Acta Oncologica, 2006; 45: 550–558

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ORIGINAL ARTICLE

Improvements in patient satisfaction at an outpatient clinic for patients with breast cancer

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Abstract

The present study prospectively investigated changes in patient satisfaction at an outpatient clinic for patients with breast cancer. Consecutive patients were asked to anonymously complete a questionnaire after their medical examination. The questionnaire consisted of 12 multiple-choice items concerning waiting time, interpersonal skills of physician and nurse, continuity of care, length of medical visit, communication and expectations. Finally, patients were asked for suggestions for improvements at the clinic in an open-ended question. The first measurement was conducted in 2000/2001 and the last in 2004, and between the two points of assessments efforts to develop care were introduced. Statistically significant improvements were found in eight of the 12 items: waiting time, length of medical visit, information, expectations and continuity of care. In conclusion, the questionnaire captured positive changes in patient satisfaction between the two measurements. Further changes for the better were still requested concerning continuity of care despite reported improvement.

Patient satisfaction has become an important concern in the evaluation of health services in addition to medical results and economical costs. The concept "patient satisfaction" is not clearly defined [1–5] but one definition in basic terms may be the patient's personal evaluation of the care he or she has experienced, reflecting both care realities and patient characteristics [6]. A distinction between objective satisfaction reports (i.e. waiting time) and satisfaction ratings were made by Ware [1,4]. Satisfaction ratings try to grasp the patient's evaluation of aspects of care that cannot be known by only observing the situation reflecting three variables, the patient's personal preferences, the patient's expectations and care realities experienced by the patient.

Satisfaction surveys commonly report high level of satisfaction and the results are sometimes contrasted by patients' reports on specific issues [7–9]. Williams and co-workers emphasized that patients' experiences, expressed in positive or negative terms do not necessarily correlate with the patients' evaluation of the service that generated those experiences [8]. Considering the risk for over-reported high satisfaction levels in most surveys, it is suggested that dissatisfaction only expressed when extremely negative events occurs [8,10].

In clinical practice, surveys on patient satisfaction might present important information on issues in need for improvements [2,11–13]. Results from patient satisfaction surveys might be perceived as distressing by health care staff as they are compared with other clinics or care givers at the same hospital. However, results from surveys may serve as feedback to clinical staff and repeated measurements might monitor changes in patient satisfaction. Results from patient satisfaction surveys might also serve an outcome measure in addition to objective criteria.

The outpatient breast cancer clinic at the Department of Oncology was one of seven specialist clinics at the time for the assessments of patient satisfaction. Its catchment's area covered the northern part of Greater Stockholm. The number of registered outpatient visits at the breast cancer clinic was about 12 500 in the year 2000 and 10 500 in the year 2004.

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(Received 12 September 2005; accepted 7 December 2005)

ISSN 0284-186X print/ISSN 1651-226X online
DOI: 10.1080/02841860500511239

Visits at the breast cancer clinic include diagnostic procedures, treatment, and follow-up. Between the year 2000 and 2004, the breast cancer clinic were subjected to changes derived both from health professionals and from economical constraints. Longer time was scheduled for medical appointments with physician, the fraction of patients during active treatment increased and patients during follow-up decreased during the period. For patients under active treatment, new routines were implemented, i.e. some of the medical appointments were transferred from physician to nurse specialist. In addition, endeavours to increase continuity of care were made, however inconsistently, by striving to schedule patients to one of three physicians.

The aims of the present study were to prospectively investigate changes in patient satisfaction at an outpatient clinic for patients with breast cancer.

Methods

Patient satisfaction was assessed among consecutive patients at the breast cancer clinic during four weeks in the winter 2000/2001 and for a period of two weeks in the spring 2004.

Procedure

The questionnaire was handed out by nursing staff to consecutive patients at arrival to the clinic. An information letter was stitched together with the questionnaire. The patients were encouraged in the letter to communicate their experiences and points of view in the questionnaire. They were asked to complete the questionnaire anonymously and put it into a locked post box in the waiting room immediately after their medical visit. Research staff cleared the post box, thus the staff had no access to the questionnaires.

Before the start of the first assessment, the researcher and the staff at the breast cancer clinic discussed and agreed upon routines for data collection. Issues of anonymity for patients, response rate and the expected extra workload for staff were discussed. As a consequence of a low response rate at the first assessment, the researchers intensified the information about the study, including a meeting for all professional groups together before the second assessment. In addition, short meetings with the nursing staff were held every Monday morning during the study period. The research staff also reminded the staff about the collection of completed questionnaires every second day. In addition, the nursing staff got feedback in terms of a report of the preliminary response rate after the first week of assessment.

The questionnaire

A questionnaire measuring patients' satisfaction regarding outpatient medical consultation at an oncology clinic was developed at the melanoma clinic at the Department of Oncology, Karolinska University Hospital in 1998. The development process started with a literature review and interviews with clinical specialists (physicians and nurses) to select relevant topics. Thereafter the items and the response alternatives were formulated, resulting in a preliminary questionnaire. The preliminary version of the questionnaire was tested on ten patients in an interview setting by a psychologist (YB). The questionnaire included 11 multiple-choice items in addition to questions regarding the patient's gender, age and date for completing the questionnaire. The testing procedure confirmed the relevance of the items and the response format, as well as the clarity in phrasing. The patients suggested an additional question and the final version contains 12 multiple-choice items, including both ratings and reports concerning waiting time at the clinic, continuity of care, length of the medical visit, interpersonal manner, information and fulfilment of expectations. The responses were scored in categories. In addition to the multiple-choice items, one open-ended question regarding suggestions for improvements at the clinic ended the questionnaire.

Data analysis

χ^2-tests were performed for analyzing differences in categorical data between the two points of assessment. The number of response categories for each item varies between three and six. Before performing the χ^2-tests the categories were compiled into two categories. In three items, one response category was excluded. The grouping of response alternatives is presented in Table I.

The responses to the open-ended item concerning patients' written suggestions for improvements was analysed stepwise. Firstly, one researcher (MB) read all written responses and formed preliminary categories. The categories were "Continuity of care", Waiting time", "Organisation", "Length of medical visit", "Interpersonal manners – Communication – Information", "Environment", "Accessibility", "Other" and "No suggestion". Secondly, two researchers read all comments and sorted the contents into the categories independently of each other. One comment ("I want shorter waiting time and to meet the same doctor and also more information about my disease.") could include contents that fell into more than one category ("Waiting time", "Continuity" and "Information"). Each of the three contents was accordingly sorted in one of the categories.

Table I. The grouping of response categories

Item	Response category	Compiled category
For how long after your scheduled appointment did you have to wait to meet your physician?		
	<15 minutes	<15 minutes
	15–30 minutes	>15 minutes
	30–45 minutes	>15 minutes
	45–60 minutes	>15 minutes
	>60 minutes	>15 minutes
How did you consider your waiting time?		
	Far too long	Too long
	Too long	Too long
	Acceptable	Acceptable
	I did not have to wait	Acceptable
Did you meet the same physician as you did at your previous appointment?		
	Yes	Yes
	No	No
	This is the first visit	Excluded
How important is it to you to meet the same physician at every appointment?		
	Not important at all	Not important
	Of some importance	Important
	Quite important	Important
	Very important	Important
For how long did you meet your physician at the medical appointment?		
	<5 minutes	<15 minutes
	5–15 minutes	<15 minutes
	15–30 minutes	>15 minutes
	>30 minutes	>15 minutes
Did you get sufficiently time for your medical appointment?		
	Yes	Yes
	No, it was little too short	No
	No, it was far too short	No
	No, it was too long	No
How did you consider the physician's interpersonal manner?		
	Very good	Good
	Good	Good
	Neither good, nor bad	Not good enough
	Bad	Not good enough
	Very bad	Not good enough
How did you consider the nurse's interpersonal manner?		
	Very good	Good
	Good	Good
	Neither good, nor bad	Not good enough
	Bad	Not good enough
	Very bad	Not good enough
Did you get answers to your questions?		
	Completely	Yes
	Partly	Insufficiently
	Hardly	Insufficiently
	Not at all	Insufficiently
	I did not have any questions	Excluded
To what extent were your expectations on your medical visit fulfilled?		
	Very high	High
	High	High
	Neither high, nor low	Not high enough
	Low	Not high enough
	Very low	Not high enough
	I did not have any expectations	Excluded
Did you feel well cared for at the clinic?		
	Yes, absolutely	Yes
	Yes, to some extent	No

Table I (*Continued*)

Item	Response category	Compiled category
	Hardly	No
	Not at all	No
Would you recommend the clinic at the Oncology Department to a friend in your situation?		
	Never	No
	Probably not	No
	Maybe	No
	Yes	Yes

Thereafter the two researchers' groupings of contents in categories were compared for each of the two study periods. Thirdly, in case of disagreement between the two researchers regarding the categorization, the first researcher (MB) read the comment and made the final decision of categorization of the content. During this procedure, the contents sorted in the category "Length of medical visit" was incorporated in "Organisation" and the categories "Other" and "No suggestion", which consisted of comments of praise or gratitude, were excluded. Finally, the categories representing proposed suggestions for improvements at the two study periods are presented.

Results

A total of 816 patients were registered in the administrative data system during the first study period and 431 during the last one. At the first assessment, 316 (39%) completed questionnaires were returned and 287 (67%) at the last assessment. There was no statistical significant difference in age between patients at the two points of assessment. A majority (60%) scored in the category "45 – 64 years" of age, 18% in the category "65 – 79 years" and 17% scored in the category "30 – 44 years", 3% marked "$\geq$ 80 years" and 2% in the category "18 – 29 years". No one scored in the "Male" category.

Statistical significant improvements between the first and the last assessment were found with respect to eight of 12 items. Table II shows the items, the number and the proportions of patients responding in each category. Changes incorporated in clinical practice during the study period and the items they may have influenced are suggested in Table III.

Waiting time at the clinic

A statistically significant higher proportion of patients reported shorter waiting time at the last assessment (67%, n = 187) compared to the first one (53%, n = 167) ($\chi^2 = 12.27$, df = 1, p = 0.0005). The patient satisfaction with the waiting time showed a statistically significant improvement between the first and the last assessment ($\chi^2 = 6.76$, df = 1, p = 0.009). The fraction of patients rating their waiting time in the categories compiled to "Acceptable" increased between the first (80%, n = 251) and last (88%, n = 248) measurement.

Continuity of care

The proportion of patients that reported having met the same physician showed a statistically significant increase at the last assessment (63%, n = 157) compared to the first one (52%, n = 144) ($\chi^2 = 6.33$ df = 1, p = 0.0119). The ratings of the importance to meet the same physician at every visit did not change between the two points of assessment. A small minority, about 3%, of the respondents rated it as unimportant (Table II).

Length of the medical appointment

A statistically significant difference between the two assessments was found regarding reported length of the medical appointment ($\chi^2 = 17.92$, df = 1, p < 0.0001). A higher proportion of the patients reported a medical appointment of 15 minutes or longer at the last assessment (59%, n = 168) compared to the first one (42%, n = 131). The fraction of patients that rated they had sufficient time for the medical appointment was higher at the 2004 assessment (94%, n = 267) compared to the first one (83%, n = 259) ($\chi^2 = 16.01$, df = 1, p < 0.0001).

Interpersonal manner

The proportions of patients who reported that the interpersonal manner of the nurses and physicians were "Good" exceeded 90% at both points of measurement. Thus, no statistical significant difference were found regarding the rating of the physicians' and the nurses' interpersonal manner.

Table II. Patients' responses, n (%), to the items in the questionnaire at the two points of measurement

Item	Response category	Assessment point	
		Winter 2000/2001	Spring 2004
For how long after your scheduled appointment did you have to wait to meet your physician?			
	<15 minutes	167 (53)	187 (67)
	15–30 minutes	102 (33)	75 (27)
	30–45 minutes	32 (10)	12 (4)
	45–60 minutes	8 (3)	3 (1)
	>60 minutes	4 (1)	0
How did you consider your waiting time?			
	Far too long	27 (9)	9 (3)
	Too long	34 (11)	24 (8)
	Acceptable	167 (53)	140 (50)
	I did not have to wait	84 (27)	108 (38)
Did you meet the same physician as you did at your previous appointment?			
	Yes	144 (46)	157 (56)
	No	132 (43)	92 (33)
	This is the first visit	34 (11)	30 (11)
How important is it to you to meet the same physician at every appointment?			
	Not important at all	9 (3)	8 (3)
	Of some importance	19 (6)	25 (9)
	Quite important	89 (28)	68 (24)
	Very important	195 (62)	181 (64)
For how long did you meet your physician at the medical appointment?			
	<5 minutes	10 (3)	9 (3)
	5–15 minutes	171 (55)	106 (37)
	15–30 minutes	104 (33)	130 (46)
	>30 minutes	27 (9)	38 (13)
Did you get sufficiently time for your medical appointment?			
	Yes	259 (83)	267 (94)
	No, it was little too short	44 (14)	17 (6)
	No, it was far too short	6 (2)	0
	No, it was too long	1 (0)	0
How did you consider the physician's interpersonal manner?			
	Very good	243 (78)	248 (87)
	Good	61 (20)	34 (12)
	Neither good, nor bad	4 (1)	3 (1)
	Bad	3 (1)	0
	Very bad	0	0
How did you consider the nurse's interpersonal manner?			
	Very good	195 (62)	187 (67)
	Good	102 (33)	75 (27)
	Neither good, nor bad	15 (5)	17 (6)
	Bad	1 (0)	0
	Very bad	0	1 (0)
Did you get answers to your questions?			
	Completely	219 (71)	230 (81)
	Partly	67 (22)	32 (11)
	Hardly	3 (1)	2 (1)
	Not at all	1 (0)	0
	I did not have any questions	17 (5)	20 (7)
To what extent were your expectations on your medical visit fulfilled?			
	Very high	151 (49)	185 (65)
	High	121 (39)	77 (27)
	Neither high, nor low	21 (7)	14 (5)
	Low	3 (1)	0
	Very low	2 (1)	0
	I did not have any expectations	12 (4)	8 (3)
Did you feel well cared for at the clinic?			
	Yes, absolutely	276 (90)	274 (96)
	Yes, to some extent	26 (8)	10 (3)

Table II (*Continued*)

Item	Response category	Assessment point	
		Winter 2000/2001	Spring 2004
	Hardly	4 (1)	1 (0)
	Not at all	2 (1)	1 (0)
Would you recommend the clinic at the Oncology Department to a friend in your situation?			
	Never	0	1 (0)
	Probably not	4 (1)	2 (1)
	Maybe	33 (11)	8 (3)
	Yes	268 (88)	271 (96)

Information

A statistically significant higher proportion ($\chi^2 = 12.11$, df = 1, p = 0.0005) of the patients rated that they "Completely" got answers to their questions at the last assessment (87%, n = 230) compared to the first one (75%, n = 219).

Fulfilment of expectations

No statistically significant change was found regarding how the patients rated the fulfilments of their expectations on the medical visit. The proportion of patients who reported a "High" fulfilment of their expectations went beyond 90% at both assessments.

To the question "Did you feel well cared for at the clinic?" a statistically significant higher proportion of the patients scored in category "Yes, absolutely" at the last assessment (96%, n = 274)) compared to the first one (90%, n = 276) ($\chi^2 = 8.29$, df = 1, p = 0.004).

Finally, a statistical significant higher fraction of patients responded "Yes" to the question "Would you recommend the clinic at the oncology department to a friend in your situation?" at the last measurement (96%, n = 271)) ($\chi^2 = 13.22$, df = 1, p = 0.0003) compared to the first one (88%, n = 268).

Patients' suggestions for improvements

At the first assessment, 138 patients (47%) responded to the open-ended question regarding suggestions for improvements at the clinic. At the last measurement, 80 patients (28%) wrote comments. The numbers and fractions of contents for each category, for the two study periods are displayed in Table IV.

The contents sorted in the category of "Continuity" frequently consisted of requests to meet the same physician at every medical appointment or at least a decrease in the number of physicians involved at the medical appointments. In the category "Waiting time" shorter waiting time before the medical appointment, waiting time to various medical procedures and waiting time to get an appointment were included. Request for more efficient collaboration between units both within the clinic and within the hospital were examples included in the category "Organisation". Contents consisting of wishes for

Table III. Changes in clinical practice which might explain improvements in patients' satisfaction between the first and second assessment

Changes in clinical practice	Variable
Extension of the shortest time module in the booking schedule, from 15 to 20 minutes	"Length of medical appointment" "Waiting time at the clinic" "Information" "Feeling well cared for"
A decrease in the number registered medical appointments	"Waiting time at the clinic"
Efforts to limit the number of physician involved in the care of patients on active treatment	"Continuity of care" "Information" "Feeling well cared for"
A higher fraction of patients on active treatment	"Continuity of care"
Selected visits to nurse specialists instead of physician	"Continuity of care" "Information" "Feeling well cared for"

Table IV. The numbers and percentages of contents in the categories at the two study periods

	First assessment		Last assessment	
Category	n	%	n	%
"Continuity"	44	34	14	23
"Waiting time"	32	25	7	12
"Organisation"	21	16	14	23
"Interpersonal skills-Communication-Information"	17	13	10	16
"Environment"	12	9	10	16
"Accessibility"	4	3	6	10
Total	130	100	61	100

help to formulate questions, requests for information and insufficient possibilities to discuss issues related to the disease were included in the category "Interpersonal skills – Communication – Information". The category "Environment" included wishes for a quieter waiting room with more possibilities for distraction (magazines, music, art posters). Improvements in possibilities to reach physicians and nurses between appointments were suggestions that constituted the category "Accessibility".

Discussion

The results of the first assessment of patient satisfaction in the winter 2000/2001, together with organisational and economical constraints, constituted a starting point for care development at the breast cancer clinic. The second assessment took place in the spring 2004. In addition, a measurement (data not shown) was also performed between the first and second presented assessment, revealing a low response rate but similar rates of satisfaction as the presented second assessment. Improvements of statistical significance were found for eight of the 12 items in the questionnaire, all in a positive direction. Several of the changes implemented at the breast cancer clinic during the years between the two assessments might explain the improvements in patient satisfaction.

The clinic aims at reducing waiting time to a maximum of 15 minutes. At the first assessment, almost half of the patients reported having waited more than that time. However, the reported waiting time decreased from the first to the second assessment, corresponding to the increase in the fraction of patients who rated their waiting time as "Acceptable" at the second assessment. The finding that a higher proportion of suggested improvements concerned "Waiting time" in response to the open-ended question at the first assessment compared to the last one (25% vs. 12%) further supports this improvement. In addition, an increase in length of the medical appointment was reported, and the ratings on the item about sufficient time for the medical appointment also improved from the first compared to the last assessment. Longer time booked for medical appointments was introduced between the assessments; in 2004 the shortest time module was 20 minutes instead of the previously 15 minutes module, possibly contributing to the improvements in waiting time.

The insufficient continuity at the breast cancer clinic at the first assessment was probably not too surprising, as continuity was regarded as a great problem for patients, nurses and physicians previously. Thus, the improvement in continuity in terms of meeting the same physician was encouraging, especially as efforts were made during the study period to schedule patients on active treatment to a limited number of physicians with primary responsibilities for the patient. Concerning the results of the open-ended item, the category "Continuity" represented the most common suggestions for improvement, further indicating that issues of continuity should remain a priority in care development.

The importance of continuity has been documented in several studies [1,4,14,15]. The fraction of patients that rated continuity as unimportant was low (3%). For patients in primary health care continuity has been shown to be the main priority when it comes to serious health problems with exceptions for emergency situations [15]. Patients at the breast cancer clinic have a serious medical condition and most patients have several contacts with a number of care providers outside the breast cancer clinic, both other specialists and in primary health care. The negative aspects expressed by patients concerning the deficient continuity included feelings of being treated as a "medical condition", weary of repeatedly having to tell ones story and concerns, and taking on too many responsibilities to keep things in mind regarding the medical treatment. Several aspects of importance for patient satisfaction are probably linked with the sameness of care provider, e.g. getting answers to questions

and feeling well cared for, items with improved results at the last assessment.

The questionnaire used in the present study was developed to assess patient satisfaction at the outpatient clinic at the Department of Oncology, Karolinska University Hospital, based on the literature on assessment of patient satisfaction. The items included ratings and reports that corresponded to domains cited in the literature "waiting time" [1,12–14,16,17], "continuity" [1,4,14], "length of appointment" [16–18], "interpersonal manner" [1,12–14,16–18], "information" [1,3,12,14,18] and "expectations" [3,4]. The first questionnaire was tested on ten patients, asking about comprehensiveness and relevance. In a previous study (unpublished data), the questionnaire was shown to be sensitive to differences in level of satisfaction between different patient groups at the Department of Oncology. Thus, although no formal testing of validity and reliability has been performed, the item generation including the testing procedure should provide a sufficient level of content validity [19].

The low response rate at the first assessment in the present study complicates the interpretation of the results, as issues of bias cannot be ruled out. Levels of response rates is crucial with reference to generalizeability of results, but are not routinely reported in surveys of patient satisfaction [20]. Non-respondents may differ from respondents in aspects of importance with respect to patient satisfaction [20]. In the present study questionnaires were completed anonymously in order to diminish the influence of social desirability, gratitude and dependence therefore it was not feasible to investigate any aspect of non-respondents.

The difficulties in data collection in clinical settings are often overlooked. In order to improve the proportion of patients at the clinic included in the second assessment of patient satisfaction an information meeting for all professional groups at the breast cancer clinic was held immediately before the start of the last assessment where the importance of a high response rate was emphasized. In addition, research staff cleared the locked box with completed questionnaires every second day and blank questionnaires to be handed out were delivered. This procedure served several purposes, firstly to protect the anonymity for patients, secondly to avoid additional workload for nursing staff and thirdly it was a recurrent reminder of the ongoing measurement and the importance of a high response rate. Moreover, preliminary results concerning the number of completed questionnaires and estimated response rate was reported to nursing staff after the first week with the intention to encourage them to further enhancement.

Between the two points of assessment there was a decrease in the number of registered medical appointments at the breast cancer clinic; more patients in follow up were referred to primary care, resulting in a higher fraction of patients on active treatment. In addition, some visits for patients on active treatments were transferred from physicians to nurse specialists. Both these changes might have contributed to facilitating the introduction of the increase in length of the time module. Furthermore, efforts were made to limit the number of physicians involved in the care of patients on active treatment. Despite the problems in drawing any causal conclusions, changes in clinical practice and the items they may have influenced are suggested in Table III.

Changes in patient satisfaction over time are rarely measured in contrast to cross-sectional studies [2,20]. The present study investigated changes in levels of patient satisfaction and the design with two points of measurements and an ongoing routine clinical practice with a constant intention to improve various aspects of care in between does not, however, allow for any causal relationship. Evaluation of patient satisfaction in complex clinical practice will almost always take place with deficient control over the independent variable. However, all changes in the present study were in a positive direction, suggesting an effect of the improvements at the breast clinic.

For the future care development at the clinic it is important to consider the possibilities for further improvement and to recognize the significance of continuity. A decision about objectives concerning continuity is demanded corresponding to the aim of a maximum waiting time of 15 minutes. The patients should also know these aims.

Conclusion

A questionnaire was constructed to measure patient satisfaction with the medical appointments at the Department of Oncology. Consecutive patients at the breast cancer clinic completed questionnaires in 2000/2001 and in 2004. During that time period, several improvements were introduced at the clinic. The questionnaire captured positive changes in patient satisfaction in eight of 12 items. One of the improvements concerned the continuity of care-however, further improvements are still requested.

Acknowledgements

The study was supported by the Stockholm County Council and the Swedish Cancer Society.

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