



# Outpatients' Satisfaction with the Provision of Physiotherapy Services

Adamu Ahmad Rufa'i <sup>1,\*</sup>, Ismaila Adamu Saidu <sup>1</sup>, Muhammad Dahiru Lawan <sup>2</sup>, Adewale Lukman Oyeyemi <sup>1</sup>, Salamatu Umar Aliyu <sup>1</sup>, Aliyu Lawan <sup>1</sup>, Abdurrahman Mohammed Jajere <sup>3</sup> and Adetoyeje Yunoos Oyeyemi <sup>1,3</sup>

<sup>1</sup>Department of Physiotherapy, College of Medical Sciences, University of Maiduguri, Maiduguri, Nigeria

<sup>2</sup>Department of Physiotherapy, Abubakar Tafawa Balewa University Teaching Hospital, Bauchi, Nigeria

<sup>3</sup>Department of Physiotherapy, University of Maiduguri Teaching Hospital, Maiduguri, Nigeria

\*Corresponding author: Department of Physiotherapy, University of Maiduguri, PMB 1096 Maiduguri, Maiduguri, Nigeria. Tel: +234-8109607918, Email: adamuarufai@gmail.com

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## Abstract

**Background:** Patient satisfaction is one of the indicators of the quality of care received by patients, which can be used as a benchmark to ensure quality of physiotherapy services. However, there is a dearth of data in Nigeria.

**Objectives:** The current study aimed at examining the level of patients' satisfaction with the physiotherapy services in Maiduguri, Nigeria.

**Methods:** The current cross sectional study was conducted on a total of 300 participants (158 males and 142 females) randomly recruited from the physiotherapy outpatient unit of three hospitals. The physical therapy satisfaction questionnaire was administered to assess the participants' level of satisfaction with the rendered physiotherapy services.

**Results:** The overall patient satisfaction score was  $82.95 \pm 14.71$ . Privacy was the highest satisfactory subscale reported by the participants ( $83.50 \pm 11.21$ ), while facility locations/proximity ( $68.51 \pm 13.20$ ) and bills/cost ( $70.24 \pm 19.40$ ) were the least satisfactory subscales among the others. The result shows that female and old adult participants were significantly more satisfied with the received physiotherapy services compared with the male and young adult participants ( $P = 0.03$  and  $0.001$ , respectively). However, participants did not differ significantly in the level of satisfaction with provided physiotherapy services in terms of their conditions/ailments ( $P = 0.056$ ).

**Conclusions:** Overall, patient satisfaction with physiotherapy services in the current study was high. Females, older adults, as well as employed participants were more satisfied. Also, higher satisfaction was observed among participants with primary school education and the ones receiving multiple treatment modalities.

**Keywords:** Patients, Satisfaction, Physiotherapy Services, Healthcare

## 1. Background

Quality of care is a major concern for healthcare providers and a major focus for healthcare services research. Patient satisfaction is employed as an essential requisite by accreditation bodies to assess and monitor the quality of hospital care services (1, 2). Previously, the outcome of care was focused on personal knowledge, skills, and expertise of the clinicians rather than the other aspects of the treatment experience and patient satisfaction (3). Satisfaction is a complex attribute established according to the users' expectations (4). Dissatisfaction results when patients' expectations of care exceed actual delivery (5). Satisfaction is associated with the patients' expectation (6) and it changes when the patients' expectations or standards are change (7). To satisfy patients' expecta-

tions, healthcare providers need to shift towards patient-centered care (8). Thus, rendering satisfactory care may contribute to treatment compliance by the patient; this eventually leads to a positive impact on disease outcome (2).

With the advancement in diagnostics, treatment, and rehabilitation, regular evaluations to determine whether patients' expectations are being met by physiotherapists especially in the complex and multidisciplinary healthcare services is paramount. Patient satisfaction surveys can serve as a means to isolate patients that deserve further attention; it can also show areas that need improvement in the process of care delivery. Patient satisfaction survey provides several benefits for healthcare professionals. It can be used to measure the success of information delivery (9), predict patient return visit, and compliance with treat-

ment (10). Data from patient satisfaction studies can help healthcare providers develop strategies for the provision of care that facilitates the retention of current patients or the recruitment of new patients (11).

Patient satisfaction is conceptualized as a multidimensional construct (12). It assesses providers' measures (13), accessibility and convenience (14, 15), financial aspects (16), physical place and environment of care (12, 13), and expectations (14). Studies reported various factors that affect patients' satisfaction with physiotherapy care (8, 17-20). Cost of care (8, 17), patient-therapist interaction (18), time spent in treatment (21), and technical skills (19, 20) affect the overall satisfaction of patients in physiotherapy practice and care. Other factors such as demonstrating confidence, respect to patients' privacy, answering patients' questions, respecting patients' autonomy, and politeness were reported as the major factors in patient satisfaction (18, 20).

Despite the use of patients' satisfaction to evaluate the standard of healthcare worldwide, the majority of studies on patients' satisfaction with physiotherapy services were conducted in high-income countries (22) where differences existed in healthcare systems when compared with those of the developing nations such as Nigeria. It is only recently that efforts are made to study the patients' satisfaction with physiotherapy services in South-Western Nigeria (20). It is unclear if the determinants of satisfaction reported in the previous studies conducted in the developed countries and South-Western Nigeria are applicable to the population in North-Eastern region of the country. Also, since the inauguration of National Health Insurance Scheme in Nigeria, there is a paradigm shift in access to and payment of healthcare services including physiotherapy. With the advent of the healthcare accountability era, health insurance may consider value for money for any services rendered to their clients. As such, meeting patients' satisfaction is strategic to the overall physiotherapy practice.

## 2. Objectives

Thus, the current study aimed at examining the level of satisfaction of patients receiving outpatient physiotherapy services in Maiduguri, North-Eastern Nigeria.

## 3. Methods

### 3.1. Participants

The study participants were patients receiving physiotherapy services on an outpatient basis in three hospitals in Maiduguri, Nigeria. Participants meeting the in-

clusion criteria (ie, patients receiving physiotherapy treatment aged 18 years and above) were randomly recruited. Patients were not included if they were on admission (inpatients) in the hospitals. Also, outpatients receiving less than five therapeutic sessions were not included. The participants consented to participate after the study objectives were thoroughly explained to them. According to the method described by Bryman and Cramer (23), the minimum necessary sample size was calculated with a statistical precision of at least 0.05 to estimate the risk factor prevalence of 20% at a 95% confidence level (CI).

### 3.2. Study Design

The study design was cross sectional and simple random sampling method was employed to recruit the participants.

### 3.3. Study Setting

The study was carried out in three selected hospitals including University of Maiduguri teaching Hospital, State Specialist Hospital, and Umaru Shehu Ultramodern Hospital.

### 3.4. Instruments

The physical therapy satisfaction questionnaire (17) was employed in the current study. It is a 25-item tool containing 19 positively worded statements scored based on a five-point Likert scale ranging from "strongly disagree" to "strongly agree". Each subscale was expressed as a final score on a 0-100 scale with higher values indicating higher satisfaction. The questionnaire consists of two sections; the first section consists of six items on demographic data such as age and gender, and treatment details of the participants such as the part being treated and modalities being used. The second section consists of 19 items assessing the degree of satisfaction with physiotherapy care. Participants were asked to rate their satisfaction on privacy, courtesy, visit schedules, facility locations, bills, and parking including quality of service, cost, and overall satisfaction. It took the respondents approximately 6 to 10 minutes to complete the questionnaire. The evaluated reliability and validity for this instrument were good. The Cronbach's alpha coefficient was (0.94) excellent (24).

### 3.5. Procedure

Participants were met during clinic visits by one of the researchers and asked to complete the questionnaire after reading and understanding the information provided regarding the research procedure as well as signing the written consent form to participate in the study. In order to have a high response rate, the researchers conducted

face-to-face interviews for participants that did not want to complete the survey questions independently. Also, the participants that wished to be given time to complete the questionnaire were allowed to take it home and return the completed copy in their next clinic visit. Participants that did not return their questionnaires were followed-up by telephone call and encouraged to complete and return the questionnaire. The study protocol was approved by the Ethics Committee of the University Maiduguri Teaching Hospital before the initiation of the study.

### 3.6. Data Analysis

Descriptive statistics of mean, standard deviation, and percentage were used to express socio-demographic data of the participants. Independent *t*-test was used to determine the difference in the satisfaction level between male and female respondents. It was also used to determine the difference in the satisfaction level among patients of different age groups. One-way ANOVA was used to determine the difference in the level of satisfaction among patients of different educational and employment status, and the patients with different health conditions and the treatment modalities used to provide care. Alpha was set to 0.05.

## 4. Results

Totally, 338 questionnaires were distributed of which 38 were not returned (21), or had missing data (17); hence, the attrition rate was 11.2%. Therefore, a total of 300 patients participated in the study. They comprised 142 females (47.3%) and 158 males (52.7%); the age range was 19 to 59 years (mean age:  $34.94 \pm 11.66$ ). Majority of the participants were male ( $n = 158$ ; 52.7%). Lower limb conditions/problems ( $n = 92$ ; 30.7%) were the main reason for physiotherapy visit. Further, multiple treatment was the most common form of physiotherapy received by the subjects ( $n = 128$ ; 42.7%). The details are presented in Table 1.

Table 2 summarizes the mean scores of the patient satisfaction subscales. Privacy ( $83.50 \pm 11.21$ ) was the highest satisfactory subscale reported by the participants, while facility locations/proximity ( $59.31 \pm 13.20$ ) and bills/cost ( $60.14 \pm 12.40$ ) were areas that participants were least satisfied. Overall, the score of patient satisfaction with physiotherapy services was  $82.95 \pm 14.71$ .

The difference in overall patient satisfaction according to sociodemographic and clinical characteristics is presented in Table 3. The result showed that female (females =  $87.78 \pm 9.77$  vs. males =  $77.24 \pm 19.40$ ;  $P = 0.03$ ) and old adult ( $> 45$  years) (old adults =  $88.86 \pm 10.00$  vs. young adults =  $80.66 \pm 10.00$ ;  $P = 0.001$ ) participants were significantly more satisfied with the provided physiotherapy

**Table 1.** Participants' Sociodemographic and Clinical Characteristics<sup>a</sup>

Characteristic	Value
<b>Age, y</b>	
Mean $\pm$ SD	37.19 $\pm$ 11.66
Range	19.0 - 59.0
<b>Gender</b>	
Male	158 (52.7)
Female	142 (47.3)
<b>Marital status</b>	
Married	156 (52.8)
Single	40 (13.3)
Widow/widower	104 (34.7)
<b>Educational status</b>	
Primary	26 (8.7)
Secondary	46 (15.3)
Tertiary	198 (66)
Other	30 (10.0)
<b>Employment status</b>	
Employed	132 (44.0)
Homemaker	28 (9.3)
Student	70 (23.3)
Retired	40 (13.3)
Job seeker	30 (10.0)
<b>Damaged limb</b>	
Spine	58 (19.3)
Upper limb	67 (22.3)
Lower limb	92 (30.7)
Multiple regions	46 (15.3)
Others	37 (12.3)
<b>Treatment modalities received</b>	
Manual therapy	38 (12.7)
Electrotherapy equipment	66 (22.0)
Therapeutic exercise	68 (22.7)
Multiple treatments	128 (42.7)

<sup>a</sup> Values are expressed as No. (%) unless otherwise indicated.

services compared with the males and young adult (18 - 45 years) participants, respectively. Also, participants with primary school education and the employed ones were significantly more satisfied with the services compared with their counterparts ( $P = 0.001$ ). Participants receiving multiple treatment modalities ( $93.20 \pm 2.03$ ;  $P = 0.001$ ) showed a significantly higher satisfaction than the ones treated with a single modality; that is, manual therapy ( $75.53 \pm$

**Table 2.** Mean Distribution of the Patients' Satisfaction

Subscale	Mean $\pm$ SD
Privacy	83.50 $\pm$ 11.21
Courtesy	76.12 $\pm$ 20.67
Visit schedules	80.64 $\pm$ 17.04
Facility locations/proximity	68.51 $\pm$ 13.20
Bills/cost	70.24 $\pm$ 19.40
Parking space	80.46 $\pm$ 11.87
Quality of service	79.16 $\pm$ 9.59
Overall satisfaction	82.95 $\pm$ 14.71

21.11), electrotherapy (84.36  $\pm$  20.63), or therapeutic exercises (80.45  $\pm$  11.97). However, participants did not differ significantly in the level of satisfaction with the provided physiotherapy services based on their conditions/ailments ( $P > 0.05$ ).

## 5. Discussion

The main motivation to measure patient satisfaction is to help recognize and ameliorate possible patient dissatisfaction issues. From the policy making perspective, it may help to address the prioritization in terms of resource allocation based on the aspects in which patients had less satisfaction. From the perspective of healthcare providers, it identifies patients' needs and expectations that should be met. Patient satisfaction with care describes the extent to which patients' needs, desires, and preferences are met.

In agreement with Nguyen et al. (2), the current study findings showed that adult patients were more satisfied than their younger counterparts with the received services. It was also consistent with that of Allan et al. (24). Similarly, a recent report from the United States of America indicated that the older adults' population was highly satisfied with the physical therapy services compared with younger adults. These findings indicate age as an important factor that should be considered by the physiotherapists when performing their duty. This is because the needs and expectations of individuals vary according to their stage of life. This requires closer attention and adjustment of measures to manifestations and behavior of each patient.

The current study observed differences in patients' satisfaction in terms of gender. The female recipients of physiotherapy services were more satisfied than their male counterparts. Interestingly, this finding coincided with those of Casserley-Feeney et al. (25) and Olatunji et al. (20) reporting that female patients were generally more satisfied with provided physiotherapy care compared with

**Table 3.** Difference in Patient Satisfaction by Sociodemographic Features, Health Condition, and Treatment Modalities

Variable	Mean $\pm$ SD	t/F	P Value
<b>Gender</b>		- 3.14	0.03*
Male	77.24 $\pm$ 19.40		
Female	87.78 $\pm$ 9.77		
<b>Age group</b>		- 2.11	0.02*
Young adult	80.66 $\pm$ 17.06		
Adult	88.86 $\pm$ 10.00		
<b>Educational status</b>		5.905	0.001*
Primary	91.75 $\pm$ 4.92		
Secondary	86.46 $\pm$ 13.20		
Tertiary	80.93 $\pm$ 16.82		
Others	84.51 $\pm$ 12.21		
<b>Employment status</b>		4.811	0.001*
Employed	84.62 $\pm$ 15.18		
Home maker	91.46 $\pm$ 3.50		
Student	75.11 $\pm$ 20.77		
Retired	81.00 $\pm$ 15.94		
Job seeker	79.16 $\pm$ 9.49		
<b>Damaged limb</b>		0.35	0.056
Spine	79.53 $\pm$ 21.10		
Upper limb	80.36 $\pm$ 20.63		
Lower limb	84.45 $\pm$ 11.97		
Multiple region	82.27 $\pm$ 20.02		
Other	84.45 $\pm$ 11.17		
<b>Treatment modalities received</b>		4.901	0.001*
Manual therapy	75.53 $\pm$ 21.11		
Electrotherapy equipment	84.36 $\pm$ 20.63		
Therapeutic exercise	80.45 $\pm$ 11.97		
Multiple treatments	93.20 $\pm$ 2.03		

their male counterparts. However, contrary to these results, Hall and Dornan (26) found that male patients were significantly more satisfied with physiotherapy services compared with their female counterparts.

Education was another variable that was significantly associated with satisfaction. There was a higher satisfaction with physiotherapy services in a patient with post-secondary education, which was consistent with a previous study by Olatunji et al. (20). One possible reason is that high education attainment is associated with better access and satisfaction with healthcare services (26).

The current study found that employment status was significantly correlated with the satisfaction scores.

Higher levels of satisfaction were observed among homemakers; however, the current study results were inconsistent with those reported by Keith (9). The authors indicated that employment status was not significantly correlated with the level of satisfaction among the patients receiving physiotherapy service. Also, the current study found no significant difference in the level of satisfaction among patients receiving physiotherapy services with respect to the damaged limb.

### 5.1. Limitations of the Study

The cross sectional nature of the study design may lead to response bias, which limits the causality of the relationships of the results. Also, the outcome of treatment that may influence patients' satisfaction was not considered. These limitations may affect the generalizability of the findings. However, the sampling technique employed during recruitment and the sample size added to the strength of the study.

### 5.2. Conclusions

In conclusion, the overall patient satisfaction with physiotherapy services was high in the current study. Female gender, old age, and employment demonstrated more satisfaction; also, more satisfaction was observed among the subjects with the primary level of education and the ones receiving multiple treatment modalities. The study findings may help to form strategies and frameworks that facilitate and improve patients' attendance and compliance with physiotherapy treatment protocols.

### Footnotes

**Authors' Contribution:** Adamu Ahmad Rufa'i, Muhammad Dahiru Lawan, and Salamatu Umar Aliyu planned and coordinated the study. Adamu Ahmad Rufa'i and Muhammad Dahiru Lawan conducted the study. Adamu Ahmad Rufa'i and Ismaila Adamu Saidu drafted the manuscript. All authors contributed to the protocol design and edited the manuscript for intellectual content. All authors read and approved the final version of the manuscript.

**Conflict of Interests:** The authors declared no conflict of interests.

**Ethical Considerations:** The study protocol was approved by the Ethics Committee of the University Maiduguri Teaching Hospital, Nigeria.

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