Adult surgical patients and the information provided to them by nurses: A literature review

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Abstract

Objective: A literature review was conducted to explore what is already known of surgical patients' informational needs, their opinions about the provision of information and the effect of individualised information.

Methods: Computerised searches from 1994 to March 2004 were conducted on MEDLINE, the Cochrane Database of Systematic Reviews and the Cochrane Central Register of Controlled Trials using the keywords information, surgical patient adult and nursing.

Results: Findings about the provision of information and important areas for surgical patients vary from study to study. Surgical patients have specific informational needs during the peri-operative period. However, some studies showed that the patients were not given the information that they need. This is a concern because patients have to take care of themselves after discharge. Individually tailored learning and teaching strategies are needed for patients to ensure the quality and usefulness of information for patients post-discharge.

Conclusions: The results of this review confirm that information, which is tailored to individual patient needs, has an important role for surgical patients. At present there is a poor understanding of the processes that describe the detailed experiences of surgical patients in clinical care and the possibilities of empowerment through learning.

Practice implications: As surgical patients differ individually in their learning needs and benefit from different content and quantity of information, more emphasis should be put into evaluating and assessing these individual needs.

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Keywords: Information; Surgical patient; Adult; Nursing

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1. Introduction

A decreased length of hospital stay [1,2] for surgical patients reduces the time available for giving patient information [3]. Because of this, there is an increased need for detailed information to enable patients to effectively manage their care at home [4]. To facilitate this it is important that patients are encouraged to participate in their care prior to discharge [5]. A prerequisite for patient participation [6] is information and patient learning.

Although there is a good deal of research about information provision in hospitalised patients for example Lancaster [7], Moore [8], Henderson and Zernike [9] there is little research regarding adult surgical patients’ informational needs, the information they receive and the content of the information. Research has identified many issues related to information that is not considered important by nursing personnel, but is important to patients [10,11]. To reduce this gap there is need for research-based guidelines, which prioritise the most suitable learning content for surgical patients from their own point of view.

The production of guidelines involves conducting critical, integrative literature reviews. These reviews analyse the existing research on a particular topic, focusing particularly on weaknesses or inconsistencies in the findings [12]. The strength of an individual review is its ability to point out areas where the existing knowledge about a topic is untrustworthy, to find gaps in our understanding and to define further research questions.

An integrative literature review was conducted which explored what is already known of surgical patients’ informational needs, their opinions of the provision of information and the effects of the information on the individuals. The goal of this review was to draw out gaps in existing knowledge and identify areas of future research. The following questions were asked to provide a basis on which further research could be built [12].

- What methods have been used to study surgical patients’ views on information dissemination?
- What informational needs do surgical patients have?
- How do surgical patients perceive the provision of information?
- What factors are related to surgical patients’ informational needs and the information they receive?
- What are the best methods and optimal timing for provision to surgical patients?

- What learning and teaching, strategies and methods, do surgical patients prefer?
- What are the effects of learning on surgical patients?

2. Methods

2.1. Literature search strategies

An integrative review of the empirical research literature published over the past 10 years, 1994 to March 2004, in the MEDLINE database (Silver Platter, in the 22 March 2004) was conducted. This database was chosen because it is the most comprehensive database used by health care professionals [13]. It also covers all areas of health care [14]. In addition, the Cochrane database, including the Cochrane Central Register of Controlled Trials and the Cochrane Database for Systematic Reviews, was searched. Keywords used were information, surgical, patient, adult and nursing. The special focus was on nursing. Although not a systematic review, the Cochrane Reviewers’ Handbook [14] was used as a guideline for the search strategy and selection criteria for inclusion of articles in the review.

2.2. Data

The search protocol produced 141 citations from MEDLINE. All citations were analysed in a three-stage review. The inclusion criteria for the papers were as follows: each paper must (1) be published in the English language (2) be pertinent to the topic, that is surgical patients’ and information (3) have patients as informants and (4) be written as an empirical report.

First the titles and abstracts were examined to find gaps in our understanding and to define further research questions. The systematic review [15] did not focus on surgical patients but patients’ informational needs it was still used in the review. In the second stage the full paper copies of the 64 articles were reviewed against the inclusion criteria yielded 51 empirical study papers on the topic. In addition a manual examination of the references and bibliographies of the 51 articles yielded an additional eight studies including two reviews [7,8]. The Cochrane database yielded four additional clinical trials and one systematic review. Although the systematic review [15] did not focus on surgical patients but patients’ informational needs it was still used in the review. In the second stage the full paper copies of the 64 articles were reviewed against the inclusion criteria mentioned above. In this phase a total of six articles were excluded. In the third stage the articles were examined and classified according to the review questions listed earlier.
authors reviewed the articles. This method was chosen to improve the reliability of the conclusions of this descriptive review. The following information was derived from each of the papers in the review and was located in one table: study methods (design, study type, data collection method, sample size), lists of informational needs of patients, their perception of the information received, the patients’ informational needs related to the information they receive, procedures and timing of information giving, the teaching and learning methods and strategies that patients prefer and the changes in their experience after learning.

3. Results

3.1. The methods used in studying surgical patients’ views on information dissemination

About two-third (61%, n = 58) of the studies were quantitative, about one-third (31%) were qualitative with two studies (3%) combining both paradigms. The remaining three studies (5%) were reviews. The majority of the studies were descriptive (63%). A total of 10 studies (17%) were randomised controlled or controlled clinical trials and three studies (5%) were prospective cohort studies including before/after studies. The rest were correlational (12%) or quasi-experimental (3%).

Questionnaire surveys (45%) or interviews, including one focus group interview, (33%) were the main methods for collecting data. Only one study was conducted by observation and two studies used physical parameters. Methodological triangulation was also used. In four of the studies (7%), the investigators had combined two methods, usually an interview and a questionnaire. In the other a combination of three methods were used.

The questionnaires reviewed were mainly created for the individual study in which they were used. Others used known instruments viz., a Cardiac Surgical Patient Teaching Satisfaction Inventory [16], a Patient Learning Needs Scale by Bubela [3] and a Preoperative Anaesthesia Patient Teaching Questionnaire [17]. These instruments target special patient groups some of which were used to gather information on patient satisfaction [18]. The sample size of the studies reviewed ranged from six participants to 65,000. Some studies were carried out in pre-admission clinics and others in hospital. Table 1 summarises the articles analysed and methods used.

3.2. The informational needs of surgical patients

The studies showed that it is important that information meets the needs of surgical patients and is given in accordance with their individual coping styles [11,52]. Differences between the views of nursing personnel and patients’ perceptions about the importance of informational needs were identified. For example, patients ranked situational information, explaining activities and events, as the most important information content, whereas nurses ranked psychosocial support [10] as the most important. Patients were found to value the opportunity to raise questions of medical concerns and hospital procedures such as the treatment itself [29,56], outcomes, consequences, risk factors [29,34,56], anaesthesia [32] and complications [3,29,42].

Bernier et al. [21] found five important dimensions of pre-operative information. These are situational/procedural, sensation/discomfort, patient role, psychosocial support and skills training. Other studies have revealed more areas that are important to surgical patients. These are outlined in Table 2. However, the needs identified by patients were found to be stable over time [49].

3.3. Patients’ perception of the provision of information

Findings about the provision of information in important areas for surgical patients are inconsistent. Some studies identify unmet patient informational needs [19,24,27,48]. In others patients needed more or different information, or should have been encouraged to ask more questions about unclear issues [48]. Although the importance of health education, for example, in acute patient care was acknowledged, the degree to which health education featured in nurses’ practice has been found to be minimal [64].

Patient relationships with nursing personnel appeared to be the major determinant of patient satisfaction with the amount of information [63]. Missed opportunities for giving information have been explained by staff being too busy, the associated lack of time [64], minimal nurse contacts and the lack of individualised information and care [37]. When problems are identified and an overall assessment of patients’ needs made, relevant information can be provided [22].

In some studies surgical patients were satisfied with the information about their operation, its possible complications, and the results of surgical procedures and techniques [26,33,35]. Patients have also been found to be well informed about pain management [46]. However, there were conflicting findings. It was found there was a lack of information given about the operation, recuperation and minor treatment options [37], and a lack of information about the drawbacks of anaesthesia and alternative forms of treatment [43], pain [24], wound care [46] and side-effects after surgery [56]. Conversely, it has been reported that health care professionals must be careful not to increase pre-operative anxiety by inappropriate information [32].

Cortis and Lacey [26] found that the patients were less satisfied with information about non-technical aspects of care and administrative procedures and Lam et al. [46] found that less than one in three patients had received information from health professionals about wound care. The information that was received was not consistent. In addition, there was no evidence that patients who believed they were well
Table 1

<table>
<thead>
<tr>
<th>Author(s) and year</th>
<th>Country</th>
<th>Participants</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker and Lyne [19]</td>
<td>UK</td>
<td>Patients before a surgical admission</td>
<td>Interview</td>
</tr>
<tr>
<td>Barnason and Zimmerman [16]</td>
<td>USA</td>
<td>90 patients who had undergone coronary artery bypass graft surgery</td>
<td>Controlled clinical trial, 3 different teaching approaches (an inpatient teaching program, a post-discharge telephone follow-up program, and a post-discharge group teaching program) Questionnaires (Heart Disease Management Questionnaire, Cardiac Surgical Patient Teaching Satisfaction Inventory)</td>
</tr>
<tr>
<td>Barthelson et al. [20]</td>
<td>Sweden</td>
<td>10 woman and 10 men undergoing day surgery for laparoscopic cholecystectomy</td>
<td>Interview, analysed using qualitative analysis</td>
</tr>
<tr>
<td>Bernier et al. [21]</td>
<td>USA</td>
<td>A convenience sample of 116 same day surgery patients</td>
<td>Interview, including five dimensions of pre-operative information, including situational/procedural information, sensation/discomfort information, patient role information, psychosocial support, and skills training</td>
</tr>
<tr>
<td>Broughton et al. [22]</td>
<td>UK</td>
<td>100 patients at their first follow-up visit after surgery for large bowel cancer</td>
<td>Descriptive replication study</td>
</tr>
<tr>
<td>Brumfield et al. [10]</td>
<td>USA</td>
<td>30 ambulatory surgery patients</td>
<td>Randomised controlled trial; Patients in the experimental group received additional instruction information pre-operatively and the control group received the routine pre-operative information. Numerical pain scale</td>
</tr>
<tr>
<td>Campbell et al. [23]</td>
<td>UK</td>
<td>30 male and 31 female undergoing elective surgery</td>
<td>Telephone interview at 1 and 6 weeks after hospitalisation. One open-ended question Thematic extraction analysis</td>
</tr>
<tr>
<td>Carr and Thomas [24]</td>
<td>UK</td>
<td>10 patients on the surgical ward</td>
<td>Qualitative, in-depth interview</td>
</tr>
<tr>
<td>Clode-Baker et al. [25]</td>
<td>UK</td>
<td>78 patients before total hip replacement surgery</td>
<td>The randomised controlled trial evaluated a pre-admission and post-admission interventions comprising a video, booklet and plastic models for patients Questionnaires</td>
</tr>
<tr>
<td>Cortis and Lacey [26]</td>
<td>UK</td>
<td>1500 discharged acute care patients</td>
<td>A descriptive year-long survey to monitor the quality of information-giving in acute hospital care Questionnaires</td>
</tr>
<tr>
<td>Doering et al. [27]</td>
<td>USA</td>
<td>Consecutive 89 cardiac surgery patients</td>
<td>Telephone interview at 1 and 6 weeks after hospitalisation. One open-ended question Thematic extraction analysis</td>
</tr>
<tr>
<td>Fagermoen and Hamilton [28]</td>
<td>Norway</td>
<td>Patients preparing for transurethral surgery</td>
<td>Quasi-experimental design; action research</td>
</tr>
<tr>
<td>Galloway and Graydon [29]</td>
<td>Canada</td>
<td>40 patients after a colon resection for cancer</td>
<td>Descriptive, interview</td>
</tr>
<tr>
<td>Gammon and Mulholland [30]</td>
<td>UK</td>
<td>82 patients scheduled for elective total hip replacements (THR)</td>
<td>Quasi-experimental, controlled clinical trial Written and verbal, procedural, sensory and coping information relating to the surgical procedure of a THR vs. advice and support that would routinely be given to THR patients by ward, medical and nursing staff Questionnaires</td>
</tr>
<tr>
<td>Gammon and Mulholland [31]</td>
<td>UK</td>
<td>82 patients scheduled for elective total hip replacements (THR)</td>
<td>Controlled clinical trial, a quasi-experimental design within an ethnographic clinical context Questionnaires</td>
</tr>
<tr>
<td>Gilles and Baldwin [32]</td>
<td>UK</td>
<td>103 days case patients before surgery</td>
<td>Survey, questionnaires</td>
</tr>
<tr>
<td>Gilmartin [33]</td>
<td>UK</td>
<td>30 patients undergoing day surgery</td>
<td>A hermeneutic phenomenological research Interview, thematic analysis (Colaizzi and van Manen) Questionnaires, telephone interviews, risk factor measurements</td>
</tr>
<tr>
<td>Goodman [34]</td>
<td>UK</td>
<td>42 patients waiting for cardiac surgery followed up for 3 months</td>
<td>Structured interview with questionnaire</td>
</tr>
<tr>
<td>Hart [35]</td>
<td>Israel</td>
<td>Patients in two surgical departments</td>
<td>Interview prior to surgery, before discharge and 8 months after surgery using a follow-up questionnaire Evaluation study, questionnaire 24 h prior to discharge and a telephone interview 1–2 weeks after</td>
</tr>
<tr>
<td>Hassling [36]</td>
<td>Sweden</td>
<td>19 patients undergoing heart surgery age 35–74</td>
<td></td>
</tr>
<tr>
<td>Henderson and Zernike [9]</td>
<td>Australia</td>
<td>158 adult surgical patients discharging from hospital</td>
<td>Qualitative, descriptive, semi-structured interview Interviews, content analytic techniques</td>
</tr>
<tr>
<td>Hogan [37]</td>
<td>Australia</td>
<td>A convenience sample of six surgical patients</td>
<td></td>
</tr>
<tr>
<td>Holmes and Lenz [38]</td>
<td>USA</td>
<td>15 elective spinal surgical patients</td>
<td></td>
</tr>
<tr>
<td>Author(s) and year</td>
<td>Country</td>
<td>Participants</td>
<td>Method</td>
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<tr>
<td>Houston et al. [39]</td>
<td>USA</td>
<td>89 patients undergoing heart catheterization</td>
<td>A two-group pre-test/post-test design, random assignment to two different preparatory nursing interventions. Questionnaire</td>
</tr>
<tr>
<td>Hughes et al. [40]</td>
<td>USA</td>
<td>148 patients surgically treated cancer patients</td>
<td>Randomized clinical trial, content analysis of 3,280 statements of teaching interventions</td>
</tr>
<tr>
<td>Jacobs [3]</td>
<td>Canada</td>
<td>45 patients who were recently discharged following short-term surgical procedures</td>
<td>Descriptive, questionnaire (Patient Learning Needs Scale (PLNS), statistical analysis</td>
</tr>
<tr>
<td>Jaipaul and Rosenthal [41]</td>
<td>USA</td>
<td>64,900 medical and surgical patients, mean age 61 years, 56 % female, 84 % white</td>
<td>Cross-sectional survey; ratings of hospital quality and satisfaction with five aspects of care</td>
</tr>
<tr>
<td>Johansson et al. [42]</td>
<td>Finland</td>
<td>212 total hip arthroplasty patients prior hospital discharge and 1442 weeks after discharge</td>
<td>Questionnaires, pre-and post-test, statistical analysis</td>
</tr>
<tr>
<td>Kanerva et al. [43]</td>
<td>Finland</td>
<td>107 short-stay and 1-day surgery patients</td>
<td>Survey, structured questionnaire, statistical analysis</td>
</tr>
<tr>
<td>Kim et al. [44]</td>
<td>Korea</td>
<td>43 cardiac surgery patients</td>
<td>A quasi-experimental 2-group design. Subjects in the control group (n = 22) received the usual information; Subjects in the experimental group (n = 21) received concrete objective information in addition to the usual information</td>
</tr>
<tr>
<td>King and Macmillan [45]</td>
<td>UK</td>
<td>326 elderly patients discharged from acute medical and surgical wards of a large teaching hospital</td>
<td>Descriptive, interview</td>
</tr>
<tr>
<td>Krenzischek et al. [17]</td>
<td>USA</td>
<td>A convenience sample of 96 adult patients who have scheduled admission to surgery</td>
<td>Descriptive multicenter study. Patients viewed the videotape the day before surgery; ASPAN’s Preoperative anaesthesia patient teaching questionnaire</td>
</tr>
<tr>
<td>Lam et al. [46]</td>
<td>Canada</td>
<td>40 patients undergoing spinal surgery</td>
<td>Interview; group 1 1 week after discharge; group 23–4 weeks after discharge</td>
</tr>
<tr>
<td>Langius and Lind [47]</td>
<td>Sweden</td>
<td>42 cancer patients</td>
<td>Survey, questionnaires including received support and received information</td>
</tr>
<tr>
<td>Leinonen et al. [48]</td>
<td>Finland</td>
<td>874 surgical hospital patients</td>
<td>Multicenter study, survey, a structured questionnaire</td>
</tr>
<tr>
<td>Lindsay et al. [49]</td>
<td>Canada</td>
<td>147 patients waiting for the cardiac surgery</td>
<td>Prospective, cross-sectional cohort survey design</td>
</tr>
<tr>
<td>Lindwall et al. [50]</td>
<td>Sweden</td>
<td>10 patients after the operation</td>
<td>Questionnaire (Needs Inventory for Patients Who Wait)</td>
</tr>
<tr>
<td>Lithner and Zilling [51]</td>
<td>Sweden</td>
<td>50 patients admitted to open chole-cystectomy, mean age of 49.5 years</td>
<td>A hermeneutic approach, interview</td>
</tr>
<tr>
<td>Malkin [52]</td>
<td>UK</td>
<td>11 orthopaedic patients from a pre-assessment clinic</td>
<td>Qualitative, unstructured interviews</td>
</tr>
<tr>
<td>Mitchell [53]</td>
<td>UK</td>
<td>A convenience sample of 120 patients undergoing gynaecological laparoscopic day surgery</td>
<td>Randomised controlled trial: group I received an extended information booklet, group II a simple booklet and all received a coping style questionnaire</td>
</tr>
<tr>
<td>Neill et al. [54]</td>
<td>USA</td>
<td>11 women who underwent mastectomy and reconstruction</td>
<td>Exploratory, descriptive, qualitative study</td>
</tr>
<tr>
<td>Nelson [55]</td>
<td>UK</td>
<td>20 patients on admission, the day before surgery</td>
<td>Open-ended, face-to-face interviews using an interview guide were conducted within one month of reconstruction One to two follow-up interviews were conducted in 6 months</td>
</tr>
<tr>
<td>Nguyen et al. [18]</td>
<td>Vietnam</td>
<td>533 inpatients receiving medical and surgical care</td>
<td>Questionnaire (Patient Judgements Hospital Quality) containing 7 seven dimensions of satisfaction including information; statistical analysis</td>
</tr>
<tr>
<td>Nilsson et al. [56]</td>
<td>Sweden</td>
<td>12 patients with chronic disease (gastro-oesophageal reflux disease) after surgery</td>
<td>Interview, a qualitative content analysis</td>
</tr>
<tr>
<td>Ottoesson et al. [57]</td>
<td>Sweden</td>
<td>Surgical patients; 1993 n = 131; 1994 n = 128</td>
<td>A patient satisfaction questionnaire including information</td>
</tr>
</tbody>
</table>
informed within 24 h of discharge still felt informed 1–2 weeks later [9].

3.4. Factors related to informational needs and information received

A multitude of the studies has attempted to show how demographic factors and individual patient characteristics impact on the informational needs and perceptions of information received [63]. Demographic variables such as age, gender, education and working life were found to be clearly related to informational needs. For example, women over 60 years old, the less educated and retired were found to have more informational needs [42] and women compared to men have been found to be less satisfied with information received [18,57]. The informational needs of elderly postsurgical patients during discharge are extensive [40]. Significant relationships have also been found between

Table 1 (Continued)

<table>
<thead>
<tr>
<th>Author(s) and year</th>
<th>Country</th>
<th>Participants</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pellino et al. [58]</td>
<td>USA</td>
<td>74 patient undergoing elective orthopaedic surgery</td>
<td>Controlled clinical trial. An experimental group vs. comparison group post-test design, questionnaires, chart audit, phone interview</td>
</tr>
<tr>
<td>Recker [59]</td>
<td>USA</td>
<td>Cardiac surgical patients</td>
<td>Randomized controlled trial</td>
</tr>
<tr>
<td>Reed et al. [60]</td>
<td>UK</td>
<td>All patients in Pre-operative Assessment Clinic in the General Surgical Directorate at the Royal Hallamshire Hospital in August 1993</td>
<td>A questionnaire of satisfaction with information</td>
</tr>
<tr>
<td>Roth-Isigkeit et al. [61]</td>
<td>Germany</td>
<td>101 male patients prior to elective cardiac surgery</td>
<td>Clinical controlled trial; the day before surgery, group I saw a video with realistic information about the upcoming peri-operative procedure, and group II saw a video of the same length without surgery-related information Questionnaires, physical parameters</td>
</tr>
<tr>
<td>Scherrer-Bannerman et al. [62]</td>
<td>Canada</td>
<td>Patients waiting for cardiac surgery</td>
<td>Qualitative and quantitative. A four-phase comparative study of the effectiveness of two methods of patient education</td>
</tr>
<tr>
<td>Sorlie et al. [63]</td>
<td>Norway</td>
<td>482 electively admitted surgical patients</td>
<td>Assessments made before admission, at discharge and 2 and 4 months after discharge were used to predict both the level and the rate of change in satisfaction with different aspects of treatment. Questionnaires</td>
</tr>
<tr>
<td>Taylor and Norton [11]</td>
<td>UK</td>
<td>A group of patients who had undergone major bowel surgery</td>
<td>Focus group interview</td>
</tr>
<tr>
<td>Twinn and Lee [64]</td>
<td>Hong Kong</td>
<td>8 patients and 7 nurses in a medical and a surgical ward</td>
<td>Non-participant observation and semi-structured interviews</td>
</tr>
<tr>
<td>Viehbeck et al. [65]</td>
<td>USA</td>
<td>20 male patients with spinal cord injury (SCI)</td>
<td>A pre- and post-test design, videotape Patients with SCI were selected at random to view the videotape</td>
</tr>
<tr>
<td>Wyness et al. [66]</td>
<td>Canada</td>
<td>18 brain tumor patients</td>
<td>Interview, questionnaires; content analysis; narratives</td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Area of importance</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms</td>
<td>Johansson et al. [42] Galloway and Graydon [29], Jacobs [3], Barthelsson et al. [20]</td>
</tr>
<tr>
<td>Wound care</td>
<td>Galloway and Graydon [29], Jacobs [3]</td>
</tr>
<tr>
<td>Activity</td>
<td>Hughes et al. [40], Jacobs [3]</td>
</tr>
<tr>
<td>Pain</td>
<td>Johansson et al. [42]</td>
</tr>
<tr>
<td>Pain medication</td>
<td>Hughes et al. [40]</td>
</tr>
<tr>
<td>Post-operative self-care, advising on symptom management, clarifying the illness experience, psychological responses, co-ordination of the follow-up care, expected course of illness, community resources and identifying events that require physician notification</td>
<td></td>
</tr>
</tbody>
</table>
income level and a preference for situational/procedural information [21] and between gender and a preference for psychosocial support information [21]. In particular, patients of both sexes with lower income level and males in general reported receiving more information.

Satisfaction with information provided seems to initially increase with age [18,41] and the youngest have been found to be most dissatisfied with information provided in surgical care [57]. Those patients with a better self-reported health state on admission [18,41,57] or illness and life situation [63] reported higher information provision. A patients’ health state also seems to affect the need for information before surgery, for example, critically ill patients may be more concerned about their health and survival until the surgical procedure [49,67], but all patients benefit from the pre-admission information [55]. Patients who have longer lengths of stay seem less satisfied with information provision [16].

3.5. Procedures and timing of information provision

Surgical patients differ in their informational needs and benefit from different content and quantity of information. This being the case health care professionals should determine the kind, amount, methods and sources of information that individuals need and want [22,38,39,52,54,59]. Information targeted to individual patients has been found to be effective [7,27,33,34,66] and increases patient satisfaction [68], but nurses have often failed to individualise the information [37]. To facilitate this, detailed recording of patient information and patient characteristics are essential for relating relevant information to patients [45,58,59]. With an empowering approach nurses can become a more integral part of the information to patients [45,58,59]. With an empowering approach nurses can become a more integral part of the information to patients [45,58,59].

Addressing patients’ priorities for information in the peri-operative process is crucial to ambulatory surgery patients’ post-operative outcomes [10].

There is a need to establish useful ways to deliver information to patients [50]. This will differ situationally. Information giving, the patient’s informational needs and individual characteristics can be evaluated in the pre-assessment preparation of surgical patients [33,52,59]. Patients need information in different phases of the peri-operative process: pre-operatively, before admission and while admitting, intra-operatively, during hospitalisation and post-operatively while discharging [7,25,67,50,51]. Patients’ learning needs diminished significantly after hospital discharge [42], although the need for additional telephone follow-up was mentioned [20]. However, the preparation for self-care post-discharge has to be well performed [27]. It was found that information protocols, which focused on survival skills for self-care management post-discharge, were effective [16].

Day surgery patients are the most challenging group of patients regarding the timing of information provision. Assessing and teaching the patient on the day of surgery is not feasible or appropriate [67]. Patients should, and they also prefer, to be given information before admission in order to cope with their hospital stay [25]. However, at discharge after day surgery patients do not necessarily remember important information about the operation and instructions [20,28]. Also, there are problems with patients who may not understand the information provided. [43].

3.6. Strategies and methods used in the provision of information to surgical patients

Surgical patients are a challenging group and so different methods of information provision should be used. Of the following choices of individualised methods of instruction, written materials, internet-based instruction and videotape, the videotape method was ranked by surgical patients as the preferred way of providing pre-operative information [17,61,65]. Pre-operative preparation with realistic information about the impending medical procedure in patients undergoing cardiac surgery decreased stress [61]. On the other hand, Clode-Baker et al. [25] found no significant differences between intervention and control groups regarding the variables anxiety, depression, quality of life and stress while using videos, booklets or plastic models for teaching patients undergoing total hip replacement.

Effective pre-operative information can be conveyed by Web-based methods. The content of these can be easily individualised according to patients’ needs [36,62]. It has also been found that written materials are preferred by patients [11,28,46], but these need to be carefully prepared and developed in order to be used by different patients with different informational needs. Some studies reviewed focused on the need to develop and share both written and verbal information with patients [28,38,42,46,51,60].

3.7. The effects of giving information and learning to surgical patients

In the review, information giving was a very important factor influencing patient satisfaction with their care [18,27,37,41,63]. Provision of verbal and written information also significantly increased knowledge [4].

Information is needed to appropriately manage [40] and cope with illness [30,31,44] and to reduce anxiety and fears related to illness and treatment [44,52,53,55,62]. Information has been found to be positively associated with symptom resolution and better physical status [15,30,31]. Preparatory information and effectively increased knowledge are the most frequent associations with recovery [8,62], coping [30] and life-style changes [62]. There were also conflicting findings that information has no effect on recovery [23].

The effect of information on patient outcomes is inconsistent [23]. Houston et al. [39] found no differences in patients’ stress, coping resources and mood between the
guiding and structured preparatory information groups, and indicated that a variety of approaches could be used to prepare patients for outpatient procedures. Langius and Lind [47] found no correlation between the level of support/information given to cancer patients and their level of coherence, anxiety, general health and the surgical procedure.

There are certain benefits for provision of information from the organisational perspective. Surgical patient’s pre-operative assessment with information was significantly associated with fewer cancellations of procedures due to unforeseen medical problems [59,60]. In addition those patients who have received information were less likely to access a health facility than those who had not received information [9,53]. Patients with procedural and coping information had about two days shorter length of stay at hospital compared to those with usual/general information [30,31].

4. Discussion and conclusion

4.1. Discussion

The review demonstrates that giving information to surgical patients needs to be based around more than one discrete event, because individual patients need different information in the different peri-operative phases. It begins before going to hospital as an in-patient and must continue through hospitalisation into the post-discharge period. Furthermore, knowledge about surgical patient information is culturally bound and situation-specific, rather than abstract and general. In this review, it was found that the studies were not linked clearly enough to prior work and to each other. They were separate and mainly descriptive in nature. The studies reviewed comprise a body of knowledge relating to surgical patients’ learning needs and identify learning topics that are important to the patients. However, the findings about the provision of information in important areas to surgical patients were inconsistent. If the information is lacking, inadequate or insufficient, patients will be left in some confusion. Increased attention to information needs may decrease an individual’s level of uncertainty and facilitate their transition from hospital to home. As surgical patients differ in their learning needs and benefit from different content and quantity of information, more emphasis should be put into evaluating and assessing these individual needs.

The studies reveal that teaching surgical patients is often seen as producing and delivering a standardised package from which the patient takes what he or she needs—a one way event where the patient is a passive recipient of information. There is a need for controlled studies, which examine the dynamic nature of individualised information provision, patient learning and the outcomes of the interventions.

Another important issue is the use of this knowledge in nursing practice. While it is important to continue to explore this area of work, there are issues concerning the implementation of the knowledge and understanding that already exists. Surgical patients have specific informational needs in the peri-operative process. However, in this review, some patients did not seem to be given the information they need. This is a concern, because they may be at risk of potential problems following discharge [3]. Therefore, nurses need to be aware that patients who leave the hospital with little or no discharge information may not be confident to manage their condition and seek assistance in a health facility, even if just for reassurance [9].

There is a lack of a thorough understanding of the actual processes that describe the experiences of surgical patients in clinical care and the possibilities of empowerment through learning. This may be because each patient is an individual with different needs. The results of this review confirm that information, which is individualised to certain patient characteristics, has a crucially important role for surgical patients [5,6]. As there are extensive possibilities to use advanced technology in supporting patients’ learning, more individualised patient information programs could be developed [5,36].

It was also noted that little has been done to explore the experiences and processes of patients from different cultural groups simultaneously. There was no attempt to discover cultural differences in informational requirements and learning preferences. Some similarities in important topics for surgical patients can be identified because the medical procedures that the patients undergo are used worldwide. Most of the studies have been conducted in Western countries so the specific teaching, which is based on Western literature and designed to facilitate recovery there, may not be effective in other socio-cultural contexts, such as in Eastern communities where traditional values, such as collectivism, are emphasised.

Information to surgical patients appears to have an empowering effect, enabling them to take more control over their health care, and to comply with medical treatment [26]. Some patient groups benefit from specifically targeted information, for example, acutely ill patients, who have been admitted to hospital because of an accident and day surgery patients, who are hospitalised for a very short time. There was some work, although inconsistent, about the effect of patient related factors on informational needs and patient learning.

This review showed that information to patients about surgical and other technical procedures was done well. However, information about non-technical aspects of care, such as the timetable and expected order of events, in hospital was less satisfactory. Patients with short hospital stays also need good and thorough explanations to enable them to care for their wounds after discharge. Overall clinical nursing practice still appears to have a task-centered approach to patient care that is associated with nursing in the
past. It also seems that there are restricted opportunities for patient dialogue with nursing staff that limit possibilities for patients to ask questions.

4.2. Review limitations

There are some limitations in this study. The review focused on literature extracted only from the MEDLINE and Cochrane Library databases. These databases are, however, the most comprehensive used by health care professionals [13] and are relevant in acquiring studies for review [14].

Studies using only surgical patient samples were reviewed although there are many studies, which refer to patient information in general. The author’s basic assumption was that there is a need for information to vary according to the different health care specialisms. Surgical care is an important example of a specialism in which information transfer and patient learning often has to take place over a short period of time about invasive procedures. Failure to help the patient by providing information in such a way that it can be understood and assimilated may mean that the patient is unable to take part in their care particularly in terms of the health care technology that may be being used.

The MeSH terms used in the review may be criticised. For example, there would have been more studies used in the review, if patient education had been used as a keyword. In this review, however, information provision was regarded as prerequisite for patient involvement in care, participation and empowerment. The aim was to identify informational contents that are important from a surgical patients’ point of view. It is also recognised that although the aim of this review was to determine the information provided by nursing staff and information as applied in nursing based literature, research in the area of information from other health care disciplines, such as medicine and psychology, is useful.

The expansion in the literature has resulted in millions of citations being listed in a growing number of electronic databases. This information explosion also means that finding those studies that provide answers to specific clinical questions from amongst this massive number of publications is time consuming. Therefore, it is necessary to limit the search by choosing the MeSH terms carefully. Well-targeted literature reviews are important because they enable issues and arguments surrounding a particular area of interest to be explored and summarised [69].

As long as there is discrepancy between patient needs and health care practice, for example, between surgical patients’ informational needs and the information provided, evidence must be acquired that relates to the appropriateness and priority given to informational needs from a patients’ perspective.

4.3. Implications

This integrative review provides the basis for identifying further research, hypothesis testing and advancing knowledge in the area of information provision and learning for surgical patients. As Kirkevold [12] has stated, an integrative review collects, analyses and integrates separate research findings into meaningful wholes. This is also of great value in guiding nursing practitioners to develop rational strategies, which enhance surgical patients’ learning. Further integrative reviews may be appropriate to replicate this work and support its validity over a period of time. Quantitative studies need to be more attentive to sample size and randomisation issues to increase statistical power. To improve the quality of tools available for nursing research, serious consideration should be given to further reliability and validity testing of existing tools. There seems to be good evidence about the content of information for surgical patients and therefore, there is not necessarily a need for more qualitative studies. There is a need for quantitative studies with controlled designs. Guidelines for conducting systematic review for qualitative research are available and should be used to review the enormous number of qualitative studies available, which discuss individual experiences and perceptions.

There is no single information package that would be useful for all surgical patients. The information that is important to give to patients to facilitate their recovery is well known [3,21,29,40] so nurses need to tailor this to each surgical patient group and the individuals within the group. Organisationally, there is a need to develop strategies that assist nurses to evaluate the information requirements of each patient. Specifically, it is important to recognise those patients who are uncertain of their own role in helping themselves to recovery, because an increase in uncertainty in this area is associated with an increase in post-discharge information needs [29,31]. Traditionally, nurses inform patients about what they need to know post-discharge during the discharge process. Nurses need to recognise those patients who are uncertain in this way early in their hospital stay and use the whole hospitalisation period provide useful, individually tailored information.

4.4. Conclusion

This review gives direction as to how nurses can provide better information to adult surgical patients. It points out that surgical patients have a specific learning need during the peri-operative period and these needs remain stable. However, the findings about the provision of information in important areas to surgical patients were inconsistent. Therefore, more emphasis should be put into evaluating and assessing surgical patients’ individual needs. Another important issue is the use of this knowledge in nursing practice. The results of this review confirm that information, which is individualised to certain patient characteristics, has a crucially important role for surgical patients. Information to surgical patients appears to have an empowering effect, enabling them to take more control over their health care, and to comply with medical treatment.
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