

INPLASY PROTOCOL

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Conflicts of interest:
None declared.

INTRODUCTION

Review question / Objective: To investigate whether continuous care can reduce the risk of complications in patients with enterostomy, improve the quality of life of patients, and provide guidance on the choice of nursing model for patients with enterostomy.

Continuous nursing reduces the risk of complications in patients with enterostomy: a systematic review and meta-analysis

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Review question / Objective: To investigate whether continuous care can reduce the risk of complications in patients with enterostomy, improve the quality of life of patients, and provide guidance on the choice of nursing model for patients with enterostomy.

Eligibility criteria: Studies included in this meta-analysis must meet the following criteria: (1) **Subjects:** patients with enterostomy. (2) **Outcome indicators:** including the number of enterostomy-related complications and quantitative data of various scales. (3) The language was limited to English.

Information sources: PubMed, Embase, Web of Science and Cochrane Library.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 May 2022 and was last updated on 19 May 2022 (registration number INPLASY202250120).

Condition being studied: Colorectal cancer has become the third most common cancer worldwide and ranks second in cancer-induced mortality. It is worth noting that patients are prone to various common complications after stoma surgery, including early complications such as skin and mucous membrane separation around the stoma, stoma retraction and stoma

necrosis, as well as late complications such as stoma stenosis, prolapse of the stoma canal, and parastomal hernia. The incidence of these common complications ranges from 21% to 70%, and patients are required to invest a lot of extra energy and expenses for management, which further increases the physical, psychological and social burden of patients, and seriously affects the postoperative quality of life of patients with enterostomy. Research pointed out that the occurrence of related complications is usually due to the interruption of professional medical care services after discharge of enterostomy patients, and the lack of professional guidance and technical support related to stoma care for discharged patients and their caregivers, resulting in poor stoma care and ineffective prevention of the occurrence of complications. Continuous nursing is the further extension of inpatient care, mainly emphasizing that efficient nursing activities in medical institutions should be transferred to families or communities after patients are discharged, and medical staff usually use a variety of forms such as telephone follow-up, family visits, outpatient follow-up and the Internet to meet the diverse needs of discharged patients, to ensure that patients receive uninterrupted professional guidance and care services. In recent years, in order to solve problems such as the weakness in community stoma specialist nursing level and the lack of knowledge and skills of stoma nursing for home patients and their caregivers, some scholars have successively carried out research on continuous nursing in patients with permanent enterostomy, and proposed continued and efficient nursing guidance for discharged patients, which appears to be effective in improving stoma quality and reducing stoma-related complications. However, there is still a lack of relevant evidence-based evidence for this conclusion.

METHODS

Search strategy: (((((((Holistic Nursing[mesh]) OR (continuous nursing care[Title/Abstract])) OR (continuous

care[Title/Abstract])) OR (holistic care[Title/Abstract])) OR (Continuity of nursing[Title/Abstract])) OR (Continuity of care[Title/Abstract])) OR (continuous nursing[Title/Abstract])) OR (continuing care[Title/Abstract])) OR (continuing nursing[Title/Abstract]) AND (((Enterostomy[mesh]) OR (Enterostomies[Title/Abstract])) OR (Colostomy[Title/Abstract])) OR (Rectostomy[Title/Abstract])).

Participant or population: Patients with enterostomy.

Intervention: Continuous nursing.

Comparator: Routine care.

Study designs to be included: Randomized controlled studies and observational studies (cohort studies, case-control studies, and cross-sectional surveys).

Eligibility criteria: Studies included in this meta-analysis must meet the following criteria: (1) Subjects: patients with enterostomy. (2) Outcome indicators: including the number of enterostomy-related complications and quantitative data of various scales. (3) The language was limited to English.

Information sources: PubMed, Embase, Web of Science and Cochrane Library.

Main outcome(s): The primary outcomes of this meta-analysis were the common complications after discharge in patients with permanent enterostomy.

Additional outcome(s): This meta-analysis included changes in depression, anxiety, stoma care self-efficacy, self-care ability, stoma adaptation, and quality of life in patients with permanent enterostomy at different follow-up periods as secondary outcomes.

Data management: Data extraction was performed independently by two researchers using pre-defined spreadsheets. The following data were extracted and recorded: title, name of the first author, publication year and country

and province, study design type, disease type, type of surgery, follow-up time and outcome indicators, intervention methods of experimental and control groups, number of participants, age and gender (male/female).

Quality assessment / Risk of bias analysis:

Two authors assessed the risk of bias of randomized controlled studies according to the risk of bias assessment tool provided by the Cochrane Reviewer's Handbook. The Cochrane risk of bias assessment tool mainly evaluates the risk of bias from six aspects including selection, implementation, measurement, follow-up, reporting and other bias. Each item was judged as "low risk of bias", "high risk of bias" and "unclear" according to the risk of bias assessment criteria. Eligible cohort studies and case-control studies were assessed for literature quality according to the Newcastle-Ottawa Scale (NOS), including eight items divided into three dimensions of selection (four items), comparability (one item) and exposure (three items). The quality score of NOS is between 0 and 9, with studies with a score of 7 and above rated as high-quality research and a score of 5 and below as low-quality research.

Strategy of data synthesis: The software Stata 15.0 was adopted used for data analysis, and relative risk (RR) was used to evaluate the overall effect for dichotomous data. Standardized mean difference (SMD) was used for continuous data when dimensional differences existed, otherwise weighted mean difference (MD) was used as the effect analysis statistic. The corresponding 95% confidence interval (CI) of each effect size was provided, and an overall effect P value of <0.05 was considered statistically significant. The I² statistic of Cochrane was adopted to evaluate heterogeneity, and P50% was considered statistically significant heterogeneity. A random-effect model was used for the combined effect size when heterogeneity existed, otherwise a fixed-effect model was employed. Sensitivity analysis was used to explore the stability of meta-analysis results. Meta-analysis was

conducted on the remaining studies under the background of one-by-one exclusion of included studies. If there was no significant change in the results, the meta-analysis results had good stability. Publication bias was evaluated by funnel plot and quantitative identification of Egger's test, with P<0.05 considered to have significant bias.

Subgroup analysis: If high heterogeneity and data permits, we will conduct subgroup analysis to determine the source of heterogeneity.

Sensitivity analysis: Sensitivity analysis was further conducted for the results with high heterogeneity, and the studies with great influence on heterogeneity were excluded, which will be performed by excluding tests one by one and observing whether there is a significant change in the synthesis results.

Language: English.

Country(ies) involved: China-Author country.

Keywords: Continuous nursing; Enterostomy; Complications; Quality of life; Meta-analysis.

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