Should WOC nurses measure health-related quality of life in patients undergoing intestinal ostomy surgery?

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CRD summary
This review concluded both that intestinal ostomy surgery had a clinically impact on health-related quality of life and that nursing interventions can ameliorate this effect. Several methodological limitations and the limited quantity and uncertain quality of the retrieved evidence undermine the reliability of these conclusions.

Authors' objectives
This review had three objectives:

1. To determine the influence of intestinal ostomy surgery on health-related quality of life (HRQoL).
2. To determine the influence of nursing interventions on HRQoL among people living with an intestinal ostomy.
3. To evaluate the validity and reliability of condition-specific instruments for measuring HRQoL in people living with an intestinal ostomy.

Searching
MEDLINE and CINAHL databases were searched for relevant English-language studies published between January 1980 and January 2009. The search dates for objective 3 were limited to between January 1998 and January 2009. Search terms were reported. Bibliographies of retrieved studies and relevant review articles were searched.

Study selection
Objective 1: Studies were eligible if they had a robust sample size and used at least one validated HRQoL measure.

Objective 2: Randomised controlled trials (RCTs) that evaluated one or more nursing interventions in terms of HRQoL in people living with an ostomy were eligible for inclusion.

Objective 3: Studies that evaluated validity and reliability of ostomy-specific instruments for measuring HRQoL in people who lived with an intestinal ostomy were eligible for inclusion.

Four different ostomy-specific HRQoL measurement instruments were identified in the selected papers. These varied in terms of sources of item generation, theoretical basis and form of administration. Two different nursing interventions were identified: progressive muscle relaxation training; and early post-discharge visit followed by monthly visits for six months.

The authors stated neither how the papers were selected for the review nor how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors stated neither how data were extracted for the review nor how many reviewers performed data extraction.

Methods of synthesis
Studies were combined in a narrative synthesis according to the objective being assessed.

Results of the review
Influence of intestinal ostomy surgery on HRQoL: Four different cross-sectional studies (n unclear) and three longitudinal studies (n=5,037) were included in this part of the review.

These studies suggested that intestinal stoma surgery impaired HRQoL. Impairment was most severe during the immediate postoperative period; it improved most dramatically during the third postoperative month and continued to improve gradually during the first postoperative year. Magnitude of HRQoL impairment was influenced by several factors, including reason for ostomy, ostomy complications, comorbid conditions, sexual function, age and ability to pay for ostomy supplies.

Influence of nursing interventions on HRQoL among people living with an intestinal ostomy: Two RCTs (n=109) were included in this part of the review.

Relative to standard care, both nursing interventions led to increases in HRQoL. For early post-discharge visit followed by monthly visits, higher HRQoL scores at three months were reported for all SF-36 domains except social functioning and general health perception. At six months, HRQoL scores were significantly higher than controls on all SF-36 domains. Relative to standard care, patients who received progressive muscle relaxation training achieved statistically significant improvements in scores that related to physical health, psychological health, social concerns and environment.

Validity and reliability of condition-specific instruments for measuring HRQoL in people living with an intestinal ostomy: Three of the four included studies provided evidence of validity and reliability for different instruments in measurement of HRQoL in people who lived with an intestinal ostomy. The fourth study appeared to measure the construct of ostomy function rather than HRQoL.

Authors' conclusions
There was sufficient evidence to suggest that intestinal ostomy surgery had a clinically impact on HRQoL and that nursing interventions can ameliorate the effect. A number of HRQoL measures were proven as valid and reliable in the research setting, but had not been adapted for use in the clinical setting.

CRD commentary
A review question was only partially defined for each of the research objectives; for the review of nursing interventions this was broadly defined in terms of the participants, interventions, outcomes and study designs of interest. Multiple sources were used to identify relevant evidence. Limitation to English-language studies meant that potentially relevant studies may have been missed. The authors did not examine the quality of included studies and did not report any attempts to minimise errors and bias during conduct of the review. Given apparent diversity of included studies, use of a narrative synthesis may have been appropriate, but the inconsistent reporting of study details makes this difficult to assess. These methodological limitations, plus the limited quantity and uncertain quality of the retrieved evidence, undermine the reliability of the specific conclusions of the review.

Implications of the review for practice and research
The authors did not state any implications for practice or research.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.