

Socio-economic profile and level of satisfaction of patients seen at the endodontics clinic of a postgraduate institution

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ABSTRACT

This study aimed to assess the socio-economic profile and patient satisfaction with the services provided at the Endodontics Clinic of a postgraduate teaching institution. Data collection was carried out in cross-section through a structured and self-administered questionnaire. The sample was intentional and random (n = 50) for users who had completed endodontic treatment. A dimensional and bipolar scale was used to evaluate satisfaction at the end of the treatment with scores attributed between the extremities. The scores given to the different aspects of the treatment ranged from 0 to 10 with a cutoff of 7. The results were cataloged and submitted to descriptive and inferential analysis with a significance level set at 5%. The socio-economic profile of the patients treated includes, in its majority, married, brown women, above the third decade of life, with employment and low family income, with complete high school education, residing in the capital, and who use buses and their own car as a means of transport. The service was considered satisfactory. Users seek care more by referral from other individuals than by their financial condition, are satisfied with the care provided by the student and the teacher, and consider the infrastructure of the institution comfortable. There are still aspects that need to be improved, especially concerning waiting and service times and the possibility of attending more than once a week.

Descriptors: Patient Satisfaction. Evaluation of Health Services. Academic Institutions. Endodontics.

1 INTRODUCTION

Graduate dentistry clinics provide mutual contact between students and the population to establish care within the socio-economic reality of patients and allow the student to sign theory in clinical practice¹.

Users' perception of service quality is important to develop actions and improvements, both on the part of the manager to be able to improve their strategies and actions, and on the part of the professionals themselves, who will be better prepared to understand the users'

expectations when understanding their perceptions of the quality of care provided².

Patient satisfaction is achieved by implementing an educational policy that considers teachers and students aware and engaged in the process of social transformation of man that shows dental ethics, and that considers, with dignity, the real commitment that the dental professional must have with Brazilian society³.

Besides, socio-economic status is a determinant of health and life expectancy, and there is evidence of a direct relationship between oral health conditions and socio-economic profile.⁴ The imbalance in the distribution of income, coupled with the difficulty of public health services in meeting the growing demand of patients in search of dental care, generates a great increase in the demand for the clinics of educational institutions⁵.

Therefore, the objective of this research was to assess the socio-economic profile and patient satisfaction with the services provided at the Endodontics Clinic of a postgraduate educational institution.

2 METHODOLOGY

This is a cross-sectional observational study in which data collection was carried out with patients seen at the Endodontics Clinic of the Brazilian Dental Association, Section Piauí (ABO-PI).

The Research Ethics Committee previously approved the research of the Federal University of Piauí - Campus Ministro Petrônio (CAAE 86460318.2.0000.5214, opinion 2.573.968). The principles governed by national and international standards that regulate research with human beings were followed, respecting the determinations of resolution 466/12 of the National Health Council,

guaranteeing confidentiality, anonymity, and non-use of information to the detriment of individuals.

The data were collected by three properly trained and calibrated researchers through a structured and self-administered questionnaire based on instruments adopted by previous studies^{6,7}, with closed and open questions, by signing the Informed Consent Form by the participants.

A pilot study was carried out for the previous evaluation of the questionnaire and research procedures, with ten patients selected at random and who were not included in the final sample. After the pilot study and the suggested and carried out modifications, the modified questionnaire was distributed. The researchers instructed the participants to fill out the questionnaires freely, without their intervention, with complete autonomy, including to give up without incurring damage in their treatment, without causing any damage in their relationship with the professional due to the confidential nature of the results obtained. However, it was emphasized that the study would make a major contribution towards improving the care of these patients.

The forms were distributed to 50 patients, randomly, after attending to those who finished the treatment and collected after being answered. The questionnaire consisted of 22 questions in which identification data were requested, such as sex, age, family income, education, the reason for seeking care, whose objective was to trace the user's socio-economic profile; in addition to data related to satisfaction with the functioning of the clinic, such as trust, commitment, empathy, receptivity, autonomy, and resolvability. The opinion on the structure of the clinic environment and questions on satisfaction with the technical aspects of the service were also requested.

To assess satisfaction at the end of the treatment, dimensional and bipolar scales were used, with scores assigned between the extremities. The scores given to the different aspects of the treatment ranged from 0 to 10, with the value being attributed by the patient subjectively, characterizing his degree of satisfaction with the endodontic treatment received. The cutoff adopted was the value 7. Values less than or equal to 7 were considered dissatisfaction, and values above 7 were satisfactory.

The inclusion criteria adopted in the study for sample composition were: endodontic treatment indicated and completed at the endodontics clinic of ABO-PI and being 18 years or older.

The results were cataloged and submitted to a descriptive analysis of the distribution of absolute and relative frequencies by means, tables with absolute numbers, percentages, average and minimum, and maximum values. Mann-Whitney and Kruskal-Wallis U tests were used to compare data. Pearson's chi-square test was applied for the inferential analysis of qualitative variables. When the latter's assumptions were not met, in cases where the observed frequencies were less than 5, Fisher's Exact Test was performed. For this, the variables "satisfaction at the end of treatment" were transformed into categorical and dichotomized, obtaining the scores "satisfied with the treatment" and "dissatisfied with the treatment."

The level of significance was set at 5%. The PASW-20® software (IBM Analytics, Armonk, NY, USA) was used for statistical analysis from creating a database.

3 RESULTS

From the descriptive statistics, it was possible to identify the variables related to

sociodemographic characteristics, the experience of pain before treatment, the quality of the care provided by the student and teacher, suggestions for improving care, the reason for seeking the service, information about the organization and infrastructure of the institution, the indication of the clinic to other users and the satisfaction with the service received.

The average age of patients included in this research was 38.1 (\pm 11.9) years, with a minimum of 18 and a maximum of 66 years, most concentrated in the age group above 35 years. Most were female (n = 41; 82.0%), married (n = 31; 62.0%), self-declared brown (n = 29; 58.0%), with completed high school (n = 17 ; 34.0%), current employment (n = 32; 64.0%), monthly family income of 1 to 2 minimum wages (n = 22; 44.0%) (current minimum wage: R \$ 1,045.00), who lived in Teresina (n = 44; 88.0%) and used buses as a means of transportation (n = 21; 42.0%).

As for the experience of painful sensation, most patients were not experiencing pain before the treatment was performed (n = 34; 68.0%). However, 70.6% (n = 48) had received some information about the need for treatment. Of those who reported being in pain 32.0% (n = 16), the average duration was 30.7 \pm 28.6 days, with a minimum of 3 and a maximum of 90 days. Pain intensity was classified as mostly moderate (n = 7; 43.7%), with an average of 6.3 \pm 2.3 on a scale of 0 to 10. The use of pain control medications was performed 81.2% of patients (n = 13), with Dipyron 38.5% (n = 5) being the most used.

Most users (n = 27; 54.0%) sought care by referrals from colleagues and friends. The service was considered "excellent" when performed by both the student (n = 39; 78.0%) and the teacher (n = 40; 80%), with an average of 9.4 \pm 0.9 on a scale of 0 to 10 The infrastructure was considered comfortable by

86.0% (n = 43), everyone would recommend the institution (n = 50; 100.0%) and the most cited suggestions were “no change” (n = 19; 38.0%), “Being served more times a week” (n = 12; 24.0%) and “reducing waiting time at reception” (n = 6, 12.0%).

As for user satisfaction at the end of the endodontic treatment performed, the lowest score was attributed to the factor "painful sensation" (6.9 ± 2.8), indicating user

dissatisfaction in this regard, with the other grades indicating satisfaction with the treatment, which is also demonstrated with the highest overall average for the scores for the factor "general satisfaction at the end of treatment" (8.9 ± 2.1). It can also be observed that the standard deviations were relatively low, signaling an agreement among users for the questions raised for satisfaction with the treatment (table 1).

Table 1. Averages, standard deviation, and minimum and maximum values of the averages of the degree of satisfaction at the end of the endodontic treatment reported by the patients seen at the Endodontic Clinic of ABO-PI

Variable	Mean (standard deviation)	Minimum value	Maximum value
Treatment time	7.5 (2.6)	0	10
Painful feeling	6.9 2.8)	0	10
Comfort during treatment	8.0 (2.6)	0	10
Comfort with chewing at the end of treatment	8.3 (2.3)	0	10
Satisfaction with the aesthetics obtained	8.5 (2.2)	0	10
Overall satisfaction at the end of treatment	8.9 (2.1)	0	10

Significant associations were found between general satisfaction at the end of treatment with the care provided by the teacher ($p = 0.048$; Fisher's exact test), in which most (n = 30; 76.0%) considered it to be excellent and were satisfied with the service. There were no significant associations of interest with the other variables ($p > 0.05$).

Statistically significant associations were investigated for variables that possibly related the degree of dissatisfaction/satisfaction of patients before, during, and/or after endodontic treatment (table 2). Women were more satisfied with the final aesthetics obtained ($p = 0.017$). The age group above 35 years was more satisfied with the service received ($p = 0.020$). Patients who considered the environment

"comfortable" were more satisfied with the care received ($p = 0.029$). Patients with complete high school were more satisfied with the final aesthetics obtained ($p = 0.013$). There were no significant associations of interest with the other variables ($p > 0.05$).

4 DISCUSSION

The socio-economic profile and satisfaction of users of the services provided at the Endodontics Clinic of ABO-PI were analyzed using data from a cross-sectional study. A first aspect to be highlighted from the results of this study was the high level of satisfaction indicated by users concerning the investigated dental service since most did not suggest changes in the service, and all would

recommend the educational institution. This finding corroborates the satisfaction surveys found in the national and international literature^{8,9,10}. However, these results must be analyzed with caution, since Brazilian health users tend to exhibit a certain conformity

concerning services¹¹, low critical and claiming content^{11,12} and still, a mistaken view in recognition of the health service as a benefit and not one as a right, which may lead to inconsistent satisfaction of the health services surveyed¹².

Table 2. Distribution and p-value of the variables that possibly relate to the degree of dissatisfaction/satisfaction before, during, and/or after endodontic treatment

Variable		n (%)	p*
Satisfaction with the aesthetics obtained	Gender		0.017^a
	Male	9 (18.0%)	
	Feminine	41 (82.0%)	
The overall rating for service	Age (in years)		0.020^b
	Up to 25	9 (18%)	
	Between 25 to 35	13 (26%)	
	Between 35 to 50	14 (28.0%)	
	Between 45 to 70	14 (28.0%)	
The overall rating for service	Infrastructure		0.029^b
	Comfortable	43 (86.0%)	
	Uncomfortable	6 (12.0%)	
	Too hot	1 (2.0%)	
Satisfaction with the aesthetics obtained	Education		0.013^b
	Incomplete elementary school	3 (6.0%)	
	Complete elementary school	1 (2.0%)	
	Incomplete high school	4 (8.0%)	
	Complete high school	17 (34.0%)	
	Incomplete higher education	7 (14%)	
	Complete higher education	9 (18%)	
Postgraduate studies	9 (18%)		

a: Mann-Whitney U test; b: Kruskal-Wallis test; *: Statistically significant difference

The socio-economic factor influences the degree of patient satisfaction attended at a school institution, as revealed by the study by Mascarenhas (2001)¹³, which presented that the low cost of treatment causes users to have low expectations regarding treatment or to be more tolerant. The simple fact of being attended to can already produce satisfaction. There is a

tendency on the part of users from less favored social classes to positively evaluate the services provided to them^{14,15}, and this aspect was observed in this research.

Most of the participants in this study were predominantly female and were more satisfied with the final aesthetics obtained (p = 0.017). Women are more present in dental consultations

due to the importance they attach to oral health, aesthetics, and beauty¹⁶. Regarding age, there was a predominance of individuals above the third decade of life. The higher demand linked to this age group may be associated with a greater prevalence of oral problems, especially periodontal¹⁷.

Good professional/patient communication, including the appropriate transmission of information about the treatment and the consequent adaptation of the patient's expectation to the expected results, is extremely important for any work^{18,19}. It is interesting to note that the service offered by both the student and the teacher was considered "excellent," this data being of fundamental importance for a self-analysis of quality and that the service at the Endodontics Clinic of ABO-PI meets the expectations of users.

The patients seen considered the Endodontics Clinic as "comfortable" and attributed a better overall score to the service ($p = 0.029$). The data obtained in this research corroborate with results found in the literature in which the environment is defined as an element that determines user satisfaction. The patients showed a positive opinion regarding the organization's organization, cleanliness, comfort, and lighting of the clinics²⁰⁻²³. A recurring factor of dissatisfaction between users and health professionals is the precariousness of the physical structure of the health units^{9,24}.

Initiatives to reorganize work processes and optimize internal flows can contribute too much to improve the quality of services and, consequently, to the satisfaction of users. Thus, the organization of services and health practices must carry out an increased understanding of the needs of the population under their responsibility¹².

The cross-section with collection in self-administered questionnaires allows the

occurrence of memory bias and the influence of local factors. This can be seen as a limitation of the present study because it prevents the hypothesis of causality. Besides, the information bias may also have influenced the results, as patients may have reported favorable perceptions for fear of not getting more care at the institution.

However, cross-sectional studies are useful to identify possible factors associated with users' dissatisfaction with endodontic treatment that can be investigated in other assessments as definitively associated factors. An intentional sample was used due to the intense flow of patients and the difficulty in performing the sample calculation without having a margin on the total number of patients attending the postgraduate institution. However, the selection of participants was random to avoid selection bias.

The strong point of this research is the investigation of possible factors related to dissatisfaction with the service provided and knowledge of the user's socio-economic profile. This can provide subsidies for the health service to access the perceptions and expectations expressed by users, such as "being seen more often in the week" and "reducing the waiting time at the reception," in addition to providing information in quantity and quality to achieve greater satisfaction and possibility to intervene in improvements in the spheres that may interfere in this factor.

5 CONCLUSION

According to the methodology employed, it is concluded that the socio-economic profile of patients seen at the Endodontics Clinic ABO-PI includes, in its majority, married women, self-declared brown, above the third decade of life, with employment and low family income, with high school education, residing in the

capital and using buses and their cars as a means of transportation, reinforcing the social role of the school institution. In general, the quality of service provided by users as a provider of good service, both in the technical aspect and in the professional-patient relationship.

RESUMO

Perfil socioeconômico e nível de satisfação dos pacientes atendidos na clínica de endodontia de uma instituição de pós-graduação

Este estudo objetivou avaliar o perfil socioeconômico e a satisfação dos pacientes em relação aos serviços prestados na Clínica de Endodontia de uma instituição de ensino de pós-graduação. A coleta de dados foi realizada em corte transversal por meio de questionário estruturado e autoaplicável. A amostra foi intencional e aleatória (n=50) para usuários que haviam finalizado o tratamento endodôntico. Para avaliar a satisfação ao final do tratamento foi utilizada escala dimensional e bipolar, com escores atribuídos entre as extremidades. As notas dadas aos diferentes aspectos do tratamento variaram de 0 a 10 com *cutoff* no valor 7. Os resultados foram catalogados e submetidos às análises descritiva e inferencial com nível de significância fixado em 5%. O perfil socioeconômico dos pacientes atendidos contempla, em sua maioria, mulheres casadas, pardas, acima da terceira década de vida, com vínculo empregatício e baixa renda familiar, com ensino médio completo, residentes na capital e que usam ônibus e carro próprio como meio de transporte. O atendimento foi considerado satisfatório. Os usuários procuram o atendimento mais por indicação de outros indivíduos do que pela própria condição financeira, estão satisfeitos com o atendimento do aluno e do professor e consideram a infraestrutura da instituição confortável. Mesmo assim, ainda há aspectos que necessitam ser melhorados, principalmente no que diz respeito ao tempo de espera e de atendimento e à possibilidade

atendimento mais de uma vez na semana.

Descritores: Satisfação do Paciente. Avaliação de Serviços de Saúde. Instituições Acadêmicas. Endodontia.

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