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A theoretical framework to guide a study of patients' bowel symptoms and self-care strategies following sphincter-saving surgery for rectal cancer

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Abstract

A paucity of research is available on patients' bowel symptom experiences and self-care strategies following sphincter-saving surgery for rectal cancer. Most research undertaken to date on patients' bowel symptoms following surgery for rectal cancer has been largely atheoretical. The purpose of this paper is to describe the process of choosing a theoretical framework to guide a study of patients' bowel symptoms and self-care strategies following sphincter-saving surgery for rectal cancer. As a result of a thorough literature review, we determined that the Symptom Management Theory provided the most comprehensive framework to guide our research.

Key Words: Theoretical framework, bowel symptoms, symptom management, self-care strategies.

Landers and her colleagues provide insight into how they selected a theoretical framework for their research into symptom experience and symptom management among individuals who had sphincter-saving surgery for rectal cancer. Their choice was not an easy one since there is an abundance of literature on symptom experience and symptom management – two highly relevant concepts in nursing practice. The authors give a succinct overview of four theoretical frameworks, identified as models or theories, for potential application in their research. The frameworks reveal commonalities and distinctions in how nursing and other disciplines conceptualize symptom experience and management.

The authors conclude by identifying their preferred theory for its role in guiding their work across all phases of the research process. The relevance of the theory for developing practice applications was also an important consideration. Overall, their article demonstrates how concepts come to life in the context of theoretical frameworks, and enrich practice-based research.

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Introduction

This paper demonstrates how the Symptom Management Theory (Humphreys et al., 2008) was selected to guide a study of patients' experiences of bowel symptoms and self-care strategies following sphincter-saving surgery for rectal cancer. A review of current literature showed that earlier diagnosis of rectal cancer allows for more effective and less invasive surgical treatments such as sphincter-saving procedures to be performed. Since a permanent stoma is generally not required, patients experience bowel symptoms that may be

embarrassing to them following this surgery (Landers, McCarthy & Savage, 2012). However, a paucity of research is available on patients' bowel symptom experiences and self-care strategies following sphincter-saving surgery for rectal cancer. Most research undertaken to date on patients' bowel symptoms following surgery for rectal cancer has been largely atheoretical.

Theoretical literature on symptom experience and symptom management

In order to connect the research problem of interest to a theoretical framework, it was important to review theoretical underpinnings of symptom experience and symptom management. A number of frameworks have been developed in the disciplines of nursing and psychology over the last two decades focusing on symptom experience (Dodd et al., 2001; Humphreys et al., 2008; *Larson et al, 1994*; Leventhal, Meyer, & Nerenz, 1980; Teel, Meek, McNamara, & Watson, 1997) and symptom management (Dodd et al., 2001; Humphreys et al., 2008; *Larson et al., 1994*, Lenz & Pugh, 2008). [And also remove Larson here since they aren't the authors of the model?] While there is some overlap of content among these theoretical frameworks, there were differences in concepts describing symptom experience and symptom management.

In the last four decades, a great deal of focus has been placed on the Common-sense Model of Self-regulation by Leventhal et al. (2001) in the belief that this would provide an explanatory model of health behaviour. The model in general addresses symptom experience through its focus on perception (Posey, 2006). [Am I correct about this?] While the model originated in health psychology, its development was also influenced by the tenets of cognitive psychology. It was introduced to provide a framework for describing health-related behaviours by combining social and contextual factors with an individual's cognitive and emotional responses (Leventhal et al., 1980). The central aim of the model was to describe how lay people make sense of and respond to threats to their health. Therefore, it offers an

explanation for the processes involved in responding to an illness threat. Experiencing the symptom and the perception of fear and threat associated with the symptom are considered determining factors in initiating the self-regulation process. The process of self-regulation refers to the procedures adopted to avoid or control the changes associated with an illness threat (Leventhal et al., 2001).

Closely aligned with the Common-sense Model of Self-regulation is the Symptom Interpretation Model (Teel et al. (1997), which addresses symptom experience and symptom management. Teel et al. (1997) sought to develop a nursing theoretical model that would determine how an individual interprets a symptom. In particular, they wanted to gain insight into how patients make comparisons between their current symptoms and past episodes of the symptoms. These questions led to the development of the Symptom Interpretation Model to provide a nursing framework for understanding symptom interpretation from the perspective of the individual patient. (Teel et al., 1997). The model was derived from three theoretical sources: (1) Leventhal et al.'s (1980) Common-sense Self-regulation model; (2) Barsalou's (1989) theory of knowledge structures; and (3) Tverskey and Kahneman's (1982, 1983) propositions about reasoning. Aspects of this model expand on the Leventhal et al. (2001) model by addressing the reasoning that leads to outcome decisions in response to finding a symptom.

Teel et al. (1997) posit that the process of symptom interpretation is multidimensional and encompasses three elements: conceptual identification, the use of knowledge structure, and reasoning. An individual experiences, receives, and recognises a stimulus from a symptom (conceptual identification), tries to make sense of the symptom (use of one's knowledge structure) and then makes a decision (reasoning) about managing the symptom. Symptom experience or living with a symptom conveys experiential knowledge, which

enables the person to give meaning to their symptom and to take action. The Symptom Interpretation Model (Teel et al., 1997) expanded on the tenets presented in Leventhal's model by addressing the reasoning that leads to decisions taken in response to finding a symptom.

The Theory of Unpleasant Symptoms (TOUS) is a mid-range theory developed by nurse researchers interested in patients' experiences of symptom(s) (Lenz & Pugh, 2008; Lenz, Pugh, Milligan, Gift, & Suppe, 1997). The authors assert that a symptom can occur in isolation or lead on to another symptom. In this regard, they highlight the synchronic presence of a number of symptoms in illness presentation. The TOUS includes the following three interrelated concepts: the symptoms, influencing factors and performance outcomes that influence the tendency to develop the symptom, the manifestations of the symptom experience. The symptom experience impacts cognitive, physical and social functioning. In reference to symptom management, Lenz et al (1997) suggest that in some instances, similar therapeutic interventions may be effective in managing more than one symptom concurrently.

However, one mid-range theory, the Symptom Management Theory (SMT) developed by nurse researchers at the Center for Symptom Management Faculty of the University of California San Francisco (Larson et al., 1994; Dodd et al., 2001; Humphreys et al., 2008) rose to the top in our review of the theoretical literature for our research. The SMT proposes a directional link between the components of symptom experience (symptom perception, symptom evaluation, and response to symptoms) and the components of symptom management strategies (e.g. self-care strategies) used to manage symptoms. Therefore, its potential ability to provide for an exploration of the self-care strategies used by patients and the relationship between these strategies and the components of symptom experience was

advantageous for our study of patients' experiences of bowel symptom and self-care strategies following sphincter-saving surgery for rectal cancer.

The Symptom Management Theory (Humphreys et al., 2008) guided the research process in several ways. It provided a framework to critique and synthesise the literature relating to bowel symptom experience and self-care strategies across a number of chronic bowel conditions including rectal cancer. The components of the theory (symptom perception, symptom evaluation and response to symptoms) provided a focus for research questions and research hypotheses. Specifically, the theory allowed us to address primary research questions about describing the patients' experiences of bowel symptoms and self-care strategies following sphincter-saving surgery for rectal cancer. Since the theory includes the dimensions of symptom experience and self-care strategies, it also guided development of research hypotheses regarding the relationship between patients' experiences of bowel symptoms and self-care strategies following surgery. The theory components also provided a structure for presenting and discussing the study findings. Last, the theory could be used as the basis for developing research instruments. Thus, the theory offers a systematic and comprehensive structure to guide several stages of the research process.

In summary, the conceptual and theoretical literature reviewed here addressed how patients make comparisons between their current symptoms and past experiences of their symptoms. Two conceptual models found in the literature review have their roots in psychology**:** The Common-sense Model of Self-regulation (Leventhal et al., 1980, 2001), which provides a useful framework to gain an understanding into how individuals respond to the threat of experiencing a symptom; and the Symptom Interpretation Model (Teel et al., 1997), which provides insights into how patients make decisions based on comparisons between their current symptom and past experiences of it. A third theory with roots in the

patient-centered perspective of nursing is the Theory of Unpleasant Symptoms (Lenz & Pugh, 2008), which focused on the synchronic presence of a number of symptoms in illness presentation.

The theory of choice, the Symptom Management Theory developed by Humphreys et al. (2008), provided the most comprehensive framework to guide the current study. This nursing theory addresses phenomena of relevance to the study by allowing the researcher to focus on the dimensions of symptom experience and its components (symptom perception, symptom evaluation, and symptom response) along with the self-care strategies used by patients for managing bowel symptoms following sphincter-saving surgery for rectal cancer. A better theoretical understanding of patients' symptom experiences and their use of self-care strategies, then, has relevance not only for research but ultimately for improving nursing practice.

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