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Swedish abdominal massage technique for managing defecation elimination disorders in the elderly

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Abstract
Constipation is a prevalent issue among the elderly, often resulting from decreased gastrointestinal motility, which can exacerbate conditions like haemorrhoids. Elderly individuals frequently experience symptoms such as hard stools, abdominal distension, incomplete defecation, and dependence on laxatives. Non-pharmacological interventions, including Swedish abdominal massage, have been shown to increase intestinal peristalsis and improve defecation patterns. A case study involving a 71-year-old individual with constipation and haemorrhoids utilized a descriptive approach. The initial assessment revealed a bowel movement frequency of less than 2 times per week, hard stools, and abdominal distension, leading to a primary nursing diagnosis of constipation. The implemented interventions included education on a high-fiber diet, regular bowel habits, and abdominal massage therapy, which were carried out over three visits. The evaluation results demonstrated an increase in peristaltic frequency from 10 times per minute to 15 times per minute and successful defecation by the third visit. This therapy proved effective in addressing fecal elimination disorders in the elderly, suggesting that it can be a safe and measurable nursing intervention alternative. The findings support the potential benefits of incorporating abdominal massage into the management plan for constipation in older adults.

Keywords: Abdominal massage, complementary therapy, constipation, haemorrhoids, Swedish technique

Introduction

The World Health Organization (WHO) defines an elderly person as someone over 60 years of age (Singh & Bajorek, 2014). The number of elderly people in both developing and developed countries is increasing rapidly due to increasing life expectancy and declining fertility rates, thus changing the population structure (Ismail et al., 2021). Aging is characterized by a decline in biological, physiological, and psychological functions, declining health, the need for assistance during activities, and decreased social interaction. In the elderly, there are changes that occur including psychosocial, psychological, and physiological changes. Psychosocial changes in the elderly include job loss, loss of a partner, and loneliness (Singh & Misra, 2009). Psychosocial changes include decreased memory storage, changes in intelligence, and personality changes. The aging process in physical changes includes decreased cell production, the nervous system, the cardiovascular system, the reproductive system, the urinary system, the sensory system, the gastrointestinal system, the respiratory system, the integumentary system, and the musculoskeletal system. One of the effects of aging is elimination disorders such as haemorrhoids. The prevalence of haemorrhoids affects 5% of the world's population, with a presentation of 54% experiencing haemorrhoid disorders (Kibret et al., 2021). In the United States, a prevalence of 4.4% experienced haemorrhoids at the age of 45-65 years (Nakhla et al., 2025).

Haemorrhoids are enlarged veins around the anus originating from the hemorrhoidal plexus (Lohsiriwat, 2012). They are typically experienced by the elderly due to lifestyle changes, dehydration, lack of exercise, and unhealthy eating. Haemorrhoids are divided into two types: internal haemorrhoids and external haemorrhoids (Lohsiriwat, 2015). Factors that influence haemorrhoids are straining and prolonged constipation characterized by destructive changes and damage to the connective tissue supporting the anal canal. Constipation is a condition where an individual has difficulty defecating characterized by hard stools, feeling dissatisfied after defecating, infrequent defecation, feeling incomplete after defecation, and a frequency of defecation less than 3 times a week. If this condition is ignored, it can trigger health problems such as colon cancer which can lead to death (Staller et al., 2022). Prolonged constipation will worsen haemorrhoids and can also cause faecal impaction, anal fissures, and rectal prolapse. One way to manage constipation is through abdominal massage therapy using the Swedish technique. Swedish abdominal massage technique is the act of stroking, rubbing and pressing on certain body parts to reduce pain, provide comfort and reduce abdominal muscle tension and provide a relaxing effect on the sphincter (Boangmanalu et al., 2025). In addition, it stimulates peristaltic movements, reduces colonic transit, increases the frequency of bowel movements and reduces discomfort during defecation (Paluchamy & Monisha, 2024).

Swedish abdominal massage technique is a constipation management through massaging and patting movements in the abdominal area according to the recommended procedural steps that aim to stimulate intestinal peristalsis, reduce discomfort during defecation and reduce transit time in the colon. Abdominal massage has several Swedish techniques. The technique is a deeper massage technique that aims to knead the muscles and reduce tension, the friction technique is a rubbing movement that aims at certain areas to overcome deeper muscle tension, the tapotement technique is a tapping technique involving fast movements to stimulate blood circulation and the vibration technique is a vibrating movement used to relax muscles and increase blood flow. Abdominal massage is useful for preventing and reducing gastrointestinal system interference and reducing contractions and preventing abdominal muscle tension, increasing motility, increasing secretions in the gastrointestinal system, facilitating elimination process. The abdominal massage technique aims to reduce muscle tension in the abdominal cavity organs, providing mechanical stimulation aimed at moving the fecal load from the descending colon, transverse colon, ascending colon and relaxation. The case study aimed to observe the effect of Swedish abdominal massage for managing defecation elimination disorders in the elderly.

Case Description

The case study involved a 71-year-old female with an elementary school education, who was unemployed and had a history of haemorrhoids. She had no known drug allergies and was a housewife. The patient experienced difficulty defecating, with bowel movements occurring every 4 days despite a good appetite, and relied on laxatives (Dulcolax 5 mg orally) to facilitate defecation. Physical examination revealed a lump in the anus, which was painful during defecation and when sitting for extended periods. The pain assessment using the PQRST method indicated that the pain was exacerbated during defecation. Based on the assessment, the nursing diagnoses were constipation due to decreased gastrointestinal motility, disturbance of comfort due to symptoms of the disease, and acute pain due to physiological injury. The nursing interventions implemented followed the Indonesian Nursing Intervention Standards (SIKI) guidelines, aiming to achieve the outcome targets according to the Indonesian Nursing Outcome Standards (SLKI). For constipation due to decreased gastrointestinal motility, the objectives and outcome criteria were formulated. After three visits, the expected outcomes included improved faecal elimination, reduced complaints of long and difficult defecation, and decreased straining during defecation. The interventions included constipation management, such as observing signs and symptoms of constipation, identifying risk factors (e.g., medications, low-fiber diet), recommending a high-fiber diet, performing abdominal massage, training regular bowel movements, and collaborating on the use of laxatives. These interventions aimed to address the patient's constipation and improve her overall comfort and bowel habits.

The nursing implementation for the diagnosis of constipation commenced on Thursday, May 29, 2025, and continued until Saturday, May 31, 2025, with the primary goal of improving fecal elimination. On the first day, the patient's main complaints were difficulty and straining during defecation. The nursing actions included assessing the signs and symptoms of constipation and identifying risk factors, which revealed straining, hard stools, difficulty passing stools, and reliance on laxatives, with a peristalsis rate of 10 times per minute. The patient received abdominal massage therapy, which consisted of 8 steps, and responded cooperatively, appearing comfortable during the procedure. Additionally, the patient was recommended to follow a high-fiber diet; however, she expressed dislike for fruits and vegetables and reported drinking only 3 glasses of water per day. Collaboration on administering laxatives was also discussed, with the patient expressing a preference for oral laxatives. These interventions aimed to alleviate the patient's constipation symptoms and promote regular bowel movements.

On the second day, the patient's main complaints persisted, including difficulty and straining during bowel movements. The nursing actions included reassessing the signs and symptoms of constipation and identifying risk factors, which continued to reveal straining, hard stools, difficulty passing stools, and reliance on laxatives, with a peristalsis rate of 10 times per minute. The patient received abdominal massage therapy, consisting of 8 steps, and responded cooperatively, appearing comfortable during the procedure. Additionally, the patient was encouraged to follow a high-fiber diet and reported starting to consume papaya and eggplant, along with increasing fluid intake to 5 glasses of starfruit water. Collaboration on administering laxatives continued, with the patient preferring oral administration of Dulcolax 5mg. In the third day, the patient's condition had improved, with the main complaint being significantly reduced straining during defecation, and the patient reported having had a bowel movement. The assessment revealed that the patient no longer strained during defecation, had soft stools that were easy to pass, and an increased peristalsis rate of 12 times per minute, which further increased to 15 times per minute after interventions. The patient continued to receive abdominal massage therapy and adhere to a high-fiber diet, consuming papaya, eggplant, and drinking 6 glasses of water. The combination of abdominal massage and laxative use proved effective, as evidenced by the increase in intestinal peristalsis and the patient's ability to defecate.

Discussion

Assessment is a comprehensive stage of data collection that encompasses biological, psychological, social, and spiritual aspects to identify and explore problems in individuals, groups, and families. On Thursday, May 29, 2025, at 09:00 AM, an assessment was conducted at the residence of a 71-year-old female patient who worked as a laborer and

resided in Mungkid, Magelang. The patient had been experiencing difficulty defecating for over 2 years, characterized by frequent straining, bowel movements less than 2 times a week, abdominal bloating, and hard stool consistency. She often relied on laxatives, specifically Dulcolax 5 mg orally, to facilitate defecation. These symptoms align with the theoretical understanding of constipation, which includes hardened feces, decreased bowel movement frequency (less than 3 times a week), abdominal distension, and the use of laxatives. Constipation is defined as a decrease in bowel movement frequency accompanied by symptoms such as abdominal pain, bloating, discomfort, and difficulty during defecation (Andrews & Storr, 2011; Bielefeldt et al., 2016). The patient's condition reflects these characteristics, highlighting the need for appropriate intervention to manage her symptoms and improve bowel habits.

Nursing diagnosis is a clinical assessment of an individual's, families, or community's experience or response to health problems, risks, or life processes, serving as the basis for developing a nursing intervention plan. In this case, the nursing diagnosis is constipation, characterized by subjective signs of major symptoms, including defecation less than 2 times a week, long and difficult stool excretion. Objective data includes hard stools and decreased intestinal peristalsis, while minor symptoms consist of straining during defecation, abdominal distension, general weakness, and a palpable rectal mass. Constipation is marked by difficult and infrequent bowel movements, typically 3 or fewer times a week, often accompanied by decreased range of motion, reduced fluid and food intake. The interventions implemented for this diagnosis include constipation management, which involves observing signs and symptoms of constipation to determine factors affecting bowel movements and identifying risk factors to determine the cause of constipation. A high-fiber diet is recommended to increase stool volume and accelerate intestinal transit (Ioniță-Mîndrican et al., 2022; Gonlachanvit et al., 2004). Regular bowel habits are encouraged to prevent stool accumulation in the colon and reduce fluid absorption from the stool (Rao & Go, 2010).

Implementation involves applying nursing concepts and principles to provide practical care that meets patients' physical, emotional, social, and spiritual needs, while considering cultural aspects, values, and beliefs through a collaborative process. Effective, efficient, and quality care is delivered through this process. On Thursday, May 29, 2025, at 09:00 WIB, several interventions were implemented. The first intervention involved observing signs and symptoms of constipation, which revealed subjective data of the patient experiencing difficulty during defecation and objective data of hard stools and straining. The second intervention was identifying risk factors for constipation, where the patient reported using oral laxatives. The third intervention was performing abdominal massage, to which the patient responded positively, appearing comfortable and cooperative, with an increase in intestinal peristalsis from 10 times per minute. Abdominal massage proved effective in stimulating the release of flatus and producing stool that was easier to pass, thereby improving the patient's constipation, increasing peristalsis, and inducing a feeling of needing to defecate (Faucheron et al., 2024; Ayaş et al., 2006). The next intervention involved recommending a high-fiber diet, which the patient agreed to try, demonstrating understanding and cooperation. High-fiber foods are known to increase stool volume, retain water, and stimulate rectal nerves, making defecation easier (Guo et al., 2022). Fiber also affects stool consistency by retaining water, which influences the speed of intestinal peristalsis (Wang et al., 2024). Additionally, training on bowel movement patterns was provided, with the patient expressing willingness to change habits and occasionally asking questions. Collaboration on administering laxatives was also implemented, with the patient preferring the use of Dulcolax 5 mg. These interventions aimed to address the patient's constipation effectively and promote regular bowel movements.

On Friday, May 30, 2025, at 09:00 AM, the observation of signs and symptoms of constipation revealed that the patient continued to experience difficulty during defecation, with hard stools and straining. The identification of risk factors for constipation indicated that the patient was using laxatives orally. The patient had begun performing abdominal massage independently after waking up, demonstrating cooperation and an increase in intestinal peristalsis to 12 times per minute. Abdominal massage was beneficial in increasing intestinal motility through autonomic nerve reflex stimulation, improving blood circulation, reducing muscle tension, and enhancing intestinal peristaltic activity. The patient also received recommendations for a high-fiber diet, expressing willingness to try eating high-fiber foods and showing understanding and cooperation. A low-fiber diet is associated with an increased risk of digestive disorders, including constipation. Additionally, training on bowel movement patterns was provided, with the patient expressing a desire to change habits and occasionally asking questions. Collaboration on administering laxatives continued, with the patient preferring the use of Dulcolax 5 mg orally. These interventions aimed to alleviate constipation symptoms and promote regular bowel movements.

On Saturday, May 31, 2025, at 15:00 PM, an observation of signs and symptoms of constipation was conducted. The patient reported difficulty during defecation, with objective data indicating hard stools and straining. The identification of risk factors for constipation revealed that the patient was using oral laxatives. The patient had been performing abdominal massage in the morning and reported feeling comfortable and relieved, with an increase in intestinal peristalsis to 15 times per minute. Abdominal massage therapy has been shown to be effective in improving gastrointestinal function, reducing constipation, and can be used long-term. It works by stimulating the parasympathetic system, reducing abdominal muscle tension, and improving bowel regulation. The patient had also started incorporating high-fiber foods into their diet, demonstrating understanding and cooperation. Training on bowel movement patterns continued, with the patient expressing a desire to change their habits and occasionally asking questions. Collaboration on administering laxatives continued, with the patient preferring the use of Dulcolax 5 mg.

The patient's condition had improved, with increased intestinal peristalsis and a reduction in symptoms of constipation. The interventions implemented had been effective in managing the patient's constipation, and the patient was able to defecate more comfortably.

Conclusion

The Swedish abdominal massage technique has shown promise as a non-pharmacological intervention for managing defecation elimination disorders in the elderly. The case study demonstrated its effectiveness in increasing intestinal peristalsis, improving bowel movement frequency, and reducing symptoms of constipation. Given its potential benefits and safety, this technique can be considered a valuable addition to the management plan for elderly individuals with constipation and other defecation disorders. Future research should focus on several key areas. Studies with diverse populations are needed to confirm the efficacy and generalizability of Swedish abdominal massage for managing defecation disorders in the elderly. Additionally, investigating the long-term effects of this intervention on bowel habits and overall gastrointestinal health would provide valuable insights into its sustainability. Comparative studies evaluating the effectiveness of Swedish abdominal massage against other non-pharmacological interventions or standard treatments for constipation would also be beneficial. Furthermore, exploring the underlying mechanisms by which Swedish abdominal massage affects intestinal peristalsis and bowel function could inform the development of more interventions.

References

Andrews, C. N., & Storr, M. (2011). The pathophysiology of chronic constipation. *Canadian journal of gastroenterology, 25 Suppl B*(Suppl B), 16B–21B.

Ayaş, S., Leblebici, B., Sözay, S., Bayramoğlu, M., & Niron, E. A. (2006). The effect of abdominal massage on bowel function in patients with spinal cord injury. *American journal of physical medicine & rehabilitation, 85*(12), 951–955. https://doi.org/10.1097/01.phm.0000247649.00219.c0

Bielefeldt, K., Levinthal, D. J., & Nusrat, S. (2016). Effective Constipation Treatment Changes More Than Bowel Frequency: A Systematic Review and Meta-Analysis. *Journal of neurogastroenterology and motility, 22*(1), 31–45. https://doi.org/10.5056/jnm15171

Boangmanalu, E. S., Masfuri, M., Adam, M., Nining, S., Banna, T., & Pulungan, I. M. (2025). Swedish abdominal massage against warm water therapy on postoperative orthopaedic surgery constipation: a comparison quasi-experimental study. *F1000Research, 13,* 1531. https://doi.org/10.12688/f1000research.159217.3

Faucheron, J. L., Vincent, D., Barbut, M., Jacquet-Perrin, I., Sage, P. Y., Foote, A., Bellier, A., Quesada, J. L., Tidadini, F., & Trilling, B. (2024). Abdominal massage to prevent ileus after colorectal surgery. A single-center, prospective, randomized clinical trial: the MATRAC Trial. *Techniques in coloproctology, 28*(1), 42. https://doi.org/10.1007/s10151-024-02914-6

Gonlachanvit, S., Coleski, R., Owyang, C., & Hasler, W. (2004). Inhibitory actions of a high fibre diet on intestinal gas transit in healthy volunteers. *Gut, 53*(11), 1577–1582. https://doi.org/10.1136/gut.2004.041632

Guo, K., Yao, Z., & Yang, T. (2022). Intestinal microbiota-mediated dietary fiber bioavailability. *Frontiers in nutrition, 9,* 1003571. https://doi.org/10.3389/fnut.2022.1003571

Ioniță-Mîndrican, C. B., Ziani, K., Mititelu, M., Oprea, E., Neacșu, S. M., Moroșan, E., Dumitrescu, D. E., Roșca, A. C., Drăgănescu, D., & Negrei, C. (2022). Therapeutic Benefits and Dietary Restrictions of Fiber Intake: A State-of-the-Art Review. *Nutrients, 14*(13), 2641. https://doi.org/10.3390/nu14132641

Ismail, Z., Ahmad, W. I. W., Hamjah, S. H., & Astina, I. K. (2021). The Impact of Population Ageing: A Review. *Iranian journal of public health, 50*(12), 2451–2460. https://doi.org/10.18502/ijph.v50i12.7927

Kibret, A. A., Oumer, M., & Moges, A. M. (2021). Prevalence and associated factors of hemorrhoids among adult patients visiting the surgical outpatient department in the University of Gondar Comprehensive Specialized Hospital, Northwest Ethiopia. *PloS one, 16*(4), e0249736. https://doi.org/10.1371/journal.pone.0249736

Lohsiriwat V. (2012). Hemorrhoids: from basic pathophysiology to clinical management. *World journal of gastroenterology, 18*(17), 2009–2017. https://doi.org/10.3748/wjg.v18.i17.2009

Lohsiriwat V. (2015). Treatment of hemorrhoids: A coloproctologist's view. *World journal of gastroenterology, 21*(31), 9245–9252. https://doi.org/10.3748/wjg.v21.i31.9245

Nakhla, N., Hospattankar, A., Siddiqui, K., & Bridgeman, M. B. (2025). Improving Hemorrhoid Outcomes: A Narrative Review and Best Practices Guide for Pharmacists. *Pharmacy, 13*(4), 105. https://doi.org/10.3390/pharmacy13040105

Paluchamy, T., & Monisha, M. (2024). Effect of Swedish Abdominal Massage on Gastrointestinal Outcomes of Critical Ill Patients. *Journal of pharmacy & bioallied sciences, 16(Suppl 3)*, S3019. https://doi.org/10.4103/jpbs.jpbs_602_24

Rao, S. S., & Go, J. T. (2010). Update on the management of constipation in the elderly: new treatment options. *Clinical interventions in aging, 5,* 163–171. https://doi.org/10.2147/cia.s8100

Singh, A., & Misra, N. (2009). Loneliness, depression and sociability in old age. *Industrial psychiatry journal, 18*(1), 51–55. https://doi.org/10.4103/0972-6748.57861

Singh, S., & Bajorek, B. (2014). Defining 'elderly' in clinical practice guidelines for pharmacotherapy. *Pharmacy practice, 12*(4), 489. https://doi.org/10.4321/s1886-36552014000400007

Staller, K., Olén, O., Söderling, J., Roelstraete, B., Törnblom, H., Song, M., & Ludvigsson, J. F. (2022). Chronic Constipation as a Risk Factor for Colorectal Cancer: Results from a Nationwide, Case-Control Study. *Clinical gastroenterology and hepatology, 20*(8), 1867–1876.e2. https://doi.org/10.1016/j.cgh.2021.10.024

Wang, L., Li, Y., Zhang, Y. J., & Peng, L. H. (2024). Relationship between dietary fiber intake and chronic diarrhea in adults. *World journal of clinical cases, 12*(19), 3692–3700. https://doi.org/10.12998/wjcc.v12.i19.3692