ORIGINAL RESEARCH

Ethics and Dental Care: Satisfaction Survey among Senegalese Patients

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Abstract

Aim: The aim of this study was to evaluate patient satisfaction based on the model of "care" proposed by Joan Tronto.

Materials and methods: A total of 300 patients aged 20–70 years were interviewed using a self-administered questionnaire covering the 4 dimensions of Tronto's care (caring about, taking care of, care giving, and care receiving). The data collected was analyzed using Statistical Package for the social sciences version 19 software. The correlation between the degree of satisfaction and the analyzed parameters was determined using the Chi-square test, with a significance threshold of $p = 0.05$.

Results: A satisfaction rate of 91.7% was determined. It was strongly correlated with attention, listening, quality of information, and sympathy ($p = 0.001$). The "competence" factor also appeared to correlate strongly with overall patient satisfaction ($p < 0.001$).

Conclusion: The majority of participants were satisfied with the dental care they received. This result shows the importance of ethics in clinical care.

Clinical significance: Taking the ethical dimension into account can help in the proper planning of care procedures and increase patient satisfaction.

Keywords: Bioethics, Dental care, Ethics, Satisfaction.

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Introduction

With the promotion of patient autonomy through free and informed consent, a paradigm shift has taken place in medicine. The patient is no longer just a user of health care, but a powerful and informed actor.[1,2]

The patient's favorable opinion and satisfaction are used to develop quality criteria for therapeutic management.[3] The patient seeking advice is not just a patient, but a person willing to trust unconditionally in order to alleviate their anxiety and suffering. The role of the carer is to listen, to decipher what they are saying, and to recognize their real or imagined needs.[1] It is, therefore, necessary to respond to a genuine need for care technically (diagnosis) and functionally (satisfaction). The dental satisfaction questionnaire (DSQ) by Davies and Ware a reference in the field of medical opinion surveys, is commonly used to assess patient satisfaction.[4] It is adapted according to the target population and the expected objectives.[5,6] This questionnaire focuses more on the material perception of care than the ethical dimension. Quality of care is a multidimensional set of criteria that includes communication, interpersonal aspects, availability, technical quality, and the doctor–patient relationship.[7] Care must, therefore, be carefully evaluated by patients, whose responsiveness is crucial in ensuring that the care they receive meets their needs.

Tronto's model defines "care" as an active process with four dimensions:[8,9]

- Caring: Noticing a need and responding to it.
- Caring for: This involves responding directly to the needs of others. This is the "giving of oneself" dimension, with all that it implies in terms of professionalism in the social and economic dimensions.
- Giving care: Corresponds to the moral quality of competence: it is not enough to enter into a relationship with the patient; you have to give him or her something that meets his or her needs.
- Receiving care (satisfaction): At this level, a dimension of reciprocity in the care relationship is proposed: the other's response is the criterion for evaluating the "success" or at least the relevance of the care interventions, with care received (satisfaction) being the level at which the patient evaluates the care received.

These different levels define an ethical grammar which, when correctly implemented, leads to patient satisfaction. The aim of this

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evaluation was to determine the importance of ethics in dental care in this population based on patient responses and satisfaction. The ultimate goal was to help dentists find the best moral and ethical settings for good patient care.

Materials and Methods

This qualitative study was conducted over a period of 6 months (January to June) in 2021 in three dental clinics in Dakar, selected for their good reputation and accessibility.

Institutional approval was obtained to conduct the study.

Subjects were randomly selected from those who met the inclusion criteria of the study. Patients between the ages of 20 and 70 who had given informed consent were selected. Subjects with conditions that could impair judgement (psychiatric disorders and hearing loss) were excluded.

Sample Size of the Study

The sample size was calculated based on the results of a pilot study (50 participants, with a satisfaction rate of 77%).

The following statistical formula was used to calculate the number of participants.

$$n = \frac{\left(\frac{Z\alpha}{2}\right)2P(1-P)}{d^2} = \frac{(1.96)2\times 0.77(1-0.77)}{(0.05)^2} = 272$$

Sample size = 272 × 10% + 272 = 300.

This resulted in a sample of 272 people. To reduce the impact of incorrectly completed questionnaires to 10%, the final sample of 300 was retained.

Survey Procedure

A self-administered questionnaire based on the four levels of care defined by Tronto was used to collect the data.[8]

The questionnaire contained the following items:

- Sociodemographic data
- Care (caring about and taking care of); this care item covers questions 1–9
- Competence (care giving); this care item covers questions 10 and 11
- Satisfaction (care receiving); this care item covers questions 12 and 13.

The questionnaires were written in French and answered directly by the participants. Anonymity was maintained; only age and gender were revealed. The interviewer helped the uneducated participants to complete the questionnaire.

The participant was only interviewed once, and the interview could last 10 minutes.

The questions were multiple-choice, closed, semi-open, and partially scaled.

Statistical Analysis

Statistical analysis was carried out using Statistical Package for the Social Sciences, IBM version 20.0. Descriptive statistics were used to determine the frequencies, mean, and standard deviation of the variables included in the study. The correlation between certain variables was examined using the Chi-square test and the Fisher test. For all statistical tests performed, significance was determined at a cut-off value of $p < 0.05$.

Table 1: Sociodemographic characteristics of the patients

Variables	*n*	*%*
Gender		
Male	132	44
Female	168	56
Education level		
Uneducated	35	11.7
Elementary college	130	43.3
University (high level)	135	45
Treatment		
Periodontal	30	10
Endodontic	89	29.7
Surgery	87	29
Prostheses	10	3.3
Others	84	28

Results

Table 1 shows the distribution of patients' sociodemographic characteristics: Reasons for visits and services provided. The mean age of the sample was 36.54 ± 0.82 years. Endodontic (29.7%), surgical (29%), diagnostic (28%), periodontal (10%), and prosthetic (3.3%) treatments were the main reasons for visits.

Caring about

Almost half, 46.3%, of the participants found the waiting time acceptable. A quarter, 30.7%, were convinced that they had to wait a long time in the waiting room before being consulted.

The reception between practitioner and patient was characterized by respect and sympathy (Table 2). A lack of empathy on the part of the dentist toward the patient was found in only 5.7% of the respondents.

Taking Care of

Another aspect participants mentioned when discussing their satisfaction was pain management, which had a major impact on their satisfaction; a statistically significant difference of $p < 0.001$ was found.

The term "singular conversation" or encounter between patient and doctor was assessed by a test of listening and communication.

When the doctor listened and let patients talk about their illnesses, this resulted in high satisfaction scores (Table 2).

Regarding costs, only 29.7% of the respondents felt that the fees were high.

However, 22.7% of the respondents had to cut their budget because of the high fees. Regarding the accessibility of the care facilities, 62% were satisfied with the geographical proximity to their place of residence.

Care Giving

Skill is demonstrated in this phase of care; patient appreciation is shown in Table 2. About 92.7% of the participants felt that the doctors had clinical skills and were competent.

Care Receiving/Satisfaction

The correlation between marital status and satisfaction analyzed with the Chi-square test showed no statistically significant difference ($p < 0.78$). The same was true for pain management. The same result was obtained between the level of education

Table 2: Distribution of patient responses according to items

Variables (questions)		*N*	*%*
Caring about			
1. The dentist greeted me with respect during the consultation	Yes	297	99.1
	No	3	0.9
2. The dentist showed sympathy during the consultations	Yes	292	97.3
	No	8	2.7
3. You felt disdain in his attitude	Yes	17	5.7
	No	283	94.3
4. How do you rate the reception	Good	226	75.3
	Fair	72	24.0
	Poor	2	0.7
5. Is the waiting time	Short	69	23
	Acceptable	139	46.3
	Long enough	92	30.7
Taking care of			
6. Your pain has been well taken care of	Yes	227	88.7
	No	29	11.3
7. Did the dentist let you tell the story of your illness	Yes	256	85.3
	No	44	14.7
8. Was he attentive to your requests and questions	Yes	259	86.3
	No	23	7.7
	I don't know	18	6
9. Do you receive any encouragement	Always	158	52.7
	Sometimes	89	29.7
	Never	53	11.6
Care giving			
10. Do you have all the information about the treatment	Yes	254	84.7
	No	43	14.3
	I don't know	3	1
11. Have the skills and attitudes of a good practitioner	Yes	278	92.7
	No	11	3.7
	I don't know	11	3.7
Care receiving (satisfaction)			
12. How do you rate the quality of the information	Yes	263	87.7
	No	37	12.3
13. Are you satisfied	Yes	275	91.7
	No	25	8.3

and satisfaction. Educated and uneducated people had similar satisfaction scores, and no statistically significant difference was found ($p < 0.34$).

Regarding pain management, the Chi-square test analysis of the correlation between marital status and satisfaction showed no statistically significant difference ($p < 0.88$). There was no statistically significant difference between educated and uneducated persons ($p < 0.34$).

There was also no statistically significant difference ($p < 0.67$) in satisfaction scores according to gender. The mean (score) of satisfaction with the quality of dental care is shown in Table 3. A statistically significant difference was found between overall satisfaction and the items on pain, compassion, listening, and communication ($p < 0.001$).

Communication skills improve quality of care and patient satisfaction. The factor "competence" also seemed to correlate strongly with overall patient satisfaction ($p < 0.001$). Age, education level, and facility had only a small influence on overall patient satisfaction.

Table 3: Relationship between the variables studied and the degree of satisfaction

Variables	*n*	*%*	*p*
Gender			
Male	132	44	0.67
Female	168	56	
Reception			
Good	226	75.3	0.001
Fair	72	24.0	
Poor	2	0.7	
Therapeutic capacity			
Yes	278	92.6	0.001
No	11	3.7	
Pain management			
I don't know	11	3.7	0.001
Yes	227	88.7	
No	29	11.3	
Capacity to listen			
Yes	259	86.3	0.001
No	23	7.7	
I don't know	18	6	
Encouraging			
Always	158	52.7	0.02
Sometimes	89	29.7	
Never	53	17.6	
Sympathy			
Yes	292	97.3	0.001
No	8	2.7	
Waiting time			
Short	69	23	0.04
Acceptable	139	46.3	
Quite long	92	30.7	

Table 2 shows the results of the Chi-square test highlighting the variables that correlate with satisfaction. Listening, encouragement, and conversation had a strong influence on patient satisfaction.

Discussion

Medicine, the world of care in general, is undergoing a profound transformation from a paternalistic model to autonomy. The passive patient who trusts his doctor has become an active part of the care process. Their opinion and satisfaction count and serve as a barometer for evaluating the quality of services. It has been shown that knowing the level of patient satisfaction with the services provided is crucial to the success of healthcare programmes.[10]

The aim of this study was to determine the level of satisfaction of patients who received a dental consultation. The four dimensions of care identified by Tronto were assessed using a questionnaire completed by the patients themselves. According to Tronto, there is an ethical grammar of care, and the care receiving represents

the final stage of this active process, which comprises different but closely related stages.[9]

The first element is attention, which according to Billaud and Pirnay is the aspect most frequently mentioned by patients when asked about their satisfaction with oral care.[11] Almost 99.1% of participants were satisfied with the reception they received from the dentist. The majority of patients, 97.3%, stated that their dentist treated them with respect and was very empathetic. According to Pirnay, caring for patients is tantamount to respecting their dignity, and dentists must fulfil their duties with respect for life and the human person in the service of the individual and public health.[1]

This empathy is essential in dentistry, where pain, defined as an unpleasant sensory and emotional experience, is the main reason for a consultation.

Depending on its intensity, pain reflects a state of suffering that needs to be recognized and treated with care. In the present study, the parameters of greeting, expectation, and compassion were strongly correlated with satisfaction, and a statistically significant difference of $p < 0.001$ was found. These results obtained in this study are confirmed by the observations of the study by Luo et al., who explains that the attention given to patients throughout the treatment, the kind words of reassurance, and the encouragement given to patients during treatment are crucial for excellent dental service.[12] For Tronto, the care process comes into its own at this stage. It is about recognizing the presence of a need, assessing the need to address it, and the opportunity to address it. Once the problem has been recognized, the aim is to respond carefully to the patient's needs and expectations. This type of response involves a direct encounter with the patient. This is the dimension of the "task," which is a nonimprovised activity, a job, with all that this implies regarding professionalism and social and economic dimensions. Care corresponds to the moral quality of competence: it is not enough to enter into a relationship with another person; you also have to give them what they need.[8,9]

Each patient has their own expectations and perceptions of the services offered. This moral quality is the cornerstone of any good relationship. Therefore, it is crucial for patients how they are received, which is directly related to trust. According to some patients, a patient who is received well is already half cured, which indirectly helps to create a climate of trust. Our study found a significant correlation between the friendliness of the dentist and overall patient satisfaction. Almost all respondents felt that the reception they received was good. This attitude is very important as patients feel respected and, therefore, involved in decision making about their disease. In this study, the majority, 92% of the participants, rated the therapeutic skills of the practitioners as good and a statistically significant difference $p < 0.001$ was found between satisfaction and competence. The average score for satisfaction with the quality of dental care was 91.7%. A statistically significant difference was found between the level of global satisfaction and the items pain, compassion, listening, and telling ($p < 0.001$). Communication skills improve the quality of care and also patient satisfaction. The competence factor was also strongly correlated with global patient satisfaction; a statistical difference of $p < 0.001$ was found. Age, study level, and reception structure had little influence on overall patient satisfaction. The 91.7% satisfaction rate found in the present study is close to the 89% found by Bedi et al. in a UK population.[13] This figure is higher than the 61.7% recorded by Yeon et al., in a survey of Malaysian subjects.[14] Mascarenhas found a lower satisfaction rate (70%) in a treatment center at Ohio University.[15] In studies conducted in Morocco and the Arab Emirates, the rates were 65 and 71%, respectively.[16,17]

This study found that dentists who explained the procedures before treatment had a high satisfaction rate. Rankin and Haris confirmed this observation. They reported that patients complain when a dentist begins treatment without explanation.[18] The last item on the questionnaire dealt with the treatment received, depending on the recipient's ability to respond. For Tronto, it is about the carer recognizing how the recipient responds to care. This is the only way to determine whether there has been a response to the need, in other words, whether the treatment has led to a result. At this level, a dimension of reciprocity is implicit in the caring relationship. The reaction of the other person is the criterion for evaluating the "success" or at least the appropriateness of the care measures. It must be assumed that this response is addressed and can be received, thereby introducing reciprocity into the caring dynamic. The person offering care needs a response from the other person.[9]

This is the moment when the initiative of the other emerges and the other regains control. To summarize, this study shows a high satisfaction rate of 91.2% with the services provided. The parameters of listening, informing about the care process, storytelling (letting the patient speak to tell their story), and compassion had a significant impact on satisfaction. However, one of the limitations of this study is the sample size, which was calculated on a pilot basis and could influence the study results. Multicenter studies with more subjects are needed to investigate the influence of certain parameters (age and degree of modernization of structures) on patient satisfaction.

Conclusion

The majority of participants were satisfied with the dental care they received. Satisfaction was closely related to the practitioner's competence and respect for human dignity.

There is an ethical grammar that takes into account this intangible aspect of care.

In this ethical approach, the role of the carer is to listen, decipher what the patient is saying, recognize their basic needs, and propose appropriate solutions.

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