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The article was received  
2019.06.25



UDC 614.212:616.31:378.091(049.5)

<https://doi.org/10.26641/2307-0404.2019.3.181895>

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**PROBLEMS AND WAYS TO IMPROVE  
THE ORGANIZATION OF THE WORK  
OF THE UNIVERSITY DENTAL  
CENTER BASED ON THE RESULTS  
OF A SOCIOLOGICAL  
SURVEY OF DENTISTS**

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**Цитування:** *Медичні перспективи*. 2019. Т. 24, № 3. С. 122-129

**Cited:** *Medicni perspektivi*. 2019;24(3):122-129

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**Key words:** *dental medical center, work organization, sociological survey of dentists*

**Ключові слова:** *стоматологічний медичний центр, організація роботи, соціологічне опитування лікарів-стоматологів*

**Ключевые слова:** *стоматологический медицинский центр, организация работы, социологический опрос врачей-стоматологов*

**Abstract. Problems and ways to improve the organization of the work of the university dental center based on the results of a sociological survey of dentists. Chopchik V.D.** *The purpose of this study was to analyze the state, problems and ways to improve the organization of the work of the Dental Medical Center (SMC) of A.A. Bogomolets National Medical University on the basis of a sociological survey of dentists. A sociological survey was conducted among 101 dentists of DMC. A specially designed questionnaire was used. According to the dentists' opinion, the main directions for improving the organization of the DMC are the introduction of mechanisms for the economic motivation of staff (71.3±4.5%); modern dental technologies (82.2±3.8%); equipping the center with modern medical and diagnostic equipment (88.1±3.2%); improving the quality of postgraduate training of dentists (96.0±1.9%); introduction of a system for monitoring the quality of medical care (58.4±4.9%); improving the efficiency and quality of dental services through program initiatives of the departments of DMC (52.5±5.0%); an increase of the economic and legal independence of the dental center (76.2±4.2%); organizational, academic and financial autonomy of the center (88.1±3.2%); introduction of public-private partnership mechanisms in the DMC (75.2±4.3%). The conducted sociological research allowed to establish that the main parameters of the organization and management of the DMC do not correspond to the economic realities of time and require modernization, as well as determining the main directions of development of the DMC.*

**Реферат. Проблемы и пути совершенствования организации работы университетского стоматологического центра по материалам социологического опроса врачей. Чопчик В.Д.** *Целью данной работы было провести анализ состояния, проблем и путей совершенствования организации работы Стоматологического медицинского центра (СМЦ) Национального медицинского университета имени А.А. Богомольца по материалам социологического опроса врачей-стоматологов. По специально разработанной анкете проведен социологический опрос 101 врача-стоматолога, работающего в СМЦ. Установлено, что, по мнению опрошенных врачей-стоматологов, основными направлениями совершенствования организации работы СМЦ, являются: внедрение механизмов экономической мотивации персонала (71,3±4,5%); современных стоматологических технологий (82,20±3,8%); оснащение центра современным лечебно-диагностическим оборудованием (88,1±3,2%); повышение качества последипломной подготовки врачей-стоматологов (96,0±1,9%); внедрение системы мониторинга качества медицинской помощи (58,4±4,9%); повышение эффективности и качества стоматологических услуг через программные инициативы отделений СМЦ (52,5 ± 5,0%); увеличение хозяйственной и юридической самостоятельности стоматологического центра (76,2±4,2%); организационной, академической и финансовой автономности центра (88,1±3,2%); внедрение механизмов государственно-частного партнерства в СМЦ (75,2±4,3%). Проведенное социологическое исследование позволило установить, что основные параметры организации и управления СМЦ не соответствуют экономическим реалиям времени и требуют модернизации, а также определить основные направления развития СМЦ.*

Dental Medical Center (DMC) of O.O Bohomolets National Medical University is a unique educational institution with the purpose of delivering highly specialized and specialized dental care, providing training, retraining and advanced training of health workers according to the standards of higher education, carrying out research work, development, testing and testing medical technology.

In the context of transition to market relations, which led to a decrease in funding for public institutions, a sharp weakening of preventive work, reduction of dental care, intensive growth of the population's need for quality health care [3, 5, 9], it is important to have an uncompromising characteristic of the studied object – university Dental Medical Center to identify the necessary organizational measures to improve the effectiveness of its activities.

To obtain the characteristic of the DMC, according to parameters not presented in the materials of the statistical reporting of the institution, there was used method of scientific observation and

gathering of the necessary information – questionnaire [2, 6, 7] used in modern sociology and marketing. The questionnaire was conducted among dentists who know the problem internally and are, in essence, the best experts in organizational arrangements at DMC. The article also reveals the peculiarities of doctors' social moods in the context of transformation of the institute of the state health care system [1, 3].

The purpose of this work is to analyze the status, problems of the organization of work and ways of development of the Dental Medical Center of O.O Bohomolets National Medical University.

#### MATERIALS AND METHODS OF RESEARCH

In February 2019, the DMC conducted a sociological survey of dentists, which covered 101 doctors, or 98.0% of all dentists at the center. The survey was anonymous, being conducted according to a specially designed questionnaire containing 31 questions. The methodological recommendations “Organization of sociological surveys of patients/their representatives and medical staff in

healthcare institutions” were used in the development of the plan and the research program [4]. Statistical processing of the results of the sociological survey involved the use of methods of statistical grouping, tabulation, analysis of absolute and relative series of distributions, estimation of statistical reliability of the results of the sociological survey and was performed using the Microsoft Excel computer program [8].

**RESULTS AND DISCUSSION**

Analyzing the results of the study, we considered that the opinion of doctors is formed on the basis of:

- objectively existing level of development of dental care and its resource support;
- attitudes of doctors to the organization of work of a dental institution, the level of remuneration of labor of medical staff, training of personnel, expediency of organizational changes in the work of the DMC.

Thus, the results of the sociological survey reflect the objective state of organization of work of DMC, which works in the conditions of market economy, and its emotional perception by the group of skilled practitioners - dentists who work directly in this institution (Table).

**Results of sociological survey of dentists working at Dental Medical Center of O.O Bohomolets National Medical University**

No	Question	Answer option	Results of survey of doctors	
			absolute n=101	P±m%
Please answer the following questions:				
1	Your gender?	1. 1. – male	34	33.7±4.7
		1.2. – female	67	66.3±4.7
2	Your age?	2.1. – 21-30	9	8.9±2.8
		2.2. – 31-59	87	86.1±3.4
		2.3. – 60 and>	5	5.0±2.2
3	What is your professional experience?	3.1.- less than 5 years	9	8.9±2.8
		3.2. – 5-19	42	41.6±4.9
		3.3. – 20 and more	50	49.5±5.0
4	Please specify your category if you have one,	4.1. Higher	71	70.3±4.5
		4.2. First	24	23.8±4.2
		4.3. Another	6	5.9±2.4
5	Specify how many years you have worked at this institution	5.1. less than 5	12	11.9±3.2
		5.2. from 6 to 10	38	37.6±4.8
		5.3.10 and more	51	50.5±5.0
6	Do you know a foreign language (English):	6.1. no	86	85.1±3.5
		6.2. elementary level	9	8.9±2.8
		6.3. intermediate	6	5.9±2.4
7	Are you the author or co-author of:	7.1. monographs	2	2.0±1.4
		7.2. publications in magazines	8	7.9±2.7
8	Have you upgraded your qualification (other than PCC) during the last 5 years?	Yes	31	30.7±4.6
		No	70	69.3±4.6
9	Have you received any training in pedagogy during the last 5 years?	Yes	12	11.9±3.2
		No	89	88.1±3.2

Continued table

No	Question	Answer option	Results of survey of doctors	
			absolute n=101	P±m%
10	Have you attended advanced training in health care management and marketing?	yes	4	4.0±1.9
		No	97	96.0±1.9
11	Do you have computer literacy?	yes	69	68.3±4.6
		No	32	31.7±4.6
12	Do you have any publications in professional editions during the last 3 years?	Yes	18	17.8±3.8
		No	83	82.2±3.8
13	Have you participated in international scientific conferences in the last three years?	yes	31	30.7±4.6
		No	70	69.3±4.6
14	Do you participate in research?	Yes	4	4.0±1.9
		No	97	96.0±1.9
15	Do you think it is necessary to create an effective integrated information system in DMC?	yes	59	58.4±4.9
		No	42	41.6±4.9
16	Is logistical support in DMC sufficient?	yes	29	28.7±4.5
		No	72	71.3±4.5
17	Do you perform your medical work in accordance with the international requirements of evidence-based medicine and clinical practice?	yes	9	8.9±2.8
		No	20	19.8±4.0
		Difficult to answer	72	71.3±4.5
18	Are you satisfied with your salary level?	yes	12	11.9±3.2
		No	89	88.1±3.2
19	Are you satisfied with the payment system for the work performed?	yes	8	7.9±2.7
		No	93	92.1±2.7
20	Are you satisfied with the organization of work in DMC?	yes	71	70.3±4.5
		No	30	29.7±4.5
21	Are you satisfied with the financing of DMC?	yes	22	21.8±4.1
		No	79	78.2±4.1
22	Are you satisfied with the availability of your workplace with medical equipment and technique, modern dental materials?	yes	21	20.8±4.0
		No	80	79.2±4.0
23	Do you think that it is necessary to receive annual information about statistical indicators of medical-consulting work of the institution?	yes	86	85.1±3.5
		No	15	14.9±3.5
24	Do you think that it is necessary to receive annual information on financial performance of the institution?	yes	90	89.1±3.1
		No	11	10.9±3.1
25	Do you think that it is necessary to receive annually data on satisfaction of the patients with quality of service and service conditions?	yes	52	51.5±5.0
		No	23	22.8±4.2
		Difficult to answer	26	25.7±4.4
26	Do you think that it is necessary to receive quarterly summary data on the quality and cost-effectiveness of clinical work?	yes	51	50.5±5.0
		No	33	32.7±4.7
		Difficult to answer	17	16.8±3.7

Continued table

No	Question	Answer option	Results of survey of doctors	
			absolute n=101	P±m%
27	Do you think that in order to improve the organization of work of DMC it is necessary to:			
	27.1. to introduce mechanisms of economic motivation for staff to improve the quality of services?	yes	72	71.3±4.5
		No	29	28.7±4.5
	27.2. to constantly implement modern medical diagnostic methods?	yes	83	82.2±3.8
		No	18	17.8±3.8
	27.3. to equip the center with modern medical and diagnostic equipment?	yes	89	88.1±3.2
		No	12	11.9±3.2
	27.4. to improve the quality of postgraduate training of dentists?	yes	97	96.0±1.9
		No	4	4.0±1.9
	27.5. to implement a system of monitoring the quality of care in the DMC?	yes	59	58.4±4.9
		No	42	41.6±4.9
28	Do you think that it is necessary to increase the cost-effectiveness and quality of dental services through the program initiatives of DMC offices?	yes	53	52.5±5.0
		No	29	28.7±4.5
		Difficult to answer	19	18.8±3.9
29	Do you consider it necessary to increase the economic and legal independence of the dental center?	yes	77	76.2±4.2
		No	20	19.8±4.0
		Difficult to answer	4	4.0±1.9
30	Do you support the transfer of university clinics to autonomous conditions, both organizationally, academically and financially?	yes	89	88.1±3.2
		No	2	2.0±1.4
		Difficult to answer	10	9.9±3.0
31	Do you approve the idea of introducing public-private partnership mechanisms in DMC?	yes	76	75.2±4.3
		No	17	16.8±3.7
		Difficult to answer	8	7.9±2.7

The analysis of the respondents' gender-age composition showed that among dental doctors of municipal dental institutions, women made up 66.3±4.7%, men – 33.7±4.7%; individuals under 30 years of age – 8.9±2.8%, 31-59 years – 86.1±3.4% and over 60 years – 5.0±2.2%. According to the length of service, the respondents were as follows: up to 5 years – 8.9±2.8%, 5-19 years – 41.6±4.9%, more than 20 years – 49.5±5.0%. The qualification attestation category in one of the dental specialties was: higher – 70.3±4.5%, the first – 23.8±4.2%, the second – 5.9±2.4%. Those ones working at DMC for more than six years – 37.6±4.8%; more than 10 years – 50.5±5.0%. Thus, the staff of dentists at DMC consists of professionals, who mainly have high certification categories and a fairly long length of service at DMC.

However, the desired requirements for physicians working in university clinics are the following: fluent English and participation in research with the publication of the research results fail. 85.1±3.5% do not speak foreign language (English), 8.9±2.8% know foreign language at elementary level, and 5.9±2.4% – at intermediate level. 82.2±3.8% have no publications in professional editions during the last 3 years. 7.9±2.7% are the authors of articles in journals, 2.0±1.4% of doctors are the authors of monographs. 69.3±4.6% of respondents did not participate in international scientific and practical conferences during the last three years. 96.0±1.9% do not participate in scientific research. 31.7±4.6% have no computer competence. 19.8±4.0% do not deliver clinical care in accordance with international requirements of evidence-based medicine and



clinical practice. Professional development in pedagogy –  $11.9 \pm 3.2\%$ , and in management and marketing in the health care system – only  $4.0 \pm 1.9\%$  of DMC doctors.

In opinion of the doctors interviewed, the main problems that hinder the work of DMC are the following: unsatisfactory system of financing the center – ( $78.2 \pm 4.1\%$ ), outdated material and technical base – ( $68.8 \pm 2.1\%$ ), low level of remuneration of the staff – ( $92.1 \pm 1.2\%$ ), remuneration system that does not stimulate quality work – ( $92.1 \pm 2.7\%$ ), unsatisfactory organization of work of DMC – ( $29.7 \pm 4.5\%$ ), unsatisfactory state of providing work places with medical equipment and equipment, modern dental materials – ( $79.2 \pm 4.0\%$ ).

$85.1 \pm 3.5\%$  of doctors consider it necessary to receive annual information on statistical data of activity of the center,  $89.1 \pm 3.1\%$  – annual information about financial indicators of work,  $51.5 \pm 5.0\%$  – information on patient satisfaction;  $50.5 \pm 5.0\%$  – quarterly summary data on the quality and cost-effectiveness of clinical work.

In opinion of the doctors interviewed, in order to improve the organization of work of the DMC, it is necessary to introduce mechanisms of economic motivation of the staff for improving the quality of services ( $71.3 \pm 4.5\%$ ), to constantly introduce new therapeutic and diagnostic methods ( $82.2 \pm 3.8\%$ ), to equip the center with modern medical and diagnostic equipment ( $88.1 \pm 3.2\%$ ), to improve the quality of postgraduate training of dental practitioners ( $96.0 \pm 1.9\%$ ), and to introduce a system of monitoring the quality of medical care delivering at DMC ( $58.4 \pm 4.9\%$ ), to improve the efficiency and quality of dental care through the program initiatives of DMC offices ( $52.5 \pm 5.0\%$ ).

The overwhelming majority of dentists support the idea of increasing the economic and legal independence of the dental center ( $76.2 \pm 4.2\%$ ), translating university clinics into autonomous conditions, both organizationally and academically and financially ( $88.1 \pm 3.2\%$ ), and introduction of public-private partnership mechanisms ( $75.2 \pm 4.3\%$ ).

The results of our study are consistent with those obtained by OV Savchuk. (2014) who studied and summarized the opinion of managers and doctors of municipal dental institutions in Kyiv using the sociological method [7]. This study found that the working conditions of dental practitioners and the logistics of dental institutions are unsatisfactory, the institutions are not adapted to market conditions, and the existing system of their financing requires improvement – “the overwhelming majority of respondents believe that the main problem of organization of dental care assistance to the population

of the capital is insufficient funding. This causes of unsatisfactory condition of the logistical equipment institutions, low remuneration and lack of economic motivation for medical staff to improve their skills. According to respondents, to optimize dental care it is necessary to carry out its functional reorganization” [7].

Managers named the following most urgent steps aimed at optimization of the existing state system of dental institutions as: widening of legal and commercial abilities of institutions, transformation of part of state dental institutions into institutions with private capital (with public-private partnership), transition from the principle of budget financing of dental institutions to the principle of payment for dental care volume under contract [7].

Thus, our sociological research which was focused on obtaining factual knowledge from medical staff professionally assessing the situation about the main problems that interfere with the work of DMC, allowed us to acquire new scientific knowledge that will be used to solve a specific medical and social problem – optimization of work of DMC.

## CONCLUSIONS

1. According to the materials of the sociological research the opinion of doctor-dentists of DMC of O.O. Bohomolets National Medical University concerning the state of organization, management and ways of development of DMC in the conditions of market economy was studied. It is established that the staff of dentists consists of skilled practitioners,  $70.3 \pm 4.5\%$  of which have the highest category in the specialty,  $50.5 \pm 5.0\%$  have been working at DMC for more than 10 years. However, given that the DMC is a university clinic, we marked some shortages of staff resources of DMC such as:  $85.1 \pm 3.5\%$  of the respondents do not speak a foreign language (English);  $82.2 \pm 3.8\%$  – do not have publications in professional editions,  $69.3 \pm 4.6\%$  – do not participate in scientific and practical conferences.

2. According to the respondents, serious problems hindering the work of DMC are unsatisfactory system of financing the institution ( $78.2 \pm 4.1\%$ ), outdated material and technical base ( $68.8 \pm 2.1\%$ ), low level of remuneration ( $92.1 \pm 1.2\%$ ), lack of performance motivation ( $92.1 \pm 2.7\%$ ), unsatisfactory condition of providing the workplace with medical equipment, equipment, modern dental materials ( $79.2 \pm 4.0\%$ ), unsatisfactory organization of work in DMC as a whole ( $29.7 \pm 4.5\%$ ).

3. Respondents indicated that they were insufficiently provided with information about statistical indicators of medical-counseling work of the institution (85.1±3.5%), about financial indicators of work (89.1±3.1%), about satisfaction of patients with received dental care (51.5±5.0%), about the economic efficiency of clinical work (50.5±5.0%).

4. Ways to positive organizational changes of DMC seen by the dentists are: introduction of mechanisms of economic motivation of the staff (71.3±4.5%); modern methods of diagnostics (82.2±3.8%); equipment of center with modern medical and diagnostic technique (88.1±3.2%); improving the quality of postgraduate training of dentists (96.0±1.9%); introduction of a system of monitoring the quality of medical care (58.4±4.9%); improving the efficiency and quality of dental services through the program initiatives of DMC offices (52.5±4.9%); increase of economic and legal

independence of the Center (76.2±4.2%); transferring university clinics, both organizationally, academically and financially to autonomous conditions (88.1±3.2%); introduction of public-private partnership mechanisms in DMC (75.2±4.3%).

5. The sociological survey made it possible to obtain information from dentists who work at DMC and to know the problems of the institution from the inside, and to establish that the basic parameters of the organization and management of the DMC today do not correspond to the economic realities of the time and require modernization, as well as to get the respondents' opinion on the main directions of improvement of organization of work of DMC.

6. The results of the sociological survey will be used in further studies in the substantiation and development of an optimized functional and organizational model of the University Dental Center on the principles of public-private partnership.

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The article was received

2019.07.12

