

PSYCHOLOGICAL WELL-BEING OF THE DEPARTMENT HEADS AT HEALTHCARE ORGANIZATIONS

Kochubey AV¹✉, Yarotsky SYu¹, Kochubey VV²¹ Federal Scientific and Clinical Center of Specialized Types of Medical Care of the Federal Medical and Biological Agency, Moscow, Russia² A.I. Yevdokimov Moscow State University of Medicine and Dentistry, Moscow, Russia

Increased workloads among heads of clinical departments that result from working as both clinicians and managers may lead to the significant decline in their psychological well-being. The study was aimed to assess psychological well-being of the clinical department heads. The online survey of 216 department heads aged 32–70 having a 8–51-year experience in healthcare was conducted using the Ryff's scales of psychological well-being adopted by Shevelenkova–Fesenko, sent by e-mail or posted on the distance learning portal. The survey involved 123 men (56.9%) and 93 women (43.1%); among them 117 people (54.2%) worked in inpatient settings, 114 people (52.8%) worked in the red zone, 138 people (63.89%) were assigned a qualification category, 63 people (29.1%) had an academic degree. Mean values, percentage, Pearson correlation coefficient, Student's t-test were calculated with the IBM SPSS Statistics 23 software. Correlations and mean differences were considered significant at $p < 0.05$. The average psychological well-being score was 378.67 ± 78.33 ; in 26 men (26%) and 28 women (43.1%) aged 36–55, the score was below standard values. Psychological well-being correlated with age ($r = 0.2$; $p = 0.019$) and years of service ($r = 0.2$; $p = 0.008$). No correlations were revealed between psychological well-being and gender ($p = 0.798$), type of organization ($p = 0.642$), the fact of having second higher education ($p = 0.854$), qualification category ($p = 0.645$), academic degree ($p = 0.204$), and the experience of working in the red zone ($p = 0.926$). Thus, more than a third of individuals aged 36–55 have psychological well-being scores below standard values. Psychological well-being of women is lower than that of men. Psychological well-being of men over the age of 35 decreases to a greater extent than standard values.

Keywords: psychological well-being, personal growth, heads of departments**Author contribution:** Kochubey AV — concept, design, research coordination, statistical analysis and data interpretation, manuscript writing; Yarotsky SYu — analysis, research planning, data interpretation, discussion; Kochubey VV — literature review, data analysis and interpretation, manuscript writing.**Compliance with ethical standards:** the study was conducted in accordance with the ethical principles stipulated by the Declaration of Helsinki of the World Medical Association.✉ **Correspondence should be addressed:** Adelina V. Kochubey
Volokolamskoye shosse, 91, Moscow, 125371, Russia; kochoubeya@gmail.com**Received:** 08.05.2022 **Accepted:** 08.06.2022 **Published online:** 19.06.2022**DOI:** 10.47183/mes.2022.021

ПСИХОЛОГИЧЕСКОЕ БЛАГОПОЛУЧИЕ ЗАВЕДУЮЩИХ ОТДЕЛЕНИЯМИ МЕДИЦИНСКИХ ОРГАНИЗАЦИЙ

А. В. Кочубей¹✉, С. Ю. Яроцкий¹, В. В. Кочубей²¹ Федеральный научно-клинический центр специализированных видов медицинской помощи Федерального медико-биологического агентства, Москва, Россия² Московский государственный медико-стоматологический университет имени А. И. Евдокимова, Москва, Россия

Повышенная нагрузка заведующих клиническими отделениями в связи с реализацией трудовых функций врача-клинициста и менеджера может привести к значимому ухудшению психологического благополучия. Целью работы было изучить психологическое благополучие заведующих клиническими отделениями. Используя версию Шевеленковой–Фесенко опросника Риффа, с помощью электронной почты и портала дистанционного обучения проводили заочное анкетирование 216 заведующих отделениями в возрасте 32–70 лет со стажем работы в сфере здравоохранения 8–51 лет. В опросе участвовали 123 мужчины (56,9%) и 93 женщины (43,1%), из них работали в стационаре 117 человек (54,2%), в «красной зоне» — 114 (52,8%), имеют квалификационную категорию 138 человек (63,89%), ученую степень — 63 (29,1%). Расчеты средних значений, процентов, коэффициента корреляции Пирсона, критерия Стьюдента проводили в программе IBM SPSS Statistics 23. Корреляцию и разницу средних значений считали значимой при $p < 0,05$. Средний балл психологического благополучия — $378,67 \pm 78,33$, ниже нормативных значений — у 26 (26%) мужчин, 28 (43,1%) женщин 36–55 лет. Выявлена корреляция психологического благополучия с возрастом ($r = 0,2$; $p = 0,019$) и стажем ($r = 0,2$; $p = 0,008$). Не обнаружена зависимость психологического благополучия от пола ($p = 0,798$), типа организации ($p = 0,642$), наличия второго образования ($p = 0,854$), категории ($p = 0,645$), ученой степени ($p = 0,204$), работы в «красной зоне» ($p = 0,926$). Таким образом, более трети лиц 36–55 лет имеют баллы психологического благополучия ниже нормативных значений. Женщины имеют худшее психологическое благополучие, чем мужчины. Психологическое благополучие мужчин после 35 лет снижается в большей степени, чем нормативные значения.

Ключевые слова: психологическое благополучие, личностный рост, заведующий отделением**Вклад авторов:** А. В. Кочубей — идея, дизайн, координация исследования, статистический анализ и интерпретация результатов, подготовка рукописи; С. Ю. Яроцкий — анализ, планирование исследования, интерпретация данных, обсуждение результатов; В. В. Кочубей — работа с литературой, анализ и интерпретация данных, подготовка рукописи.**Соблюдение этических стандартов:** исследование проведено в соответствии с этическими принципами Хельсинкской декларации Всемирной медицинской ассоциации.✉ **Для корреспонденции:** Аделина Владимировна Кочубей
Волоколамское шоссе, д. 91, г. Москва, 125371, Россия; kochoubeya@gmail.com**Статья получена:** 08.05.2022 **Статья принята к печати:** 08.06.2022 **Опубликована онлайн:** 19.06.2022**DOI:** 10.47183/mes.2022.021

In 1989, the World Health Organization announced that facilitating innovations by encouraging professional curiosity in healthcare professionals was one of the objectives for healthcare quality assurance [1]. Such strategy of the WHO results from the fact that the impact on human resources is a highly

effective method for quality assurance in medical care [2–4]. The health service staff professionalism provides extraordinary basis for improving the processes and results [5]. For its part, professional curiosity of the staff depends on psychological well-being, including the desire for personal growth [6].

Unfortunately, healthcare providers are a professional group at risk of psychological problems [7] due to high levels of stress and psychological disorders [8, 9]. Occupational well-being was studied in physicians [10–12] and nursing staff [13, 14] of various medical specialties. It was found that depression, being the worst manifestation of psychological ill-being, formed the basis for medical malpractice [13].

Heads of clinical departments are the key figures in healthcare quality assurance [15], that is why their psychological well-being is extremely important. Heads of clinical departments work as both clinical specialists and healthcare managers [15], i.e., increased workloads are coupled with the responsibility for directing the work of the entire department. These factors together with the requirements for mastering a wider range of competencies and professional development in both medical specialty and management can adversely affect the psychological well-being of this cohort of healthcare professionals.

The study was aimed to assess psychological well-being of the department heads at healthcare organizations.

METHODS

The study involved an online survey of residents who received the continuing professional education training at the Academy of Postgraduate Education of the Federal Scientific and Clinical Center of Specialized Types of Medical Care of FMBA in 2019–2021. Inclusion criteria: respondents holding a position of the head of clinical department. Exclusion criteria: unfinished questionnaires. The survey was conducted using the standardized Russian version of the Ryff's scales of psychological well-being adopted by Shevelenkova–Fesenko [16]. Such choice is explained by the fact that standard values of psychological well-being for four gender and age groups are provided in relation to this version. The questionnaires were sent to respondents by e-mail or incorporated in the training courses and posted on the distance learning platform.

The questionnaire includes 84 items with six scales: Positive Relations with Others, Autonomy, Environmental Mastery, Personal Growth, Purpose in Life, Self-Acceptance, and three integral categories, Affect Balance, Meaningful Life, Human Being as an Open System, which were scored separately. A 6-point Likert scale (1 — Strongly disagree, 6 — Strongly agree) was used to assess psychological well-being. Higher scores indicated better subjective well-being. This principle was applicable to all scales of the questionnaire and two integral categories (Meaningful Life, Human Being as an Open System). Lower scores in the Affect Balance category indicated better condition of the respondent.

Characteristics of respondents

The survey involved 216 respondents (Table 1). Owing to the unavailability of data on the sampled population size, deterministic sampling method was used that was based on the expert judgement provided by the group of experts [17].

Characteristics were selected based on the third party research data on the impact of gender, age, increased workloads, better education and professional development on psychological well-being. It was thus suggested that increased workloads, experienced by the respondents working in inpatient settings and in the red zones, adversely affected their psychological well-being. We also assumed that the fact of having second higher education, qualification category, academic degree, that could be regarded as an indirect

confirmation of the desire for personal growth, had a beneficial effect on psychological well-being.

The differences in years of service between men and women were significant: $t = 7.44$; $p < 0.001$. There were significant differences in age and years of service between the respondents working in inpatient and outpatient settings: $t = 6.87$; $p < 0.001$. At the time of the survey, more than half of the respondents worked in the departments that provided care to patients with coronavirus infection, where enhanced hygiene and infection prevention and control regime together with specific zoning (hereinafter, “the red zone”) were used. The differences in the average age and years of service between those who had an experience or no experience of working in the red zone were significant: $t = 6.62$; $p < 0.001$. There were no significant differences in age ($t = 0.648$; $p = 0.197$) and years of service ($t = 0.457$; $p = 0.095$) between individuals assigned and not assigned a qualification category. The differences in age ($t = 2.536$; $p = 0.012$) and years of service ($t = 1.987$; $p = 0.048$) between the respondents having and not having an academic degree were significant. The differences in age ($t = 0.123$; $p = 0.902$) and years of service ($t = 0.186$; $p = 0.853$) between the respondents having and not having second higher education were non-significant.

Comparative analysis of scores was performed for three gender and age groups, men aged 20–35 and 36–55, women aged 36–55, where the standard values of psychological well-being were available. There were no women aged 20–35 among the respondents. The average psychological well-being scores were provided for the general group and five gender and age groups: men aged 20–35, 36–55, and over 56; women aged 36–55 and over 56.

IBM SPSS Statistics 23 software (IBM Company; USA) was used to calculate the mean, median, mode, standard deviation, percentage, Student's t -test, Pearson correlation coefficient. Correlations and mean differences for independent samples were considered significant at $p < 0.05$.

RESULTS

The mean score of psychological well-being on the Ryff's scales was 378.67 ± 78.33 , median was 398.5, mode was 438.00; in 54 respondents (25%), the psychological well-being score was below 342.25, and in 54 people (25%) it exceeded 442.75. In 86 respondents (39.8%) the scores of psychological well-being were below average. The average levels of psychological well-being in women aged 36–55, men aged 20–35 and 36–55 exceeded standard values (Table 2). However, in 26 men (26%) and 28 women (43.1%) aged 36–55, the levels of psychological well-being were below standard values.

The correlation of psychological well-being with age ($r = 0.2$; $p = 0.019$) and years of service ($r = 0.2$; $p = 0.008$) was revealed. There were no significant differences in the mean scores of psychological well-being between men (377.47 ± 81.13) and women (380.25 ± 74.87 ; $t = 0.257$, $p = 0.798$); heads of departments working in inpatient settings (376.38 ± 82.38) and primary health care institutions (381.37 ± 73.58 ; $t = 0.466$, $p = 0.642$); respondents having (379.63 ± 81.23) and not having second higher education (377.66 ± 75.51 ; $t = 0.185$, $p = 0.854$); those assigned (380.52 ± 78.06) and not assigned a qualification category (375.39 ± 79.21 ; $t = 0.461$, $p = 0.645$); those having (389.24 ± 68.48) and not having an academic degree (374.32 ± 81.86 ; $t = 1.274$, $p = 0.204$); those having an experience (378.20 ± 81.26) or no experience of working in the red zone (379.19 ± 75.32 ; $t = 0.093$; $p = 0.926$).

The mean scores for the categories and scales of the Ryff's questionnaire by gender and age groups are provided in Table 2.

Table 1. Characteristics of respondents

Characteristics	Number, abs. (%)	Average age, years	Average years of service
All respondents	216	47.9 ± 8.08	23.18 ± 8.60
Women	93 (43.1)	52.15 ± 6.653	27.06 ± 7.079.
Men	123 (56.9)	44.77 ± 7.621	20.06 ± 8.435
Worked in inpatient settings	117 (54.2)	44.79 ± 7.715	20.10 ± 8.569
Worked in outpatient settings	99 (45.8)	51.68 ± 6.848	26.59 ± 7.229
Worked in the red zones	114 (52.8)	44.81 ± 7.803	20.14 ± 8.669
Never worked in the red zones	102 (57.2)	51.46 ± 6.878	26.35 ± 7.259
Were assigned a qualification category	138 (63.9)		
– board certification	83 (38.4)	47.7 ± 7.19	22.5 ± 7.51
– second category	22 (10.2)	48.1 ± 9.66	23.4 ± 10.06
– first category	33 (15.3)	49.7 ± 8.22	25.2 ± 8.78
No qualification category	78 (36.1)	47.5 ± 8.49	22.7 ± 9.18
Had an academic degree	63 (29.2)		
– doctoral degree	48 (22.2)	49.5 ± 8.26	24.2 ± 8.79
– post-doctoral degree	15 (6.9)	51.9 ± 8.72	27.0 ± 10.27
No academic degree	153 (70.8)	47.1 ± 7.82	22.3 ± 8.28
Had second higher education	111 (51.4)	47.9 ± 8.25	23.2 ± 8.92
– specialization in management	105 (48.6)		
No second higher education	105 (48.6)	48.0 ± 7.94	22.9 ± 8.29

The mean scores in the categories Affect Balance and Meaningful Life were below standard values in all the surveyed gender and age groups. In 20 men (20%) and 17 women (26.2%) aged 36–55, the Affect Balance scores exceeded standard values.

The Meaningful Life scores were below standard values in 11 men (54.5%) aged 25–35, 60 men (60%) and 46 women (70.8%) aged 36–55. The mean scores in the category Human Being as an Open System were below standard values in women and men aged 35–55, but exceeded standard values in men aged 25–35. The scores in this category were below standard values in 2 men (18.2%) aged 25–35, as well as in 53 men (53.0%) and 41 women (63.1%) aged 36–55.

In the general group of respondents, the Affect Balance scores were above average in 88 people (40.7%), the Meaningful Life scores were below average in 88 people (40.7%), and the scores in the category Human Being as an Open System were below average in 95 people (44.0%).

The mean scores on the Ryff's scales Personal Growth, Positive Relations with Others, Autonomy, Environmental Mastery, Purpose in Life, Self-Acceptance exceeded standard values in all the gender and age groups. The Personal Growth scores were below standard values in 3 men (27.3%) aged 25–35, 47 men (47%) and 15 women (23.1%) aged 36–55. The scores on the scale Positive Relations with Others were below standard values in 22 men (22%) and 23 women (35.4%) aged 36–55. The Autonomy scores were below standard values in 25 men (25%) and 16 women (24.6%) aged 36–55. The Environmental Mastery scores were below standard values in 25 men (25%) and 18 women (27.7%) aged 36–55. The scores on the scale Purpose in Life were below standard values in 28 men (28%) and 23 women (35.4%) aged 36–55. The Self-Acceptance scores were below standard values in 23 men (23%) and 24 (36.9%) women aged 36–55.

In the general group of respondents, the scores on the following scales were below average: Personal Growth in 93 people (43.1%), Positive Relations with Others in 103 people (47.7%), Autonomy in 77 people (35.6%), Environmental

Mastery in 79 people (36.6%), Purpose in Life in 90 people (41.7%), Self-Acceptance in 99 surveyed department heads (45.8%).

There was a correlation of age and years of service with the scores in all categories and scales of the questionnaire ($p \leq 0.05$), except the Self-Acceptance scale ($p > 0.05$). Age and years of service negatively correlated with the Affect Balance, and positively correlated with other categories and scales.

All the categories and scales of the questionnaire were intercorrelated ($p \leq 0.05$), there was a negative correlation with the Affect Balance category. Based on some categories and scales of psychological well-being, there were no correlations between scores and gender, the fact of having second higher education, qualification category, or academic degree, the type of organization where the respondent worked, and the experience of working in the red zone ($p > 0.05$).

DISCUSSION

Psychological well-being of almost 40% of respondents scored below average. Since standard values of psychological well-being for all gender and age groups are not available, let us focus on the respondents aged 36–55, whose share in the age structure of department heads is the largest. Thus, 43.1% women and 26% men in this age group have psychological well-being scores below standard values. The results of survey that targeted this age group from the perspective of categories and scales reveals the variants of psychological ill-being.

Based on the Affect Balance category, almost a third of women and 20% of men aged 36–55 show life dissatisfaction, low assessment of their capabilities of learning and overcoming life's problems, poor skills of maintaining healthy relationships with others. Based on the scale Positive Relations with Others, more than a third of women and more than 20% of men have a propensity for privacy and distrust in relationships; based on the Personal Growth scale, more than 20% of women and almost half of men of this age group show no desire for self-realization, cognition, behavioral changes.

Table 2. Mean scores and standard values for scales and integral categories of the Ryff's scales by gender and age groups ($M \pm \sigma$)

Gender	Age groups	Psychological well-being	Affect Balance	Meaningful Life	Openness	Personal Growth	Positive Relations	Autonomy	Environmental Mastery	Purpose in Life	Self-Acceptance
Female	25-35 years, $n = 0$	–	–	–	–	–	–	–	–	–	–
	Standard values	370 $\pm$ 34.68	84 $\pm$ 15.61	97 $\pm$ 12.61	65 $\pm$ 6.07	65 $\pm$ 6.04	65 $\pm$ 8.28	58 $\pm$ 7.31	58 $\pm$ 7.35	64 $\pm$ 8.19	61 $\pm$ 9.08
	36–55 years, $n = 65$	358.8 $\pm$ 79.27	81.0 $\pm$ 25.52	83.36 $\pm$ 17.26	61.12 $\pm$ 12.44	58.94 $\pm$ 13.53	62.25 $\pm$ 14.88	58.75 $\pm$ 13.79	60.54 $\pm$ 12.60	61.75 $\pm$ 13.18	60.95 $\pm$ 14.80
	Standard values	351 $\pm$ 23.93	93 $\pm$ 9.58	95 $\pm$ 10.06	64 $\pm$ 3.95	63 $\pm$ 7.90	58 $\pm$ 7.59	57 $\pm$ 5.61	59 $\pm$ 8.32	59 $\pm$ 6.99	57 $\pm$ 6.14
	56 years and older, $n = 28$	430.04 $\pm$ 22.93	60.03 $\pm$ 7.11	100.64 $\pm$ 5.65	73.82 $\pm$ 4.94	73.75 $\pm$ 2.96	75.96 $\pm$ 7.16	69.43 $\pm$ 3.80	69.82 $\pm$ 3.85	74.71 $\pm$ 3.76	71.43 $\pm$ 6.40
	Standard values	No									
	Total $n = 93$	380.25 $\pm$ 74.87	74.68 $\pm$ 23.69	88.56 $\pm$ 16.74	64.95 $\pm$ 12.21	63.40 $\pm$ 13.29	66.38 $\pm$ 14.46	61.97 $\pm$ 12.68	63.33 $\pm$ 11.54	65.66 $\pm$ 12.68	64.11 $\pm$ 13.70
Male	25–35 years, $n = 11$	422.36 $\pm$ 24.17	62.45 $\pm$ 6.15	97.45 $\pm$ 6.12	72.27 $\pm$ 5.55	70.36 $\pm$ 7.51	73.91 $\pm$ 4.61	67.45 $\pm$ 2.07	69.55 $\pm$ 3.78	73.73 $\pm$ 4.41	73.00 $\pm$ 5.98
	Standard values	363 $\pm$ 24.20	91 $\pm$ 17.09	99 $\pm$ 7.64	65 $\pm$ 5.62	65 $\pm$ 4.94	63 $\pm$ 7.12	56 $\pm$ 6.86	57 $\pm$ 6.27	63 $\pm$ 5.16	59 $\pm$ 6.99
	36–55 years, $n = 100$	364.52 $\pm$ 84.30	80.07 $\pm$ 27.59	84.04 $\pm$ 18.37	62.43 $\pm$ 13.22	59.90 $\pm$ 15.20	63.41 $\pm$ 15.49	59.41 $\pm$ 13.98	61.23 $\pm$ 13.45	62.98 $\pm$ 14.56	62.08 $\pm$ 15.28
	Standard values	336 $\pm$ 33.94	105 $\pm$ 13.66	95 $\pm$ 12.74	63 $\pm$ 5.58	58 $\pm$ 7.80	54 $\pm$ 6.52	57 $\pm$ 7.73	56 $\pm$ 8.27	58 $\pm$ 8.51	52 $\pm$ 5.31
	56 years and older, $n = 12$	444.33 $\pm$ 9.73	55.83 $\pm$ 3.58	103.41 $\pm$ 1.67	76.33 $\pm$ 1.87	74.67 $\pm$ 1.37	80.42 $\pm$ 2.81	71.75 $\pm$ 3.33	72.00 $\pm$ 1.21	76.75 $\pm$ 1.14	75.50 $\pm$ 3.50
	Standard values	No									
	Total $n = 123$	377.48 $\pm$ 81.13	76.13 $\pm$ 26.31	87.13 $\pm$ 17.91	64.67 $\pm$ 12.94	62.28 $\pm$ 14.76	66.01 $\pm$ 15.12	61.33 $\pm$ 13.30	63.02 $\pm$ 12.74	65.28 $\pm$ 14.05	64.37 $\pm$ 14.72
Total	25–35 years, $n = 11$	422.36 $\pm$ 24.17	62.45 $\pm$ 6.15	97.45 $\pm$ 6.12	72.27 $\pm$ 5.55	70.36 $\pm$ 7.51	73.91 $\pm$ 4.61	67.45 $\pm$ 2.07	69.55 $\pm$ 3.78	73.73 $\pm$ 4.41	73.00 $\pm$ 5.98
	36–55 years, $n = 165$	362.27 $\pm$ 82.16	80.43 $\pm$ 26.72	83.77 $\pm$ 17.89	61.92 $\pm$ 12.90	59.52 $\pm$ 14.53	62.95 $\pm$ 15.22	59.15 $\pm$ 13.87	60.96 $\pm$ 13.09	62.50 $\pm$ 14.00	61.64 $\pm$ 15.06
	56 years and older, $n = 40$	434.33 $\pm$ 20.85	58.77 $\pm$ 6.55	101.47 $\pm$ 4.95	74.58 $\pm$ 4.38	74.03 $\pm$ 2.61	77.30 $\pm$ 6.48	70.13 $\pm$ 3.78	70.48 $\pm$ 3.42	75.33 $\pm$ 3.32	72.65 $\pm$ 5.95
	Total $n = 216$	378.67 $\pm$ 78.33	75.50 $\pm$ 25.17	87.75 $\pm$ 17.39	64.79 $\pm$ 12.60	62.76 $\pm$ 14.12	66.17 $\pm$ 14.81	61.61 $\pm$ 13.01	63.16 $\pm$ 12.21	65.44 $\pm$ 13.45	64.25 $\pm$ 14.26

Based on the Self-Acceptance scale, almost 40% of women and 20% of men aged 36–55 are concerned about poor personal characteristics, but are dissatisfied with their status in society in the perception of the surrounding world. That explains why 70.8% of women and 60% of men in this age group tend to perceive their life as meaningless and pointless based on the Meaningful Life category; more than a third of women and almost a third of men have no sense of purpose together with limited or no goals and aspirations based on the scale Purpose in Life.

Based on the category Human Being as an Open System, 63.1% of women and 53% of men aged 36–55 show a lack of willingness to make use of the experience gained and are reluctant to perceive adequately the realities of life. In addition, based on the Environmental Mastery scale, more than a quarter of women and a quarter of men are unable not only to control things, but also to take advantage of emerging opportunities to implement changes; based on the Autonomy scale, a quarter of women and men show dependence on people around them and are prone to submissive behavior.

It should be noted that the findings are correlated with the data on poor professional competencies in the field of management in heads of medical organizations [18].

A survey of women deserves special attention. The groups of men and women showed similar levels of psychological well-being in general, and in certain psychological well-being categories and scales ($p > 0.05$). However, we would like to remind that psychological well-being scores in the age group 36–55 were below standard values in 26% of men and 43.1% of women. It should be noted that there were no women below the age of 35 among the respondents, while men of this age

accounted for 8.9% of male respondents. On the contrary, there were 30.1% of women over 56 among the respondents of this gender, and men of this age accounted only for 9.6%. The number of women among the respondents over the age of 56 was more than two times higher than the number of men: 28 and 12, respectively, while in the population of the country the number of females per 1000 males increases from 1,067 between the ages of 35–55 to 1,233 between the ages of 56–60 (Rosstat, <https://rosstat.gov.ru/folder/12781>). That is, women become heads of departments later and less frequently (the average age of female respondents is significantly higher compared to male respondents; $t = 7.44$, $p \leq 0.001$). We believe that there is discrimination against women concerning career progression. Our assumptions, that career inhibition and inefficient struggle against it result in lower psychological well-being among women, are in line with other studies [19–21].

The decline in indicators of psychological well-being as a whole and in all the categories and scales in men over the age of 35 is one more interesting aspect of the study. It should be noted that the components of psychological well-being change with age: well-being decreases until midlife and increases in late life [22]. Detrimental changes in standard values are also observed in men over the age of 35, but to a lesser degree. However, Autonomy scores become even higher (Table 2). In male respondents over the age of 35, mean levels of psychological well-being decrease to 58 points ($\approx 14.0\%$ of the level of 25–35 years). The most significant reduction in scores in terms of category is observed in the Affect Balance category: the score is reduced by 18 points (29.0% of the level of 25–35 years). The Autonomy and Environmental Mastery categories are the least affected: the score is reduced by

8 points ($\approx 11\%$ of the level of 25–35 years). The Meaningful Life score has decreased by 13 points ($\approx 14.0\%$ of the level of 25–35 years); the scores on the scales Personal Growth, Purpose in Life, Self-Acceptance have decreased by 11 points ($\approx 15\%$ of the level of 25–35 years), and the Openness and Positive Relations scores have decreased by 10 points ($\approx 14.0\%$ of the level of 25–35 years).

We have found no effects of the other studied respondents' characteristics on their psychological well-being. We expected that increased workloads experienced by employees working in the res zones would have a negative impact on their psychological well-being. It can be assumed that the effects of increased workloads are alleviated by satisfaction from the growing sense of accomplishment, direct personal involvement in addressing a global health problem, realization of altruistic behavior, markedly positive attitude of the society [7, 8]. We also expected to find a positive correlation between psychological well-being and formal characteristics of professional development: second higher education, qualification category, academic degree. However, formal characteristics of professional development had no effect, even on the respondents' personal growth (qualification category, $p = 0.990$; academic degree, $p = 0.430$; second higher education, $p = 0.686$). At the same time, the fact that more than 40% of respondents have Personal Growth scores below average is a particular cause for concern, as the requirements

for intense professional development of physicians and healthcare managers grow.

CONCLUSIONS

Although the average levels of the respondents' psychological well-being exceed standard values, the findings reveal several problematic aspects. First, high proportion of individuals with the scores of psychological well-being and its components below standard values was found in the group aged 36–55. Second, lower psychological well-being of women was noted in the studied group. Third, there was a significant decline in psychological well-being among men over the age of 35. The findings expand understanding of psychological well-being of the department heads and healthcare professionals. However, the features of psychological well-being discovered entail identification of the underlying cause. Furthermore, it is necessary to confirm no correlation of psychological well-being, especially personal growth, with formal characteristics of professional development and workloads. In this regard, further research in this area could be recommended, involving the expansion of certain gender and age groups included in the sample population and the use of a larger number of the respondents' characteristics, to develop fully fledged recommendations regarding personnel management of medical organizations.

References

1. The principles of quality assurance. WHO Working Group. Qual Assur Health Care. 1989; 1 (2–3):79–95. DOI: 10.1093/intqhc/1.2-3.79.
2. Donabedian A. Evaluating the quality of medical care. 1966. Milbank Q. 2005; 83 (4): 691–729. DOI: 10.1111/j.1468-0009.2005.00397.x.
3. Brynza NS, Kicha DI, Zaxarchenko NM. Effektivnost' podxodov obespecheniya kachestva medicinskoj pomoshhi i nepreryvnogo medicinskogo obrazovaniya v kontekste polozhitel'nyx trendov zabollevaemosti Vyatskij medicinskij vestnik. 2017; 1 (53). 60–63. Russian.
4. Manturova NE, Kochubey VV, Kochubey AV. The competence of plastic surgeons. Bulletin of RSMU. 2018; 2: 63–7. DOI: 10.24075/brsmu.2018.023.
5. Donabedian A. Methods for deriving criteria for assessing the quality of medical care. Med Care Rev. 1980; 37 (7): 653–98.
6. Chmielewska M, Stokwizewski J, Filip J, Hermanowski T. Motivation factors affecting the job attitude of medical doctors and the organizational performance of public hospitals in Warsaw, Poland. BMC Health Serv Res. 2020; 20 (1): 701. DOI: 10.1186/s12913-020-05573-z.
7. Yates SW. Physician stress and burnout. Am J Med. 2020; 133 (2): 160–4. DOI: 10.1016/j.amjmed.2019.08.034.
8. Azam K, Khan A, Alam MT. Causes and adverse impact of physician burnout: A systematic review. J Coll Physicians Surg Pak. 2017; 27: 495–501.
9. Sibeoni J, Bellon-Champel L, Mousty A, Manolios E, Verneuil L, Revah-Levy A. physicians' perspectives about burnout: a systematic review and metanalysis. J Gen Intern Med. 2019; 34 (8): 1578–90.
10. Rotenstein LS, Torre M, Ramos MA, Rosales RC, Guille C, Sen S, et al. Prevalence of burnout among physicians: a systematic review. JAMA. 2018; 320 (11): 1131–50. DOI: 10.1001/jama.2018.12777. PMID: 30326495; PMCID: PMC6233645.
11. Shawahna R, Maqboul I, Ahmad O, Al-Issawy A, Abed B. Prevalence of burnout syndrome among unmatched trainees and residents in surgical and nonsurgical specialties: a cross-sectional study from different training centers in Palestine. BMC Med Educ. 2022; 22 (1): 322. DOI: 10.1186/s12909-022-03386-8. PMID: 35473599; PMCID: PMC9041277.
12. Clough BA, March S, Leane S, Ireland MJ. What prevents doctors from seeking help for stress and burnout? A mixed-methods investigation among metropolitan and regional-based Australian doctors. J Clin Psychol. 2019; 75 (3): 418–32. DOI: 10.1002/jclp.22707.
13. Melnyk BM, Kelly SA, Stephens J, Dhakal K, McGovern C, Tucker S, et al. Interventions to improve mental health, well-being, physical health, and lifestyle behaviors in physicians and nurses: a systematic review. Am J Health Promot. 2020; 34 (8): 929–41. DOI: 10.1177/0890117120920451. PMID: 32338522; PMCID: PMC8982669.
14. Collin V, Toon M, O'Selmo E, Reynolds L, Whitehead P. A survey of stress, burnout and well-being in UK dentists. Br Dent J. 2019; 226 (1): 40–49. DOI: 10.1038/sj.bdj.2019.6. PMID: 30631165.
15. Prikaz Ministerstva truda i social'noj zashchity RF ot 7 noyabrya 2017 g. # 768n «Ob utverzhdenii professional'nogo standarta «Specialist v oblasti organizacii zdravooxraneniya i obshchestvennogo zdorov'ya». Russian.
16. Shevelenkova TD, Fesenko TP. Psixologicheskoe blagopoluchie lichnosti. Psixologicheskaya diagnostika. 2005; 3: 95–121. Russian.
17. Otdelnova KA. Opredelenie neobxodimogo chisla nablyudenij v social'no-gigienicheskix issledovaniyax. Sbornik trudov 2-go MMI. 1980; 150 (6): 18–22. Russian.
18. Konanyxina AK. Ocenka kompetencij kak osnova formirovaniya individual'noj traektorii nepreryvnogo obrazovaniya rukovoditelej medicinskoj organizacii. Sbornik nauchnyx trudov Akademii postdiplomnogo obrazovaniya FGBU FNKC FMBA Rossii. 2022; 1: 3–16. Russian.
19. Lucia-Casademunt AM, Salinas-Pérez JA. Gender differences in psychological well-being and health problems among European health professionals: analysis of psychological basic needs and job satisfaction. Int J Environ Res Public Health. 2018; 15 (7): 1474. Available from: <https://doi.org/10.3390/ijerph15071474>.
20. Moreau E, Mageau GA. The importance of perceived autonomy support for the psychological health and work satisfaction of health professionals: Not only supervisors count, colleagues too! Motiv Emot. 2012; 36: 268–86.

21. Koropec OA. Social'no-psixologicheskoe blagopoluchii rabotnikov raznykh kategorij. Vestnik Altajskoj akademii ehkonomiki i prava. 2020; 11 (3): 499–506. DOI: 10.17513/vaael.1454. Russian.
22. Blanchflower DG, Oswald AJ. Do humans suffer a psychological

low in midlife? Two approaches (with and without controls) in seven data sets. Bonn: Institute of Labor Economics (IZA). 2017; Available from: <https://www.econstor.eu/bitstream/10419/170942/1/dp10958.pdf>.

Литература

1. The principles of quality assurance. WHO Working Group. Qual Assur Health Care. 1989; 1 (2–3):79–95. DOI: 10.1093/intqhc/1.2-3.79.
2. Donabedian A. Evaluating the quality of medical care. 1966. Milbank Q. 2005; 83 (4): 691–729. DOI: 10.1111/j.1468-0009.2005.00397.x.
3. Брынза Н. С., Кича Д. И., Захарченко Н. М. Эффективность подходов обеспечения качества медицинской помощи и непрерывного медицинского образования в контексте положительных трендов заболеваемости Вятский медицинский вестник. 2017; 1 (53). 60–63.
4. Мантурова Н. Е., Кочубей В. В., Кочубей А. В. Компетентность пластических хирургов. Вестник Российского государственного медицинского университета. 2018; 2: 67–71. DOI: 10.24075/vrgmu.2018.023.
5. Donabedian A. Methods for deriving criteria for assessing the quality of medical care. Med Care Rev. 1980; 37 (7): 653–98.
6. Chmielewska M, Stokwizewski J, Filip J, Hermanowski T. Motivation factors affecting the job attitude of medical doctors and the organizational performance of public hospitals in Warsaw, Poland. BMC Health Serv Res. 2020; 20 (1): 701. DOI: 10.1186/s12913-020-05573-z.
7. Yates SW. Physician stress and burnout. Am J Med. 2020; 133 (2): 160–4. DOI: 10.1016/j.amjmed.2019.08.034.
8. Azam K, Khan A, Alam MT. Causes and adverse impact of physician burnout: A systematic review. J Coll Physicians Surg Pak. 2017; 27: 495–501.
9. Sibeoni J, Bellon-Champel L, Mousty A, Manolios E, Verneuil L, Revah-Levy A. physicians' perspectives about burnout: a systematic review and metasyntesis. J Gen Intern Med. 2019; 34 (8): 1578–90.
10. Rotenstein LS, Torre M, Ramos MA, Rosales RC, Guille C, Sen S, et al. Prevalence of burnout among physicians: a systematic review. JAMA. 2018; 320 (11): 1131–50. DOI: 10.1001/jama.2018.12777. PMID: 30326495; PMCID: PMC6233645.
11. Shawahna R, Maqboul I, Ahmad O, Al-Issawy A, Abed B. Prevalence of burnout syndrome among unmatched trainees and residents in surgical and nonsurgical specialties: a cross-sectional study from different training centers in Palestine. BMC Med Educ. 2022; 22 (1): 322. DOI: 10.1186/s12909-022-03386-8. PMID: 35473599; PMCID: PMC9041277.
12. Clough BA, March S, Leane S, Ireland MJ. What prevents doctors from seeking help for stress and burnout? A mixed-methods investigation among metropolitan and regional-based Australian doctors. J Clin Psychol. 2019; 75 (3): 418–32. DOI: 10.1002/jclp.22707.
13. Melnyk BM, Kelly SA, Stephens J, Dhakal K, McGovern C, Tucker S, et al. Interventions to improve mental health, well-being, physical health, and lifestyle behaviors in physicians and nurses: a systematic review. Am J Health Promot. 2020; 34 (8): 929–41. DOI: 10.1177/0890117120920451. PMID: 32338522; PMCID: PMC8982669.
14. Collin V, Toon M, O'Selmo E, Reynolds L, Whitehead P. A survey of stress, burnout and well-being in UK dentists. Br Dent J. 2019; 226 (1): 40–49. DOI: 10.1038/sj.bdj.2019.6. PMID: 30631165.
15. Приказ Министерства труда и социальной защиты РФ от 7 ноября 2017 г. № 768н «Об утверждении профессионального стандарта «Специалист в области организации здравоохранения и общественного здоровья».
16. Шевеленкова Т. Д., Фесенко Т. П. Психологическое благополучие личности. Психологическая диагностика. 2005; 3: 95–121.
17. Отдельнова К. А. Определение необходимого числа наблюдений в социально-гигиенических исследованиях. Сборник трудов 2-го ММИ. 1980; 150 (6): 18–22.
18. Конаныхина А. К. Оценка компетенций как основа формирования индивидуальной траектории непрерывного образования руководителей медицинской организации. Сборник научных трудов Академии постдипломного образования ФГБУ ФНКЦ ФМБА России. 2022; 1: 3–16.
19. Lucia-Casademunt AM, Salinas-Pérez JA. Gender differences in psychological well-being and health problems among European health professionals: analysis of psychological basic needs and job satisfaction. Int J Environ Res Public Health. 2018; 15 (7): 1474. Available from: <https://doi.org/10.3390/ijerph15071474>.
20. Moreau E, Mageau GA. The importance of perceived autonomy support for the psychological health and work satisfaction of health professionals: Not only supervisors count, colleagues too! Motiv Emot. 2012; 36: 268–86.
21. Кoropec O. A. Социально-психологическое благополучии работников разных категорий. Вестник Алтайской академии экономики и права. 2020; 11 (3): 499–506. DOI: 10.17513/vaael.1454.
22. Blanchflower DG, Oswald AJ. Do humans suffer a psychological low in midlife? Two approaches (with and without controls) in seven data sets. Bonn: Institute of Labor Economics (IZA). 2017; Available from: <https://www.econstor.eu/bitstream/10419/170942/1/dp10958.pdf>.