

Comparing repeat and first visit patients' satisfaction with service quality at Medunsa Oral Health Centre

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SUMMARY

Introduction: The SERVQUAL model is commonly used in medical centres to assess patient satisfaction with service quality.

Aims and objectives: This study examines patient satisfaction with their experience at Medunsa Oral Health Centre. Satisfaction rates of first time and repeat patients were determined and compared using SERVQUAL dimensions. Factors associated with patient satisfaction were identified using a multiple variable logistic regression model.

Design: This was a comparative cross-sectional descriptive study.

Methods: A pretested routinely used standardised SERVQUAL questionnaire was used to collect data from study participants at Medunsa Oral Health Centre. It consisted of 16 questions which rated mainly positive statements of six dimensions of service quality using a five response categories Likert scale. The categories were strongly agree, agree, unsure, disagree and strongly disagree and the scale was anchored from -2 through to 2. The benchmark score for an overall satisfied patient was 16 out of a total possible score of 32.

Results: Two-thirds of both patient groups were satisfied overall. Differences in satisfaction rates for all service

quality dimensions were not statistically significant. Access, empathy, reliability, and tangible exerted a significant influence.

Conclusions: Patient satisfaction with service quality was high - no differences were found between study groups.

INTRODUCTION AND BACKGROUND

Patient satisfaction has long been considered an important component of care outcomes¹ and has been shown to influence compliance and, in turn, treatment quality.² Donabedian (1980) has argued that client satisfaction is of fundamental importance as a measure of the quality of care because it gives information on the provider's success in meeting client values and expectations, matters on which the client is the ultimate authority.³ In medical centres locally and overseas, service quality is assessed using a SERVQUAL model.⁴⁻⁷ In this model, client satisfaction questionnaires are used to assess patients' expectations and perceptions about the service they receive in terms of five dimensions: tangibles; reliability; responsiveness; assurance, and empathy. The model is based on the premise that clients complete part one of the questionnaire to determine their expectations prior to entering the hospital. On completion of their visit to the hospital the client completes part two of the questionnaire to record their actual experience. The difference between part one and part two is meant to reflect patient/client satisfaction.⁴ When patients' expectations are greater than their perceptions of received delivery, service quality is deemed low.⁸ The questionnaires help to advance the improvement of care and provide an opportunity to benchmark the quality of care.⁹

The Quality Assurance Directorate of Gauteng Provincial Health Department updated and adapted a Health Systems Trust Client Satisfaction Survey Questionnaire to make it suitable for measuring client satisfaction with their experience at public hospitals.¹⁰ The questionnaire

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includes two additional dimensions, access and general satisfaction, associated with patient satisfaction. This standardized questionnaire, which surveys expectations and perception in one questionnaire arranged under the five SERVQUAL domains plus access and general satisfaction, is used routinely within the Department of Health.^{4,11} It is administered annually to all consenting patients at Medunsa Oral Health Centre, a dental school and referral hospital, in Garankuwa on the outskirts of Pretoria as they exit the hospital.

The Department of Health in Gauteng reports average service quality satisfaction scores for entire patient populations at public dental hospitals - subgroups, first time and repeat users, are however surveyed. Conflicting results have been reported in patient subgroups among general hospital patients. A literature search yielded no studies that focus on satisfaction rates between first time and repeat users of dental hospitals. This study sought to test whether there were differences in satisfaction rates between new and repeat patients, not on the hospital appointment system, at Medunsa Oral Health Centre to indirectly check for continued improvement in service quality. These patients are routinely screened at the diagnostic unit and subsequently referred to appropriate clinical units for further evaluation and treatment.

OBJECTIVES OF THE STUDY

1. To describe the demographic characteristics of first time and repeat patients who consulted at the diagnostic unit between October 2014 and May 2015.
2. To determine and compare overall and individual quality dimension satisfaction rates between first time and repeat patients.
3. To identify factors associated with patient satisfaction using multiple variable logistic regression .

MATERIALS AND METHODS

Study design.

This was a comparative cross-sectional descriptive study.

Target population

The study population consisted of patients who were not on the hospital appointment system, who consulted at the diagnostic unit between October 2014 and May 2015.

Study sample

A total of ninety one patients in each group of repeat and first time patients were required in nQuery Advisor, Release 7.0 software for a two-sided chi-square test to have an 80% chance of detecting a difference of 20% in satisfaction rate at the 5% level of significance. A response rate of 70% was obtained from a sample of 275 patients. This study finally included a sample of 194 patients i.e. 97 patients in each group.

Sampling method

A systematic random sample was selected i.e. the first patient in either study group, identified by hospital registration number, was chosen at random and then every third patient was selected to participate in the study.

MEASUREMENTS

Client Satisfaction Survey Questionnaire

A Health Systems Trust Client Satisfaction Survey Questionnaire updated for the Gauteng Provincial

Health Department was used to collect data from study participants.¹⁰ For a more detailed discussion of the validity and reliability of this questionnaire see Smith and Engelbrecht.⁴ Patients – first time or repeat, or their parent/guardian in the case of minors, completed the pre-tested questionnaire themselves or were assisted by the research team on exit from the hospital following service at respective referral clinical units. They received the questionnaire following consultation at the diagnostic unit. It consisted of 16 questions which rated mainly positive statements of six dimensions of service quality using a five response categories Likert scale. The categories were strongly agree, agree, unsure, disagree and strongly disagree and the scale was anchored from -2 through to 2. A respondent whose score equalled or was greater than the number of statements for a particular dimension was deemed satisfied with that dimension. A respondent whose score was less than the number of statements for a particular dimension was deemed not satisfied with that dimension. The benchmark score for an overall satisfied patient was 16 out of a total possible score of 32.

Definition of variables

SERVQUAL is a quality management framework used to measure quality in the service sector⁸.

Age refers to patient age derived from date of birth recorded in the diagnostic unit service register.

Gender refers to sex (general state of being male or female)

Patient group refers to whether the patient is a first time or repeat user of the health facility.

A satisfied patient was defined as one with a score equal to or greater than the number of statements relating to a particular dimension of service quality.

An overall satisfied patient was defined as one with an aggregate score equal to or greater than 16 out of a possible total score of 32

Access measures the level of satisfaction with how reachable/available health services are. Respondents were asked to respond to the following statements:

- It takes more than 30 minutes to get to the hospital
- It costs more than R20, 00 to get to the hospital
- The outpatient/casualty department has convenient hours of opening

Empathy measures the ability to care and display compassion towards clients. Respondents were asked to respond to the following statements:

- The nurse who welcomed me listened to my problems
- The doctor who treated me was polite
- My privacy was respected by all the staff

Reliability measures the ability to accurately perform the service offered. Respondents were asked to respond to the following statements:

- I had to wait a long time to get my folder
- The doctor explained to me what was wrong with me
- If I received medicines/pills I did not have to wait long for them

Tangible (facilities) refers to equipment, physical surroundings. Respondents were asked to respond to the following statements:

- The hospital is in good condition
- The hospital is clean
- There was a bench for me to sit on while I waited
- The toilets are clean

General satisfaction measures the level of satisfaction with overall services rendered within the health facility.

Respondents were asked to respond to the following statements:

- I was pleased with the way I was treated at the hospital
- Next time I am ill I will come back here

Responsiveness measures the willingness to assist clients. Respondents were asked to respond to the following statement:

- The person who gave me my folder was helpful

Ethical considerations

Only patients who provided informed consent were enrolled. All data collection and analysis and reporting was done without any personal identifiers. Patients had the opportunity to refuse participation at any time without any repercussion. Ethical approval for the study was granted by the Ethics Committee of the Sefako Makgatho Health Sciences University. Permission to conduct the study was granted by the Chief Executive Officer (CEO) of Medunsa Oral Health Centre.

STATISTICAL ANALYSIS/HYPOTHESIS TESTING

Collected data were subjected to uni-variate, bi-variate and multi-variate analysis in Statistical Analysis Software (SAS) software. Frequencies and proportions were calculated.

The reliability co-efficient of the questionnaire was calculated using Cronbach's alpha.

Chi-squared test was performed to test the statistical significance of the difference in the proportions of satisfied repeat and first time patients.

A multi-variable logistic regression analysis was performed to identify determinants of overall patient satisfaction. The binary outcome of interest was overall patient satisfaction (Yes/No). The determinants investigated included patient group i.e. repeat or first time, age, gender, and the six dimensions of service quality i.e. access, empathy, reliability, tangible, general satisfaction, and responsiveness.

RESULTS

Data of a systematic random sample of 194 first time and repeat patients was analysed. A response rate of 70% was obtained.

Demographic characteristics

Children younger than 18 years; patients in the 25-34 age group, and adults older than sixty four years constituted 9.8%, 28.4% and 5.2% of the entire sample size respectively. The gender distribution between first time (41.2% males vs. 58.8% females) and repeat (43.3% males vs. 56.7% females) patients was similar.

Table 1: Distribution by age and gender

Age groups	First time patients		Total	Repeat patients		Total
	Males n(%)	Females n(%)		Males n(%)	Females n(%)	
<18	5 (55.6)	4 (44.4)	9 (100)	2 (20)	8 (80)	10 (100)
18-24	5 (33.3)	10 (66.7)	15 (100)	7 (43.8)	9 (56.2)	16 (100)
25-34	14 (50)	14 (50)	28 (100)	13 (48.1)	14 (51.9)	27 (100)
35-44	9 (52.9)	8 (47.1)	17 (100)	6 (35.3)	11 (64.7)	17 (100)
45-54	5 (27.8)	13 (72.2)	18 (100)	3 (37.5)	5 (62.5)	8 (100)
55-64	1 (25)	3 (75)	4 (100)	9 (60)	6 (40)	15 (100)
65+	1 (16.7)	5 (83.3)	6 (100)	2 (50)	2 (50)	4 (100)

Overall and individual quality dimension satisfaction rates

The reliability coefficients of the quality dimensions ranged between 0.163 for reliability and 0.703 for empathy.

Table 2: Reliability coefficient of quality dimensions

Dimension	Cronbach's alpha
Access	0.493
Empathy	0.703
Reliability	0.163
Tangible	0.674
General satisfaction	0.520

Just over two-thirds (68%, 70.1%, and 69.1%) of both patient groups and the entire sample were satisfied overall. More than half (56.7%) of the entire sample size were not satisfied with access. Eight percent more (47.4% vs. 39.2%) first time patients were satisfied with access compared with repeat patients.

Just less than a third (31.4%) of the entire sample was satisfied with the reliability of the service. Seven percent more (72.2% vs. 65%) first time patients compared with repeat patients were not satisfied with the reliability of the service.

An overwhelming majority of both patient groups and the entire sample were otherwise satisfied with the remainder of service quality dimensions.

Differences in satisfaction rates between first and repeat patients for all service quality dimensions were not statistically significant ($p>0.05$).

Identity of factors associated with patient satisfaction

The results indicated that access, empathy, reliability, and tangible were independently associated with overall patient satisfaction.

Patients who were satisfied with access had 0.062 times the odds of being satisfied overall as those not satisfied with access, after adjusting for empathy, reliability, tangible, general satisfaction, responsiveness, gender, patient group

and age. In other words, the odds of being satisfied overall in these patients decreased by 94%.

Patients who were satisfied with staff empathy had 0.037 times the odds of being satisfied overall as those not satisfied with empathy, after adjusting for access, reliability, tangible, general satisfaction, responsiveness, gender, patient group and age. In other words, the odds of being satisfied overall in these patients decreased by 96%.

Patients who were satisfied with the reliability of the service had 0.191 times the odds of being satisfied overall as those not satisfied with reliability, after adjusting for access, empathy, tangible, general satisfaction, responsiveness, gender, patient group and age. In other words, the odds of being satisfied overall in these patients decreased by 81%.

Patients who were satisfied with the facilities (tangible) had 0.022 times the odds of being satisfied overall as those not satisfied with facilities, after adjusting for access, empathy, reliability, general satisfaction, responsiveness, gender, patient group and age. In other words, the odds of being satisfied overall in these patients decreased by 98%.

In contrast, there was no indication of an independent relationship between general satisfaction, responsiveness, patient group, and age.

We had insufficient evidence to reject the null hypothesis of no association between gender and overall satisfaction in the population at the 5% level. However, as the p value is only just greater than 0.05, there may be an indication of an independent relationship between gender and overall satisfaction. The confidence interval includes values for the odds ratio as high as 5.517.

DISCUSSION

This study set out to test whether there were differences in satisfaction rates between new and repeat patients at Medunsa Oral Health Centre.

Patient satisfaction surveys are conducted annually at public hospitals in Gauteng. The results of the current study are discussed with reference to the

Table 3: Satisfaction rates between new and repeat patients by quality dimension

Patient groups	Overall satisfied patients		Fisher's Exact Test (2-sided)
	Yes n (%)	No n (%)	
First time	66 (68)	31 (32)	
Repeat	68 (70.1)	29 (29.9)	0.877
Total	134 (69.1)	60 (30.9)	
Access			
	Satisfied n (%)	Not satisfied n (%)	
First time	46 (47.4)	51 (52.6)	
Repeat	38 (39.2)	59 (60.8)	0.310
Total	84 (43.3)	110 (56.7)	
Empathy			
	Satisfied n (%)	Not satisfied n (%)	
First time	84 (86.6)	13 (13.4)	
Repeat	89 (91.8)	8 (8.2)	0.356
Total	173 (89.2)	21 (10.8)	
Reliability			
	Satisfied n (%)	Not satisfied n (%)	
First time	27 (27.8)	70 (72.2)	
Repeat	34 (35)	63 (65)	0.354
Total	61 (31.4)	133 (68.6)	
Tangible			
	Satisfied n (%)	Not satisfied n (%)	
First time	83 (85.6)	14 (14.4)	
Repeat	89 (91.8)	8 (8.2)	0.257
Total	172 (88.7)	22 (11.3)	
General satisfaction			
	Satisfied n (%)	Not satisfied n (%)	
First time	91 (93.8)	6 (6.2)	
Repeat	91 (93.8)	6 (6.2)	1.000
Total	182 (93.8)	12 (6.2)	
Responsiveness			
	Satisfied n (%)	Not satisfied n (%)	
First time	91 (93.8)	6 (6.2)	
Repeat	91 (93.8)	6 (6.2)	1.000
Total	182 (93.8)	12 (6.2)	

Table 4: Logistic regression analysis of overall patient satisfaction in the study population

Variable	Parameter estimate	Standard error	Wald Chi-square	p-value	Estimated odds ratio	Odds Ratio (95% CI)
Intercept	17.157	3.075	31.133	0.000	28251499.907	
Access	-2.775	.612	20.571	0.000	0.062	0.019 – 0.207
Empathy	-3.294	.933	12.457	0.000	0.037	0.006 – 0.231
Reliability	-1.657	.551	9.052	0.003	0.191	0.065 – 0.561
Tangible (facilities)	-3.811	.940	16.424	0.000	0.022	0.004 – 0.140
General satisfaction	-1.171	1.137	1.061	0.303	0.310	0.033 – 2.880
Responsiveness	-.506	1.034	.239	0.625	0.603	0.079 -4.580
Gender	.843	.441	3.655	0.056	2.324	0.979 – 5.517
Patient group	-.025	.442	.003	0.955	0.975	0.410 – 2.319
Age	.011	.014	.593	0.441	1.011	0.984 – 1.039

report of the 2008 survey¹⁰ - results of later surveys are not available. Comparisons are made with results for dental hospitals. Differences in summary measures used to analyse results made it difficult to compare the results. The current study used percentiles whereas the previous study used averages to analyse client responses.

The satisfaction rates for dental hospitals surveyed in 2008 were calculated using a method defined in the reference study - an average score of 2 meant 100% satisfaction by all clients, a score of 1 meant a 50% satisfaction level and a score of 0 meant patients were neither satisfied nor unsatisfied.¹⁰

The results indicate that dental hospital patient populations are less satisfied with access and reliability of the services, more so at Pretoria and Wits dental hospitals.

The results of the current study compare favourably with those of the previous study for all quality dimensions except reliability.

Demographic characteristics

The results of this study indicate that the groups were similar in terms of age and gender distribution. More women than men visited the clinic. Relatively few children visited the hospital.

The present findings seem to be consistent with other research which found a large number of female patients at dental clinics.¹²⁻¹³ One unanticipated finding was the low number of children patients considering that the study period included school holidays.

Reliability of the questionnaire

In this study, Cronbach's alpha scores less than 0.7 were obtained for the majority of the quality dimensions. These findings are rather disappointing since the commonly-accepted rule of thumb is that for research purposes alpha should be more than 0.7 to 0.8.¹⁴ They are however consistent with those found by Adebayo and colleagues in Nigeria.⁶

The alpha scores obtained in the 2008 survey were not available for comparison. They would have been higher than those achieved in the current study as the questionnaire was administered by a field work team who were conversant in the languages widely spoken by the study population.¹⁰

Comparison of the satisfaction rates between first time and repeat patients

The current study found that just over two-thirds of both patient groups were satisfied overall. Satisfaction rates for empathy, tangible, general satisfaction, and responsiveness were high and broadly similar between the study groups. However, the satisfaction rates for access and reliability were appreciably low in both study groups. The differences in satisfaction rates for all service quality dimensions between the study groups were not statistically significant ($p>0.05$).

These results are consistent with those observed at dental hospitals across Gauteng in the previous study.¹⁰ These findings suggest that access and reliability exert a significant influence in dental patient perception of service quality.

The differences in satisfaction rates for reliability observed at Medunsa Oral Health Centre between the previous and current study can be explained by differences in the way the variable was treated in the analysis. In the previous study responses to the question - If I received medicines/pills I did not have to wait long for them – were excluded from analysis.

A possible explanation for the improved satisfaction rates for empathy, tangible, general satisfaction, and responsiveness obtained in the current study might be that the management of the facility continues to improve the service quality in response to the findings of annual surveys. However, with a response rate of 70% and the exclusion of patients on the hospital appointment system, caution must be applied, as the findings might not be generalizable to all patients who consult at Medunsa Oral Health Centre.

This study has been unable to demonstrate that first time users tend to give a higher satisfaction rating than repeat users as reported by Huang and colleagues in emergency medical services.¹⁵ The present findings are however consistent with the study which found no difference in satisfaction between first time users and repeat users in a study of clinics in the UK.¹⁶

Factors associated with patient satisfaction

In the current study access, empathy, reliability, and tangible were independently associated with overall patient satisfaction. In contrast, there was no indication of an independent relationship between general satisfaction, responsiveness, patient group, gender and age.

This finding supports previous research of patient satisfaction in dental school clinics which identified access, empathy, equipment and physical surroundings of the service as important determinants of satisfaction.¹⁷ In contrast to earlier findings by John and colleagues, responsiveness was not independently associated with patient satisfaction in the current study.¹⁸

The age and gender findings of the current study are consistent with those of Adeniyi and colleagues who found no statistically significant association with overall satisfaction score.¹⁹ These variables are however inconsistently associated with ratings of satisfaction.²⁰

Limitations of the study

Within group i.e. first time or repeat patients, comparisons were not carried out.

The potential threats to the internal validity of the study were those arising from non-response bias and the lack of reliability of the questionnaire – a response rate of 70% was obtained and the questionnaire was not translated from original language into local languages – this could have improved the reliability of the questionnaire.

CONCLUSION

In the present study, patient satisfaction with service quality at Medunsa Oral Health Centre was high and no differences were found between first and repeat patients.

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Conflict of interest: None declared

References

1. Donabedian A. The quality of care. How can it be assessed? *JAMA* 1988;260:1743-8
2. Zimmerman R. The dental appointment and patient behaviour. Differences in patient and practitioner preferences, patient satisfaction, and adherence. *Med Care* 1988; 26: 403-14.
3. Donabedian A. The definition of quality and approaches to its assessment. Ann Arbor, Michigan, Health Administration Press, 1980.
4. Smith M, Engelbrecht B. Developing a Tool to assess Client Satisfaction at District Hospitals Technical Report #14 – June 2001 Available: <http://www.healthlink.org.za/uploads/files/clienttool.pdf> [Accessed 31 July 2013]
5. Ramez W S. Patients' perception of health care quality, satisfaction and behavioral intention: an empirical study in Bahrain. *International Journal of Business and Social Science* 2012; 3(18) [Special Issue]: 131-41.
6. Adebayo ET, Adesina BA, Ahaji LE, Hussein NA. Patient assessment of the quality of dental care in a Nigerian hospital. *Journal of Hospital Administration*, 2014; 3(6):20-8.
7. Bahadori M, Raadabadi M, Heidari Jamebozorgi M, Salesi M, Ravangard R. Measuring the quality of provided services for patients with chronic kidney disease. *Nephro-urology Monthly*. 2014; 6(5).
8. Zeithaml VA, Parasuraman A, Berry LL. "Delivering Quality Service: Balancing Customer Perceptions and Expectations," Free Press, 1990.
9. Camacho FT, Feldman SR, Balkrishnan R, Kong MC, Anderson RT. Validation and reliability of two specialty care satisfaction scales. *Am J Med Qual*. 2009; 24(1):12-8.
10. Ronelle N, Armstrong S. Client Satisfaction Survey Report As conducted in Gauteng Public Hospitals: September 2007 – April 2008 Available: http://www.healthlink.org.za/uploads/files/CSS_report_gp.pdf [Accessed 31 July 2013]
11. Munyaka S, Senekal I, Phaswana-Mafuya N, Davids A. Patient Satisfaction Survey Kouga Subdistrict. Health Management and Leadership Programme. University of Fort Hare, 2010.
12. Singh AS, Mohamed A, Bouckaert MM. A clinical evaluation of dry sockets at the Medunsa Oral Health Centre. *South African Dental Journal* 2008; 63(9):490-3.
13. Lesolang RR, Motloba DP, Laloo R. Patterns and reasons for tooth extraction at the Winterveldt Clinic: 1998-2002. *SADJ* June 2009; 64 (5): 214-8.
14. Bland JM, Altman DG (1997) Statistics notes: Cronbach's alpha. *British Medical Journal* 314:572. [Abstract]
15. Huang J-A, Lai C-S, Tsai W-C, Weng R-H, Hu W-H, Yang D-Y. Determining factors of patient satisfaction for frequent users of emergency services in a medical centre. *Chin Med Assoc* 2004;67:403-10
16. Arain M, Nicholls J, Campbell M. Patients' experience and satisfaction with GP led walk-in centres in the UK; a cross sectional study. *BMC Health Services Research* 2013;13:142
17. Ahmady AE, PhD, Pakheshal M, Zafarmand AH, Lando HA. Patient satisfaction surveys in dental school clinics: A review and comparison. *Journal of Dental Education* 2015;79(4) 388-93
18. John J, Yatim FM, Mani SA. Measuring service quality of public dental health care facilities in Kelantan, Malaysia. *Asia Pac J Public Health*. 2011; 23(5):742-53.
19. Adeniyi AA, Adegbite KO, Braimoh MO, Ogunbanjo BO. Factors affecting patient satisfaction at the Lagos State University Teaching Hospital Dental Clinic. *Afr J Med Med Sci* 2013;42(1):25-31
20. Gross DA, Zyzanski, SJ, Borawski A, Cebul RD, Strange KC. (1998). Patient satisfaction with time spent with their physician. *The Journal of Family Practice*, 47(2), 133-7.

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