

# Comparison of Patients' Satisfaction with Physiotherapy Care in Private and Public Hospitals

DO ODEBIYI, CB AIYEJUSUNLE, TS OJO, BA TELLA

*Department of Physiotherapy, Lagos University Teaching Hospital, Idi Araba, Lagos*

Correspondence: Dr DO Odebiyi, Department of Physiotherapy, Lagos University Teaching Hospital, Idi Araba, Lagos • email: femiodebiyi@yahoo.com

## SUMMARY

Patient satisfaction is an important measure of quality of care. This study compares the level of satisfaction in patients who receive physiotherapy care in private and public hospitals. The subjects (N=639) were patients who received physiotherapy care as outpatients in four (4) private and three (3) public hospitals, and who completed a 63-item closed-ended structured questionnaire titled, Modified Patient Satisfaction Questionnaire for Physiotherapy (PSQ-MP). The questionnaire was divided into two sections. Section A elicited information on socio-demographic data and section B consisted of sub-scales that assessed aspects of satisfaction, including appointment scheduling, accessibility to the physiotherapy department, the conduct of the physiotherapists, facilities, clinical expertise and general satisfaction. Overall, subjects were satisfied with care received in both public and private hospitals though subjects in the private hospitals expressed more satisfaction in all the sub-scales of the PSQ-MP than their counterparts in the public hospitals, particularly in the 'facilities' and 'appointment' subscale of the PSQ-MP. In all, subjects who received physiotherapy in private hospitals were more satisfied than those who received physiotherapy in public hospitals. The subjects in public hospitals were particularly least satisfied with the 'available physiotherapy facilities' and 'appointment schedules'. Government should therefore provide adequate facilities in the physiotherapy departments of public hospitals in order to manage the large volume of patients seen.

---

**Key words:** physiotherapy, patient satisfaction, private and public hospitals

---

## INTRODUCTION

Patient satisfaction is an element of health status and a measure of the outcome of care widely used in evaluating distinct dimensions of patients' health care<sup>1</sup>. It is also one way of assessing communication and information transfer between clinicians and patients and can therefore be a patient's medium of expressing dissatisfaction with the provision of information. The measurement of patients' perceptions relating to the process and quality of health care delivery is increasingly recognized as an important component in the evaluation of health care interventions and for assessing service quality.<sup>2</sup> It is widely used in assessing experiences with services or care.<sup>3</sup>

The assessment of patients' satisfaction allows clinicians to investigate the extent to which their services have been able to meet the needs of their clients/patients.<sup>4</sup> One important reason for obtaining patients' views on their experience with care is to facilitate improvement in the services rendered by health care providers since, according to Hardy,<sup>5,6</sup> satisfied patients are more likely to follow treatment instructions and medical advice, probably because they are more likely to believe that treatment will be effective. Consumers increasingly regard satisfaction as an essential complement to administrative measures of the quality of health care, although the measurement of satisfaction may add to overhead costs and may be time consuming as it requires primary data collection.<sup>7,8,9</sup>

Previous studies have related satisfaction to individual consumer experiences and behaviour as well as outcomes of care.<sup>10,11,12</sup> However, only a few studies have examined the use of satisfaction measures to compare quality across different hospitals or health care providers.<sup>13</sup> Olatunji et al.<sup>14</sup> assessed patients' satisfaction with the physiotherapy services in a Nigerian Federal Medical Centre without comparison with the physiotherapy departments of other hospitals. It has been reported that studies on the assessment of quality of care are generally conducted at the level of the health care provider or hospital, although data are collected at the level of the individual patient.<sup>12,14</sup> Perneger et al.,<sup>15</sup> in their study evaluating patients' satisfaction in relation to private and public health care providers, reported that patients who were treated in privately owned hospitals/clinics expressed more satisfaction than patients treated in government-owned hospitals/clinics.

Recently, a reform to improve the quality of health care delivery in public hospitals was introduced in Nigeria.<sup>16</sup> This reform made the delivery of high quality and cost effective health care services the focus of policy makers, clinicians, insurance brokers and patient advocacy groups in Nigeria.<sup>16</sup> This is probably one of the reasons why the federal government decided to equip six federal government teaching hospitals with physiotherapy equipment. In the developed world, patient satisfaction scores are increasingly used to supplement administrative measures as part of the quality improvement initiative. Presently, there is a dearth of information on patients' satisfaction with physiotherapy care in Nigerian health care facilities. This study was therefore designed to evaluate the extent to which outpatient physiotherapy services have met patients' expectations and preferences in private and public hospitals in Lagos State, southwest Nigeria.

## **METHODS**

### **Subjects**

Six hundred and thirty nine (639) subjects with various clinical conditions participated in this study.

The participants were drawn from the outpatient clinics of the physiotherapy department of selected private hospitals (Havana Specialist Hospital Surulere, and EKO Specialist Hospital, Ikeja) and public hospitals (Lagos University Teaching Hospital, Idi-Araba, Lagos State University Teaching Hospital, Ikeja, Lagos State General Hospitals and National Orthopaedic Hospital, Igbobi) in Lagos State, southwest Nigeria between February and July 2007. These hospitals were accredited by the Medical Rehabilitation Therapists Board of Nigeria (MRTB) for an internship programme for newly-graduated physiotherapists. The Board will only accredit hospitals with the minimum required equipment to provide physiotherapy services to patients. Only patients who had received physiotherapy for at least four treatment sessions were included in the study.

### **Instruments**

The research instrument was a self report questionnaire adopted from an earlier study on the measurement of patients' satisfaction with general practitioner services in Britain.<sup>17</sup> It was modified to suit physiotherapy services in the Nigerian environment. Those aspects of the original questionnaire pertaining to general practitioners, medicine and medical facilities were replaced with physiotherapists, physiotherapy and physiotherapy facility/modality respectively. The Modified Patient Satisfaction Questionnaire for Physiotherapy (PSQ-MP) was a 63-item close ended questionnaire. It was divided into two sections, A and B. Section A consisted of 9 questions and required information on demographic data including age, gender, religion, marital status, level of education and tribe, while section B assessed specific aspects of satisfaction.

Section B was divided into six sub-scales including appointments, physiotherapy accessibility, physiotherapist's conduct, facilities, clinical expertise and general satisfaction. This section measured the subjects' ease of getting appointments with the physiotherapists, level of access to physiotherapy/treatment, satisfaction with physiotherapist's conduct during treatment, and satisfaction with physiotherapy building, waiting

room and equipment available for treatment and general structural facilities available in the physiotherapy department. It also assessed the subjects' satisfaction with the clinical expertise of the physiotherapists in the physiotherapy department and the level of general satisfaction with physiotherapy treatment vis-à-vis questions on waiting hours, human relationships, and patient involvement in goal setting.

The PSQ-MP is a Likert scale which requires answers in a strongly agree/strongly disagree format; the box consists of 5 columns, where 1 represents strongly disagree, 2 represents disagree, 3 represents undecided, 4 is for agree and 5 for strongly agree. Seventeen questions were negatively worded, therefore the scores were reversed. The point of neutrality for each question was 3, thus a patient who was dissatisfied for each sub-scale would have a lower cumulative score on the scale.

### Procedure

Permission to conduct the study was sought and obtained from the managements of all the selected hospitals and the aims and objectives of the study as contained in the consent form were clearly explained to the subjects. Only subjects who consented and met the inclusion criteria were included in the survey. The subjects were randomly selected by choosing every fourth patient from the attendance register.

Prior to administration, three copies of the questionnaire were sent to two physiotherapy educators and one physiotherapy clinician who were experts in questionnaire design, to ascertain its content validity. Adjustments were made as recommended by them. The questionnaire was then pilot tested by administering 10 each to patients receiving physiotherapy treatment as outpatients in private and public hospitals respectively. This was to ensure that the questions were clearly stated and were understood by the patients. There was no modification made to the final copy of the questionnaire since the items in the questionnaire were understood by the subjects.

### Data Analysis

The required information was extracted and the data obtained were presented using descriptive statistics of percentages, and mean and standard deviation. Inferential statistics of the Mann Whitney U and the Chi square tests were used to determine the significant differences between the levels of satisfaction of subjects receiving physiotherapy treatment in private and public hospitals.

### RESULTS

A total of 639 subjects [private hospitals 148 (23.2%); public hospitals 491 (76.8%)], with a mean age of  $43.10 \pm 14.6$  years (private hospital  $45.3 \pm 14.7$  years and public hospital  $40.8 \pm 14.5$  years) participated in this survey. There was a response rate of 79.8%. Table 1 shows the demographic characteristics of the subjects – 283 (44.3%) female and 356 (55.7%) males. The majority of the subjects in both the private 92 (62.2%) and public hospitals 301 (61.3%) were married, while 104 (69.2%) and 219 (44.6%) of the subjects from both private and public hospitals had post secondary education.

According to White's classification of patient's satisfaction, all the subjects were satisfied with all the sub-scales of satisfaction (physiotherapy appointments, accessibility, conduct, facilities, clinical expertise and general satisfaction), as all the subjects scored more than half the total obtainable mark (table 2). However, the Mann Whitney U test showed that there was a significant difference ( $p < 0.05$ ) in the level of satisfaction between patients in private and public hospitals in all the sub-scales of the PSQ-MP (table 2). Figure 1 shows the percentages of satisfied subjects from the private and public hospitals. In all the domains of the PSQ-MP, there was no statistically significant difference between the subjects receiving physiotherapy in private and public hospitals except in the 'physiotherapy facilities' and 'appointments' areas where chi square statistics showed a significant difference in the percentages of satisfaction between the subjects in the private and public hospitals.

**Table 1.** Demographic characteristics of the subjects (N=639)

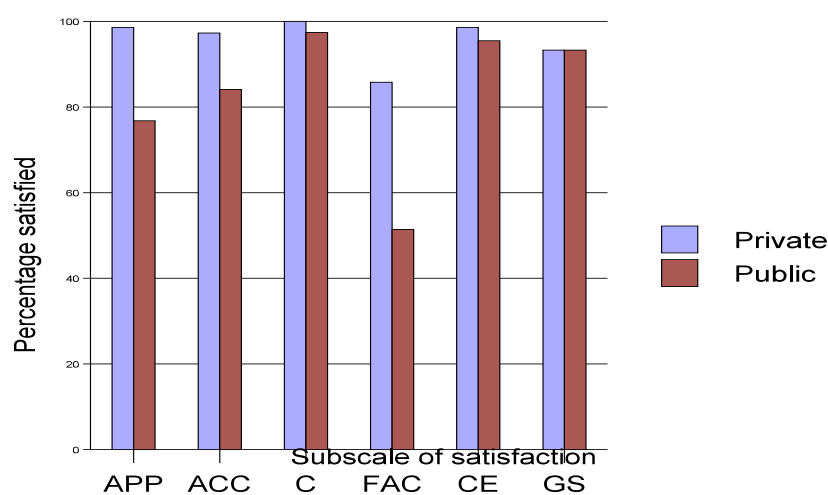
	All Subjects		Private Hospitals		Public Hospitals	
	N	%	N	%	N	%
<b>Subjects distribution</b>	639	100	148	23.2	491	76.8
<b>Gender distribution</b>						
Male	283	44.3	71	48.0	212	43.2
Female	356	55.7	77	52.0	279	56.8
<b>Marital status</b>						
Single	169	26.5	32	21.6	137	27.9
Married	393	61.5	92	62.2	301	61.3
Widow/widower	40	6.3	9	6.1	31	6.3
Divorced/separated	37	5.8	15	10.8	22	4.5
<b>Educational Attainment</b>						
No formal education	23	3.6	3	2.0	20	4.1
Primary education	48	7.5	10	6.8	38	7.7
Secondary education	126	19.7	9	6.1	117	23.3
Post secondary education	382	59.8	106	70.6	276	56.3
Postgraduate education	60	9.4	20	13.5	40	8.1

**Table 2.** Mann-Whitney U Test Comparing Satisfaction Scores of Subjects from Public and Private Hospitals

Subscale	Maximum score	Mid score	Private Hospitals Mean±SD	Public Hospitals Mean±SD	U-value	P-value
APP	25	15	20.70±2.23	17.41±3.34	13907.50	0.00*
ACC	35	21	29.35±2.99	25.0±3.52	12098.00	0.00*
C	65	39	55.28±4.35	51.46±5.61	21922.00	0.00*
FAC	35	21	26.40±4.03	21.54±4.42	14962.00	0.00*
CE	55	33	47.00±4.12	43.26±6.15	21326.00	0.00*
GS	50	30	43.04±3.35	39.72±5.04	20452.50	0.00*

\*Significant difference at p=0.05

Keys: APP – Physiotherapy Appointment; ACC – Physiotherapy Accessibility; C – Physiotherapist’s Conduct; FAC – Physiotherapy Facilities; CE – Physiotherapist’s Clinical Expertise; GS – General Satisfaction with Physiotherapy Services



**Figure 1.** Percentage of Subjects Satisfied in Public and Private Hospitals

Keys: APP - Physiotherapy Appointment; ACC - Physiotherapy Accessibility; C - Physiotherapist’s Conduct; FAC - Physiotherapy Facilities; CE - Physiotherapist’s Clinical Expertise; GS - General Satisfaction with Physiotherapy Services

## DISCUSSION

The results of the study showed that more subjects attended public hospitals than private hospitals. The high cost of physiotherapy services in private hospitals and the smaller capacity of most private hospitals in terms of structure and personnel compared to what obtains in public hospitals may be responsible for this result.

The finding that the subjects had a mean score greater than the midline score in all the sub-scales measuring satisfaction suggests that the subjects who attended the private and public hospitals were satisfied with the physiotherapy received. This finding is in agreement with the commonly reported trend in the literature. Ware et al.<sup>18</sup> and Baker et al.,<sup>19</sup> in their various studies, reported that patients were satisfied with physiotherapy received. One possible reason for this observation might be the high educational attainment which was observed among subjects, as the majority of the respondents had post-secondary education. It has been shown that educational attainment has a significant influence on the level of satisfaction with health care delivery; the more educated patients report a high level of satisfaction.<sup>20,21</sup> Another possible reason could be the fact that only adults were included in this study. A high level of satisfaction had also been reported in a study involving older adults.<sup>22</sup>

It was hypothesized that there would be no significant difference between the levels of satisfaction of subjects receiving physiotherapy treatment in private and public hospitals. The Mann Whitney U test showed that there was a statistically significant difference between the levels of satisfaction of subjects receiving physiotherapy in private and public hospitals in all the sub-scales of the PSQ-MP. This finding is in agreement with that of Perneger et al.<sup>15</sup>, who in their evaluation of patients' satisfaction between patients in private and public hospitals, concluded that the patients in private hospitals were more satisfied than those in public hospitals. The finding that the mean score for the 'access' sub-scales of the PSQ-MP was higher in private hospitals than in public hospitals might not be unconnected with the lower workload for the physiotherapists in the private hospitals, which may

have made it easier for patients to access them. Also, the fact that the mean score for the 'appointments' sub-scale of the PSQ-MP was higher in private hospitals than in public hospitals may be due to the flexibility which patients in the private hospital enjoyed in terms of being able to change their appointment at will, which may not be possible in public hospitals. This finding agrees with the report of Perneger et al.,<sup>15</sup> who partly ascribed the higher level of satisfaction recorded in their study to the disparity in patient populations recorded for public hospitals compared to those in private hospitals. It also suggested that the possibility that the subjects in the private hospitals may have the privilege of being able to choose their physiotherapists; a choice unlikely to be possible in public hospitals.

While this reason may be regarded as peripheral, some core concepts responsible for this observation should not be ignored. It has been postulated that high levels of satisfaction are recorded when a patient's orientation or experience with the health care provider matches that of the health care provider or when a patient's experience with the health care provider matches the patient's expectations.<sup>23,24</sup> It can thus be said that the patients' perception of their health care provider in private hospitals was indeed equal to their experiences as measured by each sub-scale and that their expectations matched their experiences. Thus this might be an additional reason for the observed higher level of satisfaction recorded among the subjects receiving physiotherapy in private hospitals.

It has been suggested that empathy, courtesy and the communication skills of the clinician are critical in determining the level of patients' satisfaction.<sup>25,26,27</sup> In a similar study on nurses by Coyle et al.,<sup>28</sup> about 50% of the patients studied reported that nursing staff were unavailable to attend to patients even though they were physically present. Baker et al.<sup>29</sup> reported that satisfaction was higher among patients who had high levels of trust and care continuity with their clinician. Campanella et al.<sup>30</sup> reported that the strongest significant predictors of satisfaction were the expression of concern for the patient's comfort, the seriousness with which the patient was treated (professionalism) and the clinician's behaviour. All

these are traits that physiotherapists would have imbibed during the course of their training. This probably explains the high percentage of satisfied patients in both private and public hospitals recorded in this study.

The finding that there was a significant difference in 'physiotherapy facilities' and 'appointments' between patients in private and public hospitals respectively implies that a larger percentage of subjects in private hospitals were more satisfied with the 'facilities' and 'appointments' sub-scales of the PSQ-MP. One possible reason for this observation may be because the subjects in the private hospitals were allowed to choose their appointment periods within the operational hours of the hospital which was not the case in public hospitals. The fact that patients in the private hospitals had the privilege of calling their physiotherapists to either confirm or reschedule appointments may also be responsible for this observed level of satisfaction. Another possible reason for the difference between subjects in the private and public hospitals in the scores for the 'facilities' sub-scale may be because private hospitals have less administrative challenges than public hospitals, most importantly because they are usually managed by their owners. In most cases, the maintenance fees of structures and facilities in private hospitals are usually included in the service charges paid by the patients, whereas public hospitals receive the bulk of their funding from the government and allocation to each hospital is based on the order of relative importance of physiotherapy in the line up of government programmes.

## CONCLUSION AND RECOMMENDATION

The level of satisfaction of the subjects from private and public hospitals varied for each sub-scale. Subjects who received physiotherapy in private hospitals were generally more satisfied than those who received physiotherapy in public hospitals. Subjects from the public hospitals were less satisfied with the 'available physiotherapy facilities' and 'appointment schedules'. Efforts should therefore be made by governments to provide adequate facilities in the physiotherapy departments of public hospitals. In order to be able to manage the large volume of

patients in the public hospitals, flexible appointment schedules should also be instituted to enhance physiotherapy service delivery.

## REFERENCES

1. Donabedian A. The quality of care: how can it be assessed? *Journal of the American Medical Association* 1988; (12): 1743 – 48.
2. Crow R, Gage H, Hampson S, Hart J, Kimber A, Storey L. The measurement of satisfaction with healthcare: implications for practice from a systematic review of the literature. *Health Technology Assessment* 2002; 6 (32):1-244.
3. Sitzia J. How valid and reliable are patient satisfaction data? An analysis of 195 studies. *International Journal for Quality in Health Care* 1999; 11(4): 319-28.
4. Avis M, Bond M, Arthur A. Satisfying solution? A review of some unresolved issues in the measurement of patient satisfaction. *Journal of Advance Nursing* 1995; 22: 316 – 22.
5. White B. Measuring patient satisfaction: How to do it and why to bother. *Family Practice Management* 1999; 2: 120-2.
6. Hardy G, West M, Hill F. Components and predictors of patient satisfaction. *British Journal of Health Psychology* 1996; 1:65-85.
7. Allen HE, Darling H, McNeil DN, et al. The Employee Health Care value Survey: Round one. *Health Affairs* 1994; 13(1):25 – 41.
8. Dickey B. The development of report cards for mental health care. In: Sederer L, Dickey B, eds. *Outcomes Assessment in Clinical Practice*. Williams and Wilkins, 1996.
9. Sutherland K, Dawson S. Power and quality improvement in the new NHS: the roles of doctors and managers. *Quality in Health care* 1998; 7(suppl): S16 - S23.
10. Roughmann KG, Hengst A, Zastowny TR. Satisfaction with medical care: It measurement and relation to utilization. *Medicare Care* 1979; 17: 461 - 479.
11. Ruggeri M, Dall'Agnola R. The development and use of the Verona Expectations for Care Scale (VECS) and the Verona Service Satisfaction Scale (VSSS) for measuring expectations and satisfaction with community-based psychiatric services in patients, relatives and professionals. *Psychological Medicine* 1993; (23):511-523.
12. Kane RL, Maciejewski M, Finch M. The relationship of patient satisfaction with care and clinical outcomes. *Medical Care* 1997; 35 (7):714-30.
13. Rubin HR, Gandek B, Rogers WH, Kosinski M, McHorney CA, Ware JE. Patients' ratings of outpatient visits in different practice settings. Results from Medical

- Outcomes Study. *Journal of the American Medical Association* 1993; (7): 835 - 40.
14. Olatunji TO, Ogunlana MO, Bello MA, Omobaanu SO. Assessment of patient satisfaction with physiotherapy care. *Journal of Nigerian Society of Physiotherapy* 2008; 16(1); 11-15.
  15. Perneger TV, Stalder H, Etter JF. Comparison of patient satisfaction with ambulatory visits in competing health care delivery settings. *Journal of Epidemiology and Community Health* 2004; 50(6): 463-468.
  16. Obasanjo AO. Address by the president of the Federal Republic of Nigeria during the official commissioning of the newly modernized and fully equipped Lagos University Teaching Hospital (LUTH): A Federal Government of Nigeria/Vamed Engineering Project, 2007.
  17. Grongan S, Conner M, Willits D, Porter I. Validation of a questionnaire measuring patient satisfaction with general practitioner service. *Quality Health Care* 2000; 9: 210 - 215.
  18. Ware JE, Snyder MK, Wright WR, Davies AR. Defining and measuring patient satisfaction with medical care. *Evaluation and Program Planning* 1983; 6: 247-263.
  19. Baker R, Mainous AG, Gray, DP, Love MM. Exploration of the relationship between continuity, trust in regular doctors and patient satisfaction with consultations with family doctors. *Scandinavian Journal of Primary Health Care* 2003; 21(1): 27-32.
  20. Laitinen P. Participation of informal caregivers in the hospital care of elderly patients and their evaluations of the care given: pilot study in three different hospitals. *Journal of Advanced Nursing* 1992; 17(10):1233-7.
  21. Rahmqvist M. Patient satisfaction in relation to age, health status and other background factors: a model for comparisons of care units. *International Journal of Quality in Health Care* 2001; 13(5): 385-90.
  22. Tannenbaum C, Bachand G, Dubeau CE, Kuchel GA. Experience of an incontinence clinic for older women: no apparent age limit for potential physical and psychological benefits. *Journal of Women's Health and Gender-based Medicine* 2001; 10(8):7 51-6.
  23. Fox JG, Storms DM. A different approach to sociodemographic predictors of satisfaction with health care. *Social Science and Medicine* 1981; 15(5): 557-64.
  24. Jennings BM, Heiner SI, Loan L, Hemman E, Swanson KM. What really matter to health care consumers? *Journal of Nursing Administration* 2005; 35(4): 178-179.
  25. Meredith P. Patient satisfaction with communication in general surgery: problems of measurement and improvement. *Social Science and Medicine* 1993; 37(5): 591-602.
  26. Calnan M, Katsouyiannopoulos V, Ovcharov VK, Prokhorskas R, Ramic H, Williams S. Major determinants of consumer satisfaction with primary care in different health systems. *Family Practice* 1994; 11 (4): 468-78.
  27. O'Connell B, Young J, Twigg D. Patient satisfaction with nursing care: a measurement conundrum. *International Journal of Nursing Practice* 1999; 5(2):72-7.
  28. Coyle J, Williams B. Valuing people as individuals' development of an instrument through a survey of person-centeredness in secondary care. *Journal of Advanced Nursing*, 2001; 36(3): 450- 9.
  29. Baker SM, Marshak HH, Rice GT, Zimmerman GJ. Patient participation in physical therapy goal setting. *Physical Therapy* 2001; 81(5): 1125-1126.
  30. Campanella HC, Campanella PM, Grayson K. Factors affecting Department of Defense patient satisfaction in a military emergency department. *Military Medicine* 2000; 165(5): 396-402.
  31. Buchan H, Brook C. Quality in Australian hospitals – who cares? *International Journal of Quality Health Care* 1997.