



EFFECTIVENESS OF NURSING-LED INTERVENTIONS ON STOMA SELF-CARE AND QUALITY OF LIFE IN PATIENTS WITH URINARY DIVERSION: SYSTEMATIK LITERATUR RIVIEW

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ABSTRACT

Patients who undergo radical cystectomy with urinary diversion often have difficulty managing their stoma independently, which can affect their quality of life. Various nursing-led interventions have been developed to improve stoma care skills, but the available evidence remains varied. The objective of this study is to assess how nurse-led interventions affect stoma self-care and quality of life, and to identify the intervention elements that support these outcomes. Guided by the PRISMA 2020 guidelines, this study conducted a systematic literature review. As of January 2020 to March 2026, literature searches were performed in PubMed, Scopus, Web of Science, ScienceDirect, and Google Scholar. Fourteen out of 326 identified articles met the inclusion criteria. The JBI tool was used to evaluate methodological quality, followed by narrative synthesis. The PROSPERO registration number for this study protocol is CRD420261353559. Fourteen studies, including quasi-experimental trials and randomized controlled trials, were examined. Nurse-led interventions generally reduced peristomal complications and improved stoma self-care ability, self-efficacy, and quality of life. Stoma self-care and quality of life were consistently enhanced by interventions centered on education, stoma care skills training, and continuous care. Following radical cystectomy, patients' quality of life and stoma self-care can be improved through nurse-led interventions. Although there is limited evidence supporting the promising outcomes of multidimensional and ongoing interventions, further research is needed to confirm these findings.

Keywords: bladder cancer; nursing-led interventions; quality of life; radical cystectomy; stoma self-care; urinary diversion

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INTRODUCTION

Following a radical cystectomy with urinary diversion, patients with bladder cancer encounter a number of social, psychological, and physical difficulties. After the surgery, patients should be able to take care of their stomas on their own, including changing the stoma bag, keeping their peristomal skin clean, and handling issues like skin irritation and leaking. Nevertheless, many patients struggle to follow the treatment plan as best they can. Additionally, problems with body image, anxiety, low self-esteem, and a marked deterioration in quality of life might result from changes in urinary function. (Lupo et al., 2025). This case illustrates how a patient's ability to adapt and practice effective self-care is just as important as medical interventions for the success of postoperative care.

Bladder cancer is one of the most prevalent malignancies in the world. According to the Global Cancer Observatory (GLOBOCAN), bladder cancer was the ninth most frequent cancer worldwide in 2022, with about 614,298 new cases. With around 523,674 instances (5.4%) of all cancer cases in men, this illness is more common in men (Sung et al., 2021). In Asia, the burden of bladder cancer is quite high, with approximately 215,700 new cases, accounting for the majority of cancer-related deaths and about 35% of all cases worldwide. Although bladder cancer is not among the ten most

common cancers, it remains a major health issue in Indonesia, where there were approximately 7,381 new cases and 3,207 deaths from the disease in 2022. (Sung et al., 2021).

Bladder cancer is a multifactorial disease influenced by various risk factors, such as smoking, exposure to chemicals, age, and certain medical conditions (Sung et al., 2021). In addition, metabolic conditions such as diabetes mellitus have also been reported to increase the risk of bladder cancer (Witjes et al., 2024). In the context of post-radical cystectomy, however, the primary focus is no longer solely on the etiology of the disease, but has shifted to the patient's ability to adapt to changes in their physical condition and to manage their own care. It has been demonstrated that possessing adequate self-care skills is crucial for preventing complications and improving the quality of life for ostomy patients. (Alwi et al., 2025).

Numerous studies have demonstrated the efficacy of nursing-led interventions in enhancing patient outcomes and stoma self-care. A research carried out by Jensen et al., (2020) reported that preoperative stoma education improves patients' independence following radical cystectomy. Additionally, research by H. Zhou et al., (2021) demonstrated that team-based treatments for stoma care greatly improved quality of life and self-efficacy while lowering complications. Tan et al.'s 2022 study also showed the efficacy of technology-based treatments in enhancing patients' capacity for self-care when paired with follow-up.

The available evidence, however, remains heterogeneous and fragmented. Variations in the type, duration, and components of interventions have prevented a consensus from emerging regarding the most effective nursing-led intervention strategies. Long-term assessments of the durability of intervention effects are relatively uncommon, and there are currently few high-quality randomized controlled trials. Additionally, there hasn't been much in-depth research done on the processes underlying the success of therapies, especially the role of self-efficacy in enhancing stoma self-care competence and quality of life. A thorough synthesis of nursing-led interventions for patients after radical cystectomy with urinary diversion is lacking due to the heterogeneity in intervention types, length, and components. Additionally, the majority of earlier systematic studies did not particularly target patients with bladder cancer and instead included a variety of ostomy groups. There is also a dearth of research on the processes behind improvements in stoma self-care and quality of life, as well as the durability of intervention benefits. This study is to assess the effects of nursing-led interventions on stoma self-care and quality of life in patients who have undergone radical cystectomy with urinary diversion and to pinpoint the intervention elements that lead to better patient outcomes. The development of evidence-based nursing practice for patients with urinary stomas is anticipated to benefit from this study's scientific foundation.

METHOD

Study Design

This study used a systematic review approach to find, assess, and gather scientific evidence on the effects of nurse-led interventions on stoma self-care and quality of life in patients with urinary diversion after radical cystectomy. This review was reported in accordance with the 2020 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria. The study protocol has been prospectively filed in the International Prospective Register of Systematic Reviews (PROSPERO) under registration number CRD420261353559.

Eligibility Criteria

The PICOS framework (Population, Intervention, Comparator, Outcome, and Study Design) was used to develop the inclusion and exclusion criteria. Adult bladder cancer patients (≥ 18 years old) who had radical cystectomy with urinary diversion were included in the study population. Nursing-led educational interventions and nursing interventions relating to stoma self-care were among the interventions. Standard care or pre-post-intervention evaluations are part of the comparison group.

Stoma self-care and self-efficacy are the main outcomes; stoma-related problems, quality of life, and patient adaptability are the secondary goals. Randomized controlled trials (RCTs), quasi-experimental studies, cohort studies, and controlled clinical trials are among the research designs included in this review. This study did not include systematic reviews, literature reviews, meta-analyses, case reports, or editorials. This review only includes original English-language research publications published between 2020 and 2025 that have full-text versions accessible.

Study Selection and Data Extraction

After screening abstracts and titles, two writers independently chose research and assessed the full-text publications' eligibility. Each article was evaluated using predetermined inclusion and exclusion criteria. When the researchers couldn't agree on anything, they discussed the results and came to an agreement. Data retrieved from each study included the names of the authors, the year of publication, the country, the study design, sample characteristics, the type of intervention, the comparison group, the outcomes measured, and the primary conclusions.

Quality Appraisal and Risk of Bias Assessment

The Joanna Briggs Institute (JBI) Critical Appraisal Tool was utilized to assess the methodological quality of each study based on its design. The assessment was carried out separately by two academics. Three categories were created from the evaluation results: low quality (less than 50%), moderate quality (between 50 and 74%), and good quality (between 75 and 100%).

Table 4.

Risk of Bias Assessment Using JBI Critical Appraisal Tools

Authors (Year)	Study Design	JBI Score (%)	Quality
(Jensen et al., 2020)	RCT	84.6	High
(Fan et al., 2022)	RCT	84.6	High
(H. Zhou et al., 2021)	RCT	76.9	High
(Ding et al., 2024)	RCT	76.9	High
(Tan et al., 2022)	RCT	76.9	High
(Merandy et al., 2020)	RCT	61.5	Moderate
(Salwa A. Mohamed & Fashafsheh, 2020)	Quasi-experimental	100	High
(J. Zhou et al., 2025)	Quasi-experimental	88.9	High
(Zganjar et al., 2022)	Quasi-experimental	88.9	High
(Ibrahim et al., 2022)	Quasi-experimental	88.9	High
(Abdelsamie, 2025)	Quasi-experimental	77.8	High
(Fadl et al., 2025)	Quasi-experimental	77.8	High
(Maqbool et al., 2025)	Quasi-experimental	77.8	High
(Zou et al., 2022)	Quasi-experimental	77.8	High

Study Selection

326 articles from Scopus, Web of Science, ScienceDirect, PubMed, and Google Scholar were found in the literature search. 236 papers were chosen based on their titles and abstracts following the removal of duplicates and a first screening. 48 papers were assessed for eligibility, and a total of 56 articles made it to the full-text review stage. 14 papers that satisfied the inclusion criteria were added to the systematic review after the eligibility evaluation. In compliance with PRISMA 2020 criteria, Figure 1 displays the research selection process.

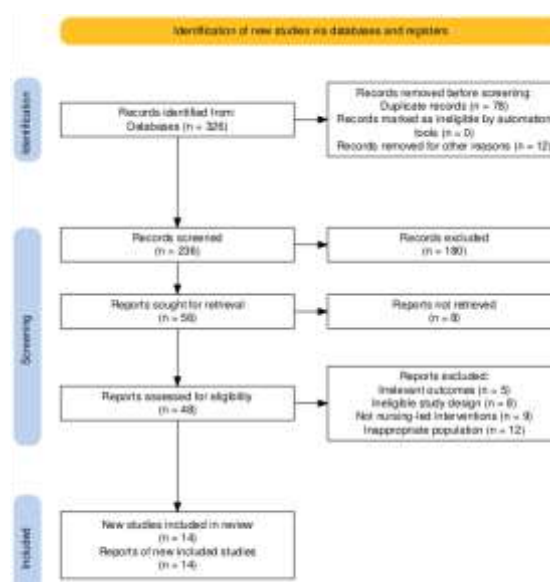


Figure 1. PRISMA 2020 Study Selection Flow Diagram

RESULT

Table 5.
Analysis Article

N o.	Author (Year)	Country	Study Design	Sample	Intervention	Comparison	Outcomes	Result
1	(J. Zhou et al., 2025)	China	Quasi	40 post-ileal cystostomy	Continuous nursing	Routine care	QoL, complications, GI function, satisfaction	QoL ↑, complications ↓, GI function ↑, satisfaction ↑ (p<0.05) → effective
2	(Abdelsamie, 2025)	Mesir	Quasi (pre-post)	30 ileal conduit patients	Nursing rehabilitation program	Pre-post	Self-efficacy	Self-efficacy ↑, ostomy care practice ↑ (p<0.05) → effective
3	(Fadl et al., 2025)	Mesir	Quasi	60 urinary diversion patients	Nursing intervention (education & training)	Pre-post	Knowledge, self-care	Knowledge ↑ (36.7%→81.7%), self-care ↑ (25.0%→76.7%) → effective
4	(H. Zhou et al., 2021)	China	RCT	46 ileal conduit patients	Ostomy care team intervention (nurse-led, multicomponent)	Routine care	Self-efficacy, QoL, complications	Self-efficacy ↑ (107 vs 85), QoL ↑, complications ↓ (4.35% vs 30.43%; p<0.05) → effective
5	(Maqbool et al., 2025)	Pakistan	Quasi	15 ileal conduit patients	Video-based stoma education	Pre-post	Self-efficacy	Self-efficacy ↑ (24→61; p<0.05) → effective
6	(Jensen et al., 2020)	Denmark	RCT	107 cystectomy patients	Preoperative stoma education	Standard care	Self-care (UES)	Self-care ↑ (Δ2.7–5.1; p<0.05) → effective
7	(Zganjar et al., 2022)	USA	Quasi	51 RC ileal conduit patients	Preoperative “stoma bootcamp” education	Pre-post	QoL, ostomy adjustment	QoL ↑, adjustment score tinggi & stabil → effective
8	(Salwa A. Mohamed & Fashafsheh, 2020)	Mesir	Quasi	40 urinary diversion patients	Educational telephone follow-up program	Routine care	Knowledge, self-care, QoL	Knowledge ↑, self-care ↑, QoL ↑ (p<0.0001) → effective
9	(Ibrahim et al., 2022)	Mesir	Quasi (non-equivalent control pre-post)	64 ileal conduit patients	Nursing instructions (4 sessions: education + skill training)	Routine care	Self-efficacy	Self-efficacy ↑ (46.3 vs 33.5; 50.9 vs 35.2; p=0.0001) → effective
10	(Ding et al., 2024)	China	RCT	340 permanen	Peer-led education	Routine care	KAP, QoL, complications	KAP ↑, QoL ↑, complications ↓

				t ostomy patients					(18.3% vs 31.1%; p<0.05) → effective
11	(Zou et al., 2022)	China	Quasi (controlled)	170 urinary diversion patients	Heider balance-based intervention		Routine care	KAP, QoL, complications	KAP ↑, QoL ↑, complications ↓ (p<0.05) → effective
12	(Tan et al., 2022)	China	RCT	67 urinary diversion patients	App-based telephone follow-up	+	Telephone follow-up	Self-care, QoL, complications	Self-care ↑, QoL ↑, complications ↓ (p<0.05) → effective
13	(Fan et al., 2022)	China	RCT	80 caregivers urostomy	Internet health education (IPHE)	+	Conventional education	Caregiver burden, coping, complications	Burden ↓ (ZBI), coping ↑ (SCSQ), complications ↓ (7.5% vs 36.5%; p<0.05) → effective
14	(Merandy et al., 2020)	USA	RCT	8 UD patients	Multimodality education (video + PPT + illustration)		Usual care	Self-efficacy, self-care, feasibility	Feasible & acceptable; SE/self-care not significantly improved → limited effect

Randomized controlled trials (RCTs) (n = 6) and quasi-experimental studies (n = 8) with sample sizes ranging from 8 to 340 people were among the 14 researchers that satisfied the inclusion criteria. China was the country where the majority of the research was conducted, followed by Egypt, the US, Denmark, and Pakistan. Table 3 presents the features of the investigation.

The majority of the interventions were nursing-led educational programs that used technology-based strategies including instructional films and smartphone applications and concentrated on teaching, stoma care training, and continuing follow-up. When compared to standard care, the majority of studies showed improvements in stoma self-care, self-efficacy, and quality of life in addition to a decrease in stoma-related problems. Nonetheless, there was variation in the length, outcome measures, intervention components, and research design. Furthermore, a research found that self-efficacy and self-care did not significantly increase with multimodal educational treatments.

DISCUSSION

The comprehensive review's findings suggest that nursing-led treatments can enhance stoma self-care, self-efficacy, and quality of life. They may also help patients with urinary diversion after radical cystectomy have fewer stoma-related problems. Most of the included studies reported positive findings compared to usual care or the pre-intervention condition (J. Zhou et al., 2025) (H. Zhou et al., 2021) (Tan et al., 2022)(Ding et al., 2024). These findings, of course, should be interpreted with caution due to variations in study design, intervention components, intervention duration, and outcome measurement tools. Therefore, the results of this review are best understood as an indication of potential benefits rather than definitive evidence of the interventions' effectiveness.

Improved stoma self-care is one of the most consistent findings in this review. Education- and skills-training-based interventions were reported to contribute to improved patient ability to perform stoma care independently, including stoma bag changes, peristomal skin care, and early detection of complications (Fadl et al., 2025), Jensen et al., (2020) and Ibrahim et al., (2022). These findings suggest that education combined with practical training plays a crucial role, as patients not only receive information but also have the opportunity to develop skills through hands-on practice. Nursing interventions that integrate information provision, demonstrations, skill training, and assessment of patients' abilities thus appear to be more effective in supporting patients' transition to self-care following surgery (Alwi et al., 2025).

In addition to self-care, most studies also report an increase in self-efficacy following nursing interventions Abdelsamie, (2025), H. Zhou et al., (2021), Maqbool et al., (2025), and Ibrahim et al., (2022). Self-efficacy is important because patients with stomas face not only physical changes but

also psychological challenges in accepting their new physical condition and adhering to long-term care routines. In this context, enhancing patients' self-efficacy can serve as a key mechanism linking nursing interventions to improved self-care behaviors. However, the majority of the included research has not specifically looked at self-efficacy's function as a mediator. Thus, study designs that specifically assess these mechanisms are still needed to further explore the association between nursing treatments, self-efficacy, and better self-care.

Improvements in quality of life have also been reported in several studies, particularly in interventions that combine education, psychosocial support, and ongoing follow-up J. Zhou et al., (2025), H. Zhou et al., (2021), Fan et al., (2022), Zganjar et al., (2022), Salwa A. Mohamed & Fashafsheh, (2020), Ding et al., (2024), Zou et al., (2022), and Tan et al., (2022). Changes in quality of life among patients with urinary diversion are multidimensional, as they relate to physical function, body image, social activities, and psychological adaptation. Therefore, interventions that focus solely on the technical aspects of stoma care may not be sufficient to address all of the patients' needs. Interventions that include education, emotional support, strengthening adaptive skills, and ongoing monitoring appear to be better suited to the complexity of patients' needs following radical cystectomy.

Several studies have also reported a reduction in stoma-related complications, such as leaks, skin irritation, and other peristomal issues J. Zhou et al., (2025), H. Zhou et al., (2021), Ding et al., (2024), Zou et al., (2022), Tan et al., (2022), and Fan et al., (2022). These findings can be explained by patients' improved ability to properly manage their stomas and recognize early signs of complications. Nevertheless, a causal relationship between nursing interventions and a reduction in complications cannot yet be fully established, as some studies used quasi-experimental designs and were subject to risks of selection bias and confounding. Therefore, the reduction in complications observed in this review should be understood as a promising finding, rather than as a strong causal conclusion.

Heterogeneity across studies is a key issue in interpreting the results of this review. The included studies showed variation in the type of intervention, intensity, duration, timing, and follow-up methods. Interventions provided on an ongoing basis or accompanied by monitoring after the patient's discharge tended to report more stable outcomes compared to brief interventions (J. Zhou et al., 2025), (Tan et al., 2022). But since intervention components are often delivered simultaneously, it is difficult to determine which component contributes most to improved outcomes. This highlights the need for further research that describes intervention components in greater detail and uses more standardized intervention reporting.

Technology-based interventions, such as mobile apps, video-based education, and internet-based programs, show promise in improving access to education and continuity of care (Fan et al., 2022; Maqbool et al., 2025; Tan et al., 2022) This approach can help patients access information on a regular basis and enable remote monitoring. However, the success of technological interventions depends heavily on patients' digital literacy, device availability, family support, and healthcare infrastructure. Therefore, the implementation of technology in stoma care must be tailored to the local context and cannot be assumed to be equally effective across all populations.

From a methodological perspective, the number of RCTs in this review remains limited, while the majority of studies employ quasi-experimental designs. RCTs have stronger internal validity, but quasi-experimental studies still provide important information regarding the implementation of interventions in real-world clinical settings. However, the predominance of non-randomized studies limits this review's ability to draw causal conclusions. In addition, the small sample sizes in some studies, variations in measurement tools, and differences in follow-up duration also limit comparisons across studies. These factors explain why the results of this review are presented

narratively and do not aim to draw quantitative conclusions regarding the magnitude of the intervention's effects.

In addition, not all studies show consistent results. A study by Merandy et al., (2020), for example, it reports that the multimodal educational intervention was deemed appropriate and acceptable, but did not show a significant improvement in self-efficacy and self-care. This finding is important because it shows that the feasibility of an intervention does not always correlate directly with changes in clinical or behavioral outcomes. Factors such as sample size, duration of the intervention, intensity of support, patient readiness, and quality of implementation likely play a role in determining the success of an intervention. As such, evaluations of nursing interventions should not only assess final outcomes but also consider the implementation process and patient engagement.

Overall, the findings of this review support the importance of nurses' role in facilitating patients' adaptation following radical cystectomy with urinary diversion. Interventions that combine education, skills training, psychosocial support, and ongoing follow-up appear to offer a more comprehensive approach than single interventions. But, because the heterogeneity of the studies and methodological limitations remain quite significant, caution is warranted when drawing conclusions about effectiveness. The currently available evidence supports the potential benefits of nursing-led interventions rather than providing certainty about which intervention model is most effective.

Implikasi For Practice

Stoma education, skills training, and nursing follow-up can be considered essential components of patient care following radical cystectomy with urinary diversion. Simple interventions such as structured education, stoma care demonstrations, booklets, educational videos, and follow-up via telephone or instant messaging apps have the potential to be feasible approaches, particularly in resource-limited settings. However, the implementation of these interventions must take into account patients' health literacy, family support, and the availability of competent nursing staff.

Implications for Policy

Strengthening stoma nursing services and standardizing patient education should be considered as part of postoperative care. In addition, integrating nursing follow-up has the potential to help prevent complications and reduce the need for follow-up visits. However, further research on cost-effectiveness and resource requirements is still needed.

Implications for Future Research

Future research should employ stronger study designs, particularly randomized controlled trials (RCTs) with adequate sample sizes and long-term follow-up. Standardization of intervention reporting and outcome measures is also necessary to ensure better comparability of results across studies. In addition, future research should evaluate the role of self-efficacy as a mediator in improving stoma self-care.

Limitations of the Study

The risks of selection bias and confounding factors cannot be ignored, as most of the included studies used quasi-experimental designs. Furthermore, quantitative synthesis was not conducted due to heterogeneity in the types of interventions, duration, and outcome measurement tools. Language and publication biases may also arise due to the limited availability of English-language articles and full-text publications.

CONCLUSION

In addition to lowering stoma-related problems in patients after radical cystectomy with urinary diversion, nursing-led interventions have the potential to improve stoma self-care, self-efficacy, and

quality of life. A more holistic approach seems to be offered by interventions that incorporate education, skill development, psychological support, and continuous follow-up. However, because of the preponderance of quasi-experimental methods and the diversity among research, the strength of the evidence is still limited. More research with better designs and long-term evaluations are required to support the current findings.

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REFERENCES

- Abdelsamie, M. A. (2025). Effect Of Nursing Rehabilitation Program On Self Efficacy For Patients Undergoing Ileal Conduit Urinary Diversion. *Revista Electronica De Veterinaria*, 26(1), 01–10. <https://doi.org/10.69980/redvet.v26i1.1560>
- Alwi, F., Chiu, Y., & Ginting, S. (2025). Self - Care Experiences of Patients Who Have Recently Undergone Colostomy: A Qualitative Study. *Nursing Open*, 12(5), e70193. <https://doi.org/10.1002/nop2.70193>
- Ding, J.-Y., Pan, T.-T., Lu, X.-J., You, X.-M., & Qi, J.-X. (2024). Effects of peer-led education on knowledge, attitudes, practices of stoma care, and quality of life in bladder cancer patients after permanent ostomy. *Frontiers in Medicine*, 11, 1431373. <https://doi.org/10.3389/fmed.2024.1431373>
- Fadl, N. M. A. E., Mohamed Mahmoud, D., & Abd El-Hay Shetaya, S. (2025). Effect of Nursing Intervention on Urinary Diversion Patients' Knowledge and Post-Surgical Self-Care. *Egyptian Journal of Health Care*, 16(4), 578–602. <https://doi.org/10.21608/ejhc.2025.468847>
- Fan, X., Li, H., Lai, L., Zhou, X., Ye, X., & Xiao, H. (2022). Impact of internet plus health education on urinary stoma caregivers in coping with care burden and stress in the era of COVID-19. *Frontiers in Psychology*, 13, 982634. <https://doi.org/10.3389/fpsyg.2022.982634>
- Ibrahim, D. A., AHMED, B. O., EL-FAYOUMY, H. M., & MAHMOUD, A. S. (2022). EFFECT OF NURSING INSTRUCTIONS ON SELF-EFFICACY AMONG PATIENTS WITH ILEAL CONDUIT. 65(12). <https://doi.org/DOI%252010.17605/OSF.IO/DVQ79>
- Jensen, B. T., Kiesbye, B., Soendergaard, I., Jensen, J. B., & Kristensen, S. A. (2020). Efficacy of preoperative uro-stoma education on self-efficacy after Radical Cystectomy; secondary outcome of a prospective randomized controlled trial. *European Journal of Oncology Nursing*, 28, 41–46. <https://doi.org/10.1016/j.ejon.2017.03.001>
- Lupo, R., Rubbi, I., Barletta, A., Mele, C., Lezzi, A., Triglia, C., Botrugno, I., Manca, D., Potì, O., Mottillo, G., Tondo, M., Carbotta, G., Mingolla, G. P., Marra, C., Tumolo, M. R., Sergi, D., De Nunzio, G., Cascio, D., Botti, S., ... Vitale, E. (2025). Quality of Life and Psychophysical Consequences in Individuals with Intestinal Stoma: An Observational Study. *International Journal of Environmental Research and Public Health*, 22(9), 1327. <https://doi.org/10.3390/ijerph22091327>
- Maqbool, A., Aziz, W., Iqbal, S., & Ather, M. H. (2025). Effectiveness of Video-Based Instructions on Urostomy Self-Care in Patients Undergoing Radical Cystectomy with Ileal Conduit Urinary Diversion. *Journal of the College of Physicians and Surgeons Pakistan*, 35(10), 1345–1349. <https://doi.org/10.29271/jcpsp.2025.10.1345>
- Merandy, K., Morgan, M., Lee, R., & Scherr, D. (2020). Improving Self-Efficacy and Self-Care in Adult Patients With a Urinary Diversion: A Pilot Study. *Oncology Nursing Forum*, 44(3), E90–E100. <https://doi.org/10.1188/17.ONF.E90-E100>
- Salwa A. Mohamed, & Fashafsheh, I. H. (2020). Effect of Educational Intervention and Telephone Follow-Up Program on Knowledge, Practice and Quality Of Life among Patients with Urinary Diversion: A Quasi-Experimental Study. *INTERNATIONAL JOURNAL OF NURSING*, 6(1). <https://doi.org/10.15640/ijn.v6n1a7>

- Sung, H., Ferlay, J., Siegel, R. L., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2021). Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA: A Cancer Journal for Clinicians*, 71(3), 209–249. <https://doi.org/10.3322/caac.21660>
- Tan, R., Wang, L., Xia, R., & Zheng, H. (2022). Use of an Application to Increase Self-Care Ability, Improve Quality of Life, and Decrease Stoma Complications in Patients With Ileocystoplasty or Ureterostomy Due to Bladder Cancer. *Wound Management & Prevention*, 68(11), 26–31.
- Witjes, J. A., Max Bruins, H., Carrión, A., Cathomas, R., Compérat, E., Efstathiou, J. A., Fietkau, R., Gakis, G., Lorch, A., Martini, A., Mertens, L. S., Meijer, R. P., Milowsky, M. I., Neuzillet, Y., Panebianco, V., Redlef, J., Rink, M., Rouanne, M., Thalmann, G. N., ... Van Der Heijden, A. G. (2024). European Association of Urology Guidelines on Muscle-invasive and Metastatic Bladder Cancer: Summary of the 2023 Guidelines. *European Urology*, 85(1), 17–31. <https://doi.org/10.1016/j.eururo.2023.08.016>
- Zganjar, A., Glavin, K., Mann, K., Dahlgren, A., Thompson, J., Wulff-Burchfield, E., Winright, S., Heim, A., Wyre, H., Lee, E., Taylor, J., Holzbeierlein, J., & Mirza, M. (2022). Intensive preoperative ostomy education for the radical cystectomy patient. *Urologic Oncology: Seminars and Original Investigations*, 40(11), 481–486. <https://doi.org/10.1016/j.urolonc.2021.04.025>
- Zhou, H., Ye, Y., Qu, H., Zhou, H., Gu, S., & Wang, T. (2021). Effect of Ostomy Care Team Intervention on Patients With Ileal Conduit. *Journal of Wound, Ostomy & Continence Nursing*, 46(5), 413–417. <https://doi.org/10.1097/WON.0000000000000574>
- Zhou, J., An, X., Chen, X., & Ding, D. (2025). Effects of continuous nursing on gastrointestinal function with ileal cystostomy. *Frontiers in Surgery*, 12, 1531454. <https://doi.org/10.3389/fsurg.2025.1531454>
- Zou, H., Zhang, L., Qin, Y., Li, P., Zhang, L., & Yang, K. (2022). Influences of Heider Balance on Knowledge, Attitude, Practice, and Quality of Life in Bladder Cancer Patients after Urinary Diversion. *Journal of Healthcare Engineering*, 2022, 1–8. <https://doi.org/10.1155/2022/5635971>

