ELSEVIER

Patient Education and Counseling 60 (2006) 241–245

Patient Education and Counseling

www.elsevier.com/locate/pateducou

Patient satisfaction at and after discharge. Effect of a time lag

Martin Stevens *, Inge H.F. Reininga, Natalie A.D. Boss, Jim R. van Horn

Orthopedics Department, University Medical Center Groningen, PO Box 30001, 9700 RB Groningen, The Netherlands

Received 12 October 2004; received in revised form 25 January 2005; accepted 26 January 2005

Abstract

Objective: Patient satisfaction is an important outcome measure for evaluating the quality of medical care. It is remarkable that consistently high satisfaction ratings have been reported over the last 30 years. There are indications that the time point of administration of a patient satisfaction questionnaire has an influence on satisfaction ratings. This study aimed at investigating whether the assessment of patient satisfaction at different time points resulted in different outcomes.
Methods: Patient satisfaction was measured twice. The sample consisted of 152 orthopedic patients who filled in the questionnaire at hospital discharge and one to 12 months after discharge.
Results: At follow-up, satisfaction ratings decreased significantly. Satisfaction with postoperative information decreased the most after discharge.
Conclusion: The results of this study indicate that the time point of administration of a patient satisfaction questionnaire does influence satisfaction ratings.
Practice implications: Patient satisfaction outcomes collected during hospitalization and after discharge may not be interpreted similarly.

Keywords: Patient satisfaction; Orthopedics; Hospital; Health care

1. Introduction

It has been increasingly recognized that patient satisfaction is an important outcome measure for evaluating quality of medical care [1–7], especially given the tendency of hospital performance indicators to be made publicly accessible in the industrialized countries of the west. Public access to these performance indicators gives patients the possibility to compare hospitals and physicians. It is generally assumed that transparency of these indicators is an incentive for improving the quality of medical care [8–11].

It is remarkable that consistently high satisfaction ratings of over 90% have been reported over the last 30 years [12–14]. Different mechanisms influence these ratings. First of all, a number of ''social-psychological artifacts'' may affect expressions of patient satisfaction. ''Social desirability response bias'' argues that patients may report greater satisfaction than they actually feel because they believe positive comments are more acceptable. From that perspective it has also been hypothesized that, when responding to questionnaires, people sometimes answer more according to a prevailing social norm than to the factual situation [15]. In addition, ''ingratiating response bias'' occurs when patients use the satisfaction survey to ingratiate themselves with the medical staff [14,16]. This can lead to high satisfaction ratings. It is suggested that these response biases occur because of the patients' dependency on the medical staff for treatment [14].

There are also indications that the time point of administration of a patient satisfaction questionnaire has an influence on satisfaction ratings [3,17,18]. However, only a few studies have evaluated whether there is a discrepancy between patient satisfaction immediately after care consultation and at a later time point. These studies show different patterns in patient satisfaction ratings at follow-up. Kinnersly et al. [19] and Savage and Armstrong [20]

* Corresponding author. Tel.: +31 50 3613271; fax: +31 50 3611737.
E-mail address: m.stevens@orth.umcg.nl (M. Stevens).

0738-3991/$ – see front matter
doi:10.1016/j.pec.2005.01.011

reported lower levels of patient satisfaction, while the study of Jackson et al. [3] showed an increase in patient satisfaction after a time lag between consulting a physician and follow-up. Different opinions have been reported about possible causes of changes in patient satisfaction over time. It is suggested that, at a later time point, after they have had the opportunity to decide whether the caregiver's advice was ''right'', patients are in a better position to determine whether or not they are satisfied [3,19]. Patients who may have idealized the hospital in their relief and gratitude for the care given may express lower satisfaction when their view becomes more detached after discharge [21]. At a further point in time from the hospital discharge, patients generally have a functional status improvement and are thus less dependent on their hospital care providers and less pressured to give socially desirable answers. This may also result in a more detached judgment [22], and possibly in lower satisfaction rates. On the other hand, this functional status improvement itself can contribute to an increase in patient satisfaction at a later time point [2,3,5,6]. Findings of Kane et al. [6] suggest that patient satisfaction is related to how the patients are feeling at that moment. Because of the functional status improvement, at follow-up patients seem to forget the pain and discomfort of the treatment and the extent of the symptoms that led to their seeking medical care [6].

The present study aimed at investigating whether the assessment of patient satisfaction at different time points resulted in different outcomes among orthopedic patients. This study measured patient satisfaction twice. The first time, the measurement took place at discharge from the orthopedic department of the hospital, the second time after discharge (range 1–12 months). Considering the possible response biases resulting in high satisfaction levels combined with the expectation that, after a time lag, patients are more capable of judging whether they are satisfied with the given care and information, it is our hypothesis that satisfaction ratings of orthopedic patients decrease after discharge.

2. Methods

2.1. Sample and data collection

Patient recruitment took place at the Orthopedic Department of the University Medical Center Groningen from January 2002 to February 2003. The sample consisted of 152 orthopedic patients who filled in the questionnaire at discharge from the hospital (T_0). Administration of this questionnaire at discharge is a standard procedure at the orthopedic department. After a time lag (range 1–12 months), these patients received the same questionnaire at home, to fill it in for the second time and return it by mail (T_1). If necessary, a reminder was sent 2 weeks later. Both at the hospital and at home, the questionnaire was self-administered by the patients. Of the 152 patients who received the questionnaire at home, 114 patients returned it (75%).

2.2. Measuring instrument

Patients filled in a questionnaire to measure patient satisfaction. This questionnaire is based on the Dutch translation of the Client Satisfaction Questionnaire (CSQ-8) [23]. Eight items were added to adapt the original questionnaire for orthopedic patients (see Appendix A for the questionnaire). The questionnaire consists of a total of 16 items and three subscales: (1) general satisfaction (8 items); (2) satisfaction with preoperative information (3 items); and (3) satisfaction with postoperative information (5 items). The items can be scored with a five-point ''Likert scale'', ranging from Agree (1) to Disagree (5). Internal consistency of this questionnaire is calculated with Cronbach's alpha (α). The whole questionnaire has an α of 0.90, the different subscales have alphas of 0.88 (subscale 1), 0.81 (subscale 2) and 0.74 (subscale 3). This questionnaire has proven to be a feasible, valid and reliable instrument to measure satisfaction of orthopedic patients [24]. As an additional aspect for rating overall satisfaction with the given care, a one-item questionnaire in the form of a report mark (range 1–10) was used.

2.3. Statistical analysis

Data analysis was done using SPSS 10.0. The mean scale and item scores of the questionnaire were transformed so that a high score represents a high satisfaction level; additionally, the data were transformed to a 0–100 scale. To compare the data of the questionnaires filled in at hospital discharge (T_0) with the data of the mailed-in questionnaires (T_1), a paired samples t-test was used. The overall scores, the scores of the three subscales and the report marks of T_0 and T_1 were compared. Additionally, an analysis of variance was executed to get a more in-depth look into the effect of time on patient satisfaction at T_1.

Table 1
Disorders

	N (%)
Total hip arthroplasty	51 (46.8%)
Total knee arthroplasty	17 (15.6%)
Leg or hip surgery	15 (13.8%)
Hand and/or elbow surgery	4 (3.7%)
Back surgery	2 (1.8%)
Ankle and/or foot surgery	8 (7.3%)
Hand and/or wrist surgery	4 (3.7%)
Shoulder surgery	5 (4.4%)
No surgery	1 (0.9%)
Other surgery	1 (0.9%)
Total	114 (100%)