

Level of User Satisfaction in a Public Health Facility in a Rural Area: A Cross-Sectional Descriptive Survey at the Richard-Toll Public Health Facility (Senegal)

Asséga Sylvain Sagna^{1*}, Hubert Feuchy Coly², Mohamed Lamine Diao³

¹Boto SA, Managem Group, Kédougou, Sénégal

²Etablissement public de santé de Richard Toll, Richard-Toll, Sénégal

³Centre Hospitalier régional de Saint-Louis, Saint-Louis, Sénégal

Email: *sagna.assega-sylvain@ugb.edu.sn, *assega5@yahoo.fr, colyhubertfeuchy@yahoo.fr, mldiao@gmail.com

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Abstract

Introduction: Patient satisfaction is now regarded as a key indicator of the quality of care. At the Richard-Toll Public Health Facility (EPS), a referral institution in a predominantly rural area serving the department of Dagana and part of neighbouring Mauritania, recurrent complaints persisted regarding reception, waiting times for care, and service availability. This study aimed to assess users' level of satisfaction in order to identify priority areas for improving the quality of care. **Methods:** This was a descriptive cross-sectional study conducted from July 20 to 25, 2025, among patients hospitalized for at least 24 hours and the adult persons accompanying them, all aged 18 years and older. Non-probability convenience sampling yielded 121 usable forms (participation rate: 80.7%). Data were collected using a structured questionnaire administered face-to-face and analysed using descriptive statistics only; no test of association between participants' characteristics and satisfaction was performed. Proportions are reported using the whole sample as the denominator ($n = 121$), except for cleanliness of the sanitary facilities ($n = 120$); non-responses were retained as a separate category. **Results:** Respondents were predominantly women (68.6%); accompanying persons made up 53.7% of the sample and hospitalized patients 46.3%. The 25 - 34 age group was the most represented (25.6%). Administrative formalities were considered straightforward by 79.3% of respondents. Asked to characterize the paramedical staff—a single item with mutually exclusive options—70.2% described them as courteous and 24.0% as available. Privacy was respected in 97.5% of cases during care. Cleanliness was rated satisfactory by 90.1% of respondents for the rooms and 92.5% for the sanitary facilities. Overall, the care received was

rated good or excellent by 91.7% of respondents. Room comfort was the least favourably rated dimension (57.0% satisfactory); hospitalization was predominantly shared, 86.0% of respondents having no individual room. **Conclusion:** The Richard-Toll EPS shows a high overall level of satisfaction. However, room comfort and the predominantly shared nature of hospitalization stand out as the main areas for improvement.

Keywords

Patient Satisfaction, Quality of Care, Public Health Facility, Richard-Toll, Senegal

1. Introduction

Quality of care has become a major concern worldwide, for both health-care institutions and policymakers, in a context marked by the continuous pursuit of efficiency, equity, and user satisfaction. Patient satisfaction is now recognized as a central indicator of the quality of services provided in health-care facilities, directly linked to lived experience, safety, and health system performance [1]. It is defined as patients' subjective assessment of the quality of care received, based on their expectations, needs, and experiences within the health system [2].

The Richard-Toll public health establishment (EPS) plays an essential role in access to care in a highly rural area. It is the referral facility for the entire department of Dagana and part of neighbouring Mauritania; as such, it serves a large population and constitutes a key component of the health system in northern Senegal. Like many health facilities, it faces challenges related to the continuous improvement of care quality, patient satisfaction, and the efficient management of resources [3].

Regular assessment of patient satisfaction is therefore essential. It not only helps identify the strengths and weaknesses of the system but also guides reforms and health policy decisions [4]. Although efforts have been made to improve service delivery, users of the Richard-Toll public health facility still report recurrent complaints regarding reception, waiting times, attentiveness, and care [5]. It is therefore crucial to objectively measure patient satisfaction in order to identify shortcomings and propose concrete, context-appropriate improvements.

This study aimed to describe the level of satisfaction of patients hospitalized for at least 24 hours and of the persons accompanying them at the Richard-Toll Public Health Facility, across the dimensions of care assessed, and to formulate concrete recommendations to support the institution's quality improvement approach. The study was purely descriptive: no analysis of the association between participants' characteristics and their level of satisfaction was undertaken, and no determinant of satisfaction is claimed here. The analytical framework adopted was based on Donabedian's model (structure-process-outcomes), adapted to the assessment of user satisfaction [6].

2. Methods

2.1. Study Design and Setting

This was a descriptive cross-sectional study conducted from July 20 to 25, 2025, at the Richard-Toll public health facility, a level 1 public health institution (EPS1) located in the Dagana Department, Saint-Louis Region, Senegal. The study is reported in accordance with the STROBE statement for cross-sectional studies [7].

2.2. Population and Sampling

The target population consisted of patients aged 18 years or older who had been hospitalized for at least 24 hours in one of the participating departments, together with the adult persons accompanying them. Participants were included if they were able to respond and had provided free and informed consent. Outpatients, and patients hospitalized for less than 24 hours, were not eligible. Accompanying persons, who represented 53.7% of the final sample (65/121), were administered the same questionnaire and were asked to report on the hospital stay of the patient they were accompanying, not on their own experience as visitors; proxy and patient responses were pooled in a single dataset and analysed together, no separate analysis by type of respondent being performed. A non-probability convenience sampling strategy was used, consistent with the descriptive nature of the study and field constraints. Of the 150 users approached, 121 usable questionnaires were analysed, corresponding to a participation rate of 80.7%.

2.3. Instrument and Variables

Data were collected using a structured questionnaire administered face-to-face by trained interviewers. The questionnaire was not a previously validated instrument: it was purpose-built for this study, its content being derived from Donabedian's structure-process-outcome framework [6] [8] and from the dimensions of satisfaction identified in the systematic review by Batbaatar *et al.* [2]. It was drafted in French and administered in French, with oral translation into Wolof or Pulaar whenever the respondent so required. Besides sociodemographic data, it covered the dimensions actually measured in the dataset: 1) reception and administrative formalities; 2) behaviour, availability and professionalism of the staff; 3) respect for privacy during care and during stretcher transport; 4) cleanliness of rooms and sanitary facilities; 5) room comfort, accommodation arrangements and daytime and night-time ambience; and 6) overall appreciation of the care received. Items were rated on three- or four-level ordinal scales (satisfactory/moderately satisfactory/not satisfactory; excellent/good/fair/poor; or a set of mutually exclusive descriptive options), and "satisfactory", or "excellent" and "good", were treated as favourable responses. No composite or summed satisfaction score was computed and no weighting was applied: each item was analysed separately, and the item "overall appreciation of the care received" (excellent/good/fair/poor) was used as the global indicator of satisfaction.

2.4. Data Analysis

Data were entered and analysed using Microsoft Excel 2016. The descriptive analysis included frequencies, percentages, means, and standard deviations. The results are presented in tables. No inferential analysis was performed. Non-responses were retained as a separate category. The denominator is 121 for all items except cleanliness of the sanitary facilities and length of stay ($n = 120$), for which one response was missing. Missing responses were not imputed and are reported explicitly.

2.5. Ethical Considerations

The anonymity and confidentiality of the information collected were respected. Free and informed consent was obtained from each participant before participation, and the data were used solely for academic purposes. The administration of the Richard-Toll Public Health Facility authorised the conduct of the study (reference No. 0359/MSAS/DGEPS/EPST/DIR/SAF).

3. Results

3.1. Sociodemographic Characteristics

A total of 121 respondents were included, of whom 65 (53.7%) were persons accompanying a hospitalized patient and 56 (46.3%) were the patients themselves. Women accounted for 68.6% of the sample, corresponding to a sex ratio of 0.46. The most represented age group was 25 - 34 years (25.6%), followed by 35 - 44 years (24.8%). Most respondents lived in Richard-Toll ($n = 70$), while a substantial proportion came from Dagana ($n = 28$) and neighbouring Mauritania ($n = 11$). By occupational sector, the tertiary sector predominated (63.6%), while 14.9% of respondents reported no occupational activity and 14.0% worked in the primary sector. Educational attainment was generally low, with 63.6% of respondents ($n = 77$) having no formal education. The emergency department was the main point of admission (25.6%, $n = 31$). The mean length of hospital stay was 2.8 days (standard deviation 1.6; range 1 - 10 days), computed on the 120 respondents for whom this information was available, one value being missing. Details are provided in **Table 1**.

Table 1. Sociodemographic characteristics of respondents ($n = 121$).

Characteristic	Modality	n (%)
Sex	Female	83 (68.6)
	Male	38 (31.4)
Age (years)	18 - 24	14 (11.6)
	25 - 34	31 (25.6)
	35 - 44	30 (24.8)
	45 - 54	24 (19.8)
	≥55	18 (14.9)
	Not stated	4 (3.3)

Continued

Geographical origin	Richard-Toll	70 (57.9)
	Dagana	28 (23.1)
	Mauritania	11 (9.1)
	Podor	7 (5.8)
	Saint-Louis	3 (2.5)
	Other (Ndioum, Diourbel)	2 (1.6)
Occupational sector	Tertiary	77 (63.6)
	None	18 (14.9)
	Primary	17 (14.0)
	Secondary	5 (4.1)
	Other (student, retired)	4 (3.3)
Level of education	None	77 (63.6)
	Primary	20 (16.5)
	Secondary	14 (11.6)
	Higher	10 (8.3)
Department of admission	Emergency Department (ED)	31 (25.6)
	Medicine	26 (21.5)
	Surgery	25 (20.7)
	Pediatrics	23 (19.0)
	Maternity	16 (13.2)
Status	Accompanying person	65 (53.7)
	Hospitalized patient	56 (46.3)

3.2. Satisfaction with the Reception and Staff

The administrative formalities associated with care were considered straightforward by 79.3% of respondents ($n = 96$), whereas 20.7% ($n = 25$) found them complicated. Respondents were asked to characterize the paramedical staff by selecting one of four mutually exclusive options: 70.2% ($n = 85$) described them as courteous, 24.0% ($n = 29$) as available, 3.3% ($n = 4$) as aggressive, and 2.5% ($n = 3$) selected another description. With respect to the behaviour, availability and professionalism of the care team encountered during treatment, 93.4% of respondents ($n = 113$) rated it satisfactory, 5.8% ($n = 7$) moderately satisfactory and 0.8% ($n = 1$) not satisfactory. Patient privacy was respected in 97.5% of cases during care ($n = 118$) and in 99.2% of cases during stretcher transport ($n = 120$).

3.3. Satisfaction with Accommodation Conditions and the Hospital Environment

The cleanliness of the facilities was widely appreciated: room cleanliness was rated

satisfactory by 90.1% of respondents ($n = 109$), moderately satisfactory by 6.6% ($n = 8$) and not satisfactory by 3.3% ($n = 4$). Cleanliness of the sanitary facilities was rated satisfactory by 92.5% ($n = 111$), moderately satisfactory by 5.0% ($n = 6$) and not satisfactory by 2.5% ($n = 3$), one respondent not having answered this item. Room comfort was the least favourably assessed dimension: 57.0% of respondents ($n = 69$) rated it satisfactory, 37.2% ($n = 45$) moderately satisfactory and 5.8% ($n = 7$) not satisfactory. The environment was perceived as quiet by 79.3% of respondents during the day ($n = 96$) and by 94.2% at night ($n = 114$). Finally, 86.0% of respondents ($n = 104$) did not have an individual room, 9.9% ($n = 12$) did, and 4.1% ($n = 5$) reported another arrangement, indicating that hospitalization remained predominantly shared. **Table 2** summarises these results.

Table 2. Respondents' level of satisfaction according to the main dimensions assessed ($N = 121$, except cleanliness of sanitary facilities, $N = 120$).

Assessed dimension	Favourable/satisfactory responses, n/N (%)
Administrative formalities deemed straightforward	96/121 (79.3)
Room cleanliness rated satisfactory	109/121 (90.1)
Cleanliness of sanitary facilities rated satisfactory	111/120 (92.5)
Room comfort rated satisfactory	69/121 (57.0)
Paramedical staff described as courteous	85/121 (70.2)
Care team rated satisfactory	113/121 (93.4)
Privacy respected during care	118/121 (97.5)
Privacy respected during stretcher transport	120/121 (99.2)
Care received rated good or excellent	111/121 (91.7)
Environment perceived as quiet during the day	96/121 (79.3)
Environment perceived as quiet during the night	114/121 (94.2)

Accommodation arrangement (descriptive item, not a satisfaction rating): no individual room, 104/121 (86.0); individual room, 12/121 (9.9); other arrangement, 5/121 (4.1).

*All proportions were computed from the raw dataset. The denominator is 121 for every item except cleanliness of the sanitary facilities ($n = 120$) and overall appreciation of the care received, for which two respondents did not answer.

3.4. Overall Appreciation of the Care Received

Asked to rate the care received during their stay, 36.4% of respondents (44/121) rated it excellent and 55.4% (67/121) good, yielding 91.7% favourable opinions (111/121); 5.8% (7/121) rated it fair and 0.8% (1/121) poor, while 1.7% (2/121) did not answer this item.

4. Discussion

This study found a high overall level of satisfaction among users of the Richard-Toll EPS, with favourable ratings for reception, staff courtesy, cleanliness of the setting and the care received. The descriptive design does not allow any of these dimensions to be identified as a determinant of overall satisfaction.

The observed female predominance (68.6%) may be explained by women's more frequent use of health services, particularly because of their role in reproduction and obstetric and gynecological follow-up, as well as in accompanying children [9]. This finding is consistent with results from the Saint-Louis Regional Hospital Center study, which also reported a female predominance of 65% [10]. The high representation of the adult age group reflects substantial service use by the working-age population. The geographic distribution confirms the facility's strategic role in providing health coverage for the Senegal River basin, drawing patients from across the region and from neighbouring Mauritania, while distance and travel costs limit attendance from more remote localities [11]. The predominance of the tertiary sector—largely informal in this setting—together with the share of respondents working in agriculture reflects the socioeconomic profile of the area, where the population relies predominantly on the public health system.

The predominance of the emergency department as the main point of entry is consistent with the nature of this service, which is often perceived as the fastest route to care because it is accessible 24 hours a day and does not require a prior appointment [12]. The low educational level of a substantial proportion of patients may affect their understanding of hospital procedures and communication with staff [13]. The relatively short mean length of stay (2.8 days) and the limited variability in hospitalization duration may reflect the case-mix of a first-level referral hospital; early discharge, transfer to a higher-level facility or financial constraints cannot be ruled out as alternative explanations.

At the relational and organisational levels, the administrative procedures perceived as straightforward by the majority (79.3%) suggest a well-organised admission process. Waiting time was not measured in this survey, and its relationship with the perceived simplicity of formalities remains hypothetical. The minority who considered the procedures complicated nonetheless supports the need to simplify certain steps [14]. Most respondents described the paramedical staff as courteous (70.2%) rather than aggressive (3.3%), which is consistent with a positive caregiver–patient relationship; the cases of perceived aggressiveness, although rare, support the need to strengthen training in communication and empathy [15]. The near-systematic respect for privacy (>97%) reflects staff professionalism and constitutes a fundamental pillar of care quality and human dignity [16].

The broadly positive assessment of the care received (91.7% favourable opinions) and of cleanliness (90.1% for the rooms, 92.5% for the sanitary facilities) reflects the institution's efforts to improve the material conditions of admission and hospital stay, cleanliness and material conditions being recognized determinants of user satisfaction [17]. However, the more moderately rated comfort of

the furnishings and the predominantly shared nature of hospitalization, which limits privacy and individual comfort, remain areas requiring attention [17].

5. Limitations

The use of convenience sampling may introduce selection bias. Patients' responses may also be influenced by social desirability, all the more so as the questionnaire was administered face-to-face by interviewers within the facility itself. Three further limitations should be acknowledged. First, the questionnaire was purpose-built and has not undergone formal psychometric validation in this setting; its internal consistency and construct validity were not assessed, which limits comparability with studies using validated instruments such as the PSQ-18 [18] or the Picker Patient Experience Questionnaire [19]. Second, a majority of respondents (53.7%) were accompanying persons answering as proxies, and proxy assessments are known to differ from patients' own assessments [20]; the direction of this bias could not be examined here. Third, the design was purely descriptive: the study describes the level of satisfaction but does not establish any determinant of it, and the interpretations proposed in the Discussion are hypotheses to be tested in a subsequent analytical study.

6. Conclusion

Richard-Toll Public Health Facility shows a high overall level of satisfaction, with favourable ratings for reception, staff courtesy, cleanliness of the environment and the care received (91.7% favourable opinions). These findings reflect the efforts made by management and staff to improve conditions of care. Nevertheless, the results point to two priority areas for improvement: the comfort of the furnishings, rated satisfactory by only 57.0% of respondents, and the predominantly shared nature of hospitalization, 86.0% of respondents having no individual room, which limits privacy and individual comfort during the stay. As user satisfaction is a dynamic concept, periodic evaluation and the integration of the patient's voice into hospital governance would constitute a major step toward genuinely patient-centred care.

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Author Contributions

Asséga Sylvain Sagna: conception and design; questionnaire; statistical analysis; drafting of the manuscript.

Hubert Feuhly Coly: data collection; final approval.

Mohamed Lamine Diao: critical revision; final approval.

Asséga Sylvain Sagna is the Author who has checked every reference and confirmed the authenticity of every reference.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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