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SOCIAL AND HYGIENIC PORTRAIT OF INFECTIOUS DISEASES DOCTORS WORKING IN MEDICAL ORGANIZATIONS OF THE SOUTHERN REGIONS OF THE RUSSIAN FEDERATION

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ABSTRACT. The article presents the results of an anonymous survey of 262 infectious diseases doctors working in state medical organizations providing assistance in the field of "Infectious diseases" in the subjects of the Russian Federation, which are part of the Southern and North Caucasian Federal Districts. Statistical analysis was carried out using the SPSS Statistics 26 program (IBM Corp., 2018), the Chi-square test, including the Yates correction. The socio-hygienic portrait of an infectious diseases doctor included demographic and socio-economic characteristics, peculiar aspects of the professional activity, features of health and psycho-emotional status, assessment of factors of professional activity. The respondents identified the key problems they are faced to in the course of their work. A large amount of workload was noted caused by the lack of an adequate number of staff according to the staffing table requirements; scarce prestige of the profession and low wages. Infectious diseases doctors stressed harmful working conditions that negatively affect their health, high levels of stress in the workplace, which in turn lead to the formation of professional burnout. The results of the study indicate the need to make comprehensive management decisions aimed at ensuring a sufficient number of medical personnel based on increasing the motivation of specialists, developing social support measures, including attracting and retaining already working infectious diseases doctors in the profession.

KEYWORDS: infectious disease doctor, social and hygienic portrait, sociology of medicine, healthcare, professional burnout

СОЦИАЛЬНО-ГИГИЕНИЧЕСКИЙ ПОРТРЕТ ВРАЧЕЙ-ИНФЕКЦИОНИСТОВ, РАБОТАЮЩИХ В МЕДИЦИНСКИХ ОРГАНИЗАЦИЯХ ЮЖНЫХ РЕГИОНОВ РОССИЙСКОЙ ФЕДЕРАЦИИ

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РЕЗЮМЕ. В статье представлены результаты анонимного опроса 262 врачей-инфекционистов, работающих в государственных медицинских организациях, оказывающих помощь по профилю «инфекционные болезни», в субъектах Российской Федерации, входящих в состав Южного и Северо-Кавказского федеральных округов. Статистический анализ осуществлялся с помощью программы SPSS Statistics 26 (IBM Corp., 2018), теста χ^2, в том числе с поправкой Йейтса. Социально-гигиенический портрет врача-инфекциониста включал демографические и социально-экономические характеристики, аспекты профессиональной траектории, особенности здоровья и психоэмоционального статуса, оценку факторов профессиональной деятельности. Респондентами выделены ключевые проблемы, с которыми они сталкиваются в процессе трудовой деятельности. Отмечен большой объем нагрузки из-за отсутствия должного количества кадров по штатному расписанию; недостаточный престиж профессии и низкая заработная плата. Врачи-инфекционисты указали на вредные условия труда, негативно влияющие на состояние их здоровья, высокий уровень стресса на рабочем месте, который в свою очередь ведет к формированию профессионального выгорания. Результаты исследования свидетельствуют о необходимости принятия комплексных управленческих решений, направленных на обеспечение достаточного количества врачебных кадров на основе повышения мотивации специалистов, разработки мер социальной поддержки, в том числе по привлечению и удержанию в профессии уже работающих врачей-инфекционистов.

КЛЮЧЕВЫЕ СЛОВА: врач-инфекционист, социально-гигиенический портрет, социология медицины, здравоохранение, врачебные кадры

INTRODUCTION

Under Presidential Decree No. 254 dated 6 June 2019 “On the Strategy for the Development of Health Care in the Russian Federation for the period until 2025”, a top priority is to increase availability of medical care provided to population in medical organizations and to eliminate the staff shortage. This is also a key task of the National Project “Health Care” [1, 2].

Taking into account existing problems of medical personnel imbalance both in outpatient and inpatient care, urban and rural areas, one cannot but note the high level of workload of specialists, which was most evident during the pandemic of the new coronavirus infection (COVID-19).

The social status of a doctor, his working conditions and motivation largely determine the efficiency of Labor, the desire to work in the profession for many years [3–7]. This, in turn, affects the health status of citizens, the quality of their lives and, as a consequence, the social and economic well-being of society [8–10]. In this regard, it is extremely important to pay attention to the health and psychological comfort of the main participant in providing medical care to the population — the doctor, because the health of future generations depends on medical specialists to a great extent [11, 12].

At present, it remains extremely important to motivate, attract and, most importantly, retain specialists (primarily young specialists) in medical institutions both in inpatient, and in outpatient care.

Nowadays, under extremely high load on infectious disease specialists, it is important to determine peculiarities of a social and hygienic portrait of doctors of this specialty and to develop measures to improve their professional activity, which may be very relevant and timely.

AIM

The aim of the study was to determine a complex social and hygienic portrait of infectious disease doctors working in medical organizations of the Southern Federal District (SFD) and the North Caucasus Federal District (NCFD).

To achieve this goal, the following objectives were pursued: to study the main professional,

demographic, social, economic and other characteristics of this group of specialists, as well as to establish their peculiarities in individual subjects of the Southern Federal District and the North Caucasus Federal District; to identify the most typical features of the social and hygiene portrait of a modern infectious disease specialist working in these territories, taking into account gender characteristics.

MATERIALS AND METHODS

The research materials were the data of the social survey carried out in 2022 among 262 doctors working in the specialty "Infectious Diseases", representing regional medical organizations of the Southern Federal District (Astrakhan Region, Volgograd Region, Krasnodar Territory, Republic of Kalmykia, Rostov Region, Sevastopol city), as well as the North Caucasian Federal District (Karachay-Cherkess Republic, Stavropol Territory).

The subject of the research was the social and hygienic portrait of an infectious disease specialist.

An anonymous questionnaire survey was applied as a method of data collection on a voluntary basis. The questionnaire was preceded by an informed statement of an interviewer which described the aims of the research.

The questionnaire consisted of 53 questions (10 questions — 2 response options, 14 questions — 3 response options, 15 questions — 4 response options, 2 questions — 5 response options, 3 questions — 6 response options, 4 questions — 7 response options, 1 question — 9 response options, 2 questions — 10 response options), grouped into four thematic blocks: the first — passport, the second — a block reflecting demographic, social, economic and medical aspects of the interviewees. This publication presents the results of analyzed questions of the first two blocks (35 questions: 7 questions — 2 response options, 10 questions — 3 response options, 9 questions — 4 response options, 1 question — 5 response options, 3 questions — 6 response options, 3 questions — 7 response options, 1 question — 9 response options, 2 questions — 10 response options). These questions made it possible to identify social, demographic and professional-motivational characteristics among the surveyed infectious disease specialists, which formed their social and hygienic portrait. The questionnaire used mostly closed and semi-closed questions. Statistical analysis was performed using SPSS Statistics 26 software (IBM Corp., 2018), spreadsheet software MS Office Excel 2010. The comparison of proportions of categorical variables was performed using the χ^2 test, including the Yates correction in case of expected n <5 phenomena (for contiguity tables) and the z-criterion to assess equality of trait shares (for comparison of individual trait categories within contiguity tables).

RESULTS

The data obtained show that 74.9% of the surveyed infectious disease specialists were women, and only every fifth specialist was a male.

A study of the age composition shows that the highest proportion of specialists is represented in the 30–45 age group (40.9% among women and 40.7% among men). It is noteworthy that there are 4 women for every man in this group. The dominant role of this age group among infectious disease physicians indicates the presence of a certain reserve for staff stability in the work of the infectious disease service. Specialists under 30 years of age were the smallest group in terms of percentage ratio — only every tenth woman (9.8%) and every seventh man (14.8%). Speaking about the ratio, the highest level was recorded among specialists aged 46–59, with six women for every man.

Nevertheless, almost one fifth of all specialists (14.8% of men and 9.6% of women) belong to the age category 60 years and older, which may indicate a high probability of specialists' retirement due to age. No statistical differences were found in the shares of the trait in each age range ($p > 0.05$). The χ^2 test also demonstrates no significant differences between frequency ratios ($p=0.381$) (Fig. 1).

The above-described gender and age ratios remain stable across the regions. Thus, the Krasnodar Territory employed 51.7% of infectious disease specialists under 45 years of age, the Stavropol Territory — 55.0%, the Astrakhan Region — 53.6%, and the Karachay-Cherkess Republic — 52.6%.

At the same time, some regions showed marked fluctuations in this ratio in different age groups.

For example, young doctors under 30 years of age were absent in Sevastopol, Volgograd Region and the Republic of Kalmykia, while in Rostov

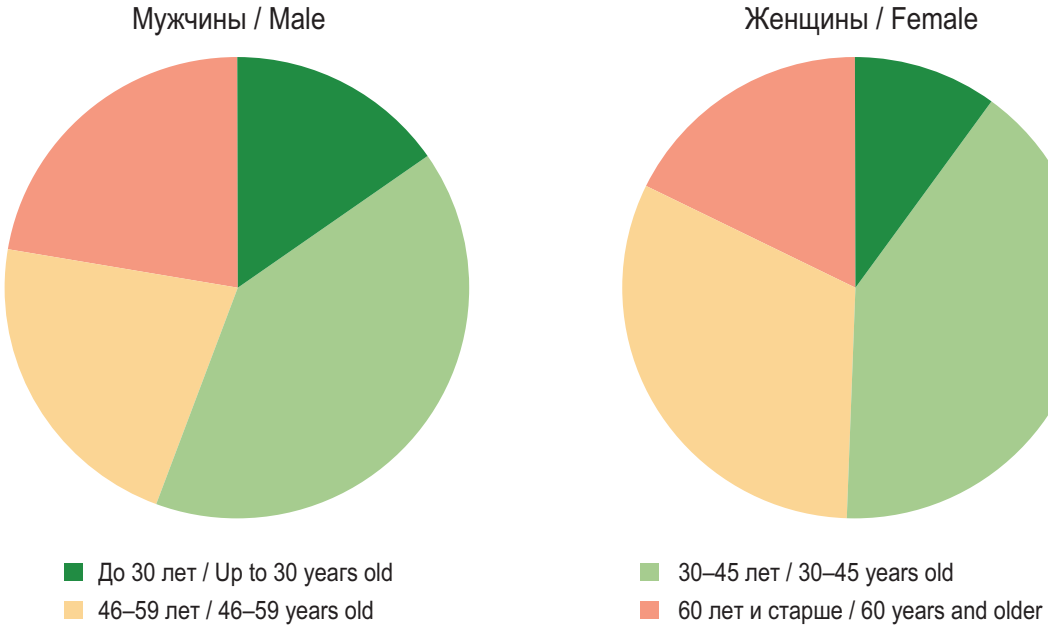

Fig. 1. Distribution of the surveyed infectious diseases doctors by gender in certain age groups, %

Рис. 1. Распределение опрошенных врачей-инфекционистов по полу в отдельных возрастных группах, %

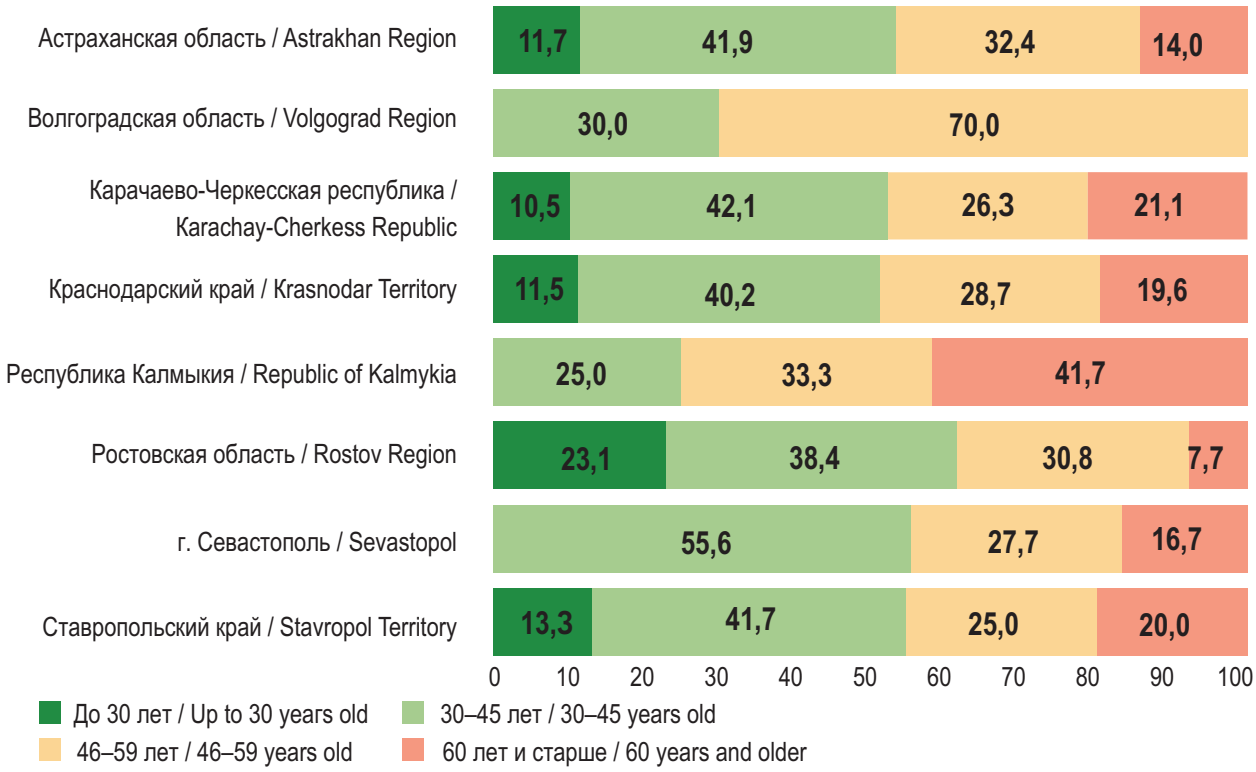

Fig. 2. The age structure of the surveyed infectious diseases doctors by region, %

Рис. 2. Возрастная структура опрошенных врачей-инфекционистов по регионам, %

Region they were largely represented by 23.1% of the total number of specialists in the region. Infectious disease specialists in the older age group (60+) were most numerous in the Republic of Kalmykia (41.7%), while they were absent in Volgograd Region (Fig. 2).

The vast majority of infectious disease specialists were graduates of the Faculty of Medicine

(57.6%), 39.7% of the Faculty of Pediatrics, and 2.7% of the Faculty of Sanitation and Hygiene (Faculty of Preventive Medicine).

The largest proportion of infectious disease specialists who graduated from higher education institutions with a degree in Medicine work in Krasnodar Territory (69.0%), and the smallest proportion work in Volgograd Region (20.0%). Specialists of the pediatric faculty are more common in the Volgograd Region (80.0%), and less common in the Karachay-Cherkess Republic (21.1%). Graduates of the sanitary-hygienic faculty (Preventive Medicine Faculty) meet in small numbers. These are physicians working in the Karachay-Cherkess Republic (15.8%) and Astrakhan Region (9.3%).

Analyzing the type of postgraduate education received by infectious diseases doctors, it should be noted that the vast majority of the specialists surveyed had completed an internship in infectious diseases (56.9%). They were more frequently from the Republic of Kalmykia (83.3%) and less frequently from Rostov Region (23.1%). 22.1% of respondents have a diploma on completion of residency training in the specialty "Infectious Diseases". The highest proportion of such doctors is among the representatives of Sevastopol (27.8%), and the lowest — among specialists from the Karachay-Cherkess Republic (5.3%). In the Volgograd Region there were no specialists who had completed residency training. Almost one-fifth (21.0%) of physicians had completed primary retraining in "Infectious diseases", the majority were infectious disease specialists from Volgograd (60.0%) and Rostov (53.8%) Region, and the minority were from Astrakhan Region (11.6%); there were no such specialists from the Republic of Kalmykia. The type of postgraduate education required to practice medicine in the specialty "Infectious diseases" is shown in Table 1.

3.8% of the surveyed infectious disease doctors have an academic degree. The degree of Doctor of Medical Sciences is held by specialists in Krasnodar Territory — 1.1%, Sevastopol — 5.6% and Rostov Region — 7.7%, which accounts to 1.1% of the total number of respondents in each region. 2.7% of specialists noted that they had a PhD in medical sciences. The highest share of infectious diseases doctors from the total number of respondents in the regions with a PhD degree was noted in the Rostov region — 7.7%. The academic title of professor is held by 0.8% of all respondents, the title of associate professor is held by 0.8%.

More than half of the specialists (51.1%) have a qualification category. Among them, 34.0% have the highest category, 11.5% have the first category, and 5.7% of the total number of respondents have the second category. They became infectious disease doctors after completing internship (52.9%), residency (25.3%) and primary retraining (21.8%). The majority of specialists with higher and first categories work in the Volgograd Region (100.0%) and Sevastopol (61.1%), and the least number of doctors is seen in the Rostov Region (30.8%).

Table 1

The number of infectious diseases doctors by type of postgraduate education, depending on the position held

Таблица 1

Количество врачей-инфекционистов по виду последипломного образования в зависимости от занимаемой должности

Регион / Region	Вид последипломного образования / Type of postgraduate education			
	интернатура,% / internship,%	ординатура,% / residency,%	первичная переподготовка,% / primary retraining,%	всего,% / total,%
Астраханская область / Astrakhan Region	62,8	25,6	11,6	100,0
Волгоградская область / Volgograd Region	40,0	0,0	60,0	100,0
Карачаево-Черкесская Республика / Karachay-Cherkess Republic	68,4	5,3	26,3	100,0
Краснодарский край / Krasnodar Territory	52,9	25,3	21,8	100,0
Республика Калмыкия / Republic of Kalmykia	83,3	16,7	0,0	100,0
Ростовская область / Rostov Region	23,1	23,1	53,8	100,0
г. Севастополь / Sevastopol	55,6	27,8	16,7	100,0
Ставропольский край / Stavropol Territory	60,0	23,3	16,7	100,0
Итого / Total	56,9	22,1	21,0	100,0

There is also a logical connection between the qualification category and age: the older the age, the higher the category.

The greatest number of specialists with the highest category work in infectious diseases hospitals (43.8%). The vast majority of specialists working in infectious diseases departments at central district hospitals, at city hospitals and special offices at outpatient clinics have no category at all — 75.6, 51.9, and 72.1%, respectively (Table 2).

The total medical experience of infectious diseases specialists who took part in the survey was distributed as follows. The majority of respondents have been working as a doctor for more than 30 years (23.3%), the minority — up to 5 years and 26–30 years (9.2% each). More than half of the respondents (56.9%) have up to 20 years of experience in medicine. In the Stavropol Territory (33.3%) and Rostov Region (46.2%), the largest proportion of respondents are specialists with up to 10 years of experience, and the smallest proportion are in the Republic of Kalmykia (8.3%). It should also be noted that the most experienced specialists took part in the survey in the Republic of Kalmykia: 66.7% of respondents had more than 30 years of medical experience (Table 3). No differences were found between men and women (χ^2=3.891, p=0.691).

Table 2

Availability of a qualification category depending on the organizational structure of the place of work,%

Таблица 2

Наличие квалификационной категории в зависимости от организационной структуры места работы,%

Квалификационная категория / Qualification category	Высшая / Higher	Первая / First	Вторая / Second	Отсутствует / Absent	Итого / Total
Инфекционная больница,% / Hospital of infectious disease,%	43,8	17,1	5,5	33,6	100,0
Инфекционное отделение в структуре городской больницы,% / Infectious diseases department in the structure of the city hospital,%	33,3	3,7	11,1	51,9	100,0
Инфекционное отделение в структуре ЦРБ,% / Infectious diseases department in the structure of the Central District Hospital,%	8,9	6,7	8,9	75,6	100,0
Специализированный кабинет при поликлинике,% / Specialized office at the clinic,%	25,6	2,3	–	72,1	100,0

Table 3

The structure of the surveyed infectious diseases doctors, depending on the available general medical experience, by gender,%

Таблица 3

Структура опрошенных врачей-инфекционистов в зависимости от имеющегося общего врачебного стажа работы, по полу,%

Регион / Region	Общий врачебный стаж работы / General medical work experience							
	до 5 лет / up to 5 years	5–10 лет / 5–10 years	11–15 лет / 11–15 years	16–20 лет / 16–20 years	21–25 лет / 21–25 years	26–30 лет / 26–30 years	более 30 лет / more than 30 years	Всего,% / Total,%
Астраханская область / Astrakhan Region	11,6	18,6	16,3	11,6	11,6	14,0	16,3	100,0
Волгоградская область / Volgograd Region	0,0	0,0	70,0	10,0	0,0	20,0	0,0	100,0
Карачаево-Черкесская Республика / Karachay-Cherkess Republic	5,3	15,8	26,3	10,5	15,8	15,3	21,1	100,0
Краснодарский край / Krasnodar Territory	10,3	10,3	16,1	19,5	13,8	5,7	24,1	100,0
Республика Калмыкия / Republic of Kalmykia	0,0	8,3	8,3	8,3	0,0	8,3	66,7	100,0
Ростовская область / Rostov Region	23,1	23,1	7,7	30,8	0,0	7,7	7,7	100,0
г. Севастополь / Sevastopol	0,0	16,7	16,7	22,2	22,2	5,6	16,7	100,0
Ставропольский край / Stavropol Territory	10,0	23,3	8,3	11,7	6,7	11,7	28,3	100,0
Итого,% / Total,%	9,2	15,6	16,4	15,6	10,7	9,2	23,3	100,0

Describing the marital status, it is worth noting that the majority of interviewed doctors, regardless of the region (χ^2=25.902, p=0.210), are in a registered marriage (59.5%), the smallest number — 46.2% in Rostov Region, the largest — 65.1% in Volgograd region. Taking into account regional peculiarities (statistical significance at the level of p=0.047), the majority of surveyed infectious disease doctors (81.3%) are parents and bring up two children (49.5%). Large families (three children and more) are more common in the families of doctors from the Karachay-Cherkess Republic (26.3%).

The vast majority of infectious diseases doctors, regardless of region (χ^2=7.763, p=0.354), have their own housing (88.2%). However, living conditions vary significantly by region (χ^2=24.048, p=0.045). Thus, in almost all regions, infectious diseases doctors more often live in flats (59.2%). The exception is the Karachay-Cherkess Republic, where the majority of specialists live in their own homes (63.3%). This may be explained by the specifics of urbanization in the Karachay-Cherkess Republic, where the private sector predominates among buildings. Almost half of infectious diseases doctors (51.9%) are fully satisfied with their living conditions.

Speaking about the state of health of the surveyed infectious disease doctors, the presence of chronic diseases was noted by specialists in almost half of cases (48.1%) with regional variation. This fact was most often mentioned by doctors from the Republic of Kalmykia (75.0%), Krasnodar Krai (55.5%) and Sevastopol (50.0%). In other regions, the number of doctors noting the absence of chronic diseases prevails. The highest share of answers indicating absence of chronic diseases was found in the Volgograd Region (70.0%) and the Rostov Region (61.5%). Comparison of men and women by frequency of chronic diseases showed no statistically significant differences (χ^2=0.036, p=0.850).

Diseases of the circulatory system (30.5%) are in the first place in the structure of the diseases indicated by the respondents. The second place is occupied by diseases of digestive organs and diseases of endocrine system, nutritional disorders and metabolic disorders (13.3%). The third place is occupied by respiratory diseases (11.7%). The following chronic diseases were also indicated by infectious diseases specialists: diseases of the musculoskeletal system and connective tissue — 9.4%, diseases of the eye and its apparatus — 3.9%, diseases of the nervous system — 2.3%, neoplasms — 2.3%, diseases of the skin and subcutaneous tissue — 1.6%, injuries, poisonings and some other consequences of external causes — 1.6%, diseases of the blood, hematopoietic organs and certain disorders involving the immune mechanism — 0.8% of the total number of the indicated chronic diseases.

In contrast, there were differences in the frequency of chronic diseases among individual age groups (χ^2=17.348, p=0.001). Thus, 17.9% of young doctors (up to 30 years of age) indicated the presence of chronic diseases, 46.5% — in the group of 30–45 years, 51.9% — 46–59 years, and 66.7% — 46–59 years, i.e. the older the specialists, the higher the percentage of chronic diseases.

When assessing their working conditions, the majority of respondents indicated the presence of conditions which negatively affected their health (86.6%). This answer was given more often by infectious disease specialists from the Volgograd Region (100.0%), Stavropol Krai (93.3%) and Krasnodar Territory (92.0%). Doctors in each region said that working conditions affected their health (53.4%). The analysis shows that the hypothesis of such a connection is confirmed: thus, the frequency of answers indicating satisfaction with the quality of life is significantly higher (p <0.001) among those specialists who believe that their work does not affect their health.

The regions in which specialists least often noted the presence of unfavorable working conditions were the Karachay-Cherkess Republic (52.6%) and the Rostov Region (46.2%).

Respondents most often named stress and psychological and emotional strain, physical overload, night duty, overwork, fatigue, irregular working hours, contact with infections and disinfectants, “sedentary” work, eye fatigue, insufficient sleep and insomnia, increased blood pressure and arrhythmia as negative health changes associated with work.

The interviewed infectious disease specialists also answered to the question concerning free leisure time. Specialists sometimes visit cultural places and events out of working hours. 8.8% of respondents regularly do so, more often these are doctors in Sevastopol (16.7%), and less often — specialists in Stavropol Territory (5.0%). The answer “whenever possible and desirable” was given by the majority of doctors (61.5%), more often by specialists from the Volgograd Region (90.0%), and less often — by doctors from the Rostov Region (38.5%). However, more than a third (39.8% of the

total number of respondents) do not have such an opportunity at all. The main reason is the lack of free time due to high workload (20.6%) — this was the answer of the majority of specialists from the Rostov Region. "Due to limited income" (7.3%) — this was the answer given more often by doctors from the Astrakhan Region. 1.9% of the total number of respondents do not attend cultural and entertainment events due to lack of desire, mainly these are specialists from the Karachay-Cherkess Republic.

When asked about the psychological-emotional state, the respondents were almost equally divided. The majority of infectious disease doctors (51.5%) are in a state of psychological-emotional stress quite often and very often while working. It became especially acute in the conditions of the new coronavirus infection pandemic (COVID-19). This fact was often noted by specialists from Rostov Region (69.2%). Constantly high workload is noted by one third of the surveyed infectious disease doctors, mainly from Rostov Region (38.5%). This ratio remains the same in most regions. Doctors with 15 years of experience noted they were in stress during the working day much more often.

48.5% of the surveyed experience these negative emotions either never or rarely, in the Volgograd Region they do not note this fact at all (100.0%). It was least noted in the Rostov Region (30.8%).

It should be noted that the presence of professional burnout on a scale from 1 (the lowest) to 10 (the highest) in infectious disease doctors is estimated at 6 points. More than a third (36.6%) of specialists will not change their place of work even if the salary would be higher. The results of statistical analysis show a clear relationship between the level of fatigue, professional burnout and the desire to change the place of work ($p < 0.001$). Thus, the average level of professional burnout in those doctors who definitely do not want to change their place of work is significantly lower.

Despite this, 89.3% of infectious disease doctors answered "yes" to the question "do you like your profession and labor activity".

The leading causes of psychological discomfort during work include unjustified complaints from patients, a large amount of "paper" work, frequent documentation checks and stress due to lack of time and high workload. In general, respondents assessed their future prospects as "moderately optimistic" (55.7%), most often this answer was given by specialists from the Karachay-Cherkess Republic (63.2%), and least often by specialists from the Rostov Region (46.2%). Despite this, 75.2% of respondents are "absolutely confident" in themselves.

The survey results showed that the most unattractive factor of professional activity, which does not depend on gender and age, is the low level of salary. This fact was noted by specialists in all regions. For young specialists the actual problems are the nature of labor and relations in the team, which is logically explained by the need to adapt to the conditions of new professional activity. The older generation of infectious disease doctors aged 60 years and older is more often concerned about the low prestige of the profession, as well as the tendency to discredit the medical profession as a whole (Table 4).

The study resulted in the formation of the most typical social and hygienic portraits of infectious disease doctors.

A portrait of an average male infectious disease doctor working in the regions of southern Russia: a specialist aged 30–45 years, who graduated from a medical faculty, has no degree or academic title, and no qualification category. General medical experience is in the range of 11–15 years, and up to 10 years in the specialty "Infectious Diseases". Document giving him the right to conduct medical activity as an infectious diseases doctor is a diploma on completion of internship in the specialty "Infectious Diseases", and the specialist works in the infectious diseases hospital as a doctor. He is married, has two children, owns an apartment and is practically satisfied with his living conditions.

According to a subjective assessment, a specialist faces a high professional load and constant stress due to peculiarities of an infectious diseases department. In addition, he notes the presence of chronic diseases (more often these are diseases of the circulatory system), hypodynamic and harmful working conditions that have a negative impact on his living conditions. In general, the doctor is satisfied with the quality of his life. In general, the doctor is satisfied with the quality of his life. He occasionally attends cultural events in his free time and whenever he can. The infectious disease doctor is absolutely confident in himself as a person and is optimistic about his future prospects.

The man identifies a number of leading unattractive factors in his professional activity, such as low salary and the distant location of his workplace in relation to his home. The specialist often experiences a state of psychological and emotional stress, which, in turn, leads to the formation

Table 4

Unattractive factors in the work of infectious diseases doctors, depending on gender and age (an open questioning with several possible answers)

Таблица 4

Непривлекательные факторы в процессе работы врачей-инфекционистов в зависимости от пола и возраста (открытый вопрос, предполагающий несколько вариантов ответа)

Список факторов / List of factors	Пол / Sex		Возраст, лет / Age, years			
	женский / female n=208,%	мужской / male n=54,%	до 29 / to 29 n=28,%	30–45 n=107,%	46–59 n=79,%	60 лет и старше / 60 years and older n=48,%
Уровень заработной платы / Wage level	70,9	63,0	59,3	70,2	70,8	70,2
Количество пациентов / Number of patients	16,8	14,8	14,8	16,3	18,1	14,9
Характер труда / Nature of work	7,1	11,1	22,2*	3,8	6,9	10,6
Отношения в коллективе / Relationships in the team	9,2	11,1	22,2*	11,5	5,6	4,3
Отдаленность расположения места работы к дому / Location of workplace to home	14,3	22,2	18,5	16,3	15,3	14,9
Наличие постоянного стресса / Having constant stress	40,3	31,5	25,9	40,4	48,6	25,5
Отсутствие возможности повышать квалификацию / Lack of opportunity to improve skills	8,7	9,3	7,4	11,5	11,1	0,0
Низкий престиж профессии / Low prestige of the profession	23,5	18,5	14,8	16,3	25,0	36,2*
Другое / Other	6,1	5,6	3,7	7,7	6,9	2,1

* Статистически значимые различия на уровне p <0,05.
* Statistically significant differences at the level of p <0.05.

of professional burnout. Male professionals identify a number of leading unattractive factors in their professional activity, such as low wages and distant location of the place of work. A specialist often experiences a state of psychological and emotional stress, which, in turn, leads to the formation of professional burnout.

During the pandemic of the new coronavirus infection COVID-19, the doctor experienced a significant increase in professional workload. In his opinion, unfair claims from patients and lack of time in the process of Labor activity due to the high workload of the specialist played a leading role in the development of psychological discomfort in the workplace. A male infectious disease doctor would like to change his place of work due to low salary. Despite all the difficulties, the specialist likes his profession and Labor activity.

Portrait of an average female infectious disease doctor working in the regions of southern Russia: a woman aged 30–45 who graduated from a medical university with a degree in Medicine and then completed an internship in infectious diseases. The doctor does not have a degree, academic title or qualification category. General medical experience, as well as in the specialty "Infectious Diseases" amounts to 11–15 years. The specialist works in an infectious diseases hospital as a doctor. She is married and has two children. The woman owns a flat and is fully satisfied with the living conditions. When interviewing infectious disease doctors, no reliable differences were found between the subjective assessment of the presence or absence of chronic diseases. The specialist has harmful Labor conditions at her workplace, which, in her opinion, may negatively affect her health. In general, she is satisfied with the quality of her life. The doctor does not always have the opportunity to attend cultural institutions and events because of the lack of free time due to the high workload. Assessing the prospects of her future, the doctor defines them as moderately optimistic. Nevertheless, she is self-confident.

The specialist often feels a state of psychological and emotional stress during her professional activity. Along with this, she also notes the presence of professional burnout. In the doctor's opinion, unfair claims from patients and stress from lack of time due to increased workload play a leading role in the formation of this state.

In the process of medical activity, the doctor notes a number of major unattractive factors, namely: the presence of constant stress, low salary level, and insufficient prestige of the medical profession in this specialty. During the pandemic of a new coronavirus infection COVID-19, the doctor noted a significantly increased work load. The woman would not want to change her place of work if the salary was higher. The specialist enjoys her profession and her working life despite all the difficulties she has to face at work.

CONCLUSION

The research has revealed professional and personal characteristics among the interviewed infectious disease doctors in terms of gender. Men are more likely to suffer from chronic diseases than women. Female doctors are more exposed to stress during work than male doctors. The presence of general fatigue and professional burnout was more often noted by female specialists.

According to the survey of infectious disease doctors, a number of problems related to the organization of the work process encountered by practitioners were identified. These include a high level of stress among specialists in the process of Labor activity, heavy workload due to the lack of a proper number of specialists according to the staff schedule, insufficient salary level and low prestige of the profession in general.

The survey allowed us to give a multifaceted professional and personal characteristic of an infectious disease doctor, and, based on its results, to form a social and hygienic portrait of a modern infectious disease specialist working in the Southern Federal District and the North Caucasian Federal District.

Taking into account the above-mentioned problems based on the results of the survey, there is a need for further development of social support measures for persons working in this specialty. It is necessary to improve the planning of medical personnel training, as well as measures to attract and retain those who already work in the profession, since the surveyed doctors are key persons in providing medical care to the adult population in case of infectious diseases.

ADDITIONAL INFORMATION

Author contribution. Thereby, all authors made a substantial contribution to the conception of the study, acquisition, analysis, interpretation of data for the work, drafting and revising the article, final approval of the version to be published and agree to be accountable for all aspects of the study.

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Вклад авторов. Все авторы внесли существенный вклад в разработку концепции, проведение исследования и подготовку статьи, прочли и одобрили финальную версию перед публикацией.

Конфликт интересов. Авторы декларируют отсутствие явных и потенциальных конфликтов интересов, связанных с публикацией настоящей статьи.

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