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Patient satisfaction study in the Positron Emission Tomography Unit at the Salah Azaïez Institute in Tunis

Abstract

Background: Patient satisfaction is often assessed in the improvement of management. It is an indicator of the quality approach of the health system from an accreditation perspective.

The aim of our study was to assess the satisfaction of patients in regards to their care in the PET-CT Unit of the Salah Azaïez Institute and consider improvement actions.

Methods: We conducted a prospective study over a period of 5 months which involved 50 patients. These patients were consenting and answered anonymously to a satisfaction survey. It is divided into five categories: making appointments, administrative reception, the conduct of the examination, delivery of results and the overall judgment concerning the nuclear medicine center. At the end of this questionnaire, we have reserved a box for suggestions

Results: The average age was 38-36 years with a female predominance (sex-ratio = 0,78). Thirty patients were still active. Responses showing "very good" satisfaction with making appointments varied between 86-98%, administrative reception 92%, the conduct of the examination between 70-86%, delivery of results between 88 -98% while the overall assessment for the nuclear medical center was 88%.The main reasons for dissatisfaction was: the discomfort of the rooms, the lack of availability of the technicians, the exaggerated phobia of irradiation and insufficient explanations given in the course of the examination.

Conclusion: Even though 88% of patients expressed overall satisfaction, main reasons for dissatisfaction expressed must be taken into account to improve the quality of care in order to start the process of accreditation of our service.

Keywords: patient, quality, satisfaction, PET

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I Yeddes, I Meddeb, M Somai, S Bannour, I Slim, A Mhiri
Department of Biophysics, Faculty of medicine of Tunis, Tunisia

Correspondence: Imene YEDDES, Department of Biophysics, Faculty of medicine of Tunis, Tel 00216 95539008, Email imeneyeddes@yahoo.fr

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Introduction

The provision of quality medicine is a concern as old as medicine itself. Mesopotamian, Egyptian, Roman and Arab physicians were already confronted with binding obligations of means and results.

Today, user or patient satisfaction is often evaluated in the improvement of the management of health care institutions. It is an indicator of the quality of the health system. According to the World Health Organisation "WHO": "quality of care is an approach that makes it possible to guarantee to each patient diagnostic and therapeutic acts ensuring the best result in terms of health in accordance with the current state of medical science at the most optimum cost for the most efficient result at the least iatrogenic risk for his or her greatest satisfaction in terms of procedures, results and human contact within the care system..."..[1]

As a result, this universal concern to improve the quality of care and services in health care institutions is increasingly felt, despite the fact that hospitals are confronted with several types of difficulties that hamper this quality. Measuring patient satisfaction is part of a global context of increasing user involvement in the organization of the health system and the growing importance of quality approaches. The service rendered to the customer and therefore his or her appreciation are central and patients are now active partners in the care they are offered.[2],[3]

Indeed, measuring the quality of care makes it possible to value the work accomplished, to give confidence to professionals and patients that the quality of the service is being maintained and to provide proof of the progress made.

Nevertheless, in Tunisia, there is no system for monitoring patient satisfaction, nor is there a regulatory text imposing its measurement on health structures.

It is therefore within this framework that at the level of the Positron Emission Tomography unit coupled with computed tomography (PET-CT) recently installed in the nuclear medicine department at the Salah Azaïez Institute that a satisfaction survey of patients who had a PET-CT examination in the framework of exploration of their pathologies was carried out.

The aim of this work is to evaluate the satisfaction of patients with their care in the department and to suggest ways of improving the results.

Patients and methods

We conducted a prospective study over a period of 5 months (August 2020-December 2020), collecting patients referred to the nuclear medicine department for a Positron Emission Tomography-Computed Tomography (PET-CT) examination.

These patients (or Gaurdian if under age) were contacted on average four days before the examination by a doctor (senior or intern). Patients with comprehension problems, mental disabilities or those who did not receive their results in person and could not be contacted afterwards were not included in this study.

Our PET unit is part of the nuclear medicine department of the Salah Azaïez Institute. It was inaugurated on 26 November 2019.

It is composed of:

I. A reception room which also serves as a waiting room.

II. A preparation room where the patient's blood sugar level and weight are measured and a cannula has been placed on the patient.

III. Three individual injection boxes where the radioactive product was administered to the patients as they remain at rest, in a semi-sitting position without talking or reading for an average of one hour

IV. A toilet equipped with a bowl dedicated to radioactive products

V. A machine room where the patient has been asked to remain still under the PET machine between 30 and 45 minutes.

VI. An adjoining acquisition room with a direct view of the machine and the patient.

VII. In a separate space, the interpretation room, the secretariat and the head of the department's office.

VIII. Eleven doctors, nine imaging technicians, an anaesthesia technician, a front desk agent and a supervisor ensure the smooth running of the department.

The PET scan applications were submitted by patients, their parents or their doctors. A leaflet explaining the examination, in two languages (French and Arabic), was given at the same time.

Five to four days before the examination, a sorting by order of priority of these requests was made by the doctors. The patients were classified according to a pre-established schedule in an examination programmed table.

Afterwards they were contacted by telephone while insisting on essential points specific to this procedure:

I. Information on their pathologies,

II. The time between this examination and certain treatments such as surgery, chemotherapy, radiotherapy...

III. The other complementary examinations carried out,

IV. The 6-hour fast with permission to drink water,

V. Stopping certain medications before the examination,

VI. The obligation to arrive at the time indicated on the schedule.

During the course of the interviews, the participants were asked to complete a questionnaire on the current situation in the department and on the interest of the department in improving the services provided. Their oral consent was sought individually and each was free to decide on their participation.

The questionnaire included items related to patient satisfaction and anamnestic data (age, gender, and level of activity...). These elements allowed for the measurement of overall satisfaction in two different ways: participants answers to the questions and the proposal of suggestions.

Satisfaction was broken down into three components:

- The quality of patient-physician communication;
- The consideration that caregivers had for the patients;
- The general impression that the patients had of the service.

Patients were informed about the anonymous survey in the form of a questionnaire.

This satisfaction survey was divided into five items and included ten questions on Making appointments, administrative reception, the course of the examination, the delivery of the results and the overall assessment.

And for the sake of clarity, the proposed answers were: very good, fair or insufficient.

At the end of this questionnaire, a box was reserved for suggestions to ensure we cover all angles and collate as much information as possible.

Responses were collected either when the results were handed in, or remotely by telephone.

When the results were collected, the patients, or guardian (if the patient was a young child), were invited to answer the questionnaire anonymously.

In the case where the user had reading or comprehension difficulties, or if the results were not handed over directly; answers were taken orally while the doctor filled in the answer boxes without specifying the patient's name on the form. Everyone was free to ask questions if necessary.

Results

All the patients interviewed answered the questionnaire. Fifty responses were counted. The average age of our patients was 38-36 years with extremes of 5 and 67 years. Eight patients were under 20 years of age, two of whom were under 10 years and eight of whom were over 60 years of age. While the majority, 34 patients, were between 20 and 60 years of age. There was a predominance of females, with a sex ratio of 0.78. Thirty patients were still active, either continuing their studies (seven pupils and students) or working.

The response to the questionnaire by the 50 patients are summarised in the following table (Table 1).

At the end of the questionnaire, patients were asked to give us their comments or suggestions in order to complete our survey as well as possible and to propose solutions based on these remarks. The four main causes of patient dissatisfaction were: the discomfort of the rest room, the average availability of the manipulators, the exaggerated phobia of irradiation and the inadequacy of the explanations given on the course of the examination.

The responses were as follows: (Table 2).

Some patients made suggestions, namely

I. Change the chairs in the rest room and improve the lighting

II. Educate and insist on patients keeping the room clean

III. Accommodate one patient at a time in the reception room

IV. Insist that the manipulators have a less fearful attitude to irradiation

V. Use a more understanding language "a little more in Tunisian Arabic dialect

By analysing this data, we have raised a number of observations

- The overall difference in patient satisfaction with our unit was statistically significant between "very good" and "fair" regardless of age group p=0,004

- There was no significant difference statistically in the overall assessment of the nuclear medicine centre, either by gender or by whether the patient was active (studying or working).
- Comments and suggestions were made mainly by women (49/66).

Table 1 Responses to the questionnaire from the fifty patients

Making appointments	**Very good**	**fair**	**insufficient**
Overall assessment of the appointment process	43	7	0
Clarity of information given	47	3	0
Friendliness of staff on the telephone	49	1	0
Administrative reception			
Overall assessment of the quality of the reception, the friendliness of the reception staff and the reception room	46	4	0
The course of the examination			
The comfort of the rest rooms (injection room)	35	14	1
The friendliness of the staff (listening and availability of the staff)	43	7	0
Clarity of the information given on the course of the examination	39	11	0
The delivery of the results			
Clarity of the data at the time of the results	44	6	0
Friendliness of the doctor (availability and listening) and respect for confidentiality	49	1	0
The assessment			
Overall assessment of the nuclear medicine centre	44	6	0

Table 2 Patients' feedback

Comments	**Number of patients**
Limited time on the phone	**5**
Instructions not clear enough on the phone	**1**
Reception room: small and uncomfortable (impression of having a lot of people in the room, a lot of noise...)	**6**
Waiting time a bit long	**2**
Injection room (rest): narrow, uncomfortable chair, poor lighting.	**15**
More listening and availability from the manipulators	**11**
Less fear of radiation	**9**
Not enough clear information on the course of the examination	**7**
Lack of a separate room to talk to the doctor	**2**
Tightness of the rooms	**3**
Rooms (reception, rest, toilets, corridors, etc.) not clean enough	**3**
TOTAL	**66**

Discussion

Quality approaches do not only apply to structures but to practices and health care teams. Patient satisfaction reflects the quality of care within a structure.

Indeed, health care institutions are increasingly involved in the accreditation "External evaluation procedure".

The aim of this procedure is to ensure that the conditions for the safety and quality of care and patient management are taken into account. Its foundations are central to the patient and continuous quality improvement.

The measurement of patient satisfaction is based on multiple means: complaints, questionnaires, but also specific or general surveys carried out at the initiative of health care institutions.

In our study, we based ourselves on the satisfaction survey and all the patients questioned answered the questionnaire, we counted fifty responses. This shows the willingness of our patients to actively participate in improving their care.

As with any study carried out over a short period of time, it is worth noting that the limited number of patients questioned may not accurately reflect the feelings of all patients consulting our department.

It is also difficult to distinguish between subjective responses, objective responses and complacent responses from participants.

Furthermore, the staff of the department (medical and paramedical) were aware of the survey and could have positively influenced their attitude towards the patients during the study period and thus influenced their judgements.

However, the results of this study provide valuable information on the experience of patients in the PET unit of the Nuclear Medicine Department of the Salah Azaïez Institute and on their satisfaction with the services of said department.

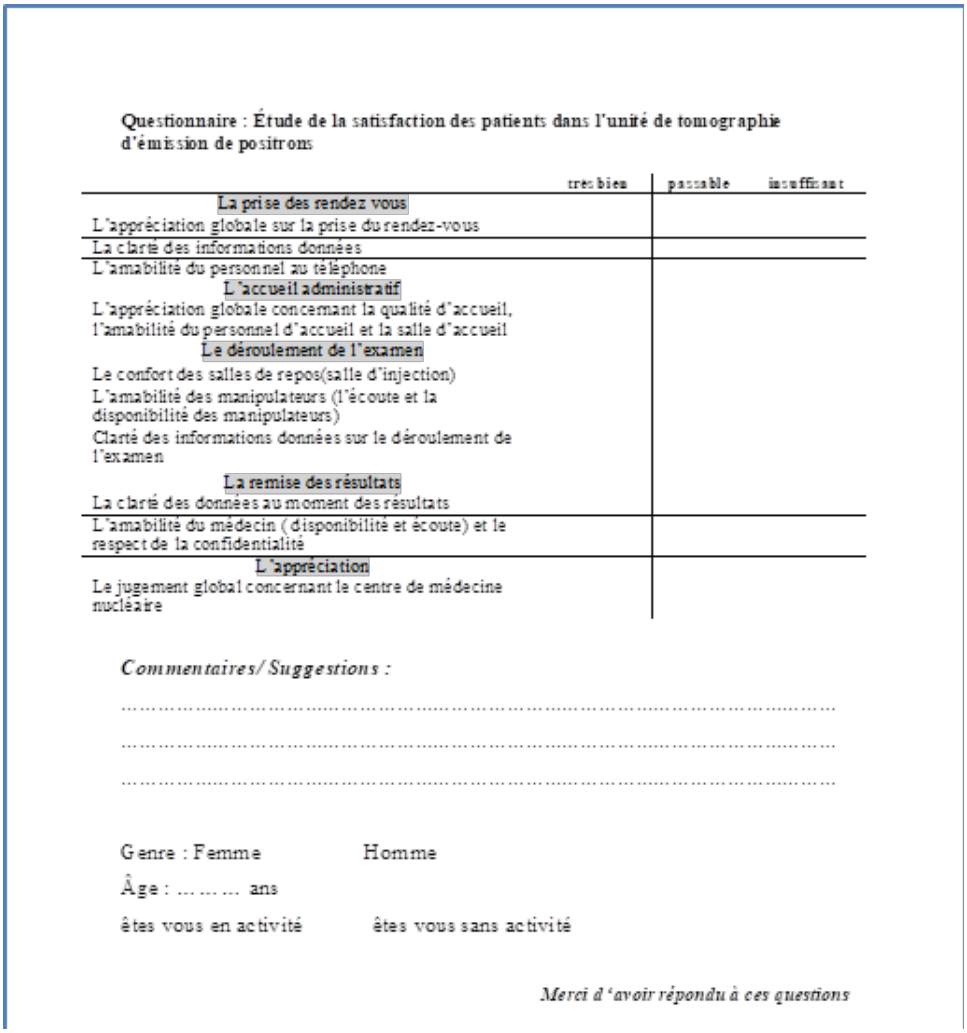
Indeed, patient satisfaction can be considered as a result of care and even as an element of the health condition itself.[2]

This notion remains subjective and very qualitative. It is relative, influenced by people's past experiences. However, although the term "satisfaction" is widely used, it is rarely defined.

"To evaluate satisfaction is to measure an object whose dimensions vary, in a random way, with an uncalibrated instrument".[4]

It is a phenomenon that cannot be directly observed. It is an evaluative judgement about a particular consumption experience and a cognitive process with affective elements. Engel, Kollat and

Blackwell already described in 1968 the logic according to which satisfaction is based on a comparison of the perceived performance of the service with a pre-established standard: each element of the service experience contributes in a linear way to the overall satisfaction, and if the perception is higher than the expectations, the level of satisfaction increases and vice versa.[5].



Questionnaire : Étude de la satisfaction des patients dans l'unité de tomographie d'émission de positrons

	très bien	passable	insuffisant
La prise des rendez vous			
L'appréciation globale sur la prise du rendez-vous			
La clarté des informations données			
L'amabilité du personnel au téléphone			
L'accueil administratif			
L'appréciation globale concernant la qualité d'accueil, l'amabilité du personnel d'accueil et la salle d'accueil			
Le déroulement de l'examen			
Le confort des salles de repos(salle d'injection)			
L'amabilité des manipulateurs (l'écoute et la disponibilité des manipulateurs)			
Clarté des informations données sur le déroulement de l'examen			
La remise des résultats			
La clarté des données au moment des résultats			
L'amabilité du médecin (disponibilité et écoute) et le respect de la confidentialité			
L'appréciation			
Le jugement global concernant le centre de médecine nucléaire			

Commentaires/ Suggestions :

……

……

……

Genre : Femme Homme

Âge : …… ans

êtes vous en activité êtes vous sans activité

Merci d 'avoir répondu à ces questions

Figure 1 Questionnaire: Patient satisfaction survey in the positron emission tomography unit.

In terms of satisfaction, this emotional response is as important as the cognitive judgment of the hospital service.

Is the patient a client? Margueritte Mérette, considered one of the leaders of care thinking, answers this question: "Why is a lawyer not uncomfortable calling the person who uses his or her 'services' a 'client'? What is different about us and...is it really different in the world of care?..... The word 'client' gives legitimacy to the relationship of trust that defines care and commits the carer to the person for whom they are responsible..... It is in the name of this relationship and in the name of this commitment, and within the exclusive limits of our professional field, that our intrusion into the life of a human being is legitimate. It is in this capacity that we become the bearers of respect for his or her rights.[6]

And hospital services are a service and as such pose certain evaluation difficulties that add to the obstacles encountered in defining satisfaction. Indeed, patient-client expectations are difficult to identify because they are multifactorial and depend on cultural, socio-demographic and cognitive aspects.[7,8] There is therefore a gap between what is observed by the patient and what is expected. The patient's overall satisfaction also depends on the correct implementation of each stage that he or she will encounter during the examination. This includes the reception.[9]

In our study, one item was reserved for the quality of the reception, the friendliness of the reception staff and the reception room. And 92% of the patients were very satisfied.

In addition, patients' needs and expectations are different and variable. They depend on human relations, technical quality of care, efficiency and continuity of care, accessibility of care, amenities, physical environment and availability of care staff.[10-12]

One of the ways of measuring this satisfaction is the satisfaction survey, which is considered to be the most widely used measurement method that offers the best balance between reliability and constraints.[1,2,9] And to develop our questionnaire we based ourselves on Millot's definition of the best questionnaire as "the one that will be able to send a message identically perceived by the greatest number of people and will bring about the same reaction from similar individuals".[13] The aim is to elicit usable responses for decision making.

Through this study our findings regarding patient satisfaction were consistent with several studies assessing patient satisfaction in different services and conducted on a large scale such as Quintana JM on 2600 patients, Rahmqvist Mikael on 3400 patients, Bleich et al. who collected data from 21 European Union countries in the 2003 World Health Survey, Xiao H. and Barber JP, after a survey of 4417 patients in the United States, and Koichiro Otani's team who followed 31471 patients in 32 different hospitals in the United States and who found that the factors influencing this satisfaction were mainly waiting time, perceived technical competence, attitudes of the nursing staff, mainly respect and politeness, information given and instructions well explained, cleanliness of the premises, comfort and privacy, listening to the patient's needs by the nursing staff, the atmosphere in the hospital and the competence of the doctor.[14-18]

As for epidemiological and socio-demographic data; some authors have found a significant relationship between age, gender and socio-economic level and patient satisfaction.[14,15,17,19] while others have found no relationship between these parameters.[18,20]

In our study, there was no statistically significant difference either according to gender or whether the patient was active or not, but it was significant between "very good" and "fair" satisfaction independently of age group (p=0.004).

What should we do with this survey?

Based on the main reasons for dissatisfaction revealed by this survey, namely the lack of listening and availability on the part of the manipulators and the exaggerated phobia of irradiation. More in-depth training for staff, and more specifically for handlers, on patient management and radiation protection has been planned, since the use of ionising radiation is central to our activity.[21]

Not everything has been said yet and, above all, it is very productive to review this as a group, because the process itself is formative, with many consequences in terms of the dynamics of progress. Indeed, such a survey constitutes a remarkable element in supporting the development of professional and relational skills, whether on an individual or collective level, not only by the results it produces but by the very fact of its existence.

Conclusions

The quest for quality under the rubric of accreditation/certification is a continuous and evolving process. And the fact of evaluating patient satisfaction on an ongoing basis would allow us to better understand their expectations, to better take their needs into consideration and to respond to them in the best possible conditions. And even if through our survey 88% of the patients expressed an overall satisfaction, the main reasons of dissatisfaction expressed must be taken into account to improve the quality of the care in order to start the accreditation process of our service.

Conflicts of interest

None.

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None.

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