Does telephone follow-up after discharge for acute myocardial infarction affect patients experience with hospital stay?

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Background

Patient experience assessments are increasingly used to describe health care from the patient’s point of view and evaluate outcomes of health care. Patient satisfaction with nursing care is influenced by the socio-demographic background of the patient, patients expectations regarding care, the physical environment, communication and information, participation and involvement, interpersonal relations, technical competence, and the health care organisation. Experimental studies illuminating patient satisfaction are warranted (1).

In a context where existing follow-up services were poorly developed, we have previously demonstrated that a telephone follow-up intervention after discharge from hospital, showed positive effects after 6 months on the primary endpoint, the physical dimension of health related quality of life. No long term effects on physical or mental health related quality of life were found (2,3).

Purpose

To assess whether the telephone follow-up intervention improved patients’ experience of the hospital stay and to analyse what factors are associated with satisfaction/dissatisfaction with hospital stay.

Methods

Out of 413 screened patients with a diagnosis of acute myocardial infarction, 288 patients consented to participate, and were randomized to an intervention or a control group. The intervention group received weekly telephone follow-up by a nurse the first four weeks after discharge, thereafter in week 6, 8, 12 and 24, in addition to the standard post discharge follow-up of the control group.

Endpoint data in this part of the study was collected through mailed questionnaires six weeks after discharge using the Patient Experiences Questionnaire (PEQ)(4) and a questionnaire assessing perception of received information. The items in the PEQ are summated and recalculated into 10 scales (figure 1) covering the range from 0-100. In addition, 9 items identify areas where the hospital need improvement (figure 2). More details of the RCT-study and instruments are presented elsewhere (2,3,5).

In the regression analyses baseline data on symptoms of anxiety and depression (HADS) and health related quality of life (HRQOL) (SF-36) are included.

Results

There were no significant differences between the intervention- and control group on the ten summed rating scales in the Patient Experiences Questionnaire (figure 1). Indexes with lowest scores were: satisfaction about future complaint, information about medications and organisation. Patients in the intervention group to a somewhat smaller extent (borderline significant p = 0.07) experienced that there were need to improve information and follow-up after discharge, compared to the control group. Otherwise there were no differences regarding perception of aspects of hospital stay suggested improved, from a patient perspective. The areas with lowest score, i.e. most in need for improvement, were: information regarding medication, information about examinations and information and follow-up after discharge.

The proportion lacking information is shown in figure 3. At some point in time, during or after the hospital stay, 56% in the control group and 48% in the intervention group experienced that they lacked the information. The control group to a significant larger extent lacked information after discharge (p<0.05).

Linear regression analyses were performed in two steps where general satisfaction with the hospital stay (index 10) was dependent variable. In the first step all the other indexes in the patient experience questionnaire and the information index were entered as independent variables. The results showed that the following indexes explained 47% of the variance in the dependent variable: nursing services, information about examinations, contact next-of-kind, doctor services, hospital and equipment and the information index (table 2).

In the second step those indexes significant in explaining variance in the first step, was entered together with: group (intervention/control), mental and physical HRQOL (SF-36), symptoms of anxiety and depression (HADS), age and sex. The results showed, in the final model, that symptoms of depression and mental HRQOL together with the indexed from step 1 explained 52 % of the variance in general satisfaction with hospital care. Sex and age did not contribute to explained variance in our study.

Conclusions

The telephone follow-up intervention did not affect the patient’s experience of general satisfaction with hospital stay in general, measured six weeks after discharge, nor the different aspects measured by the PEQ. However, the telephone follow-up contributed positive to the experience of lacking information after discharge.

Predictors of satisfaction with hospital stay were satisfaction with: nursing services, information about/during examinations, contact with next-of-kind, doctor services, hospital and equipment and total amount of information received. Patients with symptoms of depression and lower mental health summary scores were less satisfied. These results adds to the scientific knowledge on patient satisfaction and have implications for clinical practise.

References


Table 1. Baseline characteristics of n = 288

| Group                  | n (%)          | Age, mean (SD), years | Gender men, n (%) | Married carer, n (%) | Worked outside, n (%) | Previous BMI, n (%) | Family history of CVD, n (%) | Diabetes type II, n (%) | Heart failure, n (%) | Hypertension, n (%) | Anemia, n (%) | Thromboprophylaxis, n (%) | Previous PCI, n (%) | Previous STEMI, n (%) | Previous AMI, n (%) | Gender men, n (%) | Married carer, n (%) | Worked outside, n (%) | Previous BMI, n (%) | Family history of CVD, n (%) | Diabetes type II, n (%) | Heart failure, n (%) | Hypertension, n (%) | Anemia, n (%) | Thromboprophylaxis, n (%) | Previous PCI, n (%) | Previous STEMI, n (%) | Previous AMI, n (%) |
|------------------------|-----------------|-----------------------|-------------------|----------------------|-----------------------|---------------------|---------------------------|-----------------------|---------------------|-------------------|----------------|-----------------------------|-------------------|------------------|---------------------|----------------|-------------------|-------------------|----------------|-------------------|-------------------|----------------|-------------------|-------------------|----------------|------------------|
| Control                | 132             | 69.1 (11.8)           | 101 (76.5)        | 97 (74.6)            | 67 (50.4)             | 16 (12.2)           | 15 (11.4)                  | 15 (11.4)             | 15 (11.4)          | 15 (11.4)        | 15 (11.4)   | 15 (11.4)                                      | 15 (11.4)         | 15 (11.4)        | 15 (11.4)          | 15 (11.4)      | 15 (11.4)          | 15 (11.4)          | 15 (11.4)     | 15 (11.4)          | 15 (11.4)          | 15 (11.4)     | 15 (11.4)          | 15 (11.4)          | 15 (11.4)|
| Intervention           | 132             | 69.1 (11.8)           | 101 (76.5)        | 97 (74.6)            | 67 (50.4)             | 16 (12.2)           | 15 (11.4)                  | 15 (11.4)             | 15 (11.4)          | 15 (11.4)        | 15 (11.4)   | 15 (11.4)                                      | 15 (11.4)         | 15 (11.4)        | 15 (11.4)          | 15 (11.4)      | 15 (11.4)          | 15 (11.4)          | 15 (11.4)     | 15 (11.4)          | 15 (11.4)          | 15 (11.4)     | 15 (11.4)          | 15 (11.4)          | 15 (11.4)|

Figure 1. Mean scores on the Patient Experiences Questionnaire* n = 241

Figure 2. Mean scores perception of areas in hospital stay needing improvement* n = 241

Table 2. Explained variance in general satisfaction with hospital stay

<table>
<thead>
<tr>
<th>Step</th>
<th>Fully adjusted models</th>
<th>Adjusted models</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>52 %</td>
<td>52 %</td>
</tr>
<tr>
<td>2.</td>
<td>47 %</td>
<td>47 %</td>
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Figure 3. Proportion missing information at the various points during after hospitalization n = 229

References


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