

Patient satisfaction after receiving dental treatment among patients attending public clinics in Dar es Salaam

Hirani VA¹, Masalu JR²

¹Menelik Medical Centre, Nairobi Kenya.

²Department of Preventive and Community Dentistry, School of Dentistry, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania

Hirani VA

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Abstract

Background: Patient satisfaction is one of the indicators of the quality of care. Therefore it is one of the tools for evaluating the quality of care.

Aim: To determine patient satisfaction after receiving dental treatment among patients attending public dental clinics in Dar-Es-Salaam.

Material and methods: Five public dental clinics in Dar-es-Salaam were conveniently selected. A total of 334 patients were selected by random selection method to participate in the study. Data collection was done using a closed ended Kiswahili questionnaire. The obtained data was analyzed using the SPSS programme. Frequency distribution and bivariate analysis was done in using chi-square test. Significance level was set at p-value ≤ 0.05 .

Results: Majority (97.6%) were satisfied with dental care. The most satisfying aspects of oral care were external environment and explanation given by dentists (98.2%). The least satisfying aspect of oral care was waiting time by 12.9%. Older adults (98.8%), males (98.6%), participants with secondary education or higher (98.9%) and participants residing far from the dental clinics (98.2%) were more satisfied with dental care than their counterparts. In all cases, the differences were not statistically significant.

Conclusion and recommendations: It can be concluded that adult Tanzanians have a high level of satisfaction with dental care. The most satisfying aspects were external environment and explanation given by dentists while the least satisfying was waiting time. It is recommended that dentists should strive to maintain the satisfying aspects and strive to reduce patient waiting time.

Key words: patient satisfaction, dental patients, Tanzania

Correspondence: Dr Vanisha A Hirani, E-mail address: vanishahirani@yahoo.com

Introduction

Patient satisfaction is an individual patient's appraisal to the extent to which the care provided has met his/ her expectation and preferences (1). According to Holt a well conducted patient satisfaction survey would indicate level of patient satisfaction with care and service thus satisfying the quality assurance of the survey (2). Such survey would also enable the hospitals/practitioners to access and even influence patient awareness of the level of care and the services being delivered in that hospital or clinic. Studying patients' satisfaction with dental care is therefore a useful tool for evaluating the quality of dental care as well as raising patient awareness of care and the services provided in a given hospital

Before 1994, health care services, including oral health, were fully funded by the government of Tanzania. Thereafter, a policy of health cost sharing was introduced, whereby patients aged 6 years and above were required to pay for health

care. Along with this policy, there were provisions for exceptions, including patients aged 60 years or above, or confirmed cases of genuine hardship that prevented payment of health care fee. Since documentation of age and personal/family income is not well developed in Tanzania, exemption criteria based on age, type of disease or social economics status present a challenge to hospital administrators. A study that compared attendance data one year before and after the introduction of health cost sharing revealed an overall drop in attendance of 33%, thus indicating a negative effect of the scheme on utilization of oral health services in Tanzania (3).

Patients' satisfaction is an important indicator of quality of dental care. Some dimensions of dental care satisfaction that have been identified are technical quality of care, interpersonal aspects, accessibility, availability, financial access, outcome, efficacy, continuity of care, facilities or attitude about overall care (4). Murray et al studied

patient satisfaction and suggested that satisfaction with consultation has been linked with patients' ratings of treatment outcome (5). A comparison of patient satisfaction across health care setting can provide bases for targeted quality of improvement initiatives on services offered by the dental health care facility.

A study to determine the association between patient satisfaction and accessibility was done by Hashim et al on patients' satisfaction with dental services indicated that patients were not satisfied with accessibility as the clinics were located too far from the city center (6). Matee et al reported that the main factor behind patient selecting a particular clinic is the distance to the clinic (7).

Several studies have been done to determine the association between patient satisfaction and cost of treatment. A study on Satisfaction with urgent oral care among adult Tanzanians by Kikwilu et al reported that patients were dissatisfied with the cost of treatment (8). The same conclusion was drawn by a study done by Calnan et al who studied the quality of dental care in southern England; found out that the major source of decline in patient satisfaction was the cost (9). However a study done by Bregetle et al in Minnesota, reported that all patients were significantly more satisfied with the fees of the clinic (10).

A number of studies have been done to determine the association between patient satisfaction and art of care. The art of care significantly influences patient satisfaction (7, 8, 10-13). Factors such as concern, consideration, friendliness, patience and sincerity greatly affect patient satisfaction. Therefore a dentist and other dental health personnel should adhere to the above so as to increase patient satisfaction.

Physical environment significantly influences patient satisfaction (8, 13 & 14). To ensure that patients feel welcomed and cared for a garden will create a nice ambience. It will help relax the patient. A positive outer look convinces the patient that what is inside is of the same standard.

Level of education significantly influences patient satisfaction. Studies have indicated that patient with no formal education are more likely to be satisfied with the treatment (6, 11).

A study to determine the association between patient satisfaction and gender done by Kikwilu et al reported that women were more satisfied than men with any aspect of oral care (8).

A study on patient satisfaction within groups attending public dental services could allow for an

evaluation of the services offered. Such evaluation might give an idea of patient preferences of the different clinics. Furthermore, studies on patient satisfaction could be useful and can guide in the improvement of services offered.

The aim of this study therefore, was to determine the level of satisfaction with dental care and the factors that influence their satisfaction with the care among patients attending dental clinics in Dar-Es-Salaam.

Materials and methods

The sample size of 334 was calculated using the formula $N = Z^2 p (1-p) / e^2$, whereby $p = 0.32$ (32%) while allowing the error of 5%. Convenience sampling method was used for selecting five public dental clinics and hospitals in the city of Dar-Es-Salaam namely; Muhimbili National Hospital, Amana and Mwananyamala Hospitals, Magomeni and Mnazi Mmoja Health Centers. All patients aged 18 and above who were willing to participate signed a written consent form and were handed self-administered closed ended questionnaires which comprised of 24 questions. Patients were asked to fill the questionnaire immediately after receiving treatment.

The eight variables were measured as follows:

- a. Accessibility was measured in Kilometers whereby 1 = Very far, 2 = Far, 3 = Just nearby. Frequency distribution was attained and dichotomized as 1 = far and 2 = near.
- b. Patient satisfaction was measured on a 4 point Likert Scale ranging from 1 = very satisfied to 4 = dissatisfied. There were 13 questions exploring satisfaction on external environment, registration process, waiting time, nurse hospitality, dentist hospitality, extent the patient felt listened to, respect shown by the dentist, explanations given, treatment received, physical environment, cleanliness of the clinic, waiting room and cost of the treatment. The scale was reversed and dichotomized as 1 = not satisfied and 2 = satisfied.
- c. Art of care was measured as 4 point Likert Scale where 1 = very satisfied and 4 = dissatisfied. The scale was reversed and dichotomized as 1 = not satisfied and 2 = satisfied.
- d. Physical environment was measured as 4 point Likert Scale where 1 = very satisfied and 4 = dissatisfied. The scale was reversed and dichotomized as 1 = not satisfied and 2 = satisfied.
- e. Education level was measured as 1 = No formal education, 2 = completed primary, 3 completed secondary and 4 = college/university. Frequency distribution

was attained and dichotomized as 1= low level education and 2= higher level education.

- f. Age was measured as 1 = 18-30, 2 =31-40, 3 =41-50 and 4 =>50. Frequency distribution was attained and dichotomized as 1= 18-32 and 2=33-78.
- g. Gender was measured as 1 =male and 2 =female. It was dichotomized as 1= male and 2= female.

The 13 questions were added up to give a summative index (satisfaction sum score) whose distribution was dichotomized into 2 resulting to 1 to 2 being more satisfied while 3 to 4 as less satisfied.

Data analysis

All questionnaires were assigned serial numbers. Data coding for the variables to be measured was done, and data cleaning and data analysis was achieved by the SPSS Computer programme version 11.5. Frequency distribution and bivariate analysis using Chi-square test were done. Significance was set at p-value of <0.05.

Ethical consideration

The ethical clearance to conduct this study was obtained from Muhimbili University of Health and Allied Sciences Ethical Committee. All patients who attended the clinics during the study period were explained on the aim of the study and only those willing to participate filled in the questionnaire. Subjects were informed that

participating or not participating had no adverse consequence on the treatment they would receive on that day or any other day thereafter. Every participant was assured of confidentiality of the information given and that the information was used for scientific purposes only. All patients who did participate had consented.

Results

A total of 334 adult patients (58% females) aged 18-78 years were interviewed. More than half (55%) had secondary education or above, (table 1).

Table 1 Distribution of participants by level of education and Age against gender:

Characteristic		Sex	
		Male n (%)	Female n (%)
Age (Years)	18-40	94 (67.6)	158 (81.0)
	41-78	45 (32.4)	37 (19.0)
Education	1 ⁰ Education or lower	60 (43.2)	90 (46.2)
	2 ⁰ Education or higher	79 (56.8)	105 (53.8)

Majority (97.6%) were satisfied with various dental encounters. The most satisfying aspects of oral care were external environment and explanation given by dentists (98.2%) followed by dentist hospitality (97.9%), while the least satisfying aspect of oral care was waiting time by 12.9% (table 2).

Table 2 Distribution of participants' by satisfaction with various dental encounters

Dental treatment encounters	Satisfaction	
	Satisfied n (%)	Dissatisfied n (%)
External environment	328 (98.2)	6 (1.8)
Extent felt listened to	328 (98.2)	6 (1.8)
Explanation given	328 (98.2)	6 (1.8)
Dentist hospitality	327 (97.9)	7 (2.1)
Treatment	326 (97.6)	8 (2.4)
Cleanliness of clinic	324 (97.0)	10 (3.0)
Physical environment	323 (96.7)	11 (3.3)
Respect shown by dentist	317 (94.9)	17 (5.1)
Waiting room	314 (94.0)	20 (6.0)
Cost of treatment	314 (94.0)	20 (6.0)
Nurse hospitality	313 (93.7)	21 (6.3)
Registration process	305 (91.3)	29 (8.7)
Waiting time	291 (87.1)	43 (12.9)
Overall satisfaction	326 (97.6)	8 (2.4)

Age wise, older adults were more satisfied with dental care (98.8%) than young ones (97.2%). Males were more satisfied with dental care (98.6%) than females (96.9%). Participants with secondary education or higher were more satisfied with dental care (98.9%) than those with primary education or

lower (96%). Participants residing far from the dental clinics were more satisfied with dental care (98.2%) than their counterparts residing near the clinics (96.3%). In all cases, the differences were not statistically significant (table 3).

Table 3: Distribution of participants by demographic characteristics and satisfaction

		Satisfaction		χ^2 square	p-value
		Satisfied n (%)	Dissatisfied n (%)		
Age	18-40	245 (97.2)	7 (2.8)	0.335	0.685*
	41-78	81 (98.8)	1 (1.2)		
Sex	Male	137 (98.6)	2 (1.4)	0.335	0.931
	Female	189 (96.9)	6 (3.1)		
Education	1 ⁰ Education or lower	144 (96.0)	6 (4.0)	1.169	0.147*
	2 ⁰ Education or higher	182 (98.9)	2 (1.1)		
Distance to clinic	Far	222 (98.2)	4 (1.8)	1.169	0.280
	Near	104 (96.3)	4 (3.7)		

* Fisher's Exact Test

Discussion

Interpretation of the study findings should bear in mind that the questionnaire was filled by patients immediately after treatment. This may introduce information bias because some patients might have been tired or frustrated by the treatment procedure.

Slightly more older-adults were satisfied with dental care than younger ones similar findings were reported Stege et al 1986 (15), but our findings are different from those reported elsewhere (16-18). This may be explained by the fact that in our society younger people have higher expectations than older ones.

Similar to findings reported by other investigators (6, 11) participants with secondary education or higher were more satisfied with dental care than those with primary education or lower. A possible explanation to this finding is that the most satisfying factors in this study namely; external environment, extent felt listened to and explanation given by practitioners are likely to capture the attention of people with higher education than of those with lower education.

Our study findings showed that males were more satisfied with dental care than females, similar to findings by Skaret et al 2005 (19). These findings are contrary to those stating females to be more satisfied (8, 20) and those reporting no sex differences (21-24). This is an unexpected finding since females are usually more concerned with the aspects of dental care that scored high in this study.

Participants residing far from the dental clinics were more satisfied with dental care. This is contrary to earlier reports that patient satisfaction is higher when clinics are more easily accessible (6, 7, 25). Possibly the trouble people get to reach the dental facilities outweigh the dissatisfying qualities in the dental setting.

In this study the most satisfying aspect were external environment and explanation given by

dentists. This could be explained by the fact that many of us make judgment about something based on what we see first. Since the external environment is what the patients sees first it is of utter importance that dentists should make their clinics' environment as welcoming, relaxing, clean and beautiful as possible. Furthermore, usually every sick person is anxious to know what is wrong about him/her and whether it will be cured or not. High satisfaction score for the explanation given by dentists indicate that the dentist in the studied clinics gave explanation to the expectation of the clients.

The least satisfying aspect of dental care was waiting time. Our finding is similar to those reported elsewhere (24-28). This indicates that dentist do not pay due attention to the time patients spend in waiting rooms.

Conclusion and recommendations

It can be concluded that adult Tanzanians have a high level of satisfaction with dental care. The most satisfying aspects were external environment and explanation given by dentists while the least satisfying was waiting time. It is recommended that dentists should strive to maintain the satisfying aspects and strive to reduce patient waiting time.

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