

ASSESSMENT OF PATIENT SATISFACTION WITH THE QUALITY OF DENTAL SERVICES PROVIDED BY STUDENTS OF DENTAL MEDICINE

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Abstract: In today's competitive world, the quality of dental services provided is extremely important. Dental service providers around the world consider patient satisfaction to be an important and fundamental factor in providing dental services. Patient satisfaction by the provided dental services is defined in the literature as the achieved match between the patient's expectations, his needs and the actual dental care provided to him/her. Understanding the importance of the concept dedicated to the quality of dental services and surveying the satisfaction of patients receiving these services is very important. Oral diseases are considered major health problems due to their high incidence and prevalence worldwide

Aim: The aim of the present study was to assess patient satisfaction by dental services provided by dental students.

Materials and methods: Sociological survey has been carried out. For the respondents' convenience participating in the research, the opportunity to choose between two options for filling out the survey card is provided: a paper survey card and Online questionnaire created in Google Forms. A survey was conducted on a voluntary basis in May-July 2023. The results of the survey are presented in table and graphic form, which are accompanied by analyzes and conclusions. For the purposes of the research, 358 patients treated by fourth, fifth- and sixth year students in the facility of the Faculty of Dental Medicine at the Medical University of Varna - were surveyed.

Results: The results show a positive correlation between the quality of dental services provided by dental students and patient satisfaction.

Conclusion: Measuring the quality of dental services has an important role in managing the dental care provided, diagnosing the problem and evaluating the effectiveness of the service. Patient satisfaction is one of the key indicators in the quality of services provided in the dental practice. The results of the conducted study dedicated to patient satisfaction with the provided dental services are an indicator for evaluating the quality of dental care provided by dental medicine students, based on a survey of patients' attitudes and opinions.

Keywords: satisfaction, quality of dental services, dental medicine students

Field: Social sciences

1. INTRODUCTION

In today's competitive world, the quality of dental services provided is extremely important. Patient satisfaction is widely used to evaluate the quality of dental services.(7,8,14) The quality of healthcare services is a multidimensional concept in which one of the most important aspects is patient satisfaction. (5) Patient satisfaction is one of the key indicators of the quality of dental care provided.(2,6,16) Dental service providers around the world consider patient satisfaction to be an important and fundamental factor in providing of dental services.(15)

Patient satisfaction with the provided dental services in the literature sources is defined as the achieved match between the patient's expectations, his needs and the dental care actually provided to him. The measurement of patient satisfaction is one aspect of the overall assessment of the quality of the dental service provided. (10) In addition, patient satisfaction is an important indicator for evaluating the quality of the dental services provided. (12,18) The high level of quality of dental services results in high patient satisfaction, maintaining existing regular patients. (3,17) Understanding the importance of the concept dedicated to the quality of dental services and surveying the satisfaction of patients receiving these services is very important. Oral diseases are considered major health problems due to their high incidence and prevalence worldwide. (9,13) According to the results of the study by Dopeykar et al .the highest average value of patient expectations is related to confidence, which is consistent with the results of Aghamolaei et al. (1) and inconsistent with those of Güllü et al., according to whose study the aesthetic results of the treatment performed are the most important factor for the quality of the service. (11) Respect

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for the privacy and personal space of patients, showing friendly and respectful attitude and explaining medical conditions and illnesses to patients can increase confidence and satisfaction and improve the quality of services provided.(4)

2. MATERIALS AND METHODS

Sociological survey has been carried out. For the respondents' convenience participating in the research, the possibility of choosing between two options for filling out a survey card is provided: a paper survey card and online questionnaire created in Google Forms. A survey was conducted on a voluntary basis in the months of May-July 2023. For the purposes of the research, 358 patients (131 men and 227 women) treated by fourth, fifth and sixth year students in the facility of the Faculty of Dental Medicine (FDM) at the Medical University-Varna were surveyed.

The results of the study are presented in table and graphical form and are accompanied by analyzes and conclusions. Each of the study participants filled out an informed consent form to participate in the study. Each of the respondents was provided with an information sheet for participating in the survey and a notice on the protection of personal data. Permission (approval) to start the research was received from the Research Ethics Commission (KENI) at Varna Medical University after preparing and presenting document worksheet on the subject of the research. The results of the survey were statistically analyzed to assess their reliability and representativeness. Data was processed with IBM statistical software SPSS Statistics v.23. The statistical method used to process the results are descriptive statistics and correlation analysis.

The questionnaire provided to the study participants consists of 22 questions, which are divided into 3 groups (table 1). The questions from the first group contain socio-demographic information about the surveyed patients: age, gender, year of study of the student who conducted their treatment. The questions from the second group explore the opinion and assessment of patients regarding the information provided to them during the diagnostic-treatment process. The third group of questions from the survey is related to Assessment of patient satisfaction with the provided dental treatment.

Table 1. Questions and statements included in the survey

| I group | Information about surveyed patients | 1. Age 2. Gender 3. Your dental treatment was performed by a student: fourth-, fifth- or sixth year student 4. Were you given a Declaration of Informed Consent to sign? |
|-----------|---|---|
| II group | Opinion and assessment of patients regarding the information provided to them during the diagnostic and treatment process | 1. The informed consent document I signed was explained to me clearly and comprehensibly. 2. I was informed about all the tests clarifying my exact diagnosis, about the risks they entail and about the way they are carried out. 3. I am satisfied with the opportunity provided to carry out an X-ray examination at the Faculty of Dental Medicine. 4. I was given the necessary information in a clear and understandable way about my condition, potential risks and possible treatment alternatives. 5. I was explained all the risks to my health when using anesthetics. 6. I was given the opportunity to ask questions about the risks and dangers associated with the procedures (diagnostic and therapeutic) that were administered. 7. In the course of the diagnostic and treatment process, I was informed about all the performed manipulations. 8. I received all the additional clarifications I requested regarding the treatment plan. 9. The process of registration and admission for dental treatment at the Faculty of Dental Medicine is very well organized. |
| III group | Assessment of patient satisfaction with dental treatment provided | 1. During treatment, pain and discomfort were minimized. 2. My treating student approached me with patience, empathy and respect throughout the treatment period. 3. I received courteous and professional treatment from all the Faculty of Dental Medicine staff involved in the treatment process. 4. The aesthetic results of the performed dental treatment meet my expectations. 5. I am satisfied with the quality of the materials used for my treatment. 6. During the course of the treatment and after its completion, I had the opportunity to turn to the student treating me and his assistant at any time I needed. 7. There is a published price list for all the fees I have paid for the dental treatment. 8. The fee for medical diagnostic services performed at the Faculty of Dental Medicine is very affordable. 9. I am satisfied with the quality of the provided dental services performed by students in the Faculty of Dental Medicine at MU-Varna. |

3. RESULTS

The factor variables: age and gender were studied and analyzed. 358 patients with an average age of 47.5 ± 17.4 years (30-65 years) took part in the survey. The youngest patient participating in the study was 18 years old and the oldest was 88 years old. (Fig .1) Patients are divided into age groups. In the age group from 18 to 24 years, 50 patients participated, with the most numerous being 23 years old. Patients aged between 25 and 44 years are the largest survey participating group - 122 people, and most of the participants are 44 years old. There are 98 participants in the survey between the ages of 45-59. In the 60-74 age group fewer participants were involved - 52 patients. The participants aged 75 and over were the least numerous, only 36 patients.

The distribution of patients by age groups shows the importance of patients' age to their attitude to their own health, their attitude to health and health information in general, the degree of provision of health services and their absorption, cultural, geographical, socio-economic characteristics. From the conducted research, we came to the conclusion that the patients at a young age of 25 to 44 took the greatest part. This is explained by the fact that patients of this age have realized the need for dental care and prevention. They successfully take care of their dental health, have good oral hygiene and strictly follow instructions about treatment and visits to dental specialists.

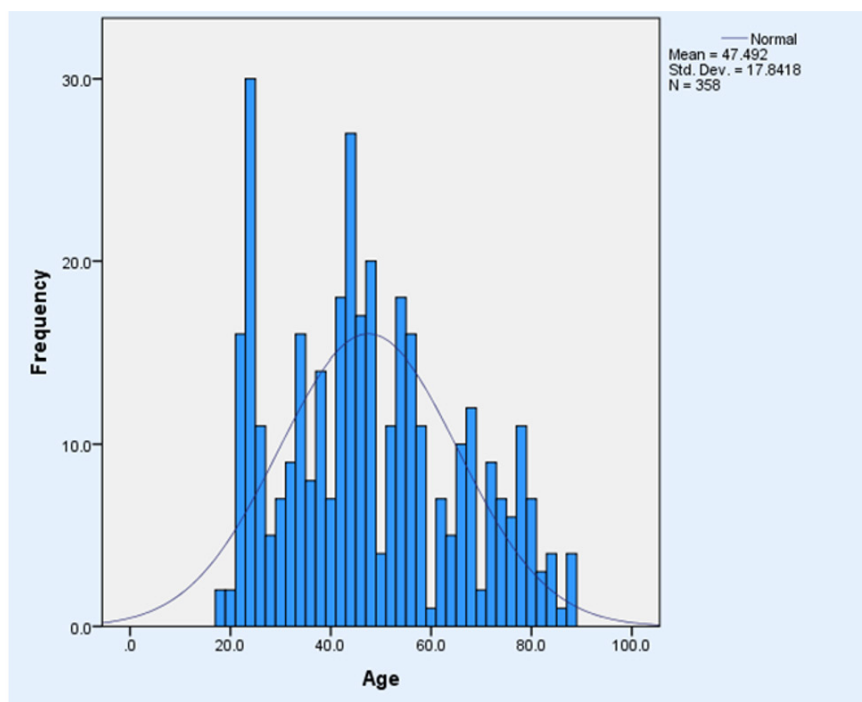


Fig.1 Distribution of patients by age

Regarding the gender criterion, 227 (67%) of those who took part in the survey were women and 131 (36%) were men. (Fig.2) The ratio of women : men is approximately 2 :1.

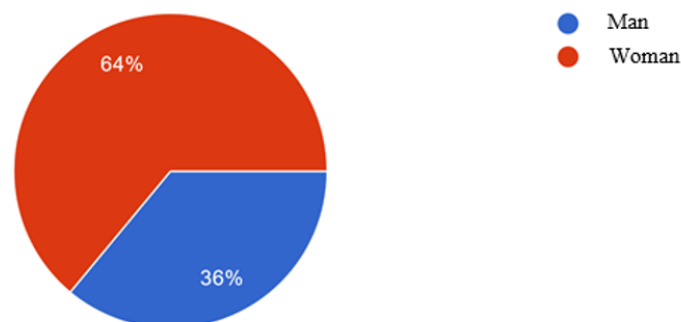


Fig.2 Distribution of patients by gender

The largest part of patients who participated in the survey answered that they were treated by sixth-year students - 47.8%, a small part of fifth-year students - 29.9%, and the smallest part of patients 22.3% have received dental care from fourth-year students. (Fig. 3) These results are explained by the desire of the students to be treated by students with more experience, and since the hours of internship and practical work of the sixth year are longer, the patients treated by sixth years complete the treatments in a shorter time, which is also one of the reasons they are preferred by patients.

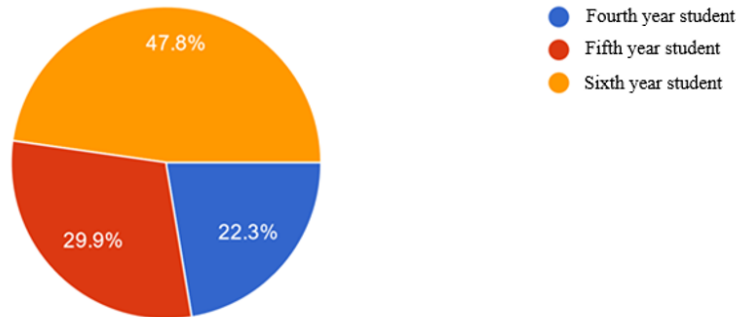


Fig.3 Students who performed the dental treatment:

The second main group of questions dedicated to researching the patients' opinion regarding the information provided to them during the diagnostic-treatment process shows the patients' attitudes regarding the need for effective communication and good information as a key factor for the provision of quality dental services.

The second main group of questions dedicated to researching the patients' opinion regarding the information provided to them during the diagnostic-treatment process shows the patients' attitudes regarding the need for effective communication and good information as a key factor for the provision of quality dental services.

Concerning the statement " All the risks to my health were explained to me when using local anesthetic": 314 (87.7%) patients answered that they fully agreed (satisfied), 25 (7%) expressed agreement, 16 (4.5%) have no opinion, only 1 (0.3%) patient expressed extreme disagreement (dissatisfaction). A positive moderate correlation was observed between the indicators of awareness of the risks in the use of local anesthetic and satisfaction with quality (Spearman $\rho = 0.417$, $p < 0.001$).

287 (80.2%) of the patients were satisfied with the dental treatment, in which pain and discomfort were minimized. A large part of the patients 303 (84.6%) noted in the questionnaire that the staff from the Faculty of Dentistry at Varna Medical University approached them with patience, empathy and respect throughout the entire period of treatment. 321 (87.9) answered that they received polite and professional treatment from all the staff of the Faculty of Dental Medicine involved in the treatment process. The satisfaction of the patients with the aesthetic results of the performed dental treatment and with the quality of the materials used is in close percentage ratios, 77.7% and 79.1%, respectively. In the questionnaire, 314 (87.7%) of the respondents expressed their satisfaction with the affordability of prices for dental services offered to patients.

The assessment of patient satisfaction with the quality of dental services provided by students in the teaching facilities of the Faculty of Dental Medicine at Varna Medical University is very high: 315 (88%) fully agree, strongly agree, satisfied while 33 participants (9.2%) agree and 14 patients (3.9%) do not have an opinion on this issue, 4 people (1%) disagree, and a very small part of the respondents 0.3% expressed extreme disagreement.(Fig.4)

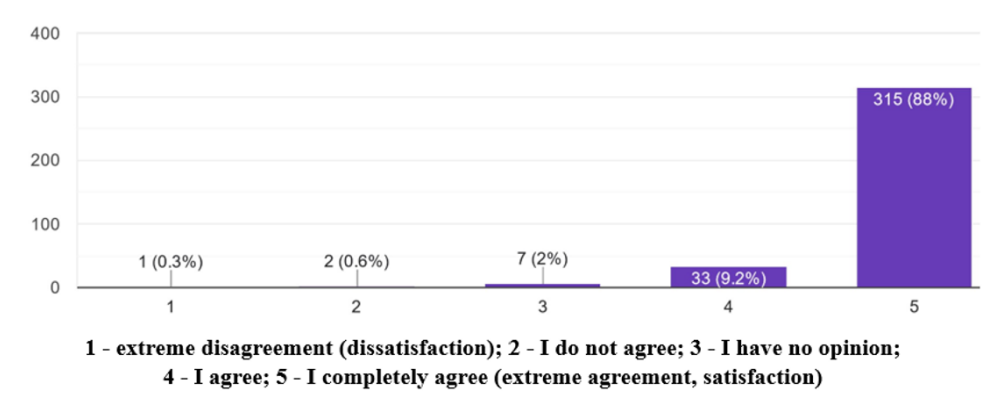


Fig.4 Patient's satisfaction with the quality of the provided dental services performed by students in the Faculty of Dental Medicine at MU-Varna

Given the opportunity for additional explanations regarding the treatment plan and the performed manipulations in the course of the diagnostic-treatment process gains the patient's trust in the student-future dental medicine doctor who treated him. The relationship between the level of awareness and satisfaction with the quality of dental services provided is directly proportional. The more information that is provided to the patient in a clear and accessible way, the more satisfied he/she is with the quality of the dental services provided. The strength of the dependence is moderate (Spearman $\rho = 0.485$, $p < 0.001$).

The results show a positive correlation between the quality of the materials used for the treatment, the aesthetic results obtained and the satisfaction of the patients with the dental services provided. Minimal pain during dental treatment, patience, empathy and respect on the part of the students also correlate with high patient satisfaction with the dental services provided.

4. DISCUSSIONS

Patient satisfaction by the provided dental services is an important factor for evaluating dental services quality. Improving patient satisfaction requires dental services to be patient oriented and obeying standard and efficient protocols. Analyzing patient satisfaction and understanding the weaknesses, opportunities and threats related to the dental services provided can improve the ability of dental practitioners to attract more patients. Identifying the main determinants of patient satisfaction and improving the quality of dental services are important for the proper functioning of dental patient care.

5. CONCLUSIONS

Measuring the quality of dental services has an important role in managing the dental care provided, diagnosing the problem and evaluating the effectiveness of the service. Patient satisfaction is one of the key indicators of the quality of services provided in the dental practice. The results of the conducted study dedicated to patient satisfaction by the provided dental services prove to be an indicator for evaluating the quality of dental care provided by dental medicine students, which is based on a patients' attitudes and opinions survey.

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