Derleme / Review

Constipation Management and Abdominal Massage in the Elderly / *Yaşlılarda Konstipasyon Yönetimi ve Abdominal Masaj Uygulaması*

Servet KALYONCUO[1]

1. Bayburt Üniversitesi Sağlık Bilimleri Fakültesi, servetkalyoncu38@gmail.com, 0000-0001-8687-2229

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Öz

Kabızlık, yaşlı bireyler arasında yaygın görülen bir sağlık sorunudur. Tedavi edilmediği takdirde yalnızca rahatsız edici semptomlara yol açmakla kalmayıp, karın ağrısı, psikolojik bozukluklar, bağırsak tıkanıklığı ve bağırsak perforasyonu gibi ciddi ve yaşamı tehdit edebilecek komplikasyonlara da neden olabilir. Farmakolojik müdahaleler kısa vadeli semptomların giderilmesinde etkili olmakla birlikte, uzun süreli kullanımları önemli yan etkilere ve sağlık bakım maliyetlerinde artışa yol açabilmektedir. Bu nedenle, yaşlı popülasyonda kabızlığın hafifletilmesi için destekleyici ve tamamlayıcı yaklaşımlara olan ihtiyaç giderek artmaktadır. Son yıllarda semptom yönetiminde tamamlayıcı ve alternatif tıp uygulamaları yaygın olarak kullanılmaktadır. Bu yaklaşımlar arasında yer alan masaj tedavisinin kabızlık yönetiminde etkili olduğu gösterilmiştir. Abdominal masaj, invaziv olmayan, güvenli ve iyi tolere edilen; ağrıya veya belirgin yan etkilere yol açmayan bir girişimdir. Ancak yaşlı bireylerde etkinliğini değerlendiren çalışma sayısı hâlen sınırlıdır. Bu bağlamda hemşirelerin, kabızlık yönetiminde tamamlayıcı ve alternatif bir girişim olarak masaj konusunda bilgi sahibi olmaları, uygun hasta eğitimi sağlamaları ve uygulama sonrası hasta sonuçlarını yakından izlemeleri gerekmektedir.

Anahtar Kelimeler: *Yaşlı, Konstipasyon, Abdominal Masaj, Hemşirelik*

Abstract

Constipation is a common health problem among older adults. If left untreated, it may lead not only to distressing symptoms but also to serious and potentially life-threatening complications such as abdominal pain, psychological disorders, intestinal obstruction, and bowel perforation. Although pharmacological interventions are effective in providing short-term symptom relief, their long-term use may result in significant adverse effects and

increased healthcare costs. Therefore, there is a growing need for supportive and complementary approaches to alleviate constipation in the elderly population. In recent years, complementary and alternative medicine practices have been widely adopted in symptom management. Evidence suggests that massage therapy, as one of these approaches, is effective in the management of constipation. Abdominal massage is a non-invasive, safe, and well-tolerated intervention that does not cause pain or significant side effects. However, the number of studies investigating its effectiveness in the elderly population remains limited. In this context, nurses should be knowledgeable about massage as a complementary and alternative intervention for constipation management, provide appropriate patient education, and closely monitor patient outcomes following its application.

Keywords: *Older adults, Constipation, Abdominal massage, Nursing*

1. Introduction

Constipation does not have a universally accepted definition, as its presentation varies among individuals. It is generally characterized by hard or lumpy stools, decreased defecation frequency, excessive straining during bowel movements, a sensation of incomplete evacuation, infrequent stool passage, and, in some cases, the need for manual maneuvers to facilitate defecation (Karatay & Baş, 2018; Odabaş & Taşpinar, 2020). From another perspective, constipation is considered a significant symptom within functional gastrointestinal disorders that may affect individuals across all age groups and pose a risk to overall health status (Odabaş & Taşpinar, 2020). Furthermore, it is widely recognized not as a disease entity but as a symptom that negatively impacts daily functioning and quality of life (İskender & Çalışkan, 2020).

Chronic constipation is a highly prevalent gastrointestinal disorder, affecting approximately 35% of the general population, with a higher incidence observed among older adults (McClurg et al., 2016). Reported prevalence rates vary considerably across studies, ranging from 3% to 38% worldwide. In Turkey, studies conducted in different patient populations have reported prevalence rates between 22% and 44%. In population-based studies, prevalence has been reported as 24.5% in the Netherlands, 17.1% in Europe, 16.8% in India, and 4.9% in Bangladesh (Arlı, 2019; Çağlar & Hisar, 2018; İskender & Çalışkan, 2020; Karatay & Baş, 2018; Odabaş & Taşpinar, 2020; Uzun et al., 2019; Yeşilçinar et al., 2020). Furthermore, other studies have reported prevalence rates ranging from 2% to 27%, highlighting substantial variability across populations. Constipation has also been associated with multiple risk factors, including advanced age, female sex, physical inactivity, low caloric intake, low socioeconomic status, polypharmacy, and low educational level (Albu et al., 2018; Bellini et al., 2017).

Constipation is reported to be more prevalent among women than men, in older adults compared to younger populations, and among Black populations compared to White populations (Kayıkçı et al., 2020). It is recognized as one of the most common gastrointestinal disorders that substantially impair quality of life (Şirin & Çelebi, 2019). Although constipation is not classified as a disease, it is a frequently encountered condition with a multifactorial etiology that reduces quality of life and imposes a considerable burden on healthcare systems (Karatay & Baş, 2018). The main contributing factors include advanced age, female sex, inadequate fluid intake, a low-fiber diet, a sedentary lifestyle, psychological stress, sleep disturbances, and the use of certain medications such as opioids, analgesics, and anticholinergics. Additional risk factors include low socioeconomic and educational status, a history of systemic or neuromuscular diseases, and obesity (Arlı, 2019; Birimoğlu Okuyan & Bilgili, 2019; Çağlar, 2018; Karatay & Baş, 2018; Turan et al., 2017).

Although the clinical impact of constipation varies among individuals, it is commonly associated with physical symptoms such as abdominal bloating, abdominal and rectal pain, and a persistent sensation of fullness. These manifestations often result in considerable discomfort. In many cases, constipation remains underrecognized or inadequately diagnosed, thereby delaying appropriate management and treatment (Pehlivan et al., 2021). Clinical signs and symptoms may vary across patients and reflect either primary constipation or its associated complications. Reported manifestations include difficulty in stool passage (79%), flatulence (74%), hard stool consistency (71%), abdominal discomfort (62%), decreased defecation frequency (57%), bloating (57%), a sensation of incomplete evacuation (54%), abdominal pain (48%), rectal pain (41%), and urgency for defecation (35%) (Ayık & Gülbeyaz, 2020; Davies et al., 2020). Constipation is particularly prevalent among older adults and is associated with increased healthcare utilization and treatment costs (Adıgüzel & Demirbağ, 2020). Its etiology in this population is multifactorial and includes sedentary behavior, polypharmacy, the presence of multiple chronic conditions, medication-related adverse effects, inadequate and irregular dietary habits, and unhealthy lifestyle practices (Uzun et al., 2019).

2. CONSTIPATION IN THE ELDERLY

2.1. Definition, Epidemiology, Etiology, Risk Factors and Symptoms-Symptoms of Constipation

Older age represents a life stage characterized by multifaceted challenges, including physiological and psychological decline, reduced participation in the workforce, changes in social roles and status, diminished social support, and an overall increase in health-related problems (Umutlu & Epik, 2019). The World Health Organization (WHO) defines individuals aged 65 years and older as older adults based on chronological age (Kuzu et al., 2019). Globally, the proportion of the older population is increasing rapidly. In 2019, the number of individuals aged 60 years and over was approximately 1 billion, and this figure is projected to reach 2.1 billion by 2050 (WHO, 2022). Similarly, in Turkey,

the proportion of the older population has increased by 22.5% over the past five years, reaching 9.5%, and is expected to rise to 12.9% by 2030 (TÜİK, 2019).

Physiological and psychological changes occur naturally with advancing age. As a result of these changes, older adults experience decreased resistance to disease, while the prevalence of chronic conditions increases significantly (Kubat Bakır & Akın, 2019). In particular, age-related impairments such as oral and dental problems, decreased salivary secretion, swallowing difficulties, and gastrointestinal disorders contribute to the development of chronic gastrointestinal dysfunctions in this population (Ağar, 2020). In addition to these physiological changes, factors such as low dietary fiber intake, inadequate fluid consumption, reduced physical activity, and polypharmacy further increase the risk of constipation (Durgun & Avcı, 2021). Epidemiological evidence indicates a high prevalence of constipation among older adults. In a study conducted among nursing home residents, the prevalence was reported as 44.6% (Bilgiç et al., 2016), while another study reported a rate of 51.9% among older adults (Birimoğlu Okuyan & Bilgili, 2019). Similarly, 24% of participants were found to have chronic constipation and 39.6% subchronic constipation (Werth et al., 2019). In a population-based study conducted in the Netherlands, prevalence was reported as 24.0% in the general population and 19.8% among individuals aged 65 years and older (Meinds et al., 2017). Furthermore, another study found that 77.3% of older adults with chronic constipation were residing in nursing homes, highlighting the institutional burden of the condition (Vural et al., 2018).

Constipation in older adults has significant adverse effects on health status and may lead to serious complications such as fecal impaction, fecal incontinence, hemorrhoids, anal fissures, and rectal prolapse. Moreover, excessive straining during defecation may negatively affect cerebral and coronary circulation, potentially resulting in syncope, myocardial ischemia, and, in severe cases, death (Bilgiç et al., 2016). Advanced age is recognized as a major risk factor for constipation; however, it is not the sole determinant. Additional contributing factors include physical inactivity, long-term medication use, and depression. Importantly, constipation should not be regarded merely as an inevitable consequence of aging; rather, it is a multifactorial condition influenced by reduced mobility, the presence of multiple chronic conditions, medication-related adverse effects, and dietary habits (Uzun et al., 2019).

Currently, the management of constipation in older adults involves a multimodal approach, including medical treatment, patient education, complementary and supportive interventions, and, in selected cases, surgical procedures (Korkut & Özden, 2017; Türkay & Saka, 2016). Pharmacological treatment options commonly include laxatives, suppositories, and enemas. In addition, non-pharmacological strategies such as increased dietary fiber intake, adequate hydration, regular physical activity, and behavioral modification programs play a crucial role in both the prevention and management of constipation in this population (Kayıkçı et al., 2020; Korkut & Özden, 2017; Türkay & Saka, 2016).

Patient education further emphasizes lifestyle modifications, particularly dietary regulation, sufficient fluid intake, and regular physical activity (Korkut & Özden, 2017). Among complementary and supportive therapies, approaches such as abdominal massage, meditation, probiotic supplementation, biofeedback, reflexology, and acupuncture are frequently utilized (Kayıkçı et al., 2020). Abdominal massage is one of the most commonly preferred non-pharmacological interventions and can be safely implemented by nurses as part of routine care (McClurg et al., 2016; Turan & Atabek Aştı, 2016). It is a low-cost, non-invasive method that can also be performed by caregivers or family members and is generally not associated with adverse effects (Kayıkçı et al., 2020). From a physiological perspective, abdominal massage modulates intra-abdominal pressure and provides mechanical stimulation to the intestinal tract, particularly the rectal region, thereby enhancing bowel motility (Çetinkaya et al., 2020). It promotes peristaltic activity, improves abdominal muscle function, and stimulates digestive enzyme secretion (Kayıkçı et al., 2020; McClurg et al., 2016; Turan & Atabek Aştı, 2016). Through these mechanical and reflex mechanisms, abdominal massage facilitates gastrointestinal transit, relaxes sphincter muscles, reduces pain perception, and alleviates the severity of constipation symptoms (Çetinkaya et al., 2020; Dehghan et al., 2020). The literature indicates that abdominal massage has been investigated across various patient populations, with evidence supporting its beneficial effects on bowel function in different clinical settings (Dehghan et al., 2020; Wang et al., 2022).

2.2. Diagnosis and Treatment Approaches for Constipation in Older Adults

Constipation is a clinically significant gastrointestinal disorder that negatively impacts quality of life and is more frequently observed in older adults compared with younger populations. Internationally, 22 clinical guidelines addressing constipation management have been developed across North America, Europe, and Asia, with approximately 20 published within the last two decades (Ayık & Gülbeyaz, 2020; McIlfatrick et al., 2019; Tian et al., 2016). Although these guidelines are primarily designed for the general population, the assessment and management of constipation in older adults require an individualized approach due to age-related physiological changes, comorbid conditions, and the frequent use of multiple medications. In clinical practice, constipation in older adults is evaluated through a comprehensive assessment that includes detailed history-taking and physical examination. Various assessment tools may be used; however, the Rome criteria remain the most widely accepted diagnostic framework (Öztürk et al., 2020; Werth et al., 2019). According to the Rome III diagnostic criteria, chronic constipation is defined by the presence of at least two of the following symptoms, either subjective or objective: reduced stool frequency, excessive straining during defecation, hard or lumpy stools, a sensation of incomplete evacuation, a feeling of anorectal obstruction, and the need for manual maneuvers to facilitate defecation (Jani & Marsicano, 2018; McIlfatrick et al., 2019; Werth et al., 2019).

In the assessment of constipation among older adults, it is essential to first exclude secondary causes. Common etiological factors in this population include the use of medications such as anticholinergics, opioids, and antidepressants, as well as metabolic disorders, neurological conditions, reduced mobility, and structural pathologies that may cause luminal narrowing of the colon (Ayık & Gülbeyaz, 2020). In addition, cognitive impairment, insufficient fluid and dietary fiber intake, and changes in toileting habits may further complicate the diagnostic process. Once secondary causes have been ruled out, non-pharmacological interventions are recommended as the first-line approach in the management of constipation in older adults. Within this framework, increasing dietary fiber and fluid intake, promoting appropriate levels of physical activity, and establishing regular bowel habits constitute the fundamental components of treatment (Jani & Marsicano, 2018). The risk of constipation is notably higher among immobile or sedentary older adults (McClurg et al., 2017). Management strategies may involve a combination of pharmacological and non-pharmacological approaches, with treatment plans tailored to the individual's clinical condition (İskender & Çalışkan, 2020). Initial interventions generally include dietary modifications such as a high-fiber diet, lifestyle changes, and fiber supplementation. The American Gastroenterological Association recommends adequate fiber intake and the use of osmotic laxatives, such as polyethylene glycol, when necessary. When these measures are insufficient, stimulant laxatives and glycerin suppositories may be considered (Albu et al., 2018). However, prolonged and unsupervised use of laxatives in older adults may lead to adverse effects, including diarrhea, dehydration, electrolyte imbalance, and an increased risk of falls (Ayık & Gülbeyaz, 2020). Moreover, the high cost of pharmacological treatments and their potential to disrupt fluid and acid–base balance when used inappropriately further emphasize the importance of non-pharmacological strategies in this population. In conclusion, effective management of constipation in older adults requires careful consideration of age-related physiological changes, comorbid conditions, medication use, and functional status. Prioritizing non-pharmacological interventions and individualizing treatment plans are essential to ensure safe, effective, and sustainable care.

3. Abdominal Massage and the Pathogenesis of Constipation in Older Adults

Abdominal massage is widely recognized as a complementary intervention in the management of constipation, particularly in older adults who are more vulnerable to adverse effects associated with pharmacological treatments. With historical roots dating back to the 1870s, it is defined as a safe, non-invasive technique that supports and enhances intestinal function (Arslan & Yücel, 2017). Constipation in older adults is primarily associated with reduced gastrointestinal motility, decreased abdominal muscle strength, limited physical activity, and age-related changes in autonomic nervous system function. These physiological alterations make the mechanical and reflex effects of abdominal massage particularly relevant in this population. The technique involves rhythmic, clockwise strokes, kneading, and vibratory movements applied to the abdominal wall in alignment with the anatomical

course of the intestines, with the primary aim of stimulating defecation (Arslan & Yücel, 2017; Olgun, 2016). Owing to the extensive fascial network in the abdominal region, massage therapy may modify intra-abdominal pressure and indirectly stimulate rectal activity. This mechanical stimulation enhances peristalsis, reduces colonic transit time, and facilitates bowel evacuation (Çetinkaya et al., 2020). As a result, stool passage is facilitated, bowel movement frequency increases, and constipation-related symptoms are alleviated (Dehghan et al., 2018). Different techniques used in abdominal massage, including effleurage, petrissage, vibration, and tapotement, have been reported to reduce abdominal muscle tension, improve local circulation, and support gastrointestinal function in older adults (Olgun, 2016). These techniques may also contribute to autonomic nervous system regulation, thereby enhancing peristaltic activity and reducing constipation risk. Evidence from the literature demonstrates the beneficial effects of abdominal massage across various patient populations. In postoperative orthopedic patients, it has been shown to reduce constipation symptoms, increase bowel movement frequency, and improve quality of life (Dehghan et al., 2020; Gillespie & Aydinferd, 2016). Similarly, studies involving patients with neurological disorders such as Parkinson's disease and multiple sclerosis—predominantly older adults—report that abdominal massage is an effective, well-tolerated, and safe intervention for constipation management (Çetinkaya et al., 2020; McClurg et al., 2016; McClurg et al., 2017). In intensive care settings, beneficial effects on gastrointestinal function have also been observed when abdominal massage is used as an adjunct to standard treatment in patients with endotracheal intubation (Dehghan et al., 2018). Furthermore, its combination with polyethylene glycol has been reported to be safe and effective in individuals with functional constipation (Mokhtare et al., 2020). Overall, these findings suggest that abdominal massage represents an important complementary approach, particularly in older adults who frequently use multiple medications and are therefore at increased risk of laxative-related adverse effects. In conclusion, considering age-related physiological changes, reduced mobility, and neuromuscular decline, abdominal massage appears to be a safe, cost-effective, and easily applicable non-pharmacological intervention without significant adverse effects. Accordingly, it has an important role in the prevention and management of constipation in older adults.

3.1.Abdominal Massage and Constipation Management and Literature Review

Abdominal massage is among the commonly preferred non-pharmacological approaches in the management of constipation, with its use dating back to 1870 (Arslan, 2017). It is defined as a therapeutic technique involving rhythmic stroking, kneading, and vibratory movements applied in a clockwise direction over the abdominal region, following the anatomical course of the intestines, with the aim of facilitating defecation (Arslan, 2017; Olgun, 2016). The literature indicates that abdominal massage is widely used due to its non-invasive nature, absence of reported adverse effects, low cost, and ease of application by both patients and caregivers (Gillespie & Aydinferd, 2016; McClurg et al., 2016). Owing to the extensive fascial network of the abdominal region, the technique exerts both

mechanical and reflex effects on intestinal activity by modifying intra-abdominal pressure and gently stimulating the rectum. This, in turn, promotes peristalsis, accelerates intestinal transit, and facilitates defecation (Çetinkaya et al., 2020). Increased peristalsis during massage helps propel fecal matter toward the rectum, shortens colonic transit time, and increases bowel movement frequency (Dehghan et al., 2018). Various techniques used in abdominal massage, including effleurage, petrissage, vibration, and tapotement, have been reported to reduce abdominal muscle tension, enhance local circulation, support digestive processes, and stimulate peristaltic activity, thereby contributing to constipation prevention (Olgun, 2016). Some evidence also suggests potential systemic effects, including modulation of autonomic nervous system activity. A growing body of evidence supports the effectiveness of abdominal massage across different clinical populations. In postoperative orthopedic patients, it has been shown to reduce constipation symptoms, increase bowel movement frequency, and improve quality of life, while also being a cost-effective and practical intervention (Dehghan et al., 2020; Gillespie & Aydinferd, 2016). Similarly, in patients with neurological conditions such as Parkinson's disease and multiple sclerosis, abdominal massage has been reported as a feasible, acceptable, and beneficial method for constipation management (Çetinkaya et al., 2020; McClurg et al., 2016; McClurg et al., 2017). In intensive care settings, positive effects on gastrointestinal function have been observed when abdominal massage is used as an adjunct to standard care in patients with endotracheal intubation (Dehghan et al., 2018). Furthermore, its combination with pharmacological agents such as polyethylene glycol has been reported to be safe and effective in functional constipation (Mokhtare et al., 2020). Overall, the literature highlights the use of abdominal massage in various clinical contexts, including Parkinson's disease (Çetinkaya et al., 2020; McClurg et al., 2016), intensive care units (Dehghan et al., 2018; Wang et al., 2022), multiple sclerosis (McClurg et al., 2017; McClurg et al., 2018), neurosurgical patients (Altun Ugraş et al., 2022; Wu et al., 2017), and individuals using opioid medications (Yıldırım et al., 2019), underscoring its broad applicability as a supportive intervention in constipation management.

In a nursing home–based study conducted by Çevik et al., abdominal massage was applied once daily for 30 days in older adults, and bowel outcomes were monitored using a defecation diary. The number of defecations increased progressively from baseline to post-intervention, with mean scores of 0.43±0.19 before, 0.57±0.21 during, and 0.76±0.21 after the intervention. Improvements were also observed in fecal quantity (1.45±0.49; 1.68±0.18; 1.87±0.39) and fecal consistency (2.40±1.02; 2.75±0.39; 2.93±0.57), while straining during defecation decreased over time (2.56±1.01; 1.94±0.42; 1.68±0.36). Incomplete evacuation scores also improved across the intervention period (0.55±0.46; 1.13±0.49; 0.17±0.23), with all changes reported as statistically significant ($p<0.05$) (Çevik et al., 2018). Similarly, Durmuş-İskender and Çalışkan applied abdominal massage once daily for five days and reported significant improvements in all assessed parameters, including stool quantity, stool consistency, straining, incomplete evacuation, and defecation frequency ($p<0.05$) (Durmuş-İskender &

Çalışkan, 2022). These findings suggest that abdominal massage may improve constipation symptoms, with potential enhancement related to longer intervention duration. In another study, Birimoğlu Okuyan and Bilgili applied abdominal massage five days per week over eight weeks. Although no significant difference was observed between groups in constipation-related quality of life at baseline, post-intervention results showed a significant reduction in constipation severity in the intervention group compared with the control group (Birimoğlu Okuyan & Bilgili, 2019). Choi et al. evaluated abdominal massage using an automated device and reported improved bowel function outcomes. Bristol Stool Scale scores increased from 2.2±1.0 to 3.5±1.1, while colonic transit time decreased from 54.0 to 28.8 hours ($p<0.05$), indicating enhanced intestinal motility (Choi et al., 2021). In a study by Mokhtare et al., abdominal massage was performed once daily for 14 days with a four-week follow-up. The mean weekly defecation frequency increased in both the abdominal massage and polyethylene glycol (PEG)+massage groups; however, between-group differences were not statistically significant ($p=0.18$). In contrast, Bristol Stool Scale scores differed significantly between groups ($p=0.029$), favoring the combined intervention (Mokhtare et al., 2020). Turan and Atabek Aştı investigated postoperative orthopedic and traumatological patients, applying abdominal massage twice daily for three days starting on the fourth postoperative day. On the sixth postoperative day, a significant difference was observed in Bristol Stool Scale outcomes, with better stool consistency in the intervention group ($p=0.019$) (Turan & Atabek Aştı, 2016). In a study involving older adults, Baran and Ateş reported that participants in both groups were initially classified as type 1 or 2 on the Bristol Stool Scale. After four weeks of daily abdominal massage, participants in the intervention group shifted to healthier stool types (type 5–7), whereas the control group remained in constipation-related categories ($p<0.05$). Significant improvements were also observed in total constipation severity and its subdomains, including fecal obstruction, colonic inertia, and pain (Silveira et al., 2021).

Fekri et al. investigated the effects of abdominal massage in elderly stroke patients by applying the intervention twice daily for 10 days. The proportion of patients who defecated on day 1 was 24.1% in the intervention group compared with 11.8% in the control group. By day 10, these rates increased to 93.1% and 79.4%, respectively, indicating a statistically significant improvement in the intervention group ($p<0.05$). In addition, constipation severity scores changed from 10.3±1.7 to 9.9±1.9 in the intervention group, whereas they increased from 4.7±0.75 to 5.7±1.5 in the control group ($p<0.05$), suggesting a more favorable clinical course in the massage group (Fekri et al., 2021). Similarly, Çetinkaya et al. applied abdominal massage twice daily for three days in elderly intensive care patients. The defecation rate on day 1 was 30% in the intervention group and 10% in the control group, increasing to 81.5% and 33.3%, respectively, by day 6, with a statistically significant difference between groups ($p<0.05$) (Çetinkaya et al., 2020). In another intensive care unit study conducted by Dehghan et al., abdominal massage was performed twice daily for three days. The mean number of defecations was 1.26±1.31 in the intervention group and 0.43±0.74 in the control group. Although an

improvement was observed in the intervention group (68.6% vs. 38.1% increase), the between-group difference did not reach statistical significance (p=0.08) (Dehghan et al., 2018). Doğan et al. reported that abdominal massage resulted in a 70% reduction in constipation severity, a 56% improvement in quality of life, and a 70% increase in defecation frequency in the intervention group, compared with 28%, 38%, and 43% in the placebo group, respectively (Doğan et al., 2022). In a study by Altun Uğraş et al., abdominal massage was applied twice daily until the first defecation occurred. The mean time to first defecation was significantly shorter in the massage group (5.01±0.90 days) compared with the control group (7.80±1.63 days) ($p<0.05$) (Altun Uğraş et al., 2022).

3.2.Abdominal Massage and Nursing Care in the Management of Constipation in the Elderly

Immobilization, polypharmacy, and age-related alterations in gastrointestinal physiology are key contributing factors to constipation, all of which are commonly observed in older adults (Adıgüzel & Demirbağ, 2020). The prevalence of constipation has been shown to increase with advancing age. For example, approximately 34% of women and 26% of men aged 84 years and older report symptoms of constipation. In addition, between 50% and 73% of older individuals describe constipation as a chronic, recurrent, and distressing condition, with higher rates observed among those residing in nursing homes (Lafçı, 2020). Overall prevalence rates in older adults range between 24% and 50%, while laxative use varies from 10% to 18% in community-dwelling individuals and may reach up to 74% among those receiving home care (Uzun et al., 2019). Age-related physiological changes contributing to gastrointestinal dysfunction include tooth loss, altered taste and smell perception, reduced digestive secretions, decreased intestinal motility, impaired pancreatic response, weakened sphincter control, and a general decline in metabolic activity. In addition, lifestyle factors such as physical inactivity, poor dietary habits, insufficient fiber intake, polypharmacy, and the presence of multiple chronic diseases further increase the risk of constipation in this population (Lafçı, 2020). Constipation significantly impairs quality of life in older adults and contributes to increased healthcare utilization and costs. Therefore, early identification, awareness, and timely management are essential components of care (Meinds et al., 2017). Current management strategies include both pharmacological and non-pharmacological approaches. Pharmacological options such as laxatives, suppositories, and enemas are commonly used; however, non-pharmacological interventions—including biofeedback, acupressure, patient education, bowel training, physical exercise, yoga, aromatherapy, stress management, and abdominal massage—are also widely recommended (Lafçı, 2020). Abdominal massage exerts mechanical and reflex effects on intestinal function through stimulation of the abdominal fascial network. By modifying intra-abdominal pressure and providing gentle stimulation to the intestinal and rectal regions, it enhances peristaltic activity and facilitates intestinal transit (Çetinkaya et al., 2020). Increased peristalsis promotes fecal movement toward the rectum, shortens colonic transit time, and increases defecation frequency (Dehghan et al., 2018). The preventable nature of constipation in older adults highlights the critical role of nursing care in its

management (Birimoğlu Okuyan & Bilgili, 2019). Nurses, as part of their independent professional roles, are responsible for planning and implementing individualized care strategies for affected patients. In collaboration with other healthcare professionals, they aim to maintain normal bowel function and restore it when impaired (İskender & Çalışkan, 2020). Accordingly, accurate identification of risk factors, appropriate care planning, and systematic evaluation of outcomes are essential components of effective nursing management (Birimoğlu Okuyan & Bilgili, 2019). In this context, nurses should assess older adults for adequate fluid intake and balanced nutrition in collaboration with dietitians, with particular attention to fiber consumption. For patients receiving multiple medications, potential adverse effects should be closely monitored. Education on healthy bowel habits should be provided, mobility should be encouraged when appropriate, and supportive interventions such as abdominal massage should be incorporated into care plans when indicated (Turan et al., 2017). In conclusion, effective management of constipation in older adults requires individualized nursing care based on appropriate nursing diagnoses such as constipation, risk for constipation, or perceived constipation. Through accurate assessment and evidence-based interventions, nurses play a central role in improving bowel function and enhancing the quality of life of elderly individuals experiencing constipation (Dedeli & Pakyüz, 2016; Birimoğlu Okuyan & Bilgili, 2019).

3.3. Conclusion and Recommendations

Massage therapy is recognized as a supportive intervention that may positively influence constipation management while contributing to patients' overall well-being and satisfaction. However, despite its potential benefits, the number of studies examining its effectiveness in older adults remains limited. In recent years, its use as a non-pharmacological approach in elderly populations has increased. In this context, the prevention of inappropriate or unregulated use is essential. Healthcare professionals, who hold primary responsibility for the care and education of older adults, should therefore possess adequate knowledge and competence regarding massage-based interventions. For massage to be more systematically integrated into nursing practice, high-quality, methodologically robust studies are needed to further evaluate its effectiveness and clinical outcomes. Strengthening the evidence base through future research will enhance its clinical applicability. In addition, incorporating non-pharmacological interventions such as massage into in-service training programs is recommended. The development and dissemination of certification programs related to massage practices may further improve professional competence. Moreover, increasing awareness among healthcare professionals regarding the economic burden of pharmacological complications, their impact on workload, and the potential benefits of massage therapy may support more holistic and cost-effective patient care approaches.

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