

Sociodemographic Data and Factors That Influence Patient Satisfaction with the Occupational Health Service of the Tete Provincial Hospital, Mozambique, 2022

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Abstract: The quality of the health services offered are very important to guarantee access to quality health and promote well-being for all, at all ages, as recommended in the Sustainable Development Goals 2030. This study aims to assess the degree of satisfaction of users of the Occupational Health Service of the Tete Provincial Hospital. A cross-sectional study was conducted. The data was collected between September 15th and December 20th, 2022, for 335 participants through a self-administered questionnaire. Descriptive statistics was used to describe the data. Overall satisfaction was 87.5% (293/335). Participants age, gender, marital status, and level of education were associated with overall satisfaction ($p < 0.001$). The factors that influence the satisfaction of users of the Occupational Health Service were the cleanliness of the hospital, opening hours, ease of care, speed and waiting time. The satisfaction of users of the Occupational Health Service of the Tete Provincial Hospital was high.

Keywords: quality, satisfaction, occupational health service, tete

Introduction

The assessment of user satisfaction is one of the tools used to evaluate programs in the health sector, in the management of health processes and resources.¹ Users are increasingly informed about issues related to their health status, so health services must take into account their needs and expectations, in this case the assessment of satisfaction is important to inform about the services and effectiveness of care provided.²

Hospitals, as health service providers, have the constitutional mission to provide adequate health care, seeking to obtain the maximum satisfaction of their users.³ The assessment of user satisfaction in health services can be carried out through various instruments based on the application of questionnaires to allow the reorganization of actions oriented towards the needs of users, since they inform about expectations and identify the aspects that lead to dissatisfaction. In Mozambique, there is a concern with satisfaction in health services, both by researchers, managers and health professionals, in order to guarantee the retention or adherence of users.^{4,5}

Satisfaction is not easy to achieve, due to its multidimensional nature, and can be influenced by several factors, namely: individual conceptions, previous experiences, expectations about the different dimensions of satisfaction; however, as a conclusion, it can be stated that satisfaction is a dynamic, subjective concept.^{6,7}

Satisfaction is an emotion, or a feeling that can be verbalized and measured through opinions or the collection of these perceptions. Satisfaction comprises psychosocial and evaluative aspects related to the needs, preferences, and expectations of each user. In this context, the quality of health systems, as well as the performance of health professionals, require satisfaction assessment by their users.⁴ User satisfaction is the result of differences between the user's

expectations regarding health care and their perception of the care received, therefore, if the difference is smaller, the service user's satisfaction will be greater.⁸

Several researchers have identified several dimensions to assess users' satisfaction with health care. Several tools and methods are used to assess user satisfaction, such as questionnaires, suggestion boxes, phone calls, interviews and direct observation.⁹ According to Quyen and collaborators,⁸ the user's opinion is essential to monitor the quality of the services offered, detect problems and allow the restructuring of services in order to meet the desires of users and ensure that they choose as a reference for the treatment of their health problems.

As an indicator of the quality of health services, user satisfaction is an important indicator for measuring the quality of health services; captures patients' perceptions of the quality of services provided by health facilities.^{2,10} Users of health services are able to identify and feel the quality of the implemented system, so it is important to know how to listen to users, understand their feelings, thoughts, causes, as well as preferences and real motivations.¹¹

User satisfaction with health services is influenced by several factors, both clinical and non-clinical, including: socio-demographic characteristics (age, gender, education level, marital status and social class), organizational aspects and functioning of the service (image of the institution, increases the appreciation of the users), expectations of the users and perceptions about the service offered (is influenced by several aspects: the personality of the individual; the contact established between the patient and the professional providing the service of health; socio-cultural values; and the context where health care is provided).^{2,10,12}

In recent years in Mozambique there has been great concern about satisfaction in health services, both on the part of researchers, managers and health professionals, in order to guarantee the retention or adherence of users.^{4,5}

Materials and Methods

The assessment of ideal satisfaction is performed on a measurement scale, using closed-ended questions on a nominal and ordinal scale, and the Likert scale. The latter is used to quantitatively operationalize the dimensions of satisfaction. User satisfaction questionnaires are one of the most common and quickest ways to help health managers identify areas or services likely to be restructured or improved. They can also contribute to better efficiency and management of health expenditures, through planning guided by assessment based on the perception of users.^{9,13}

A cross-sectional study was conducted. Data collection was carried out consecutively until reaching the expected number of participants who met the inclusion criteria. The study was carried out in the Tete city, at the Provincial Hospital. User consent and willingness to respond to the questionnaire were included; be over 18 years of age and be registered with the Occupational Health Service.

The data collection technique was carried out through a self-administered questionnaire. The questionnaire was based on questions about demographic data, general satisfaction, physical facilities, quality of services received, recommendation loyalty and aspects related to the healthcare personnel who cared for the patient. The minimum expected sample size was calculated using the EpiInfo™ Version 7.2.3.1 program,¹⁴ with a 95% confidence interval, design effect 1, desired precision of 5.0% and estimated frequency of satisfaction of 50%. Based on the number of employees who have access to occupational health services (N=2565), the minimum size of 335 participants was estimated. Sampling for the present study was non-probabilistic, for convenience, which will consist of inviting participants due to their presence in the occupational health services in the Tete Provincial Hospital.

Univariate analysis was made to describe participants characteristics. Cross-tabulation between independent characteristics (eg sex, age) and overall satisfactions was done, the Chi-square test was used, if assumptions were not met, the alternative Fisher's exact test was used, p-value < 00.5 was considered statistically significant.

Results

Between September 15th and December 20th, 2022, 335 participants, users of the Occupational Health Service in the Tete city, were surveyed, male were 53.4% (179/335), 39.7% (133/335) were 60 years or older and 38.5% (129/335) were single (Table 1).

Table 1 Socio-Demographic Characteristics of Study Participants and by User's Satisfaction

Characteristic	N = 335	Satisfied, N = 293 ^a	p-value
Sex			<0.001 ^b
Female	156 (46.6%)	73.1% (114/156)	
Male	179 (53.4%)	100.0% (179/179)	
Age groups			<0.001 ^b
18 to 34	104 (31.0%)	100.0% (104/104)	
35 to 59	98 (29.3%)	57.1% (56/98)	
60 or above	133 (39.7%)	100.0% (133/133)	
Marital status			<0.001 ^c
Single	129 (38.5%)	95.3% (123/129)	
Married	114 (34.0%)	68.4% (78/114)	
Widow	76 (22.7%)	100.0% (76/76)	
Divorced	16 (4.8%)	100.0% (16/16)	
Education Level			<0.001 ^c
Primary	62 (18.5%)	54.8% (34/62)	
Secondary	126 (37.6%)	88.9% (112/126)	
Technical	127 (37.9%)	100.0% (127/127)	
Superior	20 (6.0%)	100.0% (20/20)	

Notes: ^a% (n/N); ^bPearson's Chi-squared test; ^cFisher's exact test.

Overall satisfaction was 87.5% (293/335). The socio-demographic characteristics of the study participants (age, gender, marital status, and level of education) were associated with satisfaction (Table 1). User satisfaction was lower among women, users aged 35 to 59, married people, users with primary education.

Time spent accessing occupational health services, means of transport, probability of returning and recommending services was statistically significant in relation satisfaction status (Table 2). User satisfaction was lower as it took between 30 minutes to 90 minutes to reach the health unit and users who used an ambulance as a means of transport to access health services.

Table 2 Characteristics of Participants Associated with Satisfaction

Characteristic	N = 335	Satisfied, N = 293 ^a	p-value
Time spent			<0.001 ^b
Less than 30 minutes	11.6% (39)	100.0% (39/39)	
30 to 90 minutes	46.6% (156)	73.1% (114/156)	
1h to 3h	41.8% (140)	100.0% (140/140)	
Means of transport			<0.001 ^b
Walk	19.4% (65)	100.0% (65/65)	
Public transport	62.4% (209)	100.0% (209/209)	
Private transport	5.1% (17)	100.0% (17/17)	
Ambulance	13.1% (44)	4.5% (2/44)	
Probability to come back			<0.001 ^b
Very unlikely	2.7% (9)	100.0% (9/9)	
Unlikely	4.5% (15)	100.0% (15/15)	
Likely	80% (268)	93.3% (250/268)	
Very likely	12.8% (43)	44.2% (19/43)	
Chance to recommend			<0.001 ^b
Unlikely	28.4% (95)	100.0% (95/95)	
Indifferent	11.6% (39)	100.0% (39/39)	
Likely	50.4% (169)	89.3% (151/169)	
Very likely	9.6% (32)	25.0% (8/32)	

Notes: ^a% (n/N); ^bFisher's exact test.

Table 3 Determinants Related to the Installation and Attendance of Participants

Characteristic	N = 335 ^a
<i>Attractive facility</i>	
Very unsatisfied	6.9% (23)
Indifferent	11.6% (39)
Satisfied	81.5% (273)
<i>Hospital clean</i>	
Unsatisfied	17.9% (60)
Satisfied	82.1% (275)
<i>Opening hours</i>	
Unsatisfied	35.5% (119)
Satisfied	64.5% (216)
<i>Ease of service</i>	
Very unsatisfied	28.1% (94)
Unsatisfied	12.5% (42)
Satisfied	51.3% (172)
Very satisfied	8.1% (27)
<i>Response speed</i>	
Unsatisfied	44.5% (149)
Indifferent	29.9% (100)
Satisfied	16.1% (54)
Very satisfied	9.6% (32)
<i>Waiting time</i>	
Very unsatisfied	54.9% (184)
Indifferent	19.4% (65)
Satisfied	25.1% (84)
Unknown	0.6% (2)

Note: % (n).

The characteristics with the greatest dissatisfaction were: waiting time for service, the time taken during the service, and the practicality of the service (Table 3). On the other hand, the attractive factors for using the health unit were the infrastructure, clean spaces and the hours at which services were provided.

Discussion

User satisfaction with the health service is an important indicator of access and quality of services provided worldwide, especially in developing countries, due to the lack of data on this subject. User dissatisfaction can lead to the worsening and deterioration of the health of the population for several reasons, especially in Africa. This is the first study on the satisfaction of users of the Occupational Health Service carried out in the country. On the other hand, studies were carried out in the country to assess user satisfaction with outpatient health services;¹⁵ satisfaction with family planning services;¹⁶ satisfaction with care during childbirth;⁵ satisfaction regarding the eye health examination.⁴ However, our findings are the first to show an introspection in which the assessment is carried out by the employees themselves as users of occupational health services.

Overall, the prevalence of satisfaction with occupational health services was 87.5% (293/335) in the present study. These findings collaborate with other studies reported in parents describing a prevalence of 86% to 92.5% in all provinces and in the Manhiça district in Maputo province between the years 2017 to 2019.^{5,16} The findings of this study revealed that most users of occupational health services are satisfied with the services offered. On the other hand, other studies reported low satisfaction values of prevalence of user satisfaction in Nampula province.⁴ The low satisfaction value in Nampula may be due to several factors, such as the evaluation of a single service provided, the

location of the health services and the period in which the study took place was during the period of the COVID-19 pandemic, a time when that service was restricted from health units.⁴

The age group from 35 to 59 showed a statistically significant difference when compared to other age groups and the same result was reported in research carried out in Ethiopia,¹⁷ in China,¹⁸ in France¹⁰ and in countries in the European Union.¹⁹ Age is considered a more important and consistent determinant variable of patient satisfaction.²⁰ Probably because this age group is more demanding and has more expectations to achieve satisfaction. On the other hand, older individuals are those who usually have a higher degree of satisfaction, since they are less demanding.²¹

The female gender was less satisfied, similar results were described in other countries such as Spain,²² Norway,²³ Sire Lanka²⁴ and in Portugal.²⁵ This fact may be due to female individuals being very detailed. Married individuals had a lower degree of satisfaction, similar findings were published in studies in Spain²² and Vietnam.⁸ This finding can probably be associated with the age factor and that the 35 to 59 age group is the most demanding to feel satisfied.

Participants who were directly associated with the level of satisfaction, that is, individuals with a low level of education, had a lower degree of satisfaction, these data corroborate the findings of other researchers in the United States of America (USA)^{26,27} and Norway.^{28,29} Presumably because they may feel less comfortable questioning or clarifying their doubts, and this may lead to dissatisfaction with the services received.

The distance traveled by participants to reach services is an important determinant of satisfaction, so participants who have taken 60 to 90 minutes to reach health services were less satisfied, similar data were reported in Maputo province by,⁵ in six countries in Central and Eastern Europe⁹ and in a study carried out in 11 provinces in China,¹⁸ illustrating that the time elapsed can be decisive in the satisfaction of the participants.

Regarding the means of transport, the participants who used the ambulance showed a lower degree of satisfaction, probably because they were in a more delicate health condition and felt less satisfied with the service. As previously described in Norway,²³ in the USA²⁷ and in England²¹ in which both authors are unanimous that poor health leads to lower overall levels of satisfaction. Part of the participants who reported being very satisfied expressed a lower probability of recommending the services or returning to the services, this may be associated with the various aspects related, the installation, service that may influence the general satisfaction.

Regarding the determinants that lead participants to present a lower degree of satisfaction, the cleanliness of hospital facilities, as described in Turkey,³⁰ in the USA³¹ and Sire Lanka,²⁴ cleanliness of the physical environment has a potential influence on patient or user satisfaction. With regard to the opening hours and ease of being attended, there was, in turn, dissatisfaction on the part of the participants and similar reports have already been observed in Japan,³² in France³³ and in Vietnam,⁸ this dissatisfaction is usually due to the delay in care, which has led these users to seek private services that are remunerated.

The speed and waiting time has an impact on the degree of satisfaction of the participants and similar results were reported in studies carried out in China¹⁸ and Vietnam⁸ this feeling of delay has an impact negative in the evaluation of services provided by users.

Our findings have implications for care policies regarding adherence and retention in health services. It is essential to guarantee user satisfaction through a safe and attractive environment to allow greater recommendation for health services and population adherence to public health services in favor of alternative medicine and private health services.

Conclusion

The sociodemographic characteristics and attractive factors for attending Occupational Health Services, namely the infrastructure, clean spaces and the time at which care was provided, were important for patient satisfaction. The degree of satisfaction of users of the Occupational Health Service at the Provincial Hospital of Tete was high. The main recommendation would be to improve the characteristics with the greatest dissatisfaction, namely the waiting time for care, the time taken during care and the practicality of the service.

Data Sharing Statement

Data will be made available on request.

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki and approved by the Inter-institutional Committee on Bioethics for Health in Tete (protocol code Ref.14/CIBS/22 V2 approved on September 5, 2022). This committee is a branch of the National Bioethics Committee for Health in Mozambique (IRB00002657).

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Disclosure

The authors declare no conflicts of interest in this work.

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