity tolerance after appendectomy surgery. The research was conducted on the control and intervention groups, and the results of the statistical tests showed $p < \alpha$ so that mobilization was stated to be significant for improving the recovery process.

Based on this phenomenon, researchers are interested in carrying out Early Mobilization interventions in patients with post-appendicitis appendicitis in the 3P2 orchid

room at Banjar Hospital so that later it is hoped that patients can mobilize as soon as possible for the patient's recovery process and prevent postoperative complications.

Objective

This case study aims to describe the effect of early mobilization on the post-appendectomy recovery process in appendicitis patients.

Method

The research design used was a case study with a nursing care approach covering assessment, formulating diagnoses, interventions, implementation, and evaluation which were carried out for 4 days from 30 Mar to 3 Apr 2023 in the Orchid Room of the Banjar City BLUD. The enforcement of nursing diagnoses refers to the IDHS, SIKI, SLKI, and nursing evaluations are documented using the SOAPIER method. This case study uses a descriptive method with 1 respondent involved. with data collection techniques including observation, interviews, documentation, and physical examination.

Results

The patient named Mrs. S is unmarried, 24 years old, a woman, Muslim, and residing in the hamlet of Eundang Rt 20/Rw 06, Batulawang Village, Ciamis district. The patient complained that he could not carry out activities independently with his current history. The patient came to the IGD BLUD RSU Banjar City and was transferred to the Orchid Room on Mar 28, 2023, at 16.40 WIB with complaints of lower right abdominal pain, from 3 days ago. Then the patient underwent an appendectomy on Mar 29, 2023. When examined on the 1st day after surgery on Mar 30, 2023, at 09.00 WIB, the patient had an appendectomy performed. The patient said that he was still unable to carry out activities independently. The patient also said that the body feels weak and rarely moves the joints. For right and left tilts and the need for toileting the patient is still assisted by the family. The patient looked weak, the value of the muscle strength of the right and left upper extremities was 4, and the right and left lower extremities were 3.

The results of the examination of the patient's vital signs, namely pulse 80 times per minute, blood pressure 110/80 mmHg, and respiration 20 times per minute, the patient has difficulty moving, the legs and arms appear weak when asked to be lifted without assistance, the patient has difficulty changing sleeping positions, the patient unable to get out of bed, the patient is unable to walk and unable to meet personal needs in total. The patient has never been hospitalized before, does not have any disease, has no history of hereditary diseases or infectious diseases and no one has experienced the disease that the patient is currently experiencing in his family. The results of laboratory tests conducted by Mrs. S everything is normal.

Discussion

After the nursing care process was carried out on Mrs. S after an appendectomy in the Orchid BLUD room at Banjar City Hospital from 30 Mar to 3 Apr 2023 for 4 days. During the implementation of nursing care for patients and their families, the patient can work well and cooperatively so that the action goes well. The process of nursing care for Mrs. S, namely Assessment or assessment, establishing Nursing Diagnoses, compiling Nursing Interventions, carrying out Nursing Implementation, and the last process is carrying out Nursing evaluations.

The first process is an assessment which is a key step in the nursing process of gathering information about the patient (Setiawan, et al 2021). These data will later be submitted for the enforcement of nursing diagnoses. The results of the study conducted on Mrs. S on Mar 30 2023 it was found that Mrs. S, 24 years old, said he felt weak, tired, and unable to carry out his activities. The client came to the IGD BLUD RSU Banjar City with complaints of lower right abdominal pain and an appendectomy was performed on Mar 29, 2023. According to Ramadan (2022) This disease is an extraordinary disease in the abdominal area, the main complaint is constant pain in the right lower abdomen, and the pain is increasing. In many cases of appendicitis that is severe enough, an operation to remove the infected appendix must be carried out.

The second process of nursing care, namely nursing diagnoses, can be concluded to determine nursing diagnoses for clients, namely Impaired Physical Mobility (D.0054) related to Postoperative Physical Weakness. The data that the researchers obtained contained a concordance between theory and field facts, where postoperative appendectomy patients generally experienced the main nursing problem of pain, but researchers found a potential problem that occurred to clients, namely physical weakness. On day 2 after the operation the pain decreased, and the surgical wound has begun to improve but the client has not been able to carry out activities by himself, the client has not been able to walk and the client still has difficulty changing his right-left tilt position.

After analyzing the data from the diagnosis, then the nursing planning process is made according to the problems that arise in the client, namely Assessing the patient's ability to move or mobilize, approaching the patient to carry out activities according to his ability, help with active-passive movement exercises of the limbs with or without weakness, accompany and assist the patient during mobilization, teach the patient to change positions periodically according to the patient's condition. According to research conducted by Juliana, Johan, and Rochana (2021). In general, surgical patients are advised to get out of bed as soon as possible, which is determined by the stability of the cardiovascular system, the type of surgery performed, and the patient's usual level of activity. The advantages of early mobilization are reducing the problem of postoperative complications, accelerating the recovery of abdominal wounds, reducing pain, and restoring the process of recovering some functions so that the patient will soon return to normal (Nurlina et al., 2019). Related interventions can improve the recovery process for postoperative patients. because mobilization exercises can increase muscle strength and prevent contractures so that they can recover after surgery.

The next process, namely the implementation of nursing, is a series of activities that have been planned so that the authors carry out or are given action to solve the problems they face and describe the expected outcome criteria. Nursing actions will be carried out by nursing interventions or plans that have been designed according to the needs of the client, on the first day the client says his body still feels weak, has not been able to move his limbs, and has not been able to move his position. Therefore the author will carry out the implementation, namely assessing the patient's ability to mobilize,

On the second day, evaluate the activities that have been taught before. On the second day, there was a change, namely the client was able to get out of bed and walk slowly with the help of his family. The client is also able to raise his arms and legs and change the tilted position from right to left without assistance, the client's upper limb muscle strength increases from 4 after the intervention given to 5, but the client's lower limb muscle strength still does not increase, it is still at 3.

On the third day, when evaluating the activities that had been taught previously, namely helping active passive motion exercises in extremities that experience weakness by training the movements of the wrist joints in flexion and extension, lifting the legs and then lowering them, training the knee joints with flexion and extension movements, doing right tilts and left and train the patient to walk. The patient's development is getting better able to carry out daily activity patterns independently or independently such as drinking, eating, and changing positions. On the 3rd day, you don't feel tired anymore, there is an increase in lower limb muscle strength which previously was worth 3 after being given implementation, it has increased to 4. So that at the end of the evaluation, the value of the client's upper limb muscle strength is 5 and lower limb muscle strength is worth 4

On the fourth day, monitoring the results of the latest developments showed better results after carrying out actions to train joint movements, flex and extend the wrists, raise the legs and then lower them, train the knee joints with flexion and extension movements, tilt right and left and train the client to walk. On the fourth day, the client says he feels better, fresher, and can walk to the bathroom by himself. Researchers carry out nursing care by a predetermined plan by working with clients. In this case, the author also works with clients and families to participate in carrying out nursing care actions.

The last nursing process is an evaluation which is the process of reporting how the activity has been resolved, how it deviates from certain provisions and determines the difference between the two and what benefits have been taken. And it is applied to monitor the following treatment and evaluate the effect of the treatment action on the client. Based on the results of the implementation for 4 days, it was found that there was significant progress in the client's recovery after the appendectomy operation. The research was carried out because the client did not want to move his body so after the operation the client was still weak to move his limbs, until the researcher conducted an assessment the client still said that the client could not do any activity, all the client's basic needs were assisted by the family, but after the mobilization nursing action was carried out on the first day the client was able to move the wrist and knee joints, then the client was able to change the sleeping position to

the right-left side but after doing this exercise the client looked tired. This is because the client's muscles are still not perfectly strong, a sign of muscle weakness is that the client looks tired and has shortness of breath when doing exercises, and slow movements.

The results of the evaluation on the last day by monitoring the latest progress notes showed better results after this action, the client also said that his body was not weak, and looked fresher. The results of the intervention are supported by the results of research conducted by Wijaya, Eranto, and Alfarisi (2020) that mobilization can increase the client's activity tolerance after appendectomy surgery. The research was conducted on the control and intervention groups, and the results of the statistical tests showed that $p < \alpha$ so that mobilization was stated to be significant for improving the recovery process. In addition, research conducted by Priestini (2022) mentioned that there is an equivalent relationship between mobilization exercises and length of stay with the value of the Chi-Square statistical test $p < \alpha$, namely p value 0.022. this study also stated that postoperative mobilization was able to improve self-care independently of postoperative clients with the results of the Chi-Square statistical test of p value 0.048.

Early mobilization besides affecting increasing activity tolerance, length of stay, and fulfilling self-care independently, mobilization is also able to increase intestinal peristalsis and restore digestive function after appendectomy surgery. The things listed are supported by research conducted by Safitri, Hartoyo and Wulandari (2016) The results of the study showed that early mobilization or movement early after surgery on intestinal peristalsis after appendectomy surgery at Tugurejo Hospital, Semarang (p -value 0.001). Similar interventions besides increasing the patient's muscle strength can speed up the wound healing process Daulay Simamora (2019). From the University of Muhammadiyah Malang with 34 respondents for statistical test analysis using an independent t-test with a sig value of 0.000. Patients who are treated with early mobilization have better wound healing than those who are not treated with early mobilization.



Figure 1. Documentation of the last day after being given the early mobilization intervention

Conclusion

After carrying out nursing care at the Banjar City Hospital BLUD on Ny. S in the Orchid room with a medical diagnosis of post-appendicitis appendicitis on Mar 30 to Apr 3, 2023, the authors conclude that there is an effect of providing mobilization interventions that have proven useful in improving the recovery process after appendectomy or appendectomy, and the benefits of therapy will be maximized if regularly and gradually. so that nurses can carry out these non-pharmacological interventions to overcome physical weakness after appendicectomy surgery.

Acknowledgement

The author expresses his deep gratitude to the head of the Orchid Room BLUD at the Banjar City Hospital who has provided facilitation for the smooth implementation of postoperative appendicitis patients with appendicitis. The researchers also thank Mrs. S and her family for their willingness to participate in the implementation of this case study.

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