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Research Article

Effect of Slow Deep Breathing to Decrease of Pain in Post op Apendisitis in Rsud Sleman

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Abstract

Background: Slow Deep Breathing (SDB) is a breathing technique in which the inner breathing frequencies are below 10 times per minute with a long phase of exhalation. Deep breathing exercises in this method are performed less than the frequency or equal 6 times the treatment. Slow Deep Breathing can increase oxygen supply to the brain and can decrease brain metabolism so that oxygen demand increases. Slow Deep Breathing is also a non-pharmacology action that can reduce pain and anxiety levels in post-surgical patients.

Objective: Know the effect of Slow Deep Breathing on the decrease of pain level in RSUD Sleman Yogyakarta

Methods: The research methodology used is quasy-experiment design with pre-post-test type without control group design. The sample was 30 respondents. The sample measurement is done by Accidental Sampling

Results: Research shows that there is influence of Slow Deep Breathing on pain decrease p = 0,001 @ = 0,05 where P < 0,05 so it can be concluded that there is significant difference.

Conclusion: This study concluded that the Slow Deep Breathing exercise can significantly decrease the pain levels in post-appendicitis patients in RSUD Sleman Yogyakarta. Exercise Slow Deep Breathing in a self-care nursing care intervention in nursing care, in post-surgical patients especially post-appendicitis patients.

Keywords: Appendicitis; Pain and Slow Deep Breathing

Introduction

Gastrointestinal system is a disease that most sufferers seek medical help. One of the causes of inpatient cases in the United States is Appendicitis). The incidence of acute appendicitis in developed countries is higher compared to developing countries. This incident has declined in the last 25 years but in developing countries it has even increased, this is likely due to changes in e-economy and lifestyle of a person [1-3] according to the World Health Organization (WHO) shows that Appendicular incidents in 2014 reached 8% of the world's population. Data released by the Indonesian Ministry of Health in 2013 had 591,819 people with appendicitis in Indonesia and an increase in 2013 by 604,438 people. The age group between 10 - 30 years where the incidence of men is greater than women.

In the case of appendicitis, surgery is performed the most (surgery) with the development of increasingly advanced technology in terms of surgery specifically in surgical procedures that experience rapid progress. Each surgery is always associated with an incision or incision, this is a trauma to the patient that can cause a variety of complaints and symptoms where one is complained of by various sufferers who feel pain.

In accordance with the reality that occurs that this is often found in the field that patients who experience pain due to the surgical process as much as 80% complained of pain is a complaint that often occurs or is experienced by postoperative sufferers is acute pain caused by injuries on the side post-surgery. In the management of pain, usually only treatment is given while non-pharmacological administration is not considered in nursing even though one of the nurse's nurses that needs to be considered is the administration of non- mycological therapy far [4,5]. Non-pharmacological therapy has not been widely applied by nurses in hospitals even though nurses have more opportunities compared to health workers in pain management. P nurses to use his knowledge to solve the problem nyer i post-surgical operations either independently or berkoloborasi in drug delivery so as to overcome the problem of pain one using non-pharmacological therapy is slow deep breathing Slow deep breathing is one form of nursing care in this regard nurses teach patients how to do deep breathing, slow breathing (hold inspiration to the maximum) and how to exhale slowly, in addition to reducing pain intensity deep breathing techniques can increase pulmonary ventilation and increase blood oxygenation. In addition, it affects patients who experience chronic pain. Perfect relaxation can reduce muscle tension, boredom and anxiety which can inhibit pain stimulus. This is consistent with the research conducted.

Materials and how to research

This study uses a q -experiment with the type of pre-post test t without control group design [6]. The sampling technique used in this study is the Accidental Sampling [7]. Sesuai the inclusion criteria d idapatkan as many as 30 respondents research was carried out for 2 months in inpatient surgery. Instruments used in the assessment of pain using the VAS (Visual Analogue Scale) which consists of mild pain, moderate and berat. penelitia n is dilaku k a n with pre intervention by providing a VAS scale then dilaku right 6 times treatment intervention. One treatment for 15 minutes in accordance with the procedure inevitably dialkuakn sanan Slow Deep Breathing seban y a k 7 steps. D i gave after half time 4 hours after the drug was carried out post- intervention using the VAS scale.

Results and Discussion

From the results of the implementation of the activities, the following are the characteristics of respondents based on sex, type of medicine, type of surgery, age and length of treatment. In post op appendicitis patients in Sleman Yogyakarta Hospital Based on table 1 the characteristics of respondents consisting of gender, the majority of respondents were 63.3% female. Based on education, most of the respondents had a high school education of 50%. S emua respondents use the type of analgesic ketorolac 100% and also the type of surgery used is an open appendectomy is 100%. Appendicitis usually occurs at the age range of 19 - 30 years when puberty, this is associated with hyperplasia because the lymphoid network reaches a peak in adulthood. This research is supported by a theory which says that age has a very important role in perceiving and expressing pain. Patient adults have a different perception than the elderly in perceiving pain. where the level of education has no relationship in affecting pain and anxiety, this is consistent with research conducted by [8] which aims to see the intensity of postoperative pain in 543 samples. The results showed that there was no relationship between pain intensity and education level.

Characteristics	Frequency	Percentage
Gender		
Man	11	36.7%
Girl	19	63.3%
Education		
Elementary school	8	26.7%
Middle school	4	13.3%
High school	15	50.0%
BACHELO	3	10.0%
Analgesic type		
Ketorolac	30	100%
Type of Operation		
Open Appendectomy	30	100%

Table 1: Characteristics of Post Apendsitis Respondents in Sleman District Public Hospital (n = 30)

Source: Primary Data 2018

The theory that the level of education is one of the factors that indicate the occurrence of behaviour, where the higher the level of one's education, then someone has experienced a learning process more often in other words the level of education reflects the learning process proses.

Based on table 2 above shows that the average age of respondents was 30.20 years with a standard deviation of 6.031. The youngest is 18 years old and the oldest is 41 years old. From the interval estimation results it can be concluded that 95% of respondents are believed to be aged between 27.95 years to 32.45 years. The results of the analysis obtained an average length of stay of 2.27 days with a standard deviation of 450. Duration of stay 2 days to 3 days.

	Average	Elementary school	Min-Max	95% C1
Age	30.20	6,031	18-41	27.95-32.45
Duration of stay	2.27	, 450	2-3	2.10-2.43

Table 2: Distribution of respondents based on age and length of stay (n = 30)

Source: Primary Data 2018.

Based on table 3, the mean pain value is 8.30 with a standard deviation of 0.877. Pain in pre-intervention between 7 to 10 is classified as moderate and severe pain. And in post intervention, the average of pain is 3.13 with a standard deviation of 0.681, where the pain with post intervention is between 2 - 4 which is classified as mild pain.

Pain	Mean ± SD	Min-Max	95% CI
Pre Intervention	8.30 ± 0.877	7-10	7,97-8,63
Post Intervention	3.13 ± 0.681	2-4	2.88-3.39

Table 3: Distribution of Respondents in Post Apendsitis Pain scores (n = 30).

Source: Primary Data 2018.

From the normality test results obtained pain and anxiety data are not normally distributed so that the analysis is done using non parametric with Wilcoxon test Based on table 4 before and after the intervention p value 0.001 < 0.05, so that it can be interpreted that there are significant differences in the value of pain before and after intervention in the group.

Variable		Mean rank	Sum Rank	Z	P. *value*
Intervention (SDB)	Negative rank	15.50	465.00	4,832	O, 001
	positive rank	.00	.00		

Table 4: Effects of Slow Deep Breathing Exercise on Pain (n = 30).

Data Source 2018.

Discussion

Characteristics of respondents

Based on the results of the study that the age of respondents is at an average value (mean) of 27 years. According to the researchers' assumptions, this can occur because there is a process of degeneration and decreased organ function that often occurs with increasing age. Appendicitis usually occurs at the age range of 19 - 30 years when puberty, this is associated with hyperplasia because the lymphoid network reaches a peak in adulthood.

This research is supported by a theory which says that age has a very important role in perceiving and expressing pain. Adult patients have a different perception than the elderly in perceiving pain. Pain in the elderly is considered a natural condition of the aging process. There are two ways to interpret pain, first, pain is normal from the aging process, second, as a sign of aging, according to Smelzer, in adult age, verbally expresses discomfort more easily.

The results of research on the education of respondents were very diverse, namely 8 elementary schools (26.7), 7 junior high schools (23.3), 15 senior high schools (50%), and 3 undergraduate graduates (10%). D IMANA education level seseorag no relationship in m empengaruhi pain. this is consistent with research conducted by [8,9] which aims to see the intensity of postoperative pain in 543 samples. The results showed that there was no relationship between pain intensity and education level.

The theory which states that the level of education is one of the factors that indicate the occurrence of behaviour, where the higher the level of one's education, then someone has experienced a learning process more often in other words the level of education reflects the learning process proses

Based on the results of the study that all respondents used the type of open appendectomy surgery, amounting to 30 people (100%) and the type of drug using ketorolac analgesics 30 respondents were given 3 times per day. Open type of appendectomy which has a higher oblique incision, the location of the vertical and transverse incision. In accordance with the research conducted by [10] This shows that post-abdominal surgery patients feel less pain in the location of the transversal incision (oblique incision) compared to the midline incision and vertical incision.

The cause of differences in research results with several theories is that it has developed, in the world of appendectomy surgery is carried out with two types of operations namely manual open appendectomy and laparoscopic appendectomy. T er nik incision or surgical techniques such as laparoscopic appendectomy to use your tools, the level of pain was reduced because a smaller incision.

Pain measurement results in post op appendicitis patients in sleman yogyakarta hospital

Based on the results of the study obtained the value of pain before the intervention consisted of moderate pain with a range of 6 - 7 that is 16.7% and severe pain with a range of 8 - 10 that is 83.3% and in the post intervention there was a decrease in pain reduction with no pain scale 16.7%, mild pain 76.7% and moderate pain 6.7%.

Pain felt by post-op A patients with decreasing pain is measured when measuring using the Visual Analog Scale (VAS). According to research, post-operative pain is caused due to injury. According to research [11] reflex muscle contraction causes restricted movement, it will result in circulatory conditions where tissue ischemia will occur, and the metabolic process will be inhibited. Prostaglandins in the body will be removed as compensation for the post-surgical incision process. An increase in pain and a subjective decrease in pain is perceived by every patient post op appendicitis. Based on research from [12] Pain is an emotional experience that is subjective that every patient with the intensity of pain of each individual that is different and immediately treated because it will have an impact on the psychological patient itself. During the postoperative period, the nursing process is directed at stabilizing the physiological equilibrium of the patient, relieving pain and preventing complications. Careful assessment and immediate intervention help the patient return to optimal function as quickly, safe, and as comfortable as possible [13].

Conclusion

There is a significant influence between before and after Slow Deep Breathing (SDB) on the pain scale in post op appendicitis patients in Sleman Yogyakarta Hospital. The suggestion in this study is that nurses should apply Slow Deep Breathing after the half-life of analgesic drugs is reduced, to help reduce the intensity of pain in post op appendicitis patients as a nurse's independent intervention. It is expected that post-op appendicitis patients are also expected to be able to apply Slow Deep Breathing periodically. The results of this study are expected to add insight and knowledge to nursing students about non-pharmacological therapy, namely Slow Deep Breathing on the decrease in pain intensity in post op patients. Further researchers should be able to conduct further developed Slow Deep Breathing studies with a larger sample size and in a longer period of time in postoperative patients or other invasive measures that have a longer hospital stay (at least one week), with pay more attention to other factors that can affect pain, and variables related to pain must be controlled so that research results are more meaningful.

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