Patients’ expectations and satisfaction in a teaching hospital outpatient clinic, Al Khobar, Saudi Arabia

Kasim M. Al-Dawood, MD FFCM (KFU), Ahmed G. Elzubier, MD MRCP

Abstract Objective: To assess the expectations and study of patients receiving outpatient hospital care.

Design: A cross-sectional prospective study was conducted using a structured questionnaire form on a random sample of outpatient clinic attendants.

Setting: The outpatient department clinics at King Fahad University Hospital, Al-Khobar, Saudi Arabia.

Subjects: A sample of 1232 subjects attending 6 outpatient clinics.

Methods: Direct interviewing of subjects using a structured questionnaire was carried out. Information collected were basic demographic data regarding subjects expectations and satisfaction regarding aspects of outpatient health care. The assessed questionnaire reliability was 71%.

Results: The highest rate of satisfaction was regarding the set of investigations carried out while the lowest rate was regarding waiting time. There were significant mismatches between subjects’ expectations and what was really offered to them regarding doctor-patient communication and continuity of care.

Conclusion: The study has revealed reasonable rates of good satisfaction of patients with outpatient care and a clear degree of mismatchment between patients’ expectations regarding continuity of care and doctor-patient communication and what was actually offered in these two respects.

Saudi Medical Journal 1996; Vol. 17 (2): 245-250

Keywords: Outpatient, satisfaction, expectations, Saudi Arabia

Health service consumer satisfaction is increasingly being recognized by hospital administrations and health care providers as an important aspect of health care. It is also looked upon as a powerful tool for quality assurance in health care delivery.1 The patient’s expectations and satisfaction may be affected by various factors which could be demographic or related to hospital staff structure, or the complexity of administrative procedures in the hospitals concerned.4 King Fahad Hospital of the University (KFHU) is the only general hospital in the Al Khobar area which provides secondary and tertiary levels of health care. It is the main referral centers for other hospitals or primary health care centres whether public or private. This study attempts to assess patients’ expectations and satisfaction regarding some aspects of health care provided in KFHU.

Methodology This is a cross-sectional study involving patients attending the outpatient clinic of King Fahad Hospital of the University (KFHU) at Al Khobar city, Saudi Arabia. The study was conducted during the period from October 1993 to June 1994 in order to avoid the summer vacation period when the regularity of patient attendance would not be at its optimum. The outpatient clinics were operated during the morning, afternoon and early evening, 5 days a week. The average total number of adult patients attending per day was about 200. Outpatient clinics run by six departments were involved. These departments were medical, surgical, obstetrics, and gynaecology. A sample size of 1232 adults, aged 15 years and above, was selected using a 1 in 10 systematic sampling which amounted to 3% of all outpatient adult attendants. Patients were interviewed at the computer registration office.

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Received March 1995. Accepted for publication in final form July 1995.

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where they were registered for the clinic concerned. Interviewing was carried out by pre-trained interns of both sexes using a questionnaire form. The patients were seen before entering the consulting room and after coming from the laboratory and pharmacy to register for the next appointment. Information collected included basic data such as age, sex, nationality: whether Saudi or non-Saudi, patients category: whether eligible for treatment in KFHU or not (eligibility for treatment in KFHU was restricted to Saudi patients and non-Saudis who were government employees although in special circumstances other patients could be treated), and patient type: whether new or for follow-up.

Patients were then asked about their satisfaction regarding six aspects of care in the outpatient department: waiting time before being seen by a doctor, requested set of investigations (there was a widespread impression in the KFHU that some patients attended the hospital requesting some form of sophisticated investigations), period spent in the laboratory and pharmacy, appointment period timing i.e. whether in the morning, afternoon or evening. They were also asked about their expectations regarding explanations of investigations and diagnosis, about advice given to them by the doctor and about whether these expectation were fulfilled or not.

The times and when the patient entered the registration office and when he/she finally left were recorded and the overall period spent calculated. The time taken by the doctor for history, examination, management and health education were recorded by the clinic nurse.

The questionnaire was subjected to a reliability test which was based on psychometric analysis using the spilthaves method and the general Spearman-Brown formula, which indicated a reliability of 71%.

Data were entered and analyzed by an IBM-compatible personal computer using Epi-Info Version 5 and SPSS-P+ statistical packages. Chi-square test was used to assess the level of significance of the differences between proportions, and multiple logistic regression was used to assess the factors predicting patient satisfaction regarding aspects of care in the outpatient departments. The independent factors analyzed were age, sex, nationality, patient type, patient category, overall time spent in the laboratory and pharmacy, time spent in history taking, time spent in examination, doctor gender, and doctor status i.e. whether consultant or not. The dependent variables were patients' satisfaction regarding overall time spent, doctor patient reception, opinion about investigations, time spent in investigations and pharmacy, appointment period and appointment time; which were all categorized as good satisfaction (recorded as = 1) and poor satisfaction (recorded as = 0).

**Results** The sample studied was 1232 patients. The number of patients interviewed from each clinic was 345 medical, 459 surgical, 207 obstetrics and gynaecology, 74 pediatrics, 52 psychiatry, 57 dermatology and 38 dental clinic. The number of patients seen according to doctor status was 484 (42.8%) by consultants, 127 (11.2%) by specialists, 517 (45.7%) by residents and 4 (0.4%) by interns.

The mean age was 34.9±15.77 years. Males constituted 45.9% and females 54.1%. Saudi nationals were 845 (68.6%) and non Saudis were 387 (31.4%). Patients eligible for treatment in KFHU were 935 (75.9%) and those not eligible were 241 (24.1%). There were 264 (21.5%) new patients and 966 (78.5%) follow up patients. Investigations were requested for 774 (62.8%) of the sample and prescriptions were issued for 491 (39.9%) (Table 1).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>566</td>
<td>(45.9)</td>
</tr>
<tr>
<td>Females</td>
<td>666</td>
<td>(54.1)</td>
</tr>
<tr>
<td>Nationality:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saudis</td>
<td>845</td>
<td>(68.6)</td>
</tr>
<tr>
<td>Non-Saudis</td>
<td>387</td>
<td>(31.4)</td>
</tr>
<tr>
<td>Patient category:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible</td>
<td>935</td>
<td>(75.9)</td>
</tr>
<tr>
<td>Not eligible</td>
<td>297</td>
<td>(24.1)</td>
</tr>
<tr>
<td>Patient type:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>264</td>
<td>(21.5)</td>
</tr>
<tr>
<td>Follow up</td>
<td>966</td>
<td>(78.5)</td>
</tr>
<tr>
<td>Investigations:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requested</td>
<td>774</td>
<td>(62.8)</td>
</tr>
<tr>
<td>Not requested</td>
<td>458</td>
<td>(37.2)</td>
</tr>
<tr>
<td>Prescriptions:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issued</td>
<td>491</td>
<td>(39.9)</td>
</tr>
<tr>
<td>Not issued</td>
<td>741</td>
<td>(60.1)</td>
</tr>
</tbody>
</table>

The patients' highest rates of good satisfaction over the six aspects of care was for the requested set of investigations (95.2%). Good satisfaction rates for time spent in the laboratory and pharmacy, and appointment period and appointment time, were 81.2%, 82.7% and 89.1% respectively. On the
other hand 71.5% of the patients showed good satisfaction with regards to doctor reception and 66.4% with the time spent before being seen by the doctor (Table 2).

Table 2 - Patients rates of satisfaction of some aspects of care in the outpatient department

<table>
<thead>
<tr>
<th>Aspect of care</th>
<th>Total no.</th>
<th>Satisfied No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction of time spent by patients:</td>
<td>1232</td>
<td>818 (66.4)</td>
</tr>
<tr>
<td>Satisfaction of doctor reception:</td>
<td>1232</td>
<td>875 (71.5)</td>
</tr>
<tr>
<td>Satisfaction of investigation:</td>
<td>774</td>
<td>737 (95.2)</td>
</tr>
<tr>
<td>Satisfaction of time spent in investigations and pharmacy:</td>
<td>801</td>
<td>650 (81.2)</td>
</tr>
<tr>
<td>Satisfaction of appointment period:</td>
<td>1102*</td>
<td>911 (82.7)</td>
</tr>
<tr>
<td>Satisfaction of appointment time:</td>
<td>1102*</td>
<td>982 (89.1)</td>
</tr>
</tbody>
</table>

* Remaining numbers responding by don't know

The number of patients who expressed a desire to have an explanation of investigations carried out by the doctor were 94.8%, and the number of patients who receive such an explanation were 66.7% (P<0.0001). Patients expecting an explanation of their diagnosis by the doctor were 97.6%, while those who were informed were 88.2% (P<0.0001). A similar proportion of patients, 97.6%, expected to receive some advice regarding their illness from the doctor, but the number of patients who actually received advice were 75.7% (P<0.0001). On the other hand, 94.9% of patients expected that they would be seen by the same doctor, but only 51.4% were seen by the same doctor (P<0.0001) (Table 3).

Table 3 - Patients expectations and services offered regarding investigations and diagnosis explanation, and advice given

<table>
<thead>
<tr>
<th>Item</th>
<th>Expectation No.</th>
<th>Offered No.</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation of investigations</td>
<td>774</td>
<td>734 (94.8)</td>
<td>515 (66.5)</td>
</tr>
<tr>
<td>Explanation of diagnosis:</td>
<td>1232</td>
<td>1202 (97.6)</td>
<td>1087 (88.2)</td>
</tr>
<tr>
<td>Advice given</td>
<td>1232</td>
<td>1202 (97.6)</td>
<td>933 (75.5)</td>
</tr>
<tr>
<td>Continuity of care:</td>
<td>1232</td>
<td>1170 (94.9)</td>
<td>634 (51.4)</td>
</tr>
</tbody>
</table>

Multiple logistic analysis of the factors predicting patients' satisfaction showed that the overall time spent by the patient increased two-fold if the patient was a male (P-0.001) and increased nine-fold if the waiting time spent before being seen was short (P<0.0001). Satisfaction about doctor reception was positively affected by the patient being male (P<0.003) and the doctor being a consultant (P<0.04). Satisfaction regarding investigations requested; the results showed that the longest time was spent in carrying out the investigations requested rather than in taking the history and carrying out the examination. Again, the patient satisfaction regarding time spent in the laboratory and pharmacy was negatively associated with the long time spent by the doctor in examination (P<0.005), but positively with the patient being a male (P<0.001).

Satisfaction regarding appointment timing was related to the type of clinic: obstetric and gynecology and the medical departments had the strongest association with patients' satisfaction; increase visiting the former was associated with a 13-fold increase (P<0.004) and the latter by an 8-fold increase (P<0.003) in satisfaction. On the other hand satisfaction regarding appointment timing was positively affected by the patient being married rather than single (P<0.007) and by shorter
time spent in the laboratory and pharmacy, (P<0.014) (Table 4).

**Discussion** The sample studied involves all age groups above 15 years and is of equal sex distribution. Half of the subjects were seen by consultants and specialists, while the other half were seen by residents. The distribution according to nationality also seems reasonable in the sense that the majority were Saudis, which helps to reflect a national opinion.

Generally our study showed high rates of good satisfaction with aspects of care received at the outpatient clinics, although at times patients showed good satisfaction with other aspects of care. Patient satisfaction has been related to good doctor-patient communication especially in relation to diagnosis and to the degree to which patients' expectation are met. Good satisfaction and the skill and will of the doctor to communicate with patients. In this respect our study indirectly points to good doctor-patient relationships, but still there is room for improvement by methods which have been tried elsewhere, such as health education stimulated by hospital libraries informing patients, and by the use of help lines operating for specific periods of time.

Good satisfaction regarding waiting time before the consultation was shown by two-thirds of the sample. The rate of good satisfaction is significantly associated with a shorter waiting time, as well as with male gender. The finding supports those shown by other studies. On the other hand, female gender was shown in our study to be associated with a low rate of satisfaction with waiting time before the consultation and when attending the laboratory and pharmacy. This could be related to the socio-cultural reasons of the role in the community of this study. Therefore, efforts should be made to give priority to female patients waiting for consultation and receiving services from the laboratory and pharmacy.

In general, patients are known to be reasonably tolerant with delays in waiting doctor, but they do object to not being told reasons for the delay. If delays are inevitable, patients should be offered an explanation and given an estimate of their altered appointment time.

Approximately three quarters of patients (71.5%) in this study showed good satisfaction regarding the reception made by the doctors. On the other hand, the study showed a lower rate of good satisfaction among females with doctors' reception than males. These findings support observations made by other workers who found females rather than males were hard to satisfy in this regard and were demanding better doctors' reception and elaborate explanations from doctors. The degree of patient's satisfaction is known to be associated with the quality of technical skill, competence and personal characteristics of the doctor. This is because patients tend to feel worried that their care may be less than adequate.

Our study also showed a high expectation by patients for continuity of care, with a low rate for what was offered in this regard. This finding supports that found by others. Continuity of care, from the health provider's side, has been known to reduce the costs and improve the outcome of care, including patient compliance. Moreover, continuity of care is a known main dimension of patients' satisfaction. Thus improving the situation regarding continuity of care is beneficial for both the health care consumer and provider, but continuity of care may be difficult to achieve due to the high turnover of doctors in training.

In conclusion, this study has revealed reasonable rates of good satisfaction of patients with outpatient department care. It also revealed a clear degree of mismatchment between patients' expectations regarding continuity of care and doctor-patient communication and what was actually offered in these two respects. The study may form a basis for further studies to assess patients' satisfaction with health care in Saudi Arabia.

**Acknowledgment** We thank all participants in this study. We are indebted to KFHU Administration, Assistant Medical Director, O.P.D. Director and personnel for their support and help. Special thanks to the medical interns who helped in data collection and data entry on the computer.

**References**

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توقعات ورضى المرضى المراجعين للعيادات الخارجية
بمستشفى تعليمي بالخبر - المملكة العربية السعودية

الأهداف:
تقييم مستوى رضاء المرضى وتوقعاتهم جوانب من الخدمة الصحية للمراجعين للعيادات الخارجية.

خطة العمل:
تم إجراء دراسة مستقبليّة مقطعية، وذلك باستخدام استبانة على عينة عشوائية من المراجعين للعيادات الخارجية.

مكان الدراسة:
العوادات الخارجية بمستشفى الملك فهد الجامعي بالخبر، المملكة العربية السعودية.

الأشخاص المعنيين بالدراسة:
عينة عشوائية تكون من 123 مراجعين نسبيًا من العيادات المتخصصة بالعيادات الخارجية.

الطريقة:
تم إجراء مقابلات للأفراد باستخدام استبانة البحث. اشتملت المعلومات التي تم جمعها على معلومات أساسية بالإضافة إلى أراء المراجعين بالنسبة لبعض أوجه العناية الصحية بالعيادات وتوقعاتهم بالنسبة لتلك الأوجه. وكانت درجة الثبات المقدرة للاستبانة حوالي 87%.

النتائج:
كان أعلى معدل للرضاء بين المراجعين ذلك الخاص بجامعة القاهرة. بينما كان أدنى معدل للرضاء بين المراجعين ذلك الخاص بجامعة القاهرة. كان هناك أيضا فرص إحصائية مهمة بين توقعات المراجعين وبين ما قدم لهما فعلاً فيها يخص بالتفاهم بين الأطباء والمرضى، وكذلك بالنسبة للعناية المستمرة للمرضى.

الاستنتاج:
أظهرت الدراسة مستويًا معيّنًا لرضى المراجعين للخدمات الصحية المقدمة في العيادات الخارجية، كما أظهرت أيضًا درجة واضحة من التباعد بين توقعات هؤلاء المراجعين وما تلقىه فعليًا في اختصاصه. من المؤكد أن تشكيل هذه الدراسة أساسًا لدراسات أوسع لقياس رضا المراجعين عن الخدمات الصحية.

مفاتيح الكلمات:
الرضاء، العيادات الخارجية، المملكة العربية السعودية.