

**Effectiveness of Abdominal Massage with Effleurage Technique for Constipation****Sosilo Yobel<sup>1</sup>, Rina Budi Kristiani<sup>2\*</sup>**<sup>1</sup> Nursing Bachelor Study Program, Stikes Artha Bodhi Iswara Surabaya, Indonesia<sup>2</sup> Nursing D3 Study Program, Stikes Adi Husada Surabaya, Indonesia**Corresponding Author:**

Rina Budi Kristiani

Email:

rinabudikristiani.rb@gmail.com

**Keywords:**Abdominal Massage,  
Constipation, Effleurage  
Technique.**Abstract**

Constipation is a symptom, not a disease, the causes are improper diet, reduced fluid intake, lack of exercise, and certain medications. Constipation is characterized by defecating less than three times a week, and feces that are hard, dry, and difficult to expel, causing discomfort. One non-pharmacological therapy that can be used to treat constipation is abdominal massage with effleurage technique. The aim of this research was to analyze the effectiveness of abdominal massage using the effleurage technique against constipation in Dukuh Setro Village, Tambaksari District, Surabaya City. This research design uses a pre-experimental group pre-post test design, the research instrument uses an observation sheet, with a total of 31 respondents. The sampling technique used is simple random sampling. Data analysis used the McNemar statistical test. The results of the research before the abdominal massage were carried out with the effleurage technique all respondents (100%) experienced constipation after abdominal massage with the effleurage technique as many as 80.6% stated that they did not have constipation. The statistical test results obtained a significant p-value in the constipation category before and after abdominal massage with effleurage technique is p value = 0.000 with  $\alpha < 0.05$ , this shows that abdominal massage with Effleurage technique is effective for treating constipation. Implications of abdominal massage research results with effleurage technique are One alternative action to treat constipation if done regularly and can become a new habit for adults who experience constipation.

**INTRODUCTION**

Constipation is defecating less than three times a week as indicated by hard, dry, lumpy stools; straining or pain during bowel movements; and sensation of incomplete defecation. This is due to reduced activity levels, muscle weakness, difficulty swallowing or chewing, and inadequate fluid and fiber intake. Decreased intestinal muscle tone and decreased peristalsis result in the movement of feces through the large intestine being slow, thus providing additional time for fluid absorption from the large intestine which results in the feces becoming hard and dry. (Kozier et al., 2018).

Constipation is a common disorder or dysfunction that affects 14% of adults worldwide (Miller, Ibarra, Ouwehand, & Zimmermann, 2017). A meta-analysis reported that functional constipation has a prevalence of 14% in adults and occurs more frequently in women than men in a ratio of 4:1 (Vriesman, Koppen, Camilleri, Lorenzo, & Benninga, 2020).

Constipation can be influenced by a low-fiber diet, side effects of medication, neurological disorders, and lack of activity or exercise (McClurg, et al., 2017). Constipation can also be caused by changes in diet, medication, daily routine, exercise patterns, acute emotional stress, surgery, or disease processes. Constipation also has a significant impact on a person's quality of life and well-being. Constipation has a significant impact on quality of life, ranging from headaches, bloating, decreased appetite, nausea, vomiting, and bladder dysfunction, and can worsen other symptoms such as limb spasticity or bladder dysfunction (Turan & Asti, 2016).

Constipation can be treated with pharmacological and non-pharmacological therapy. Non-pharmacological therapy that can be used to treat constipation is implementing a fiber

diet, increasing fluid intake, physical activity such as exercise, habit training, and abdominal massage with effleurage technique. Abdominal massage with Effleurage technique is a non-invasive intervention that stimulates intestinal peristalsis through abdominal massaging activities applied clockwise over the intestines on the abdominal wall (Turan & Asti, 2016). Based on research by Ying, et al. (2020) massage can stimulate and influence the overall function of internal organs and adjust gastrointestinal movements, which can achieve a good effect on the treatment of constipation. Abdominal massage with the Effleurage technique can induce defecation not only through the activation of intestinal stretch receptors but also by re-stimulating the somatic autonomic system to produce rectal waves. abdominal massage with Effleurage technique can also stimulate the parasympathetic nervous system, thereby reducing stomach muscle tension, increasing the exercise capacity of the digestive tract muscles, increasing digestive tract secretions, and relaxing the digestive sphincter muscles to improve bowel movements. Based on the introduction above, the aim of the research was to analyze the effectiveness of the Abdominal Massage with Effleurage Technique for Constipation.

## RESEARCH METHODS

This research design uses a pre-experimental research design, a one-group pre-post test design, namely revealing cause and effect relationships by involving one group of subjects. The subject group was observed before the intervention and then observed again after the intervention. Causation testing is carried out by comparing the results of the pre-test with the post-test (Nursalam, 2017).

The population used in this research were 34 adults who experienced constipation in Dukuh Setro Village, Tambaksari District, Surabaya City in 2021. The sampling technique used in this research was a probability sampling technique with simple random sampling, namely selecting samples using this is the simplest type of probability. To achieve this sampling, each element is selected randomly. This study took a sample of 31 adults from 34 populations. Carrying out abdominal massage with effleurage technique uses an observation sheet. Intervention is provided for 15 minutes twice a day for 1 month. The dependent variable in this study was constipation and the independent variable was Abdominal Massage with Effleurage technique. The research instrument uses an observation sheet about constipation. The statistical test analysis used in this research is the McNemar test of the pretest and posttest, which is a procedure used to see the level of significance of changes applied in experimental research which measures conditions before and after treatment of the research object.

## RESULT

### 1. General data

Characteristics of adult respondents who experience constipation in Dukuh Setro Village, Tambaksari District, Surabaya City, a total of 31 people. Table 1 shows that the characteristics of the respondents were mostly aged 41-50 years as much as 67.8%, the majority were female as much as 87.1%, with a high school education as much as 71%, and work as entrepreneurs as much as 29.0%, and 93.6% of respondents not received treatment to treat constipation.

Table 1 Frequency Distribution of Respondent Characteristics in Dukuh Setro Village, Tambaksari District, Surabaya City

No	Data	Frequency	Percentage
1.	Age		
	18-40 years old	10	32.2
	41-50 years old	21	67.8
	Total	31	100

<b>2. Gender</b>		
Man	4	12.9
Woman	27	87.1
Total	31	100
<b>3. Education</b>		
elementary school	4	12.9
Junior High School	0	0
Senior High School	22	71.0
College	5	16.1
Total	31	100
<b>4. Work</b>		
Student	4	12.9
civil servants	3	9.7
Entrepreneur	9	29.0
Private	6	19.4
Housewife	7	22.6
Doesn't work	2	6.5
Total	31	100
<b>5. Treatment</b>		
There isn't any	29	93.6
Dulcolax	1	3.2
Vegeta	1	3.2
Total	31	100

## 2. Custom Data

Special data presents data obtained from the results of the pre-test and post-test carried out on respondents to determine the characteristics of feces and the effectiveness of abdominal massage with the Effleurage technique for constipation.

Table 2 Recapitulation of Pre-Post abdominal massage results with effleurage technique for constipation in Dukuh Setro Village, Tambaksari District, Surabaya City

Category	Pre-test		Post-test		Statistic test McNemar
	Frequency	Percentage	Frequency	Percentage	
No constipation	0	0	25	80.6	Exact Sig. (2-tailed) = 0.000
Constipation	31	100	6	19.4	
Total	31	100	31	100	

Table 2 shows that respondents who experienced constipation in Dukuh Setro Subdistrict, Tambaksari District, Surabaya City before the abdominal massage was carried out showed a frequency with the constipation category being 100% after the abdominal massage was carried out with the effleurage technique was shown to have a frequency of 80.6% in the category of no constipation. The McNemar statistical test shows p value = 0.000 indicating abdominal massage intervention with effleurage technique is effective in treating constipation in Dukuh Setro Village, Tambaksari District, Surabaya City.

## DISCUSSION

Based on the research results, it shows that the majority of respondents did not experience constipation after being given abdominal massage intervention with effleurage technique, this is supported by statistical tests with the McNemar test,  $p\text{-value} = 0.000$  ( $\alpha \leq 0.05$ ). These results show abdominal massage intervention with effleurage technique is effective in treating constipation in Dukuh Setro Village, Tambaksari District, Surabaya City.

Abdominal massage with effleurage technique is an action that stimulates intestinal peristalsis through abdominal massaging activities applied clockwise over the intestines of the abdominal wall (Turan & Asti, 2016). This therapy aims to increase colon contractions which move feces along the intestine, speed up the time for feces to move through the intestines to the anus, soften feces and make them easier to expel, relieve abdominal pain due to cramps/bloating, reduce the need for laxatives (McClurg, S, S, & Strong A, 2019). Based on the results of research by Okuyan & Bilgili (2019) conducted in nursing homes, 220 older adults were identified with constipation, the results showed that abdominal massage was effective in the management of constipation ( $p < 0.05$ ). Moreover, the difference between the experimental and control groups was statistically significant ( $p < 0.001$ ) in terms of post-test scores.

Providing regular abdominal massage intervention will train the intestines to return to normal function, by exerting intra-abdominal pressure, stimulating peristalsis, and strengthening the strength of contractions, massage has a double mechanical and reflex effect on the digestive system. Apart from that, this technique is safe, cheap, and efficient, nurses can use abdominal massage to improve gastrointestinal health and prevent complications such as distension and constipation. Massaging the stomach area has additional benefits, including increasing blood flow, reducing muscle tension, increasing stomach acid production, and improving digestion (Mohamed, Ali, El-Deen, & Nesnawy, 2023).

The researcher believes that giving Abdominal massage with Effleurage technique can besides increasing intestinal contractions so that feces come out easily, Abdominal massage with effleurage technique. It can also make respondents feel comfortable and relaxed and can reduce the symptoms experienced by constipation, such as feeling anxious because they feel they are not passing stool completely, and feeling uncomfortable carrying out daily activities. The results of this study influenced constipation in respondents carried out for 15 minutes, 2 times a day in the morning and evening for 1 month. Although statistical tests show Abdominal massage with the effleurage technique is effective for treating constipation, this cannot only overcome constipation, there are other factors needed to overcome constipation. Constipation can be treated with abdominal massage effleurage technique if done regularly and consuming high fiber, adequate fluid intake, and physical activity. If you don't experience constipation, your quality of life will improve and you can carry out daily activities comfortably.

## CONCLUSION

Abdominal massage with effleurage technique is effective for treating constipation in adults in Dukuh Setro Village, Tambaksari District, Surabaya City. The implication of the results of this research is abdominal massage with effleurage technique is one alternative action that can be used to treat constipation if done routinely and can become a new habit for adults who experience constipation in adult patients.

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