Evaluation of Patient Satisfaction in Outpatient Pharmacy

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Abstract

Objective: To establish the level of satisfaction and dissatisfaction with the service received by patients attending the Outpatient Pharmacy regarding the care received.

Method: Two-month long cross-sectional study. The study included all patients who had attended the Outpatient Pharmacy (OP) and had given their consent. Satisfaction was measured using a previously validated survey (Likert-type scale), with 5 possible closed answers (1: disagree, and 5: strongly agree) and the satisfaction index established by the Regional Ministry of Health for the Autonomous Community of Valencia. Dissatisfaction was assessed via the complaints received by the Patient Service Department over the last 10 years.

Results: Patient satisfaction survey (n final=138). Overall satisfaction index (SI), 76% (95% CI, 72-80). Greatest satisfaction, pharmacist’s skills (SI, 88%; 95% CI, 87-88). Lowest satisfaction: dispensing area (SI, 63%; 95% CI, 60-66) and dispensing process (SI, 68%; 95% CI, 67-70). Complaints (n=22). Reasons for dissatisfaction: dispensing process (72%) and dispensing area (10%).

Conclusion: Although the satisfaction index is a useful indicator for identifying improvements, the reasons for dissatisfaction are also required as a complement to this information. Those aspects in need of improvement are the dispensing area and process and increased structural and human resources are required.

Key words: Patient dissatisfaction. Patient satisfaction. Outpatient. Care quality.

INTRODUCTION

Satisfaction is one of the 9 dimensions of quality and patient satisfaction levels therefore indicate the quality of healthcare services and the care received by the patient.¹ They may therefore be used as means of evaluating healthcare services in general.²
Patient satisfaction is related to a high number of variables, such as their state of health, socio-demographic variables (age, sex, and cultural level), characteristics of their healthcare provider (affective care, quantity of information, technical expertise, etc), or waiting times. There is a high correlation between patient expectations and their level of satisfaction and it is important to recognize patients’ initial expectations. In this way, patient satisfaction is defined as the correspondence between their expectations and final perception of the healthcare service provided. Patient satisfaction surveys are the most commonly used method of measuring patient satisfaction in Outpatient Pharmacies. The surveys are used to establish the patient’s opinion on different aspects which may influence their final perception of the treatment or pharmaceutical service provided.

However, none of these surveys assesses patient dissatisfaction. This is a poorly studied and yet important aspect that supplements information on patient satisfaction, so that improvements that do actually improve the quality of the services offered may be implemented. Dissatisfaction may be defined as the lack of correspondence between patient expectations and their final perception of the healthcare service provided. Studies evaluating patient dissatisfaction are normally based on complaints made by patients. However, the reasons for the complaints are not classified and it is therefore difficult to compare the different services or confirm the efficacy of any improvements made.

The present study was carried out taking into account the above aspects in order to establish patient satisfaction levels as well as the reasons for dissatisfaction, in terms of the care provided, among patients attending the Outpatient Pharmacy (OP).

The secondary objective of the study was to identify those aspects of the OP that required improvement.

**METHOD**

A 2-month cross-sectional study was carried out in order to establish patient satisfaction levels. During this period, a patient satisfaction survey was sent out with a stamp addressed envelope so that, once completed, the patient could return it to the Pharmacy Department free of charge. The study included patients who accepted to receive the survey when their drugs were dispensed at the OP of the Hospital Pharmacy Department. The study included patients who had been served in the OP during the study period.

Figure 1 shows an example of the patient satisfaction survey used. Patients who were just starting treatment or were attending the OP for the first time, as well as those patients who refused to participate were excluded from the study.

Patient opinions were assessed using a Likert-type ordinal scale, with 5 possible closed answers (1: strongly disagree; 2: disagree; 3: not sure; 4: agree; 5: strongly agree). After obtaining a mean value for each patient from the surveys, patient satisfaction was measured using the patient satisfaction indicator established by the Regional Ministry of Health for the Autonomous Community of Valencia, known as the satisfaction index (SI= X-1/Max-1), where X is the mean satisfaction value and Max is the maximum value on the satisfaction scale (Max=5 in this case).

To establish the reasons for patient dissatisfaction, complaints made by patients attending the OP between 1997 and 2007 and sent to the Patient Service Department of the hospital were gathered. The reasons for complaint were grouped according to the classification system created by Pichert et al., as well as to the items described in the patient satisfaction survey. Both systems were then analysed to find out which one allows us to better identify the reasons for complaint and compare them with the patient satisfaction survey used.

The OP serves patients with a total of 22 pathologies, with 40% of the total patients receiving treatment for HIV. An analysis was therefore carried out per subgroup (HIV and non-HIV) to evaluate whether pathology influenced patient satisfaction and/or dissatisfaction with the pharmaceutical service provided.

Aspects within the OP which required improvement were identified using the results obtained from measuring the level of patient satisfaction and the reasons for dissatisfaction outlined in the complaints received.

**Statistical Analysis**

The items included in the survey were assessed using an ordinal numerical scale, taking into account quantitative variables. These were therefore studied based on their distribution and dispersion measurements (mean and standard deviation). To evaluate the differences in the analysis according to subgroup (HIV compared to non-HIV), homogeneity tests were carried out using the z-contrast statistic. A P value less than .05 was considered significant and 95% confidence intervals were used in all cases.

**RESULTS**

The patient satisfaction survey was sent to 302 patients (160 HIV and 140 non-HIV) during the study period, representing 49.6% of the patients who attended the Outpatient Pharmacy during this period.

A total of 138 surveys were returned (91 HIV and 47 non-HIV), thus representing 40% of the surveys sent out.

The results obtained from the patient satisfaction surveys (Table 1) show a satisfaction index of 76%. On analysing per subgroup, no differences were found between both groups and the satisfaction index was 75% in both cases. The most valued aspects were pharmacist’s skills and confidentiality and assistance to patients. The most poorly valued aspects were related to the dispensing area and process.

The reasons for complaints sent to the hospital Patient Service Department (PSD) by patients who had been served in the OP are shown in Tables 2 and 3. In Table 2 the reasons for complaint are classified according to items defined by Pichert et al. Table 3 shows reasons for complaints grouped according to the items included in the patient satisfaction survey and an increased number.

72 Farm Hosp. 2008;32(2):71-6
Table 1. Results of the Satisfaction Study for Patients Attending the Outpatient Pharmacy (2004)\textsuperscript{a}

<table>
<thead>
<tr>
<th>Items</th>
<th>Total (n=138)</th>
<th>HIV Patient (n=90)</th>
<th>Non-HIV Patient (n=48)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean\textsuperscript{b}</td>
<td>SI\textsuperscript{c}</td>
<td>Mean\textsuperscript{b}</td>
</tr>
<tr>
<td>1. Dispensing area</td>
<td>3.52 (0.75)</td>
<td>0.63 (0.60-0.66)</td>
<td>3.55 (0.74)</td>
</tr>
<tr>
<td>2. Dispensing process</td>
<td>3.75 (0.32)</td>
<td>0.68 (0.67-0.70)</td>
<td>3.75 (0.59)</td>
</tr>
<tr>
<td>3. Pharmacist’s skills</td>
<td>4.52 (0.04)</td>
<td>0.88 (0.87-0.88)</td>
<td>4.51 (0.03)</td>
</tr>
<tr>
<td>4. Confidentiality and assistance to patients</td>
<td>4.24 (0.19)</td>
<td>0.80 (0.79-0.81)</td>
<td>4.23 (0.18)</td>
</tr>
<tr>
<td>5. Information provided to patient and assessment of their state of health</td>
<td>4.01 (0.22)</td>
<td>0.75 (0.74-0.76)</td>
<td>4.02 (0.22)</td>
</tr>
<tr>
<td>6. Overall satisfaction</td>
<td>4.18 (0.31)</td>
<td>0.79 (0.78-0.81)</td>
<td>4.28 (0.28)</td>
</tr>
<tr>
<td>Total</td>
<td>4.04 (0.36)</td>
<td>0.76 (0.72-0.80)</td>
<td>4.05 (0.36)</td>
</tr>
</tbody>
</table>

\textsuperscript{a}SI indicates satisfaction index.  
\textsuperscript{b}Mean with standard deviation.  
\textsuperscript{c}SI=X-1/4, where X is the mean satisfaction, with a 95\% confidence interval.  
The $\chi^2$ test was carried out, with no differences between the SI for HIV and non-HIV patients.
The number of complaints has increased over the last 10 years and 60% more complaints have been made in the last 2 years, with 4 in 2005, another 4 in 2006, and 7 complaints in 2007 (until May).

### DISCUSSION

Patient satisfaction with services provided should be considered as an outcome measure of the care provided which helps improve the quality of the healthcare service rendered. The increasing number of patient satisfaction surveys has been widely criticised, given that only a few are based on any theoretical model and offer information on their internal consistency, sensitivity, and ability to discriminate between satisfied and dissatisfied patients. Unlike other published works, the present study used a patient satisfaction survey that had been validated and used by other work groups, thus providing greater validity to the results obtained. However, both our survey and those used in the previously mentioned works, pose problems in that they use statements or propositions upon which the individual must comment, there are no options for the patient to express their dissatisfaction nor to measure this at the same time.

A possible limitation of this satisfaction study is the sample size, which may not be very representative and may pose problems in terms of generalising the results. Nonetheless, the participation level was as expected for surveys that are completed at a later date, which is between 8%-60%. It also helps identify those aspects requiring improvement.

The results obtained show the high patient satisfaction index for the services provided by the OP within the Hospital Pharmacy Department. The fact that no significant differences were observed in satisfaction levels between HIV and non-HIV patients in relation to the OP operation indicates that the processes within the OP regarding patients’ care meet their needs based on their pathology.

As regards the measuring of dissatisfaction, classifying the reasons for complaints according to the items included in the satisfaction survey enables the identification of more reasons for complaints than the classification used by Pichert and modified by Mira et al. It also facilitated a comparison of these reasons for dissatisfaction with the results obtained in the patient satisfaction survey and the subsequent identification of aspects requiring improvement.

Quantitatively speaking, the definition used for dissatisfaction indicates that this can not be considered complementary to satisfaction, ie, 75% satisfaction does not mean that the dissatisfaction levels are 25%. It is therefore necessary to find specific tools to measure patient dissatisfaction. Dissatisfied patients probably do not participate in satisfaction studies and the results of these studies do not state the reasons for dissatisfaction among patients who are generally satisfied with the service. This may be observed when analysing the results of the surveys along with those obtained from complaints made to the PSD. On the one hand, the patient satisfaction surveys showed that the pharmacist’s skills was the most valued aspect, which may be interpreted as recognition of the pharmacist’s technical expertise and professional attitude. On the other hand, the pharmacist’s professional competence (including information given to the...
Similar results were also obtained by Pichert et al.14 and other authors,13,15 suggesting that delays in obtaining an appointment are dissatisfaction and account for 65% of the complaints received. The same aspects are the main reasons for dissatisfaction of the patients using these services. As a result, without the complementary information provided by the reasons for dissatisfaction, this aspect would not be included in the aspects to be improved. One of the possible causes for dissatisfaction is the rise in the number of consultations in the absence of any increase in the number of pharmacists working in the OP, therefore resulting in the pharmacist spending less time with the patient (since 1997 there has been 1 specialist pharmacist and 1 resident pharmacist assigned to the OP with a 6-month rotation period). The number of patients attending the OP between 1998 and 2006 has had a mean annual increase of 23.1% (standard deviation, 6%). Figure 2 shows the evolution of consultations between 1998 and 2006, as well as the number of consultations required for pharmaceutical intervention. This figure shows that the number of consultations required for pharmaceutical intervention for 1 specialist pharmacist and 1 resident pharmacist assigned to the OP (waiting room) and the dispensing process (waiting time and consultation hours). These aspects were least valued in both groups, in particular by HIV patients, as is the case in other works published.11,12 The number of consultations required for pharmaceutical intervention has increased four-fold, which may indicate a reduction in the quality of pharmaceutical care provided.

Those aspects scoring the least points in the patient satisfaction survey were mainly the dispensing area (waiting room and access to the OP) and the dispensing process (waiting time and consultation hours). These aspects were least valued in both groups, in particular by HIV patients, as is the case in other works published.11,12 The same aspects are the main reasons for dissatisfaction and account for 65% of the complaints received. Similar results were also obtained by Pichert et al.14 and other authors,13,15 suggesting that delays in obtaining an appointment and waiting times which do not meet the expectations of healthcare service users have an influence both on the satisfaction and dissatisfaction of the patients using these services.

Other healthcare professionals (hospital management, Regional Ministry of Health or competent body, etc) must be made aware of the results concerning patient satisfaction or dissatisfaction with the healthcare service received and that these are taken into account for any improvements planned. Indeed, a significant portion of the improvements required depends in part on these professionals, such as increased human resources (improvement in care processes) and improvements in structural resources within the OP (waiting room).

In conclusion, although the satisfaction index is high and it is useful for establishing what improvements are needed, it is also important to identify the reasons for dissatisfaction to complement this information. The aspects requiring improvements according to the results obtained are the need to increase structural and human resources so that the improvements demanded by the patients may be carried out.

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References
