

PROFESSIONAL AND FINANCIAL SATISFACTION AMONG DENTISTS

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Abstract. Introduction. *Apart from being a mean of making a living and achieving a certain social status, professions may also be considered a calling. The dentist's career is not only a vocation of high social prestige but also one which requires a high level of responsibility, physical and psychological load. Professional satisfaction reflects how meaningful a person finds their vocation, but this is based on the resources that the individual has invested (time for education and skill development, financial resources, effort, etc.). Hence, professional and financial satisfactions constitute complex and multifaceted phenomena. The aim of the study is to analyze the degree of professional and financial satisfaction in dentists as well as to give suggestions suitable for its improvement. Materials and Methods.* An online survey was conducted among 530 participants recruited from the platform Google forms in the first half of 2023. **Results.** *The general finding of our research is that greater financial satisfaction is reported by women, doctors of higher age, the participants with a longer work experience, the ones who work in their own dental practices and specialists.*

Key words: dentist, financial resources, well-being, professional satisfaction, financial satisfaction, age, work experience.

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INTRODUCTION

The dental specialist needs to have technical and spatial thinking in addition to general medical skills. The treatment process in dental practice should be performed in a precise and patient manner with attention to the details [1]. Effective communication with patients is of utter importance [1-2]. It consists of active listening and analysis of the collected information aiming for an accurate diagnosis and treatment of the diseases in the oral cavity. Empathy-based contact with patients raises their satisfaction, lowers anxiety and guarantees that they

follow the recommendations of the dental specialist. A further consideration is following the ethical norms in dental practice, which signifies a high level of professionalism [1-4].

Apart from the therapeutic and diagnostic procedures related to the maintenance of the patients' dental health, it is well known that the successful dental practice involves other activities that are not directly related to clinical work. Such responsibilities include the management, financing and administration of the practice [5-6].

Modern dental practices stand out with excellent technological developments, implementation of inno-

vation and digitalization of work processes. On one hand, contemporary digital technologies facilitate workflow and the administrative aspect of the dental profession. On the other hand, such implementations require informational and technological knowledge on the dentists' part. Moreover, the modernization of the work processes and the facilities may pose a significant financial load on dental practices. Increased requirements regarding the financial aspects include paid courses for professional development and increasing the qualifications of dentists. The process of continuous learning and improvement is possible thanks to both financial and time resources in place. Nevertheless, the technological developments, which call for continuous learning, guarantee that dental specialists maintain a high level of performance, loyal clients and financial satisfaction. Working in pleasant and modern dental clinics with contemporary equipment and up-to-date treatment protocols, together with financial success and grateful patients, form the basis of financial satisfaction of dentists [4-5].

Professional (or occupational) satisfaction reflects how meaningful a person finds their vocation, but this is based on the resources that the individual has invested (time for education and skill development, financial resources, effort, etc.). Hence, professional and financial satisfactions constitute complex and multifaceted phenomena [7-8].

W.K. Balzer et al. [9] define professional satisfaction as: "the attitude one has towards their job or the experiences related to the job with account to previous experience, current expectations or available alternatives". Stanton JM et al. described that the economic perspective is exemplified in research by Organ (1988; Organ & Ryan, 1995) and by Ostroff (1992) that has helped to clarify the relation between job satisfaction and organizational performance [10].

Occupational satisfaction is directly related to the revenue of the practice. Higher income allows the increase of professional qualification and updating of the facilities. Those two factors ensure that patients receive high quality treatment with state-of-the-art equipment [5].

An often overlooked fact that contributes to a decrease in financial and especially professional satisfaction is contact sensitization to different dental materials which is relatively common among the dentists [11]. Another important factor is the professional stress [12]. Dental medical doctors are more exposed to stress compared to other medical professionals [13]. Burnout is another issue that deteriorates the levels of satisfaction among dentists [14].

MATERIALS AND METHODS

The aim of the study was to analyze the level of professional and financial satisfaction in dentists in the Republic of Bulgaria as well as to give recommendations for its improvement.

Objectives

To achieve the aforementioned aim, the following objectives were delineated:

1. Present the socio-demographic characteristics of dentists;
2. Analyze the cause of professional and financial dissatisfaction;
3. Seek the opinion of dentists regarding the possibilities for improvement of their financial and professional satisfaction.

Data collection

We conducted an anonymous survey among dentists for the period between February 23 and May 23, 2023, via the platform Google forms. The total number of participants is 530, but two respondents were excluded from the analysis since they answered an insufficient number of questions (below 50%). Therefore, the final sample consists of 528 subjects. Convenience sampling was used due to the method of data collection.

Sample size

The estimated sample size is 366 respondents. This size was determined for a simple random sample of a population amounting to 7499 persons [15] for 50% proportion with 5% margin of error, 95% confidence level and 80% power.

Statistical methods

The qualitative variables were presented by numbers and proportions, while the quantitative ones – by their median and interquartile range (IQR: both 25th and 75th percentiles), since their distribution is not Gaussian. The Kolmogorov–Smirnov test was used to assess the shape of the distribution. Pearson chi-squared test was used to check for a relationship between qualitative variables. The average values of two groups were compared by Mann-Whitney U test. Two-tailed p-values smaller than 0.05 were considered as significant. IBM SPSS v22 was used.

RESULTS

The gender distribution of all 528 dentists showed 68.6% female and 31.4% male, Table 1. The median age was 43 years (IQR 34-53), ranged from 24 to 77 years old.

The dentists who had work experience below five years are 14.1% of the sample, 14.0% have practiced between 5 and 10 years, 14.1% – between 10 and 15 years, 11.9% – those ranging 15-20, 21.8% – those with 20-30 years of work experience, 14.1% – 30-40 years, and 9.9% for those with more than 40 years of work experience.

The highest proportion belonged to the dentists who practice in the province cities – 45.0%, followed by the ones in the capital (37.1%), the smaller towns (16.4%) and the villages (5.3%). The sum of the percentiles goes beyond 100 since some of the respondents gave more than one answer.

The majority of the dentists (61.9%) worked in their own private dental practice with their own premises and equipment; 23.0% – in a private dental practice in rented premises and their own equipment; 11.4% worked in a dental practice where they earn a certain share; 3.6% worked in a dental practice with a fixed salary; 0.4% did shift work in a dental practice; 3.4% reported another type of employment, while the majority of them worked for a share and another three were lecturers at the Faculty of Dental Medicine. The sum of the percentages goes beyond 100 since some of the respondents gave more than one answer.

The majority (76.9%) worked in an individual practice for primary medical care, 13.8% – in a group practice for primary medical care, 2.3% – in an individual practice for specialized medical care, 1.5% – in a group practice for specialized medical

care, 3.4% – in a medical and dental center, 8.0% – in a dental center. The sum of the percentages exceeds 100 as some respondents gave more than one answer.

The respondents with an acquired specialty were 29.8%, while the rest of them (70.2%) still had not obtained a specialty. Out of all dentists with specialty, the biggest share belonged to those with the specialties of Oral Surgery, Child Dentistry, Prosthetic Dentistry, and Surgical Dental Care and endodontics (23.2%, 23.2%, 22.4%, and 20.0%, respectively). Those specialties are followed by Periodontics and Diseases of the Oral mucosa and Orthodontics (9.6% and 7.2%, respectively). The frequency of Social Medicine and Public Dental Health (5.6%), Dental, Oral and Maxillofacial Surgery (4.8%), Maxillofacial Surgery (2.4%), Dental Implantology (2.4%), and Dental Diagnostic Imaging (0.8%) was considerably lower. The sum of the percentages goes beyond 100 since some of the respondents gave more than one answer.

The majority (77.5%) reported that they work as a polyvalent dentist, while the rest of the respondents work either as specialists (6.7%) or both equally (15.8%).

Three fourths of the participants felt professionally satisfied, while those who were unsatisfied were 14.6% and one in 10 could give a definitive answer.

With regard to financial satisfaction, 61.5% were satisfied, 24.1% were unsatisfied and 14.4% could give a definitive answer.

Table 1. Respondents' characteristics and their relationship with financial and professional satisfaction

n		Total		Financial satisfaction				P	Professional satisfaction				p
				No		Yes			No				
				%	n	%	n	%	n	%	n	%	
Gender	Male	164	31.4	113	79.6	29	20.4	0.017	127	85.2	22	14.8	0.62
	Female	358	68.6	206	68.7	94	31.3		267	83.4	53	16.6	
Age	Me (IQR)	43	34-53	45	36-54	40	32-35	0.006	44	35-55	40	32-50	0.01
How many years you work as dental medical doctor	< 5	74	14.1	31	54.4	26	45.6	< 0.001	50	76.9	15	23.1	0.033
	5-10	73	14.0	38	60.3	25	39.7		51	77.3	15	22.7	
	10-15	74	14.1	49	75.4	16	24.6		61	87.1	9	12.9	
	15-20	62	11.9	38	76.0	12	24.0		44	86.3	7	13.7	
	20-30	114	21.8	80	85.1	14	14.9		81	80.2	20	19.8	
	30-40	74	14.1	45	67.2	22	32.8		58	86.6	9	13.4	
	> 40	52	9.9	37	80.4	9	19.6		48	98.0	1	2.0	
Where is your dental practice located?	Sofia	195	37.1	117	71.3	47	28.7	0.865	140	82.4	30	17.6	0.66
	Big city	236	45.0	148	74.0	52	26.0	0.361	186	86.9	28	13.1	0.08
	Town	86	16.4	47	65.3	25	34.7	0.176	59	76.6	18	23.4	0.07
	Village	28	5.3	14	60.9	9	39.1	0.229	15	71.4	6	28.6	0.13

Continuation of Table 1

What type is your dental practice?	In my own dental office (my own premises and equipment)	325	61.9	229	80.4	56	19.6	< 0.001	260	87.2	38	12.8	0.01
	In my own dental office. located in rented premises and own equipment	121	23	59	64.1	33	35.9	0.065	89	84.0	17	16.0	0.92
	In a rented dental office (premises and equipment for rent)	49	9.3	16	44.4	20	55.6	< 0.001	27	65.9	14	34.1	0
	In a dental office at a percentage	60	11.4	29	56.9	22	43.1	0.011	39	76.5	12	23.5	0.14
	In a dental office on salary	19	3.6	12	75.0	4	25.0	0.999	12	80.0	3	20.0	0.72
	Something else	18	3.4	12	85.7	2	14.3	0.367	13	86.7	2	13.3	1
What kind of dental practice you work in?	Individual practice for primary medical care	402	76.9	237	70.5	99	29.5	0.221	297	83.0	61	17.0	0.38
	Individual practice for specialized medical care	12	2.3	9	81.8	2	18.2	0.753	12	100.0	0	0.0	0.23
	Group Practice for Primary Medical Care	72	13.8	48	73.8	17	26.2	0.721	57	83.8	11	16.2	1
	Group practice for specialized medical care	8	1.5	6	85.7	1	14.3	0.679	6	75.0	2	25.0	0.62
	Medical and dental center	18	3.4	10	76.9	3	23.1	0.999	16	94.1	1	5.9	0.33
	Dental center	42	8.0	30	83.3	6	16.7	0.114	31	86.1	5	13.9	0.7
Do you have a medical specialty?	Yes	157	29.8	102	77.3	30	22.7	0.133	132	91.7	12	8.3	0
	No	369	70.2	219	70.0	94	30.0		263	80.4	64	19.6	
What do you work as in your dental practice?	As a polyvalent dental practitioner	407	77.5	230	67.3	112	32.7	< 0.001	293	81.6	66	18.4	0.11
	As a specialist	35	6.7	30	93.8	2	6.3		31	91.2	3	8.8	
	Both equally	83	15.8	59	83.1	12	16.9		69	89.6	8	10.4	
Do you feel satisfied with your dental activity in a financial aspect?	Yes	321	61.5										
	No	126	24.1										
	I cannot decide	75	14.4										
Do you feel satisfied with your dental work in a professional aspect?	Yes	396	75.3										
	No	77	14.6										
	I cannot decide	53	10.1										

We searched for the causes of professional and financial dissatisfaction among the characteristics of the dentists. The people who answered with “I cannot decide” were excluded from these analyses.

We revealed that there was a relationship between financial and professional satisfaction ($p < 0.001$, Cramer’s $V = 0.495$). Three-fourths (74.3%) of the dentists who are occupationally dissatisfied are also

financially dissatisfied, which is understandable (Fig. 1). The opposite pattern is also obvious, although not as prominent: nearly half (48.7%) of the participants who experience financial dissatisfaction are also professionally dissatisfied (Fig. 2).

The relationships between the two types of satisfaction and the characteristics of the participants are presented in Table 1 in the columns “Financial satisfaction” and “Professional satisfaction”.

Concerning financial dissatisfaction, we determined that men reported it more frequently than women did ($p = 0.017$), while professional dissatisfaction does not differ between men and women.

Age was related to both financial ($p = 0.006$) and professional satisfaction (0.012). The dissatisfied were on average younger than the satisfied. Corresponding to this finding, work experience was also related to the two types of satisfaction, and they rise with work experience.

The doctors who worked in their own private dental practices reported higher levels of financial ($p < 0.001$) and occupational satisfaction (0.006). On the contrary, the ones who rent a dental facility or work for a share showed significantly lower satisfaction ($p < 0.05$).

The presence of a specialty was connected to a higher degree of professional satisfaction ($p = 0.002$). However, no relationship was found with financial satisfaction ($p > 0.05$).

The highest degree of financial satisfaction was among specialists, followed by specialist and polyvalent dentist, and the lowest degree is reported by polyvalent dentists ($p < 0.001$). No relationship was found between position and professional satisfaction.

We asked the dentists for their suggestions regarding the possibilities of ameliorating satisfaction.

Dentists were asked what they would do in order to increase the income from their job. More than half of them (57.2%) would increase their professional qualification and professional development through further education. The ones who chosen the option “quality treatment” were a little bit more than half of the respondents (54.3%). Nearly half of the dentists (48.1%) thought that they would achieve this through modernization of the equipment and materials in their practice. Other measures of increasing income included expanding the range of dental services (43.8%) and investing in advertisement (30.6%). A small share reported “other” as an answer option and suggested

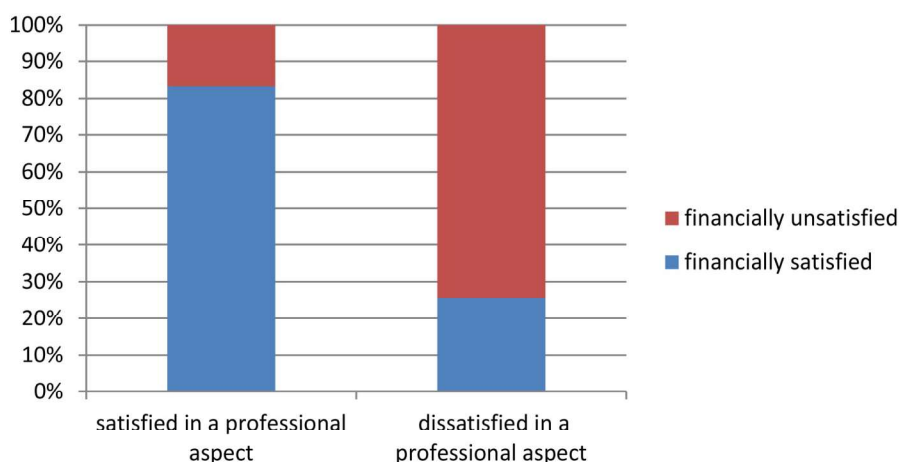


Fig. 1. Dependence of financial dissatisfaction on professional dissatisfaction

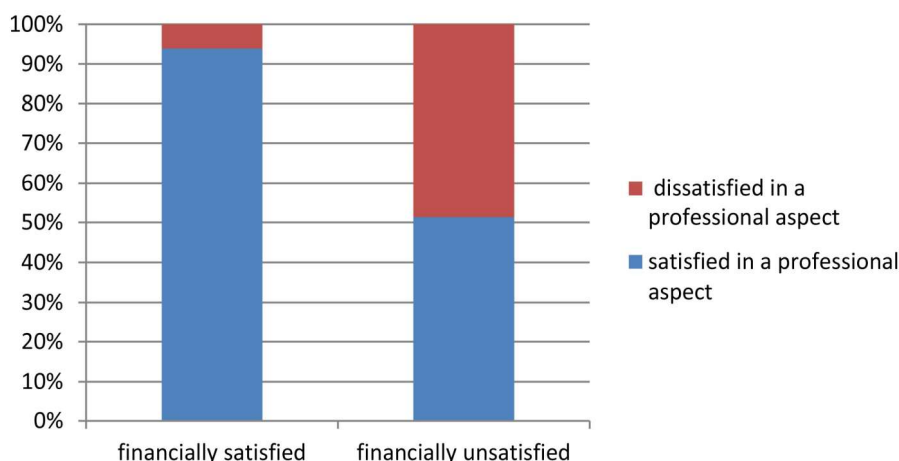


Fig. 2. Dependence of professional dissatisfaction on financial dissatisfaction

expanding the practice or including specific dental procedures. The sum of the percentages exceeds 100 as some respondents gave more than one answer.

To increase their occupational satisfaction, the majority of the dentists (69.9%) would start further education to develop professionally and raise their qualification, 50.2% would focus on treatment quality, 49.6% would invest in modernization of the practice's facilities and 38.0% would expand the range of the dental services they offer. Some of the dentists (3.7%) chose "other" as an answer option. The majority of them specified that they would decrease the amount of working hours or that they would not take any concrete measures. The sum of the percentages goes beyond 100 because some of the respondents gave more than one answer.

DISCUSSION

It can be inferred from the results of the study that the respondent groups that are more satisfied in a financial aspect are women, older doctors, those with more work experience, those who work in their own dental practice and specialists.

It is evident that financial dissatisfaction is prominent within both young dentists and their colleagues with longer work experience. Possible causes for this trend in younger dentists may be the lack of work experience, knowledge and the state of the facilities. Regarding their older colleagues, we could speculate that some of the problematic aspects are the lack of development in digital, technical and marketing spheres as well as physical, psychological and age-related fatigue. The latter are typical for the dentist's profession. A finding of particular interest is that dentists who work in the capital and in bigger cities are more satisfied than their colleagues in smaller towns and villages. The reasons may lie in the economic differences between smaller and larger populated areas, which influences the standard of life there.

In the analysis of the relationship between the type of practice (respondent's own practice, rented space, salary or share) and financial satisfaction, an interesting finding is that dentists who work in a rented space with rented equipment are the most dissatisfied. Some of the causes may be attributed to the lack of contemporary vision and technological development in rented practice as well as the dentists' reluctance to invest in someone else's property. Nevertheless, the dentists who own a practice report the highest degree of financial satisfaction. Those facilities are usually equipped at a world-class level. An interesting finding is that dentists who work on a sal-

ary or share are financially satisfied. On one hand, this means that the employers value the practitioners' labor. On the other hand, it signifies the foresight and managerial skills of the employers, as well as their propensity to keep the facilities up to date.

A distinguishable relationship is found between financial satisfaction and the presence of a specialty. Dentists who have a specialty have skills and knowledge, which gives them an economic advantage. For example, the National Health Insurance Fund (NHIF) provides a higher pay and larger quantity of work to dentists who have specialized. Furthermore, the data shows a greater degree of financial satisfaction in individual and group specialized practices.

Moreover, a larger degree of financial satisfaction is reported in group practices, dental and medical-dental centers compared to individual dental practices. One interpretation of those findings is that larger dental treatment centers have better financial capacity. Sufficient funding gives an opportunity to invest in modern facilities with welcoming interior and exterior, larger and more specialized personnel, including various dental experts in one place. What is more, such a configuration is more convenient for the patients. Individual specialized dental practices are an exception, as people who work there report a high degree of financial satisfaction. A possible explanation can be that owning a specialty brings many benefits to dentists in general.

As far as professional satisfaction is concerned, it is higher within older doctors, those with more work experience, those who work in their own dental practice and the dentists with a specialty.

The relationship with work experience may be explained by the accumulated knowledge and skills.

Dentists who work in their own practices may be more satisfied professionally due to successes achieved with the help of more pleasant and modern working conditions. Those factors, together with high-quality service, guarantee an inflow of loyal patients and high income. On the contrary, dentists who rent their facilities have the lowest degree of professional satisfaction. In this case, a possible reason is that the modernization of the practice is regarded as unprofitable. Furthermore, dentists may be reluctant to update the facilities, even though such an update could possibly result in financial stability and an inflow of patients. The study gives proof of the relationship between financial and occupational satisfaction of dentists. The correlation is particularly evident among dentists who rent their practice's facilities. Moreover, the positive relationship between the two constructs is evident among dentists who work for percentage or salary, which signifies good managerial skills of employers.

The high degree of professional satisfaction of dentists with a specialty could be explained by the characteristic therapeutic results obtained, by the steady flow of patients, which is guaranteed by the uniqueness and specificity of the dental services, and by the positive financial results.

No significant differences were found in the analysis of the relationship between occupational satisfaction and type of dental practice. The slightly higher satisfaction in dental and medical-dental centers is noteworthy, which could again be explained by the high financial satisfaction and the possibility of practicing in a welcoming and high-tech environment with a dedicated team and support staff.

The actions that dentists could take to increase their financial and professional satisfaction is training for professional development and increase of medical qualifications, followed by improving the quality of the services offered, updating the materials and technical facilities and offering a wide range of dental services.

A weakness of our study is the unrepresentative sample. However, the sample size we have achieved is considerably larger than the target. Furthermore, it is known from statistical theory that simple random sampling has the largest sample size. This largely guarantees the reliability of our results.

CONCLUSIONS

1. Financial and professional satisfactions in dentists are directly related and increase with age and work experience.
2. Professional and financial satisfactions are higher in large dental treatment structures that provide their specialized and support staff with meaningful working conditions, adequate pay, modern facilities, professional advancement, and a steady stream of loyal patients.
3. Possession of a specialty positively affects the level of professional and financial satisfaction of dentists, providing them with a dense flow of patients, material stability and career development.
4. Professional and financial satisfactions are higher for dentists practicing in the capital and large cities and are lower for dentists practicing in villages and small towns.
5. The actions that dentists would take to increase their professional and financial satisfaction are arranged in the following order:
 - training for professional development and higher dental medicine qualifications;
 - improving the quality of services offered;

- updating the materials and technical facilities;
- offering a wide range of dental health services.

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