

Experiences of In-Patients with Skin Cancer in a German University Hospital Setting: A Cross-Sectional Survey

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Purpose: An important measure of hospital quality is the satisfaction of the patients receiving in-patient care. This cross-sectional study aimed to assess skin cancer patients' experiences in a university hospital setting as a measure of quality of cancer care.

Patients and Methods: Questionnaires were mailed to patients with skin cancer after receiving in-patient overnight treatment in the dermatological unit of the university hospital Erlangen (Germany) from 1 September to 30 November 2017. Patients were asked to evaluate their overall experience of this episode of care and to complete the Picker Inpatient Survey questionnaire on specific aspects of their care, such as patient satisfaction regarding contact with staff, need for information, recommendation of the hospital as well as tumor-specific questions. The results were re-coded as problems and reported as frequencies and their percentage.

Results: A total of 103 of 159 questionnaires were returned (64.8%). All patients rated the treatment and care they had received to be good or very good. Additionally, all patients would recommend our in-patient clinic to their families or friends. The patients most commonly criticized inconsistency of care delivered by the same physician (29.7%, 30/101) and feeling of insufficient involvement in the decision-making processes (21.1%, 20/95). Besides this, 19.0% (11/58) and 34.6% (18/52) of patients were not satisfied with physicians and nurses, respectively, appropriately addressing their fears or anxieties. In the cancer-specific questionnaire, the majority of patients were dissatisfied with further support regarding professional and social rehabilitation possibilities (85.7%, 30/35) and psycho-oncology (56.3%, 18/32).

Conclusion: Overall, the majority of patients were satisfied with the in-patient skin cancer treatment. However, physicians and nurses can enhance patient satisfaction by addressing patients' fears and anxieties regarding their disease and treatment. Besides, our results highlight the importance of psycho-oncological support.

Keywords: patient satisfaction, quality improvement, dermatology, hospital evaluation, in-patient experiences, skin cancer

Introduction

Patient satisfaction is the net result of their experience of health care.¹ It is a key parameter to measure the quality of care in a hospital; furthermore, it is perceived as equally important as traditional measured outcome parameters like mortality.²⁻⁴ In the absence of a common definition, measuring patient experience remains challenging and benchmarking is necessary in order to come to meaningful conclusions and comparisons, both intramural and extramural. Despite their different

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meanings, patient experience is often interchangeable with terms such as patient satisfaction, perceptions or preferences.⁵ However, patient experiences are usually perceived as less subjective than patient satisfaction as patients can be satisfied with the health-care system despite having had negative experiences and vice versa.⁶

It is increasingly recognized that patients' perspectives are crucial for quality care, as they provide information on the provider's success in meeting patients' expectations from their own subjective perspective.^{7–10} Regular assessment of patient satisfaction in a hospital-based setting is essential for identifying problems that need to be resolved in order to improve the quality of health services.¹¹ Additionally, patient satisfaction might have an influence on whether patients are willing to further recommend the respective hospital or not.^{1,7} Furthermore, higher patient satisfaction with health services has a positive effect on patients' behavioral intentions, such as adherence to the treatment and follow-up appointments, which ultimately leads to better treatment outcomes.^{1,12}

It has become common practice for health organizations to measure patient satisfaction and, as a result, various tools have been developed and implemented to measure patient satisfaction.^{13–15} In Germany, hospitals have been legally obliged to provide information about their work in quality reports since 2005.¹⁶ The quality reports provide an overview of the structures and services of hospitals. Measuring patient satisfaction has therefore become an essential and mandatory part of the quality assurance process.^{16,17}

Here, we report the results of the most recent evaluation of the satisfaction of skin cancer patients with in-patient (i.e. overnight) treatment at the department of dermatology of the University Hospital Erlangen. The results will identify specific aspects of the treatment algorithm that are good as well as those that need to be improved in the future to increase patient satisfaction.

Patients and Methods

Study Design, Setting, and Participants

This cross-sectional study was conducted as part of the mandatory quality assurance of German hospitals. The University Hospital Erlangen is a tertiary treatment center and teaching hospital of the medical faculty of the Friedrich-Alexander-University (FAU) Erlangen-Nürnberg. This study was approved by the institutional

review board of the University Hospital (UK Erlangen) (approval number 20200812 01).

All patients ≥ 18 years who had been admitted to the dermatological clinic and who had been discharged from 1 September to 30 November 2017 were eligible for participation. Patients with pre-defined main diagnosis of skin cancer according to ICD-10 were included and deceased patients as well as patients who had been re-admitted during that period of time were excluded in this study. Participation was voluntary and each participant was allowed to participate only once in the survey (cross-sectional design). Refusals were documented, no incentives were provided. The cyclical survey was conducted similar to a postal vote. Overall, 157 patients received a questionnaire by mail without personal identification as well as a pre-printed reply card with the patient's address as sender. Both of them were sent back separately together with the statement regarding informed consent, hence, no systematic assignment was traceable. A double reminder system was deployed to ensure a high return rate of the questionnaires.

Survey

The Picker Patient Experience Questionnaire is a validated and reliable tool to assess in-patient experience.¹⁴ It has been used to evaluate hospital service quality in many countries. We used the German version of the validated in-patient Picker Patient Experience as well as the add-on for tumor-specific questions.¹⁴ The questionnaire consisted of 44 items on various aspects of in-patient care, such as patient satisfaction regarding the physician-patient and nurse-patient relationship, information needs, and general impression. In addition, socio-demographic data such as age, health insurance status and gender were obtained. Moreover, participants could add further comments and suggestions for improvement in a free-text field. The items mainly included closed questions and used a 3/4-point Likert scale (graded for example as “yes, always”, “yes, sometimes”, “never” and “I do not need to ask”, respectively). All individual questions that measured potential problems were dichotomized as a problem score (“yes, sometimes” and “never”), indicating the presence or absence of a problem.¹⁸

Data Analysis

Descriptive statistics was used to describe patient demographics and the results were reported as frequencies

and their percentage (%). Microsoft Excel 2010 was used to analyze the data. The open-ended questions were analyzed qualitatively. No sample size calculation was performed due to the explorative design of the survey. Missing data were addressed by indicating the number of participants considered in each analysis. Aggregated dates were provided by BQS Institut für Qualität & Patientensicherheit GmbH.

Results

Baseline Characteristics

Overall, 103 of 159 questionnaires were returned; 31 patients were female and 68 were male ($n=4$ missing) (Table 1). The majority were over 74 years (45/103, 43.7%) of age, followed by 65–74 years (25/103, 23.3%) and 55–64 years (14/103, 13.6%). Seven patients were aged between 36 and 54 years (6.8%) and one patient was below 35 years (1.0%). The majority rated their general wellbeing as good (53.4%, 55/103). Nearly 60% of the patients (59.2%, 61/103) had public health insurance. Besides, half of the patients stated to be affected by a chronic disease (46.6%, 48/103) and most of them stated that their chronic disease lasted between 6 months and a year (39.6%, 19/48).

Dissatisfaction with Physician and Nurse Performance

The most poorly rated aspect according to the patients was the involvement of several physicians in the treatment algorithm (29.7%, 30/101; Table 2). Besides, 21.1% of patients (20/95) felt insufficiently involved in the decision-making processes about their disease or treatment. Another 19.0% of patients (11/58) were also unsatisfied with physicians not appropriately addressing their fears or anxieties about their condition or treatment. Additionally, 34.6% of the patients (18/52) were unsatisfied with how the nurses addressed their fears or anxieties. Furthermore, 15.7% of patients (16/102) criticized that the results of their examination had not been explained to them understandably by the physicians.

General Impression

Regarding the general impression of the department of dermatology, all patients rated the treatment and care they had received to be good or very good and, additionally, all patients would recommend the department of dermatology to their family or friends (Table 2).

Table 1 Baseline Characteristics of the Included Patients (%(N))

Gender (n=103)	
Female	29.1% (31)
Male	66.0% (68)
Not specified	3.9% (4)
Age (n=103)	
18–35 years	0.9% (1)
36–54 years	6.8% (7)
55–64 years	13.6% (14)
65–74 years	23.3% (24)
≥74 years	43.7% (45)
Not specified	11.7% (12)
Health insurance status (n=103)	
Statutory health insurance	59.2% (61)
Statutory health insurance with private supplementary insurance	15.5% (16)
Private health insurance	13.6% (14)
Private health insurance with aid	7.8% (8)
Not specified	3.9% (4)
Education (n=103)	
No school-leaving certificate	0.9% (1)
Primary school/secondary school diploma	15.5% (16)
Primary school/secondary school leaving certificate and completed apprenticeship	34.0% (35)
Secondary school leaving certificate without university degree	15.5% (16)
Abitur without university degree	6.8% (7)
University degree	21.4% (22)
Not specified	5.8% (6)
General wellbeing (n=103)	
Bad	2.9% (3)
Mediocre	23.3% (24)
Good	53.4% (55)
Very good	17.5% (18)
Excellent	0% (0)
Not specified	2.9% (3)
Chronic disease (more than 6 months) (n=103)	
Yes	46.6% (48)
No	45.6% (47)
Not specified	7.8% (8)
Duration of chronic disease (n=48)	
6 months – 1 year	39.6% (19)
1–3 years	16.7% (8)
3–5 years	2.1% (1)
≥ 5 years	29.2% (14)
Not specified	12.5% (6)

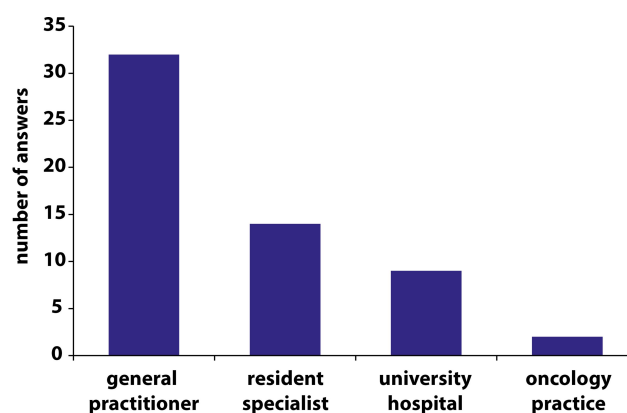
Moreover, 17% (17/100) of the patients stated that complications arose after their discharge from the hospital.

Table 2 Problems Identified for Every Item of the Picker Patient Experience Questionnaire

Item	n	% (N)
Satisfaction with physician performance		
No particular physician was responsible for the care and took regular care of the patient	101	29.7% (30)
Patient did not receive understandable answers when asking important questions to a physician	94	10.6% (10)
Physicians did not discuss the condition or treatment-related fears or anxieties with the patient	58	19.0% (11)
No trust in the physician	103	6.8% (7)
Physicians were unfriendly and not understanding	103	1.0% (1)
Physicians were not there for the patient when they were in need	97	3.1% (3)
The results of investigations have not been explained to the patient in an understandable way	102	15.7% (16)
No sufficient involvement in the decision-making processes about the treatment	95	21.1% (20)
Satisfaction with performance of nurses		
Patient did not receive understandable answers when asking important questions to the nurses	88	9.1% (8)
Nurses did not discuss the condition or treatment-related fears or anxieties with the patient	52	34.6% (18)
No trust in the nurses	102	10.8% (11)
Nurses were unfriendly and not understanding	103	3.9% (4)
No provision of help going to the toilet	20	15.0% (3)
Unreasonable waiting time after pressing the bell until receiving required assistance	34	5.9% (2)
Nurses were not there for the patient when they were in need	93	2.2% (2)
General impression		
No improvement of the complaints that led the patient to stay in the hospital	69	7.2% (5)
Complications arose after the discharge from the hospital	100	17.0% (17)
No success of the medical treatment	74	2.7% (2)
Insufficient treatment and care received	101	0.0% (0)
No recommendation of the hospital to family or friends	101	0.0% (0)

Tumor-Specific Dissatisfaction

Most patients stated their general practitioner to be the caring physician besides those of the skin cancer center, followed by a specialist in private practice (Figure 1, Table 3). The majority of patients (85.7%, 30/35) were dissatisfied with further support, especially with the offer of social services of the tumor center to professional and social rehabilitation possibilities (Table 3). Another 56.3% (18/

**Figure 1** Bar chart illustrating patients' caring physicians besides the tumor center (n=43; multiple answers possible; not specified: n=60).

32) criticized that they had not been offered support from the psycho-oncology service after the diagnosis of their cancer condition. Additionally, most patients were dissatisfied with the opportunity to talk to other employees at the tumor center about their disease: 87.5% (7/8) of patients stated to not have had sufficient opportunity to talk about their illness in peace and quiet with other employees and 72.7% (8/11) voted to have insufficient opportunity to talk to a psycho-oncologist about their disease. Furthermore, 71.4% (5/7) of patients criticized that other employees did not respond appropriately to their fears and concerns regarding their disease, followed by 60.0% (6/10) who criticized the psycho-oncologists for inadequately addressing their fears and anxieties.

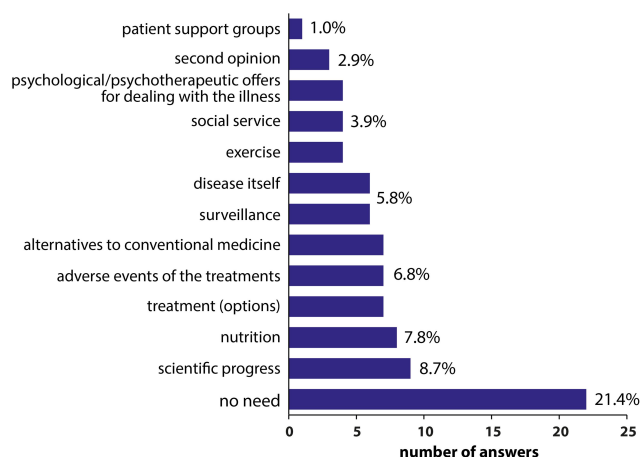
Regarding additional information requested by skin cancer patients, the majority responded that they did not need additional information, followed by additional information on scientific progress, nutrition, the treatment itself or the treatment options, the side effects of the treatment and alternative therapies to conventional medicine (Figure 2).

Discussion

This cross-sectional study provided insights into the satisfaction of skin cancer patients receiving in-patient treatment at a major German skin cancer center in a university hospital-based setting. Overall, the patients in our study were highly satisfied with the treatment and care provided, including the performance by both physicians and nurses. All patients rated the treatment and care they had received to be good or very good and additionally, all patients would recommend the department of dermatology to their family or friends. This highlights that patients'

Table 3 Additional Problems Identified Among Patients with Tumor Diseases

Item	n	% (N)
Insufficient opportunity to talk to the physician at the tumor center about the illness in peace and quiet	47	12.8% (6)
Insufficient opportunity to talk to the nurses of the tumor center in peace about the disease	22	40.9% (9)
Insufficient opportunity to talk to the psycho-oncologists at the tumor center about the illness	11	72.7% (8)
Insufficient opportunity to talk about the illness in peace and quiet with other employees of the tumor center	8	87.5% (7)
The physician at the tumor center inadequately addressed the patients' fears and concerns regarding the illness	37	10.8% (4)
Nurses at the tumor center have responded inappropriately to the patients' fears and concerns regarding the illness	20	35.0% (7)
The psycho-oncologists at the tumor center inadequately addressed the patients' fears and concerns about the diseases	10	60.0% (6)
Other employees of the tumor center responded inappropriately to the patients' fears and concerns regarding the disease	7	71.4% (5)
Information		
The physician did not explain the individual treatment steps in an understandable way	46	10.9% (5)
The physician did not explain the different treatment alternatives in an understandable way	36	16.7% (6)
Involvement		
Insufficient involvement in setting the treatment goals and the treatment plan	43	25.6% (11)
Patient had insufficient time to consider the decisions	33	18.2% (6)
Further support		
Family and other life situation have been insufficiently improved with the current treatment considered	19	15.8% (3)
Psycho-oncology service after the diagnosis of the illness has not been offered	32	56.3% (18)
No information by the social service of the tumor center regarding professional and social rehabilitation possibilities	35	85.7% (30)
Involvement of relatives		
Conversation and information offers were not helpful for the patient's relatives	15	33.3% (5)
Support and treatment outside the tumor center		
Attending physician did not have all the information needed from the tumor center	30	3.3% (1)
Family physician/specialist has given other statements about the illness/treatment than the staff at the tumor center	42	9.5% (4)

**Figure 2** Bar chart showing patients' desire for information in the tumor center (n=41, multiple answers possible; not specified: n=64).

expectations regarding their in-patient experience at the dermatological department were oftentimes met. These findings are similar to the results of a survey on patient satisfaction in the dermatological unit of the university hospital of Würzburg in Germany, where nearly all of 332 patients (98%) patients stated that they would like to be treated in the clinic again.¹⁹ However, comparison is limited as the questionnaires deployed in Würzburg differed from the questionnaire used in our survey.¹⁹

Inconsistency of care by the same physician, i.e. change of doctor, and the feeling of insufficient involvement in the decision-making processes about the disease or respective treatment were among the most criticized aspects reported by the patients. Shared decision-making has become a crucial and substantial concept in cancer care over the last years.²⁰ A questionnaire study among two German skin cancer centers demonstrated that more than 80% of melanoma patients want to play an active role, i.e. either autonomous or collaborative, in treatment decisions, while 17% want to fully delegate their decision to the physician.²¹ Thus, shared decision-making has also been adopted as an explicit goal in the German evidence- and consensus-based guideline on the treatment of melanoma.²² The reported lack of involvement in decision-making in our study might be explained by the limited time resources of the physicians for consultation or by insufficient knowledge about appropriate decision-aids due to the abundance of different sources such as booklets, videos or internet webpages with varying quality.^{23–25} However, the increasing complexity of new therapies as for example immune checkpoint blockade may be a serious barrier for shared decision-making.

Nevertheless, patients expect their physicians to advise them about information resources such as the internet or booklets, which they could use in addition to medical consultations, as has been demonstrated in a cross-sectional survey of melanoma patients in 27 German skin cancer centers.²⁶ In another analysis, the authors also highlighted that younger clinicians tend not to recommend additional sources of information and support in contrast to older clinicians, while non-recommending of decision-aids was irrespective of the clinicians' gender and qualification.²⁷ Hence, especially younger dermat-oncologists should be encouraged to involve their patients in the decision-making processes about the disease or respective treatment. Besides, counseling with experienced dermat-oncologists about their preferred decision-aids might be a first step towards improved shared decision-making.

Surprisingly, many patients were not satisfied with the physicians appropriately addressing their fears or anxieties. This indicates an important need of the patients in this sample regarding the highly sensitive topic of skin cancer. However, especially in terms of short or restricted stays of the patient at the hospital, it is difficult for both the physician as well as the patient to create a substantial relationship. The importance of emotional support was also identified in a survey on patient satisfaction from Italy,²⁸ which matches our results as well. As a result, the respective hospital management decided to offer training to improve the communication skills of the staff.²⁸

Interestingly, more than half of the patients stated to be dissatisfied with information about the support by a psycho-oncologist, although the structural requirements of a qualified psycho-oncology program are an essential aspect of comprehensive patient care and have been established in certified skin cancer centers such as Erlangen.^{22,29,30} Overall, our findings are in line with the results from a German multicenter, cross-sectional study among 529 melanoma patients where most patients (55%) felt poorly or not at all informed about psychosocial support as well.³¹ Nevertheless, the sole medical assessment might deviate significantly from the actual patient need and is therefore not always an adequate indicator for the identification of a need for care and information.³² Interestingly, nearly all certified skin cancer centers in Germany, Switzerland and Austria reported offering information/counseling, crisis intervention, one-on-one discussions, and palliative/end-of-life care as part of their psycho-oncology program.³³ Furthermore, the

majority of centers in this sample admitted that their psycho-oncology programs primarily focus on in-patients.³³ However, in addition to the psychosocial burden, the desire for support should be assessed and patients should be provided with access to additional psychosocial care and support.^{34,35} In general, there is an urgent need to raise awareness of psycho-oncology not only in the hospitals but also in private practice, which has been confirmed by a recent survey on psycho-oncological care in dermatological practices in Germany.³⁶

Conclusion

Overall, the majority of patients were satisfied with their treatment. Ideally, patient care should be provided by one-and-the-same physician, at least during regular working hours. Physicians and nurses can enhance patient satisfaction by addressing patients' fears and anxieties regarding their disease and treatment. Besides, physicians should try to care consistently for the same patients. Additionally, tumor centers should encourage and strengthen patients' contact with psycho-oncologists.

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Disclosure

Lucie Heinzerling reports grants from Novartis, honoraria for advisory board, presentations from Curevac, BMS, MSD, Amgen, Novartis, Roche, Pierre Fabre, Sanofi, and clinical studies for Curevac, BMS, MSD, Amgen, Novartis, Roche, Pierre Fabre, Sanofi, during the conduct of the study. The remaining authors report no potential conflicts of interest in this work.

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