

IMPLEMENTATION OF ABDOMINAL MASSAGE IN NURSING CARE FOR OLDER ADULTS WITH CONSTIPATION AT KATSUREN HOSPITAL, OKINAWA (JAPAN)

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ABSTRACT

Constipation is a common problem among the elderly caused by physiological aging, reduced mobility, and side effects of medication. At Katsuren Hospital, this condition frequently occurs in elderly patients with limited mobility, low fluid intake, and decreased appetite. Abdominal massage, is believed to stimulate peristalsis and promote natural defecation, offering a safer alternative than laxatives. Objective: To identify the implementation of abdominal massage in nursing care for elderly patients with constipation. Method: This descriptive qualitative case study evaluated the effectiveness of abdominal massage in a 77-year-old elderly patient with constipation at Katsuren Hospital, Okinawa, Japan. The intervention was performed twice daily for six days (± 15 minutes per session). Data were collected through observation, physical examination, interviews, and the Bristol Stool Chart. Results and Discussion: The patient showed significant improvement: bowel movement frequency increased, stool consistency improved from hard (type 1–2) to soft (type 3–4), abdominal pain decreased, bloating resolved, and overall comfort improved. These findings are consistent with the theory that abdominal massage stimulates bowel peristalsis and reduces abdominal muscle tension. Conclusion: Abdominal massage is effective as a non-pharmacological nursing intervention to manage constipation in the elderly.

Keywords: Abdominal massage, Constipation, Elderly, Nursing care

INTRODUCTION

Older adults, according to Christensen (as cited in Vibriyanti et al., 2020), are a group vulnerable to various health, economic, psychological, and social problems. As age increases, older adults tend to experience a decline in health, often accompanied by symptoms of degenerative diseases. Elderly individuals experience a decline in digestive system function, which results in decreased control over bowel movements. This condition is associated with reduced physiological function of several organs involved in the elimination process, thereby increasing the risk of elimination disorders. One of the most common elimination disorders experienced by older adults is constipation. Various factors may contribute to constipation in the elderly, such as aging that affects muscle tone and weakens intestinal peristalsis, reduced nutrient absorption, and insufficient intake of fiber and fluids. In addition, lack of physical activity and prolonged sitting can worsen this condition.

Constipation is a gastrointestinal (GI) disorder characterized by difficulty in defecation, which may manifest as difficulty or longer intervals between bowel movements than usual, harder stool consistency, increased stool volume in the abdomen, or a feeling of incomplete evacuation after defecation. The prevalence of constipation increases with age and is a common condition among older adults over 65 years old. The prevalence is estimated to range from 2% to 28%. Both elderly men and women are affected, and this condition is often associated with various problems that arise with aging, which may explain the increased prevalence among older adults. Constipation occurs in approximately half of nursing home residents and in about 15–20% of the elderly population (Srilestari et al., 2024).

Japan has one of the largest elderly populations in the world, with the majority of its population aged over 65 years, approximately 65% men and 80.5% women. In elderly care facilities, such as hospitals or long-term care facilities in Japan, constipation is a common problem among older adults. The incidence of constipation in Japan is estimated to be between 2–5%, posing a significant challenge in providing

effective and safe care for the elderly. Chronic constipation may affect life expectancy, increase the risk of cardiovascular disease, reduce quality of life, and increase the risk of mortality (Kessoku et al., 2023).

One approach that has recently gained attention in the management of constipation is abdominal massage. Abdominal massage is a method involving gentle massage of the abdomen in a counterclockwise direction, aimed at stimulating bowel movement, improving digestive function, and supporting natural bowel activity. This technique is considered safer than the continuous use of laxatives, especially for elderly individuals who are at higher risk. This is supported by a study conducted by Setyani and Theresia (2020), which showed a significant difference in bowel movement scores ($p = 0.049$), indicating that abdominal massage can help maintain regular bowel patterns in older adults.

At Katsuren Hospital, a hospital that provides long-term care services for older adults, constipation is a common problem frequently encountered in daily care. Many elderly patients experience limited mobility, decreased appetite, and inadequate fluid intake, which may lead to disturbances in the defecation process. Therefore, the implementation of abdominal massage at Katsuren Hospital not only focuses on the patients' physical aspects but also prioritizes comfort and relaxation, supporting a holistic approach in elderly care. Based on this background, the author conducted a case study on a 77-year-old elderly patient who experienced constipation for five days accompanied by complaints of pain during defecation and abdominal distension. This study aims to describe in depth the implementation of abdominal massage as a non-pharmacological nursing intervention and to evaluate its effectiveness in improving elimination patterns. Through this case study, it is expected to contribute to gerontological nursing practice, particularly in the development of safe, effective, and elderly-centered non-pharmacological interventions in long-term care facilities.

METHOD

This case study design uses a qualitative descriptive approach aimed at providing an in-depth description of nursing care for an elderly patient with constipation through the implementation of a non-pharmacological intervention in the form of abdominal massage. A case study approach was chosen because it can provide a comprehensive overview of the patient's condition, the nursing care process carried out, and the evaluation of intervention outcomes in a real-life context for an individual patient. The intervention was performed twice daily for six days (± 15 minutes per session). Data were collected through observation, physical examination, interviews, and by using the Bristol Stool Chart scale as an assessment instrument.

RESULT AND DISCUSSION

The results of this case study were obtained through the implementation of nursing care for an elderly patient with constipation at Nanreikai Medical Corporation Katsuren Hospital, Okinawa, Japan. Nursing care was focused on a non-pharmacological intervention in the form of abdominal massage, which was administered regularly for six days. A comprehensive assessment was conducted, including subjective data, objective data, health history, abdominal physical examination, and evaluation using the Bristol Stool Chart to assess stool consistency. Based on the assessment findings, the primary nursing diagnosis established was constipation related to decreased intestinal motility. The abdominal massage intervention was performed during each diaper change for approximately 15 minutes, accompanied by a nurse and caregiver. Daily evaluations indicated improvement in the patient's elimination pattern, as evidenced by an increased frequency of bowel movements, softer stool consistency based on the Bristol Stool Chart (from type 1–2 to type 3–4), and reduced abdominal discomfort. Therefore, it can be concluded that abdominal massage is effective in facilitating bowel elimination in elderly patients with constipation.

The discussion in this chapter comprehensively explains the nursing care provided to Mrs. S, a 77-year-old elderly patient with constipation at Katsuren Hospital, Okinawa, Japan. The approach used aims to provide a comprehensive overview of the effectiveness of abdominal massage as a non-pharmacological intervention in managing constipation among older adults. The analysis is structured based on the stages of the nursing process, including assessment, diagnosis, intervention, implementation, and evaluation.

Assesment

During the assessment stage, it was found that Mrs. S had not had a bowel movement for five days and complained of abdominal pain, nausea, bloating, and a feeling of abdominal fullness. Physical examination revealed abdominal distension, decreased intestinal peristaltic sounds (approximately 5 times per minute), and hard stool consistency categorized as Bristol Stool Chart type 1–2. The patient also had a history of fluid intake of less than 1000 mL per day, a low-fiber diet, and limited physical activity due to osteoarthritis. These findings are consistent with the theory proposed by Wiwit (2020), which states that constipation is characterized by bowel movements occurring fewer than three times per week, hard stool consistency, excessive straining, and a feeling of incomplete evacuation after defecation. This is also supported by Ariyanti et al. (2024), who explain that the aging process leads to a decline in gastrointestinal function, resulting in decreased intestinal motility and an increased risk of constipation among older adults. Therefore, the assessment findings in Mrs. S demonstrate consistency between clinical facts and existing theoretical concepts.

Nursing Diagnose

Based on the assessment results, the author established several nursing diagnoses for the patient. The primary diagnosis was constipation related to decreased gastrointestinal motility due to the aging process. In addition, other diagnoses identified included acute pain related to physiological injury agents, risk for fluid imbalance related to intestinal dysfunction, and impaired comfort related to abdominal distension. The establishment of these diagnoses is consistent with the Indonesian Nursing Diagnosis Standards (SDKI), which state that constipation is often a primary problem among older adults and may lead to secondary problems such as pain, fluid imbalance, and discomfort. Therefore, the nursing diagnoses established for Mrs. S are consistent with theoretical concepts and accurately reflect the patient's actual condition.

Nursing Intervention

The third stage is the nursing intervention. The author developed the interventions based on the Indonesian Nursing Intervention Standards (SIKI), focusing on fecal elimination management, pain management, fluid management, and improving patient comfort. One of the main interventions selected was abdominal massage, which involves gentle massage of the abdomen in a clockwise direction for 10–15 minutes. This intervention aims to stimulate intestinal peristalsis, facilitate stool evacuation, and promote relaxation for the patient.

Nursing Implementation

The effectiveness of abdominal massage has been demonstrated in a study by Setyani and Theresia (2020), which showed a significant difference in defecation regularity after abdominal massage was performed ($p = 0.049$). A study by Munira and Aisah (2020) also supports this finding, where older adults who received abdominal massage for seven days experienced increased bowel movement frequency, reduced straining, and decreased levels of constipation. Therefore, the abdominal massage intervention applied to Mrs. S is consistent with theoretical concepts and previous research and is considered appropriate for managing constipation in older adults.

The nursing implementation was carried out for six days, twice daily during diaper changes, with a duration of approximately 15 minutes per session. The findings showed gradual improvement in the patient's condition. The frequency of bowel movements increased, stool consistency changed from hard (Bristol Stool Chart type 1–2) to softer (type 3–4), pain decreased, the abdomen felt more comfortable, the patient appeared more relaxed, and sleep patterns improved. These results are consistent with the theory proposed by Torbay and South (Torbay and South Devon NHS Foundation Trust, 2025), which states that abdominal massage is a safe and effective non-invasive method for improving elimination function and enhancing the quality of life of older adults with constipation. Therefore, the implementation carried out for Mrs. S proved to be effective and aligned with both theoretical concepts and previous research.

Nursing Evaluation

The final stage is the nursing evaluation. After six days of intervention, Mrs. S's constipation problem showed significant improvement. The patient was able to have more regular bowel movements without excessive straining, pain decreased, abdominal bloating resolved, and overall comfort improved. These results are consistent with the Indonesian Nursing Outcome Standards (SLKI), which emphasize that successful constipation management is indicated by improved fecal elimination control, reduced complaints of prolonged or difficult defecation, and improved patient comfort status. This finding also reinforces the results of Munira and Aisah (2020), which demonstrated that abdominal massage significantly reduces constipation levels in older adults. Based on the above explanation, it can be concluded that abdominal massage is an effective, safe, simple, and appropriate non-pharmacological intervention for managing constipation in older adults. The findings observed in Mrs. S are consistent with existing theories and previous studies, indicating that abdominal massage is worthy of consideration as a routine nursing intervention for elderly patients with constipation in long-term healthcare facilities.

CONCLUSION

Assessment stage: The assessment findings indicated that the patient experienced constipation, characterized by the absence of bowel movements for five days, abdominal bloating, pain, and hard stool consistency. Contributing factors included low fluid intake, a low-fiber diet, and limited physical activity. Nursing diagnosis stage: Four main nursing problems were identified, namely constipation as the priority diagnosis, acute pain, risk for fluid imbalance, and impaired comfort, all of which were consistent with the patient's clinical condition. Nursing intervention stage: The nursing care plan was developed based on the Indonesian Nursing Intervention Standards (SIKI), focusing on fecal elimination management, pain management, fluid management, and improving patient comfort. Abdominal massage was selected as the primary intervention. Nursing implementation stage: Abdominal massage was implemented routinely twice daily for six days, with a duration of approximately 15 minutes per session. The results showed an increased frequency of bowel movements, softer stool consistency, reduced pain, and improved patient comfort and sleep quality. Nursing evaluation stage: The patient's constipation problem gradually improved, as indicated by smoother bowel elimination, reduced pain, absence of abdominal distension, and increased comfort. These findings demonstrate that abdominal massage is effective in managing constipation in older adults. Therefore, the specific objectives of the case study, including assessment, diagnosis formulation, intervention planning, implementation, and evaluation, were successfully achieved.

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