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Reliability and Validity of a Satisfaction Scale in a Nigerian Psychiatric Out-Patient Clinic.

D. I. UKPONG, S. K. MOSAKU, C. O. MUME, O. ALOBA , B. MAPAYI

ABSTRACT

Background : There are no reports from Nigeria of assessment of patients' satisfaction with outpatient psychiatric services.

Aim: The reliability and preliminary validity of the Charleston Psychiatric Outpatient Satisfaction Scale (CPOSS) was investigated in a Nigerian population .

Method: The CPOSS was administered to 220 patients seen at the psychiatric clinics of the Obafemi Awolowo University Teaching Hospital , Ile-Ife, Nigeria. They completed this 15 item self-rated instrument that assesses patient satisfaction with services using a 5 point response format.

Results: The internal consistency for the scale was high (α=0.91), and item total correlations ranged between 0.33 to 0.70. Its convergent validity was supported by significant correlations of all items with the overall scale score,with a range of 0.30 to 0.68(Pearson's r). Mean scores for items except " parking area" ranged from 3.0 to 3.7. Bivariate correlations for all items except item "13" 'parking' showed significant associations.Seventy one percent of clients rated that they would definitely recommend the service to friends or family members. Subjects were most dissatisfied with time waiting to be seen .

Conclusions: These results provide preliminary evidence for the reliability and validity of the scale in a Nigerian outpatient psychiatric clinic service.

Keywords: Patients' Satisfaction Scale, Psychiatric Care, Nigeria

INTRODUCTION

Several authors have suggested that measurement of patients' satisfaction with psychiatric services is an essential component of mental health service delivery, as service users' satisfaction correlates significantly with improved clinical outcome and administrative measures of quality care (Holcomb et al,1998; Druss et al,1999; Langle et al ,2003 ; Pellegrin et al 2001).

Measurement tools that assess needs considered important by service users is useful in audit and evaluation of mental health services (Lelliot et al, 2001).Many governments throughout western Europe and North America now encourage patients to contribute to the planning and development of health services in their communities (Crawford et al,2002).There is a consensus that involving patients in service planning leads to more accessible and acceptable services and improves the health and quality of life of patients (Crawford et al, 2002).

There is still a huge burden of illness and severe disability in the mentally ill especially those living in low-income countries (Dejarlais et al , 1995; Murray&Lopez,1996). Provision of care for the mentally ill in such countries is inadequate, and further handicapped due to migration of health workers from these countries to more developed nations (World Health Organization,2001;Patel et al,2006)

With this observation it is important to make adequate use of very scarce resources. Assessment of patients' satisfaction with care has led to changes in some aspects of service provision in the western world (Crawford et al,2002).These include making services more accessible through simplifying appointments ,extending opening times , provision of transport to treatment units and provision of new or improved sources of information for patients (Wistow & Barnes,1993;Pilgrim & Waldon,1998). However there is paucity of research on measurement of patients' satisfaction with psychiatric care in sub-Saharan Africa, including Nigeria. It is therefore desirable to have an assessment tool that measures patients' satisfaction with service delivery in order to identify opportunities for improvement and making adequate use of scarce resources.

A number of instruments have been developed for assessing patients' satisfaction with out patient psychiatric services(Parker et al,1996;Clark et al, 1999).A simple and easy one to use is the Charleston Psychiatric Outpatient Satisfaction Scale (CPOSS) developed by Pellegrin and co-workers at the Medical University of South Carolina , Charleston in the United States of America(Pellegrin et al,2001). This scale was chosen because of its brevity, coverage of clinical, administrative, and environmental aspects of service provision. This study was carried out to test the reliability and validity of this instrument in a Nigerian Psychiatric out-patient clinic setting.

METHODS

Subjects and the Setting

This descriptive, cross-sectional study of satisfaction with psychiatric services was conducted at the Psychiatric outpatient clinics of the Obafemi Awolowo University Teaching Hospital , Ile-Ife, South-Western

Nigeria. The hospital provides tertiary level health care for Osun, Ekiti and Ondo states in south-western Nigeria with a catchment population of about 0 million people (National Population commission,1998)

The hospital comprises two centres at Ile-Ife and Ilesa with a total bed complement of over 500 ,out of which 26 are allocated to the psychiatric unit. About 140 psychiatric patients attend the twice weekly clinics, although services are provided on an ongoing basis. The unit is manned by four consultant psychiatrists, six postgraduate trainees in psychiatry, a clinical psychologist , twenty psychiatric nurses and two social workers. Clients are referred to the outpatient psychiatric clinics from many sources. These include the general outpatient unit of the university hospital, the accident and emergency unit ,other specialist units from within the hospital private clinics, churches , primary health, care centres , the courts etc. The clinics are general psychiatric clinics that treat a broad range of disorders.

Data Collection Procedure

All consecutive patients aged 18 years and over, attending the psychiatric clinic over a two week period in August 2006 were approached to take part in the study after obtaining their informed consent. Ethics approval was given by the Research Ethics Committee of the hospital.Newly diagnosed and previously diagnosed but newly referred patients were excluded from the study. Only patients who functioned well and showed good judgement were included in the study. Majority of the patients had diagnoses of schizophrenia or mood disorder in remission.

The CPOSS consists of 15 items, and uses the 5 point Likert type response format, — 5,excellent ; 4,very good; 3,good; 2, fair and 1, poor; plus a does not apply option for all but the last item on the scale. The last item, which, assesses behavioral intent to recommend the clinic to others uses a 4-point response format: 4,yes, definitely ; 3,yes, probably; 2,no,probably not; and 1,no,definitely not.Item 1 on the questionnaire was modified slightly by substituting the term "records clerk " for "secretary."

In order to avoid the possible influence of staff on the Charleston Psychiatric Outpatient Satisfaction Scale, patients completed the questionnaires without interference from them after clarification of the objectives of the study. Literate patients completed the instrument in English or Yoruba , the local language for the study area (the Yoruba version was produced through a process of back translation, and it is available from the authors on request). Illiterate patients were requested to seek assistance from educated relatives to complete the questionnaire using the Yoruba version. Even though patients' demographic data were obtained, data collection procedure was anonymous.

Data analysis

SPSS for windows, version 10.0(SPSS Inc,Chicago,IL) was used to store and analyze the data. Reliability assessment for the scale was done using inter-item and item-total correlations as well as Cronbach's á coefficient for internal consistency. Bivariate correlations were carried out using Pearson's r.

RESULTS

Of the 233 service users seen during the period, 220(94.4%) agreed to take part in the study. Two hundred and twenty (220) completed questionnaire were collected and analyzed. The mean age of the participants was 36.4 ± 13.5 years (range 18-78). Forty eight percent were males while 52% were females. Fifteen patients (6.8%) had no formal education, 52 (23.6%) had only primary education, 87 (39.5%) were educated up to secondary school level while 66 (30.1%) had post secondary education. Forty three percent of the patients (94) had been receiving treatment for 12 months or less, while 57%(126) had received treatment for more than 12 months.

About 0.5% of the data items were missing from the schedules returned, each analysis included all valid cases. Table 1 summarizes the responses to each item on the scale.

The proportion who rated their satisfaction with the services as excellent ranged from 2.3% to 23.2% ; ratings of very good ranged from 4.7% to 37.3%; ratings of good ranged from 15.8% to 52.3%; that of fair ranged from 6.4% to 30.0% ,whereas that of poor ranged from 0.5% to 6.4%.

The highest levels of dissatisfaction were with waiting time and appearance of the waiting area. Seventy one percent (71%) of respondents rated that they would definitely recommend the service to others. Table 2 shows the comparison of our scale item means and standard deviation with that obtained by Pellegrin and colleagues . With the exception of item 13 (parking) the mean score of items ranged from 3.0 to 3.7, indicating that satisfaction with services in this sample was between good and very good on the scale. The exceptionally low mean score for item 13 (parking) is due to the fact that most respondents rated this item as not applicable to them (65.6%), since majority of them had no motor vehicles.

Reliability analysis

Item analysis were conducted on the 15 items of the Charleston Psychiatric Outpatient Satisfaction Scale , hypothesized to assess Satisfaction with services in psychiatric outpatient settings. Initially each of the 15 items was correlated with the total score for the scale (with the item removed). All the correlations were greater than .30 except for one item , " parking " (r=0.12). The internal consistency for this preliminary analysis produced a satisfactory alpha coefficient of 0.89. However we felt that we should eliminate item 13 , "parking" to make the scale suitable for use in our local environment. Item total correlations for the revised scale ranged from 0.33 to 0.70. The internal consistency for responses to the revised scale as measured by Cronbach's alpha, was slightly higher (alpha= 0.91). The

Table 1.Distribution of Responses to Charleston Psychiatric Outpatient Satisfaction Scale N(%)

ITEM	Excellent 5	Very good 4	Good 3	Fair 2	Poor 1	Does not apply	Missing
1.Helpfulness of the records clerk	44(20.0)	57(25.9)	79(35.9)	33(15)	6(2.7)	0.5	
2.Information provided about payment for services	30(13.6)	57(25.9)	102(46.4)	24(10.9)	3(1.4)	1.8	
3.Amount of time waiting to be seen.	28(12.7)	48(21.8)	64(29.1)	66(30.0)	14(6.4)		
4.Amount of information given to you about your problem	36(16.4)	62(28.2)	82(37.3)	32(14.5)	6(2.7)		
5.Respect shown for your opinions about treatment	43(19.5)	64(29.1)	96(43.6)	14(6.4)	3(1.4)		
6.Matching of treatment plan to your individual needs.	35(15.9)	61(27.7)	106(48.2)	16(7.3)	2(0.9)		
7. Helpfulness of the services you have received	51(23.2)	82(37.3)	67(30.5)	15(6.8)	4(1.8)		
8.Overall quality of care provided	40(18.2)	67(30.5)	91(41.4)	19(8.6)	2(0.9)		
9. Appearance of waiting area	18(8.2)	50(22.7)	97(44.1)	47(21.4)	8(3.6)		
10.Appearance of office	16(7.5)	67(30.5)	94(42.7)	37(16.8)	4(1.8)		
11. Office hours	26(11.8)	58(26.4)	115(52.3)	18(8.2)	1(0.5)		
12. Location of this outpatient service	25(11.4)	68(30.9)	106(48.2)	16(7.3)	2(0.9)		
13.Parking	5(2.3)	10(4.7)	34(15.8)	22(10.2)	3(1.4)	141(65.6)	
14. Clear and correct bill.	31(14.7)	43(19.7)	102(46.8)	38(17.4)	3(1.4)		
15.Would you recommend this service to a friend or family member?	Yes, Definitely	Yes, Probably	No, Probably not	No, Definitely Not			
	156(70.9)	57(25.9)	5(2.3)	1(0.5)			

Table 2. Comparison of our findings with those of Pellegrin et al.'s in psychiatric Outpatients

Items	Present study Mean (SD)	Pellegrin et. al Mean (SD)
1.Helpfulness of the records clerk	3.5 (1.1)	4.5 (0.7)
2.Information provided about payment for services	3.4 (0.9)	4.2 (1.0)
3.Amount of time waiting to be seen.	3.0 (1.1)	4.3 (0.9)
4.Amount of information given to you about your problem	3.4 (1.0)	4.3 (1.0)
5.Respect shown for your opinions about treatment	3.6 (0.9)	4.4 (0.9)
6.Matching of treatment plan to your individual needs	3.5 (0.9)	4.3 (0.9)
7. Helpfulness of the services	3.7 (1.0)	4.3 (0.9)
8.Overall quality of care provided	**3.5 (0.9)**	**4.5 (0.8)**
9. Appearance of waiting area.	3.1 (0.9)	4.2 (1.0)
10.Appearance of office	3.2 (0.9)	4.3 (0.9)
11. Office hours	3.4 (0.8)	4.3 (0.9)
12. Location of this outpatient service	3.4 (0.9)	4.2 (1.0)
13.Parking	1.01 (1.4)	3.6 (1.3)
14. Clear and correct bill.	3.3 (1.0)	3.9 (1.3)
15. Would you recommend this service to a friend or family member.	**3.7 (0.5)**	**3.7 (0.5)**
All Items	47.6 (8.9)	55.2 (9.3)

revision did not appear to have any major influence on the results. Moreover the inclusion of the item "parking" is relevant if the scale is to be applied in an urban centre . Preliminary convergent validity also showed that scores for all items were significantly correlated with the total score for the Charleston Psychiatric Outpatient Satisfaction Scale (Table 3). Correlations with the overall scale score ranged from .30 to .68. Bivariate correlations with item #13 "Parking" removed,showed significant correlations of all items (Table-4). Item #15 had the lowest correlation coefficients with the total scale score and with all other scale items (Tables 3 and 4). Examination of the raw data revealed that there was a substantial skew in the distribution of the ratings for item # 15.

Table 3: Item correlations (CPOSS) with scale total score.

Items	Pearsons's Correlations
1.Helpfulness of the records clerk	0.42
2.Information provided about payment for services	0.52
3.Amount of time waiting to be seen.	0.54
4.Amount of information given to you about your problem	0.67
5.Respect shown for your opinions about treatment	0.65
6.Matching of treatment plan to your individual needs	0.60
7. Helpfulness of the services	0.64
8.Overall quality of care provided	0.58
9. Appearance of waiting area.	0.62
10.Appearance of office	0.67
11, Office hours	0.61
12. Location of this outpatient service	0.68
13.Parking	0.38
14. Clear and correct bill.	0.55
15. Would you recommend this service to a friend or family member.	0.30
All Items	

Table-4 Bivariate correlations for all items excluding item 13 "Parking area" [1]

ITEMS	1	2	3	4	5	6	7	8	9	10	11	12	14	15
1														
2	.53**													
3	.50**	.42**												
4	.27**	.38**	.50**											
5	.34**	.39**	.48**	.60**										
6	.37**	.44**	.43**	.60**	.64**									
7	.34**	.36**	.39**	.56**	.49**	.51**								
8	.30**	.29**	.41**	.50**	.55**	.53**	.56**							
9	.40**	.34**	.51**	.48**	.48**	.47**	.43**	.50**						
10	.33**	.37**	.46**	.50**	.50**	.45**	.44**	.45**	.73**					
11	.25**	.31**	.42**	.38**	.49**	.40**	.25**	.37**	.54**	.59**				
12	.31**	.40**	.44**	.50**	.53**	.52**	.42**	.46**	.61**	.55**	.60**			
14	.31**	.56**	.43**	.47**	.43**	.47**	.41**	.40**	.44**	.47**	.44**	.51**		
15	.26**	.28**	.16*	.19**	.14*	.23**	.29**	.24**	.18**	.21**	.20**	.25**	.31**	

** Correlation is significant at the 0.01 level.
* Correlation is significant at the 0.05 level .
[1]Pearson's r.

DISCUSSION

While researchers continue to argue about the place of patient satisfaction assessments in the evaluation of quality care , it is not in doubt that what patients themselves consider important or unimportant about treatment may assist in identifying areas that should be improved , modified or eliminated from the treatment setting(Langle et al,2003).

The present study describes the reliability testing in Nigeria of a Satisfaction with Psychiatric services questionnaire initially developed for use in western psychiatric outpatient clinics. The internal consistency of the scale as measured by Cronbach's alpha, was high (alpha=.91), comparable to the study by Pellegrin

et al 2001, with á coefficient of 0.87 . The scale also had good preliminary convergent validity, supported by the findings of significant correlations between scale item scores and overall scale scores.

As this may be the first use of this scale by an indigenous Nigerian population , we do not have directly comparable local data. However there are some modest similarities between our mean scores for most items on the scale and those of Pellegrin et al,2001). Their mean scores were in the "very good" range indicating that satisfaction with services in their sample was high, whereas our mean scores were in the range of good to very good except for parking (Table 2). Our hospital is located in a rural community and majority of our clients do not own personal cars. The satisfaction with treatment in our sample is underscored by the observation that 71% of the patients indicated their willingness to recommend the service to a friend or family member. An analysis of levels of dissatisfaction showed that dissatisfaction with waiting time ranked first,followed by appearance of waiting area , and billing for service ranked third. The findings in our study that the highest levels of dissatisfaction are with waiting time is in agreement with previous reports (Andaleeb ,2001;Bernhart , 1999).

An overwhelming majority of Nigerian patients still rely on public hospital for their health care. These facilities are usually overcrowded , understaffed and under-resourced, thus contributing to lengthy waiting periods.

CONCLUSION

We have thus measured patient's satisfaction with care in an outpatient psychiatric service in Nigeria using the Charleston Psychiatric Outpatient Satisfaction Scale.

The findings provide preliminary evidence that the instrument is reliable for measuring patient satisfaction with care in Nigerian outpatient psychiatric service, although it was originally designed and developed among a US population. Repeat results from a different set of patients are required to further validate the instrument. In addition the scale should be further tested in other Nigerian psychiatric outpatient clinic settings to confirm whether our findings are generalizable.

Implications for behavioral health. Assessment of satisfaction with health service delivery using simple measurement tools in a developing country like Nigeria is useful . Amenities and other parameters of care are important in health care organization. Health care providers should be conscious of the discomfort being experienced by patients because of lengthy waiting time before consultation and the inappropriateness of the waiting areas

Mental health policy makers in developing countries should involve users in the planning and development of health care services like their counterparts in the developed world.

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CORRESPONDENCE: **D. I. Ukpong,** Department of Mental Health, College of Health Sciences, Obafemi Awolowo University, Ile-Ife

D. I. UKPONG, Department of Mental Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, **S. K. MOSAKU**, Department of Mental Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, **C.O. MUME** Department of Mental Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, **O. ALOBA**, Department of Mental Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, **B. MAPAYI**, Department of Mental Health, Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife