Patient Satisfaction in Dental Outpatient Clinics in Turkey

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Aim. To measure the level of patient satisfaction in the dental outpatient clinics from a group of state hospitals in Turkey and explore the factors that may influence satisfaction.

Methods. In a cross-sectional study, patients attending the outpatient clinics state hospitals from 9 provinces were interviewed. Data regarding socio-demographic characteristics of the respondents were collected and a patient satisfaction questionnaire, which consisted of 29 statements regarding various aspects of satisfaction, were completed during face-to-face interviews (n = 641, response rate 89%).

Results. There was no difference between the mean satisfaction scores of the study group with regard to socio-demographic characteristics except for the type of health insurance held by the patient. Patients covered by state pension funds had significantly higher satisfaction scores than the self-employed group with public insurance. Patients were most satisfied with privacy (82.1% of the respondents). Waiting time was the least satisfactory issue, with only 41.8% of patients reporting satisfaction with waiting time.

Conclusion. The type of health insurance of the patients seems to be a significant predictor of dental patient satisfaction in Turkish state hospitals. Privacy was the most satisfactory service attribute whereas the waiting time had the lowest satisfactory rating.

Key words: dental care; dental service, hospital; patient satisfaction

Patient satisfaction is an important component of dental care. It influences patients' compliance, their use of dental services, and their anxiety, and it is also associated with health outcomes and health status (1). As the health care industry shifts towards a consumer-oriented approach in the delivery of care (2), patient satisfaction surveys have become an increasingly important tool in measuring the quality of dental services (3).

Donabedian describes four specific reasons for investigating patient satisfaction (4). First, satisfaction is an objective of care; second, satisfaction is also a consequence of that care, and therefore an outcome; third, satisfaction can contribute to the effects of care, as a satisfied patient is more likely to comply with advice; finally, satisfaction is also the patient's judgment on the care that has been provided (4).

Patient satisfaction with dental services may be influenced by the socio-demographic characteristics of the individuals, such as sex (5), age (1,6-8), ethnicity (1,6), and socio-economic status (9). Various studies have reached differing conclusions with regard to these influences (1,3,4). Perceived health, the nature of the provider-patient interaction, and structure of the dental care delivery system are also significant factors, which determine the level of dental service satisfaction (1,10-13).

Turkey is a country with high prevalence rates of dental health problems and insufficient number of dentists per population. More than 70% of twenty thousand active dentists practice privately and a third of the rest practice both in the public hospitals and private clinics (14). Out-of-pocket payments are the major source of finance. Preventive dental services, ideally the responsibility of the state, are very poor; there being no organized dental services within the primary health care facilities of the neither Ministry of Health nor municipal governments. Only a small amount of curative dental services are delivered by the state public hospitals to people who are covered by public health insurance plans. According to health services utilization survey performed on a sample representing the whole country (15), the utilization of oral dental services was significantly lower than in most European countries.

Because there was no reliable data regarding the satisfaction of patients within such a complex dental care system in Turkey, we based our study on deter-

mining patient satisfaction in dental outpatient clinics in Turkish state hospitals and the factors influencing it.

Subjects and Methods

Study Sample

This survey was part of a larger survey investigating the utilization and financing of dental services in Turkey, as well as patient satisfaction and dental job satisfaction. Data was collected from 3 sample groups in 9 provinces in 2001. The first group consisted of private sector dentists, the second of residents of these provinces, and the third of patients attending outpatient clinics of the state hospitals.

Turkey has a population of 67.803,927, living in 81 provinces, according to the census data of the State Institute of Statistics in 2000 (16). Terrorist activities in eastern and southeastern Turkey since early 1980s, made it unsafe to conduct a reliable study there, so the provinces in these regions (17.3% of the total population) were not included in the study.

The provinces of central, western, southern, and northern Turkey are clustered by their socio-demographic profiles and organization of dental services in accordance with the recommendations of the managers of Turkish Dental Association. Nine of these provinces were selected by cluster sampling. The dental clinics of one state and one worker's insurance scheme (SSK) hospital, both generally considered as providing minimal to adequate dental care, were selected from each of the nine provinces by simple random sampling method. Data from the adult patients (n=641, response rate 89%) attending the dental clinics of these hospitals were collected during five consecutive workdays. Children, patients who attended only for control examinations, and patients who were referred to other institutions without being treated are not included in the study.

As illustrated by the data in Table 1, 58.5% of the dental patients were female and 41.5% were male. Most participants were married (70.7%), with 40.4% being primary school and 37% secondary school graduates. Among the study group, only 4 patients (0.6%) had private health insurance and 36 patients (5.6%) had no dental insurance. The large majority of the study group had some kind of health insurance for their dental problems (Table 1).

Questionnaire

The data were collected during face-to-face interviews by trained interviewers. A questionnaire regarding the socio-demographic characteristics of the respondents and a patient satisfaction questionnaire that was developed for this purpose (17) and found to be valid in satisfaction surveys for Turkey were completed during the interviews (Crombach's α=0.9212).

The patient satisfaction questionnaire consisted of 29 statements regarding various aspects of satisfaction. Among these statements, 7 referred to "physical surroundings," 3 to "privacy," 7 to "dentist's attitude," 6 to "explanation of diagnosis and treatment" and 1 to measuring the satisfaction regarding "waiting time." The respondents' answers to each of these statements were scored on a 5 point Likert scale ranging from strongly disagree =1 to strongly agree =5.

The sum of the scores ranged from 29 to 145 for each respondent and the mean score for the whole study group was 99.4±14.6. Average answer score ≥4 for each group of statements concerning various service attributes was considered as "satisfied," the average score between 3.9 and 2.1 as "neutral," and average score ≤2 "not satisfied."

Statistical Analyses

Collected data were analyzed using SPSS 11.5 for Windows (SPSS Inc., Chicago, IL, USA). Mean satisfaction scores of the study group with regard to independent variables were analyzed by unpaired t test, ANOVA, and Tukey's HSD test. Multiple regression analysis (general linear model) was also used.

Results

When the study group members were asked why they utilized the services of a state hospital, 71.3% replied that they were obliged to attend these hospitals because of the conditions and terms of their dental insurance. Only 6.9% of the respondents preferred these institutions because of the high quality of the dental service.

The mean satisfaction score for the whole group was 99.4±14.6 (Table 1). Bivariate analysis of the data showed that there was no significant difference between the mean satisfaction scores with regard to patients' sex, age, marital status, educational level, and the presence of dental fear. The difference between the mean satisfaction score of various health insurance groups was statistically significant (p=0.025). Patients under the coverage of state pension funds had significantly (p=0.035) higher satisfaction scores (mean score: 101.8±14.8) than patients covered by Bag-Kur (public insurance for self-employers; mean score: 96.2±14.0).

The effect of independent variables on the satisfaction scores was also analyzed by multiple linear regression method and again the type of health insurance was found to be the only significant predictor of overall satisfaction. Sex, age, educational levels, and marital status were not significant variables for the prediction of overall satisfaction. However, all of these socio-demographic characteristics (sex, marital status, age group, educational level, social insurance) together with the presence of dental fear could predict 2.9% of overall satisfaction (R^2=0.029), which was very low (Table 2).

Table 1. Mean satisfaction scores according to the socio-demographic characteristics and dental fear of the study group

Socio-demographic characteristics	No. (%) of subjects	Satisfaction score (mean±SD)
Sex:		
male	266 (41.5)	100.5±15.1
female	375 (58.5)	98.6±14.1
		t=1.637; p=0.102
Age group:		
<20	178 (27.8)	99.2±14.0
20-29	142 (22.2)	98.3±15.7
30-39	140 (21.8)	98.8±14.3
40-49	93 (14.5)	100.7±13.7
≥50	88 (13.7)	101.1±15.1
		F=0.743; p=0.563
Marital status:		
single	128 (20.0)	99.8±13.6
married	453 (70.7)	99.5±14.9
widowed-divorced-separated	60 (9.3)	98.1±14.2
		F=0.253; p=0.776
Education level:		
no education	83 (12.9)	100.0±13.5
primary school	259 (40.4)	99.2±13.9
secondary school	237 (37.0)	98.8±14.8
university	62 (9.7)	101.5±17.1
		F=0.635; p=0.593
Health insurance:		
state pension funds	180 (28.1)	101.8±14.8
workers social insurance (public)	317 (49.5)	98.7±14.7
Bag-Kur (public insurance for the self-employed)	87 (13.6)	96.2±14.0
green card (public insurance for the poor)	17 (2.6)	95.6±10.7
private insurance	4 (0.6)	99.5±14.0
none	36 (5.6)	102.6±13.2
		F=2.579; p=0.025
Dental fear:		
yes	236 (36.8)	98.4±14.9
no	395 (63.2)	100.1±14.4
		t=1.379; p=0.168
Total	641 (100)	99.4±14.5

Table 2. Assessment of predictors of patient satisfaction by multiple regression analysis (R = 0.170, Adjusted R^2 = 0.020)

Predictors	Standardized coefficients	
	Beta	p
Marital status	-0.077	0.111
Age group	0.074	0.139
Dental fear	0.050	0.215
Health insurance	-0.137	0.001
Educational level	-0.021	0.638
Sex	-0.044	0.292

In the whole group, the patients were classified as satisfied, neutral, and not satisfied according to the average answer scores for each group of service attributes questions (Table 3). The percentage of satisfied patients was highest for the "privacy" (82.1%) and lowest for the "waiting time" in the office (41.8%). It seems that time spent waiting was the most significant determinant of dissatisfaction in dental patients in our study group. The percentage of patients satisfied with the "physical surroundings," "dentist's attitude," and "explanation of the diagnosis and treatment" was higher than that of dissatisfied patients.

Table 3. Satisfaction of the study group with regard to various service attributes

Service attributes	No. (%) of subjects		
	satisfied	neutral	not satisfied
Physical environment	449 (70.0)	39 (6.1)	153 (23.9)
Privacy	526 (82.1)	48 (7.5)	67 (10.5)
Attitude of the dentist	511 (79.7)	31 (4.8)	99 (15.4)
Explanation of diagnosis and treatment	462 (72.1)	50 (7.8)	129 (20.1)
Waiting time	268 (41.8)	27 (4.2)	346 (54.0)

Discussion

Our study results indicate that people prefer state hospitals not because of the quality of dental services but because of the requirements of their dental insurance policies. Among the attendants to dental outpatient clinics of these hospitals, the type of health insurance was found to be the only significant predictor of patient satisfaction. The mean satisfaction score of the respondents covered by Bag-Kur was significantly lower than the mean satisfaction scores of respondents covered by the state pension funds.

The explanation of this difference may be the different socioeconomic status and varying expectations of these groups. The people under the coverage of Bag-Kur are self-employed people who usually have better socioeconomic status and consequently might have higher expectations than the people covered by the state pension funds. However, this result must not be taken as definite, because the relationship between patient satisfaction and socioeconomic status was not found to be consistent in general medical practice and it was hard to explore because of several confounding factors (18,19). On the other hand, the definition and evaluation of expectations are as difficult to assess as satisfaction (20) so we did not examine the patients' expectations in this study.

Socio-demographic characteristics of the patients did not seem to be significant predictors of dental patient satisfaction in our study group. The results of

the studies examining the influence of socio-demographic characteristics on dental satisfaction are conflicting. Some studies indicated that females (5), older patients (6,7), and patients with less education (6) were more satisfied with dental care, while others found older patients to be less satisfied (21) or that there were no significant differences due to age (12,22). These different findings may be the result of different research methodologies, different places of study, or various confounding effects.

The mean satisfaction score of patients who expressed dental fear in our study group was slightly lower than the ones who did not, but the difference was not significant. In other studies it has been shown that dental fear is a significant factor that negatively influences dental patient satisfaction (22,23).

"Privacy" was the most satisfactory attribute of dental services in our study group, with 82.1% of the patients expressing satisfaction. This was followed by "dentist's attitude" (79.7%). "Waiting time" was the least satisfactory issue, with only 41.8% of the patients expressing satisfaction with it. Privacy and dentist's attitude are important factors which may affect the quality of dentist-patient relationship and consequently patient satisfaction. Several studies indicate that dentist-patient relationship is always significantly and positively correlated with dental patient satisfaction (6,12,24-26). The high percentage of satisfaction with privacy and dentist's attitudes is the major cause of overall patient satisfaction in our study group. Shortening of the waiting time may also increase satisfaction, as was confirmed in other studies (10).

The review of several studies on patients' perceptions of the quality of various service attributes (26) showed that dental patient satisfaction was the result of an extremely complex process and that we were a considerable way from unraveling the myriad of antecedent factors that result in expressions of satisfaction and dissatisfaction.

According to our study results, the type of health insurance is the most significant predictor of patient satisfaction and time spent waiting seems to be the main reason for patient dissatisfaction in dental outpatient clinics in Turkish state hospitals.

There have been considerable methodological difficulties in the study of patient satisfaction. The existing literature shows that there is no standardized research methodology for investigating patient satisfaction (3,27).

The results of our study cannot be generalized to the whole country, because of two major limitations. These were the main shortcomings of our study. First, it is not representative of the whole of Turkey, since it did not include eastern and southeastern parts of the country due to the reason explained in the methods section. Secondly, it was done among the patients attending dental outpatient clinics of state hospitals and did not include private dental clinics where a great majority of dental services are provided. Thus, although the satisfaction of patients visiting private dental clinics would be the key issue for investigating patient satisfaction, this was not easy to measure beca-

use of possible bias in response and for ethical reasons.

On the other hand, our main objective was to investigate the determinants of patient satisfaction in the public sector, because public sector dental services were not well organized and only a small percentage of the population uses state hospitals. Since no previous data regarding patient satisfaction in public dental services were present in Turkey, we thought that this would be useful for the policy makers.

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