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**STRES NA RADNOM MESTU KOD MEDICINSKOG OSOBLJA U PRIMARNOJ ZDRAVSTVENOJ ZAŠTITI**

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**STRES NA RADNOM MESTU KOD MEDICINSKOG OSOBLJA U  
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## Abstract

**Introduction / Aim.** The aim of this paper is to investigate the state of stress among employees in the field of primary health care in order to identify the factors that most affect stress and the identification of groups that are particularly susceptible to stress. **Methods.** The survey was conducted using a sample of 95 health workers in the field of primary health care. Data was collected through an anonymous survey consisting of two parts. The first part of the survey included questions related to the characteristics of the workplace, the professional and socio-demographic characteristics of the employees. The second part of the survey is based on the Behavioral Health Concepts (BHC) stress test, which is used to estimate the adaptation to stress across four dimensions: overall assessment, quality of life assessment, symptomatology, and level of functioning. **Results.** Using descriptive statistical analysis, it was discovered that, although the total number of respondents fell under the group of moderate stress ( $M = 3.97$ ), 4.2% of the respondents had an elevated level of stress. The use of variance analysis demonstrated that there were statistically significant differences ( $p < 0.00$ ) between the effects of educational variables ( $F = 11.68$ ), workplace ( $F = 14.07$ ) and work time ( $F = 9.16$ ) on overall stress. Significant interaction between variable workplace and work time was also found [ $F(2,72) = 3.22$ ;  $p < .046$ ]. **Conclusion.** Primary health care employees have an increased level of stress, which depends on both the working conditions and the personal characteristics of the employees.

**Key words:** stress, management, health, primary health care, prevention, human resources.

## Apstrakt

**Uvod/Cilj.** Cilj ovog rada je da se istraži stanje stresa kod zaposlenih u oblasti primarne zdravstvene zaštite radi identifikacije faktora koji najviše utiču na stres i identifikacije grupa koje su posebno podložne stresu. **Metode.** Istraživanje je sprovedeno na uzorku od 95 zdravstvenih radnika zaposlenih oblasti primarne zdravstvene zaštite. Podaci su prikupljeni pomoću anonimne ankete koja se sastojala iz dva dela. Prvi deo ankete je sadržao pitanja koja se odnose na karakteristike radnog mesta, profesionalne i socio-demografske karakteristike zaposlenog. Drugi deo ankete je baziran na *Behavioral Health Concepts* (BHC) stres testu, koji se koristi za procenu adaptacije na stres preko četiri dimenzije: ukupna ocena, ocena kvaliteta života, simptomatologija i nivo funkcionisanja. **Rezultati.** Upotrebom deskriptivne statističke analize pokazalo se da iako ukupno gledano ispitanici spadaju u grupu umerenog stresa ( $M=3.97$ ) kod 4.2% ispitanika postoji povišen nivo stresiranosti. Upotrebom analize varijanse pokazalo se da postoje statistički značajne razlike ( $p < 0.00$ ) između uticaja varijabli obrazovanja ( $F=11.68$ ), radnog mesta ( $F=14.07$ ) i radnog staža ( $F=9.16$ ) na ukupan stres. Takođe pronađena je i značajna interakcija između varijabli radno mesto i radni staž [ $F(2,72)=3.22$ ;  $p < .046$ ]. **Zaključak.** Kod zaposlenih u primarnoj zdravstvenoj zaštiti pojavljuje se povišen nivo stresa, što zavisi kako od uslova rada tako i ličnih karakteristika zaposlenih.

**Ključne reči: stres, menadžment, zdravlje, primarna zdravstvena zaštita, prevencija, ljudski resursi.**

**Introduction**

So far, the published analyses of working in outpatient units in Serbia and the City of Belgrade suggest that there is an increased workload of medical staff employed in primary health care in relation to the statutory scope of the provision of health services<sup>1</sup>. This data suggests that primary health care workers are exposed to stress at the workplace.

There are many consequences from chronic stress. In an individual under stress, the psychological consequences such as high levels of irritability, frustration, anxiety, aggression, nervousness, apathy, depression, disorientation, loss of self-esteem, as well as somatic consequences, such as high blood pressure, arrhythmia, difficulty breathing and the like are the most striking. If these problems persist for a long time, they can lead to serious disorders of the digestive system, cardiovascular system, immune system, locomotor system, which results in atherosclerotic changes to the blood vessels, nervous intestines, digestive disorders, frequent colds, malignant diseases, asthma and long-term diseases<sup>2-7</sup>. Regardless of the resistance of psychic and physical constitution to the effects of stressors, high levels of stress as well as chronic stress have a negative impact on performance<sup>8-10</sup>.

In the literature dealing with modern theories of stress in the workplace the integrative-process concept has been singled out as the most dominant<sup>11</sup>. This model takes into account external stressors, which primarily concern the characteristics of work, workplace, work process and management, working atmospheres<sup>12-13</sup> and the dispositional characteristics of the individual, of which stress resistance, the speed of overcoming stress and stress sediment are particularly significant<sup>14</sup>. One of the variants of this concept is the "effort-reward" model, based on the premise that breaking the reciprocity between effort invested at work and material compensation is the main cause of emotional and later health problems among employees<sup>15</sup>. This model can be largely applied to the analysis of stress among employees in the health sector<sup>16</sup>. As studies show, doctors in the United States are not satisfied with their work. Namely, as many as 78% of the respondents stated that they did not enjoy their work or that they found much less fulfillment at work than at the beginning of their career, while 68% of respondents would not recommend medicine as a professional orientation<sup>17</sup>.

In the medical profession, in addition to the usual stress factors in the workplace, there are specific causes of stress, such as acute conditions requiring urgent intervention, constant contact with death, serious illness or persons with physical disabilities, and an unpleasant feeling due to the inability to provide adequate assistance to the patient. It can be assumed that the risk of professional omissions and iatrogenic defects that can have drastic consequences for the health and life of patients constitute an additional burden for health workers, especially in developing countries, where material factors and a lack of resources have a significant outcome for treatment.

Primary healthcare as a pillar for prevention and the preservation of the health of the nation is an especially important part of the health system through which the functioning of the state organs and the overall situation in the society is reflected. Factors that can contribute to stress among employees in the field of primary healthcare are-in addition to inadequate material-technical conditions for work, an insufficient number of employed professionals, long waiting periods, a demanding administration and short amount of time available for the doctor, the availability of time for a patient check-up, as

well as the differences in material compensation for work in the private and public health sector<sup>18</sup>.

In accordance with the above, some empirical studies have confirmed that there is an increased level of stress at work in the medical personnel in Serbia and the risk of burn-out syndrome<sup>6</sup>, and that it could be prevented, which requires more detailed research and identification of groups that are especially susceptible / exposed to stress. Personal characteristics such as gender, age, education, workplace, family and social status are potential indicators that act upon on the vulnerability of an individual in stressful situations<sup>7</sup>, and the relationship of these indicators with the level of stress among employees in healthcare institutions in Serbia has not yet been thoroughly examined.

The aim of this paper is to investigate the state of stress among employees in the field of primary health care in order to identify the factors that most affect stress and the identification of groups that are particularly susceptible to stress.

## **Methods**

For the purpose of this research, the results of the survey from one of the total of 16 health centers in the territory of the City of Belgrade were analyzed (in order to protect the anonymity of the respondents, the name of the institution in which the poll was conducted was omitted). The selected institution can be considered representative because of a number of branches in urban and suburban areas. The study was conducted on a sample of 95 subjects, which included 10 men and 85 women, the average age being 43 years. The ratio of male and female respondents is proportional to the gender representation among the employees at the selected institution where the research was conducted<sup>16,18</sup>. The sample size was selected after analyzing the statistical power for the analysis of variance for the draft 3x2 (three levels of factor A with a combination of two levels of factor B at each level of factor A), using  $\alpha = 0.05$ , the strength  $f = 0.80$ , and for the mean expected effect ( $\delta = 0.4$ )<sup>19,20</sup>. In addition to the above assumptions, the minimum sample size should be 75 examinees. When forming a sample, the structure of subunits is balanced by variables related to the workplace (workplace and department) and by intervening variables (gender, marital status, number of children, average daily number of examinations, years of work experience). Of the above variables in terms of statistical power analysis under factor A are the years of work experience from three levels (up to 15 years, from 15 to 25 years, and over 25 years of service) while the variable workplace and other intervening variables that have two levels represent Factors B in individual variance analysis.

All respondents were asked to solve an anonymous questionnaire consisting of two parts. The first part of the questionnaire consisted of questions relating to sex, education, marital status, number of children, workplace, department in which the employee performs their duties, average daily number of patients, and years of work experience. The second part of the questionnaire is based on the Behavioral Health Concepts (BHC) stress test, which is a standardized questionnaire designed using a factor analysis that reduced the initial inventory from about 400 to 27, best describing three factors: quality of life, level of functioning, and symptomatology. The assessment of quality of life consists of four sub-factors: autonomy, self-confidence, social support, and physical health. The assessment of symptomatology is described by three sub-factors: depression, somatization, and paranoia. The level of functioning in everyday life relates to issues related to misconduct (physical and verbal conflicts) and the level of social skills development (in both business and private life). The result of a BHC test is a stress barrier, ranging from 0 to 5 for each of the

sub-factors, as well as for total stress. A lower numerical value describes a higher degree of stress and vice versa, a greater number represents a better adaptation to stress. Depending on the results, respondents are further classified into one of four categories: well-adapted, moderately shaken, highly stressed, and extremely stressed, for each of the above dimensions. BHC stress test has good psychometric characteristics<sup>21</sup>, which were confirmed in Serbia through "various research with teachers in elementary and secondary school, university students, nurses, and also in Serbian post and in some sectors of Serbian army"<sup>22</sup>.

All respondents volunteered to participate in the research, they were informed both written and orally of the tasks in advance, with the fact that personal data will be protected and at any moment can give up the examination without any consequences. The research was approved by the Dean of the Faculty of Physical Culture and Sports Management, and in accordance with the Code of Professional Ethics of the Singidunum University, as well as with the Ethical Principles and the Code prescribed by the APA. The quantified data was processed by descriptive statistical analysis, t test, hi-square test and variance analysis using the software package SPSS version 22.0.

## **Results**

The results of descriptive statistical analysis (Table 1) showed that the average respondent was under moderate stress ( $M = 3.97$ ). Also, the average respondent is characterized by a subclause of quality of life (3.92) and symptomology ( $M = 3.81$ ) as moderately stressed, while on the subscale of functionality it is assessed as well adapted to stress ( $M = 4.20$ ). An analysis of the percentage representation of stress categories (Table 2) showed that according to total stress 4.2% of the total sample belongs to the group of elevated stress, while on the subscale the quality of life and symptomatology are significantly higher (11.6% and 14.7%), and subscale of symptomatology the phenomenon of extremely stressed workers is also recorded (1.1%).

When it comes to variables that affect the occurrence of stress (Table 1), it can be concluded that men on all three subscales, as a total stress rating, fall under the category of good adaptation, while women are in a group that is under moderate stress, excepting the subscale of functionality, where they also belong to a group of moderate stress. Employees over 40 years of age achieve lower results on total stress and subscales compared to employees under 40 years of age. In accordance with this, the results obtained from the variable work experience show that the group of workers over 25 years of age is the most at risk for stress, while the best adaptation has been singled out by a group of employees with a working experience ranging from 15 to 25 years. There were no significant differences in adaptation to stress among employees who do not have children or have only one child in relation to employees with two or more children, except for symptomatology subscale, according to which childless workers or those with one child are better adapted, although this difference is not statistically significant. Unmarried healthcare center workers of Non-Married belong to a well-adapted group, unlike their married colleagues who are under moderate stress, with the exception of sub-functionality subscale. Similarly, highly educated employees belong to a group of those who are well-adapted to stress, as opposed to workers who have completed high school and who belong to a group of employees that are under moderate stress. These differences are also noticeable in terms of variable employment, which very similarly differentiates the sample to the subunits, as well as the variable education. With the exception of two respondents, all subjects with higher education are employed as doctors. Differences in stress levels among employees of different educational levels are even more pronounced when the sample is segmented

according to variable employment. And according to the percentage distribution of stress categories (Table 2), there are differences in the adaptation to stress among physicians and nurses and technicians. Namely, it is noticeable that doctors in all subscales are better adapted to stress than other medical staff, and this figure is most noticeable when considering total stress - no doctors and 7.3% of nurses and technicians belong to the category of employees under increased stress. According to the department in which they work and the average daily number of patients, there is little difference between the medical staff in stress adaptation. The exception is the variable total stress, according to which employees who have up to 40 patients per day belong to the group of good adaptation, while the employees who see more than that number of patients fall under the group of employees under moderate stress ( $M = 3.97$ ). Moreover, the average respondent is characterized by a subclause of quality of life (3.92) and symptomatology ( $M = 3.81$ ) as moderately stressed, while on the subscale of functionality it is assessed as well adapted to stress ( $M = 4.20$ ). An analysis of the percentage representation of stress categories (Table 2) showed that according to overall stress, 4.2% of the total sample belong to the group of elevated stress, while in the subclause of quality of life and symptomatology they are significantly higher (11.6% and 14.7%), and subclause of symptomatology the phenomenon of extremely stressed workers is also recorded (1.1%).

When it comes to variables that affect the occurrence of stress (Table 1), it can be concluded that men on all three subscales, as a total stress rating, fall into the category of good adaptation, while women are in a group that is under moderate stress, subscale functionality, where they belong to a group of those suffering from moderate stress. Employees over 40 years of age achieve lower results on total stress and subclause compared to employees less than 40 years of age. In accordance with this, the results obtained from the variable of work experience show that the group of workers with over 25 years of age is most at risk of stress, while the best adaptation has been singled out by a group of employees with a working experience ranging from 15 to 25 years. There were no significant differences in adaptation to stress among employees who do not have children or have only one child in relation to employees with two or more children, except for the subclause of symptomatology, according to which workers without children or with one child are better adapted, although this difference is not statistically significant. Unmarried health center workers belong to a group of well-adapted people, unlike their married colleagues who are under moderate stress, with the exception of sub-functionality. Similarly, highly educated employees belong to a group of those well-adapted to stress, as opposed to workers who have completed a high school education and who belong to a group of employees who are under moderate stress. These differences are also noticeable in terms of variable employment, which very similarly differentiates the sample to the subunits, as well as the variable education. With the exception of two respondents, all subjects with higher education are employed as doctors. Differences in stress among employees of different educational levels are even more pronounced when the sample is segmented by variable employment. And according to the percentage distribution of stress categories (Table 2), there are differences in the adaptation to stress among physicians and nurses and technicians. Namely, it is noticeable that doctors in all subclauses are better adapted to the stress than other medical staff, and this figure is most noticeable when considering total stress - no doctor and 7.3% of nurses and technicians belong to the category of employees under increased stress. According to the department on which they work and the average daily number of patients, there is little difference between the medical staff in the adaptation to stress. The exception is the variable total stress, according

to which employees who have up to 40 patients per day belong to the group of good adaptation, while employees who serve over that number are in the group of employees under moderate stress. Although all the average values speak of moderate stress and good adaptation of medical staff, the number of minimal scores (Table 1) and the percentage representation of categories of stress levels (Table 2) indicated that among employees there are those who belong to a group of high and extreme stressed in the total sample as well as in subunits.

The results of the analysis of variance (Table 1) showed that the total difference in stress, according to education, workplace, and the difference between the educational, workplace and work experience, were statistically significant ( $p < 0.00$ ), work experience by variable symptomatology and according to the work experience according to the variable functionality. They are also statistically significant ( $p < 0.05$ ) and differences in marital status and length of service according to the variable quality of life and by gender in the variable symptomatology. On the edge of statistical significance ( $p < 0.08$ ) there are also gender differences per variable total stress. In addition to the effects of individual workplace dimensions on stress variables, their interactions were also examined.

In the case of total stress, a significant factor interaction was observed in the workplace and the working period [ $F(2,72) = 3.22$ ;  $p < .046$ ]. The total stress of doctors and nurses varies in different ways from years of service (Graph 1). The interaction of these two factors can be explained to a large extent by their interaction with the quality of life [ $F(2,72) = 6.37$ ;  $p < .003$ ].

On the functionality, a significant factor interaction was given to the workplace and the department [ $F(1,72) = 10.60$ ;  $p < .002$ ], and the factor division and working time [ $F(2,72) = 3.36$ ;  $p < .040$ ]. The functionalities of doctors and nurses working in the adult health care departments and the health care of children varies in different ways (Graph 3), while the functionality of employees in the adult health care and health care sector varies in different ways compared to the years of service (Graph 4).

In the quality of life, a significant interaction of factor working hours and number of examinations was obtained [ $F(2,72) = 4.25$ ;  $p < .018$ ]. The quality of life varies in a variety of ways for employees who have up to 40 patients per day and over 40 patients per day compared to years of service (Graph 5).

## **Discussion**

The results of the survey (Table 1) show that employees in the field of primary healthcare, though in the long term exposed to stress, are better adapted to it than could be expected given the specificity of the calls, working conditions, insufficient number of employees, large volume of work and material compensation. These facts are important because stress in the workplace can lead to a number of psychophysical problems in the workforce, a decline in work capacity, and concentration levels that can cause iatrogenic failures in work and fatal consequences. Although in a small percentage, the presence of extremely stressed workers (Table 2) there is also cause for emergency intervention measures in order to prevent damage to their health, as well as consequences for users of health system services.

Most of the results obtained concerning stress levels and its relationship to personal characteristics and working conditions are in line with theoretical frameworks and findings of previous empirical studies<sup>33-28</sup>. The greatest impact on stress adaptation (Table 1 and Table



2) is related to years of working hours and employment, or education. According to the results of the research, as the growth of the respondents' education grows so does their adaptation to stress, the best-equipped faculty respondents are the best adapted. Since doctors are mainly amongst those in the highly educated group, while nurses and technicians have a middle degree of professional education, it is not surprising that by comparing these two groups, the results are almost identical as when respondents compare their education. Similarly, it can be noticed that when comparing the sample segments according to economic status - nurses and technicians have lower incomes, and are less adapted to the stresses of a physician. The discovery that nurses demonstrate more symptoms of burning out at work (burn out) was obtained in other empirical studies<sup>23,24,25,26</sup>.

When looking at the interaction of the factors of work experience and employment (Graphs 1 and 2), it can be seen that, unlike nurses and technicians, whose adaptation to stress constantly decreases with length of service, in the case of doctors employed 15-25 years in the same workplace, adaptation to stress in relation to their colleagues with shorter working hours. This finding may be a supplement to the explanation of the above findings of empirical studies<sup>23,24,25,26</sup>. Namely, it can be assumed that with the passing of time, doctors gain confidence in themselves and their skills, which makes it easier to deal with stress at the workplace, while the decline in adaptation after 25 years of service could be from one the parties are attributed to aging and consequent weakening of biological, emotional and mental capacities to combat stress, as well as the emergence of monotony in the workplace and the decline in skills and motivation for further training. Bearing in mind that there are no statistically significant differences between employees older than and under 40 years, it is more likely that this is not about aging or other reasons, but due to an insufficient sample size, and an especially insufficient number of young and extremely old respondents. This finding must be taken with reserve, and may be the reason for more detailed future research.

Although there are no statistically significant differences between medical staff employed in adult and child healthcare departments, the interaction between the employment factor and the department (Graph 3) speaks about the nature and organization of work as the primary cause of stress in primary healthcare. Nurses and technicians, when considering the overall pattern, are less adapted to the stresses of a physician, and when considering a sample from the adult health department. However, in the health care department of children, medical nurses and technicians are slightly better adapted to stress than doctors. This finding can be explained by the fact that medical work is more complex and responsible when dealing with children, while the pressure of patients on nurses and technicians as a result of greater fluctuation of patients is more present in the adult healthcare department. Related to this are the results concerning the interaction of the factors of work and department (Graph 4). It has been demonstrated that the health care department of adults has a positive effect on working experience, so that those that adapt the best are workers with 15-25 years of service. On the other hand, the length of service in the child healthcare department has a negative effect on adaptation to stress, and long-term employees in this department are a vulnerable group, which speaks in favor of the previous assumptions about the nature of work as the main source of stress in this study. These findings could be a complement to theoretical explanations of the relationship between workplace characteristics and stress<sup>24,27,28</sup>, in which emphasis is placed on interpersonal relationships and management attitude as the key characteristics of the workplace responsible for the stress of employees.

It is somewhat surprising to find that, although there is a statistically significant link between the daily number of examinations and the level of stress among employees, it is relatively small (Table 1). It is somewhat contrary to the findings of previous studies<sup>24</sup>. However, compared to some other countries where the number of daily examinations and interventions of medical staff does not exceed 10, the subjects in this study ranged between 30-40 (30%) and over 40 (50%) that are reviewed daily, indicating that the load is present to the extent that further increases in the number do not affect stress. Moreover, the interaction of factor work hours and the number of examinations (Graph 5) shows that a large number of reviews mostly have a negative impact on adaptation to the stress of employees who have a relatively short work experience (up to 15 years). Accordingly, doctors who have a large number of examinations and interventions per day are better adapted to those who have been employed for more than 30 years, which indicates that with experience they gain skills and build a relationship that makes these doctors more demanding than others, and satisfaction at work represents a significant source of adaptation to stress. This finding is in accordance with the empirical findings that in fact the assessment of one's own competence is cross-sectioned with high workload results in a burnout<sup>24</sup>.

Previous research on this topic has demonstrated that women adapt less to stress at work<sup>23,26,28</sup>, which can be attributed to the interdependence of psychological and biological specificity of the female sex, the use of varying coping strategies<sup>28</sup> or the inability to balance professional and family obligations. The results of this study argue in favor of the third assumption, but due to the small number of males surveyed, they can only be taken as the starting point for future research. Although they are not unambiguous, the results presented also support the fact that in primary healthcare the work organization is often more stressful than the nature of work, and that there are aspects of the organization of work that the management of the institution could influence in order to reduce stress among employees, which is in line with the findings of previous studies<sup>24,26,28</sup>.

The major limitations of this study are that not all potential factors that could affect the occurrence of stress in the workplace have been covered. During the research, it was noted that the inventory of independent and intervening variables is insufficient, and should be expanded with indicators of both personal and material characteristics of the employees, as well as the social and material working conditions, which would require additional increases to the sample size. In order to better understand the state of stress of medical staff in primary health care, it is necessary to repeat similar research on a larger sample of examinees, and with an expanded inventory of independent and intervening variables.

## **Conclusion**

Based on everything stated, it can be concluded that a certain number of employees in the field of primary healthcare have increased levels of stress, which is primarily related to the conditions and nature of the work, but also with personal and family characteristics. The results of this study show that university-educated men with 15 to 25 years of service are those that best adapt to stress.

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**Tables**

**Table 1.**

**Descriptive Statistical Analysis and Variance Analysis of Stress among Community Health Centre Workers – complete sample and subsamples**

		Total stress					Life quality			Symptomatology			Functionality			
		N	Min	Max	M	St D	Sig	M	St D	Sig	M	St D	Sig	M	St D	Sig
	All	95	2,70	4,96	3,97	0,56	/	3,92	0,64	/	3,81	0,82	/	4,20	0,50	/
G	m	10	3,43	4,93	4,28	0,62		4,20	0,79		4,28	0,85		4,38	0,50	
	f	85	2,70	4,96	3,94	0,54	0,07	3,88	0,62	0,15	3,75	0,81	0,05	4,18	0,51	0,24
Age	under 40	40	3,05	4,96	4,04	0,51		4,03	0,51		3,84	0,74		4,26	0,54	
	over 40	55	2,70	4,93	3,93	0,59	0,32	3,84	0,60	0,16	3,78	0,89	0,75	4,16	0,48	0,33
No. Chl.	1	49	2,70	4,93	3,99	0,56		3,93	0,66		3,85	0,81		4,19	0,47	
	More than 1	46	2,86	4,96	3,96	0,57	0,81	3,91	0,63	0,90	3,76	0,84	0,59	4,21	0,55	0,84
MS	single	28	3,13	4,96	4,10	0,48		4,11	0,56		4,02	0,67		4,18	0,53	
	married	67	2,70	4,93	3,92	0,58	0,14	3,84	0,66	0,05	3,72	0,87	0,11	4,21	0,50	0,80
Education	secondary	53	2,70	4,93	3,81	0,54		3,72	0,58		3,58	0,78		4,13	0,52	
	Post & higher	42	3,34	4,96	4,18	0,52	0,00	4,17	0,72	0,00	4,09	0,88	0,00	4,29	0,49	0,14
Position	doctor	40	3,49	4,93	4,21	0,49		4,20	0,47		4,14	0,79		4,30	0,52	
	nurse	55	2,70	4,96	3,80	0,55	0,00	3,71	0,68	0,00	3,56	0,77	0,00	4,13	0,49	0,12
LS	Less than 15 y.	36	3,05	4,96	4,10	0,51		4,04	0,55		3,98	0,76		4,28	0,55	
	15-25	29	3,13	4,93	4,16	0,50	0,00	4,03	0,61	0,03	4,09	0,67	0,00	4,37	0,43	0,00
	over 25	30	2,70	4,90	3,64	0,53		3,66	0,72		3,32	0,83		3,95	0,43	
Unit	adults	54	3,05	4,90	3,99	0,54		3,90	0,58		3,86	0,78		4,21	0,52	
	children	41	2,70	4,96	3,95	0,59	0,72	3,93	0,72	0,81	3,73	0,88	0,45	4,19	0,49	0,83
No. Pat.	Less than 40	46	2,70	4,96	4,01	0,59		3,94	0,68		3,90	0,88		4,20	0,53	
	over 40	49	2,86	4,90	3,94	0,53	0,53	3,90	0,61	0,78	3,72	0,76	0,31	4,20	0,49	0,99

N-number of interviewees, Min-minimum, Max-maximum, M- mean, St D-standar deviation, Sig- level of statistical significance for One-way ANOVA, G-gender (male, female), Age (under 40, over 40), No. Chl.- number of children (0 and 1, more than 1), MS-marital status (single, married), Education (secondary, post-secondary & higher education), Position (doctor, nurse), LS - length of service (less than 15 years, 15-25 y., more than 25 y.), Unit (adults healthcare, children healthcare), No. Pat.-average number of patients per day (less than 40, more than 40)

**Table 2.**

**Stress Level Categories among Healthcare Workers – illustrated in percents**

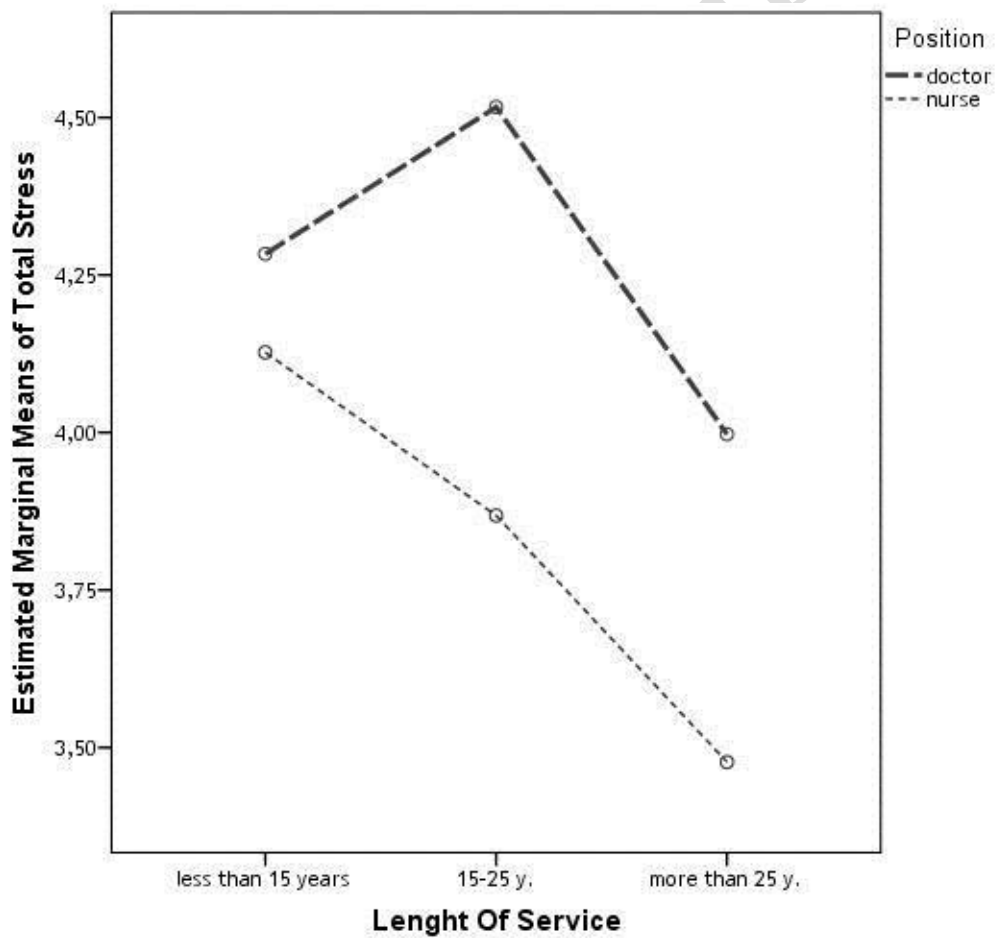
	Total stress				Life quality				Symptomatology				Functionality			
	WA	MS	IS	ES	WA	MS	IS	ES	WA	MS	IS	ES	WA	MS	IS	ES
All	53,7	42,1	4,2	0,0	57,9	30,5	11,6	0,0	44,2	40,0	14,7	1,1	70,5	28,4	1,1	0,0
position doctor	70,0	30,0	0,0	0,0	75,0	22,5	2,5	0,0	65,0	27,5	2,5	0,0	77,5	22,5	0,0	0,0
nurse	41,8	50,9	7,3	0,0	45,5	36,4	18,2	0,0	29,1	49,1	20,0	1,8	65,5	32,7	1,8	0,0

WA-well-adjusted, MS – moderate stress, IS-increased stress, ES – extreme stress, Position (doctor, nurse)

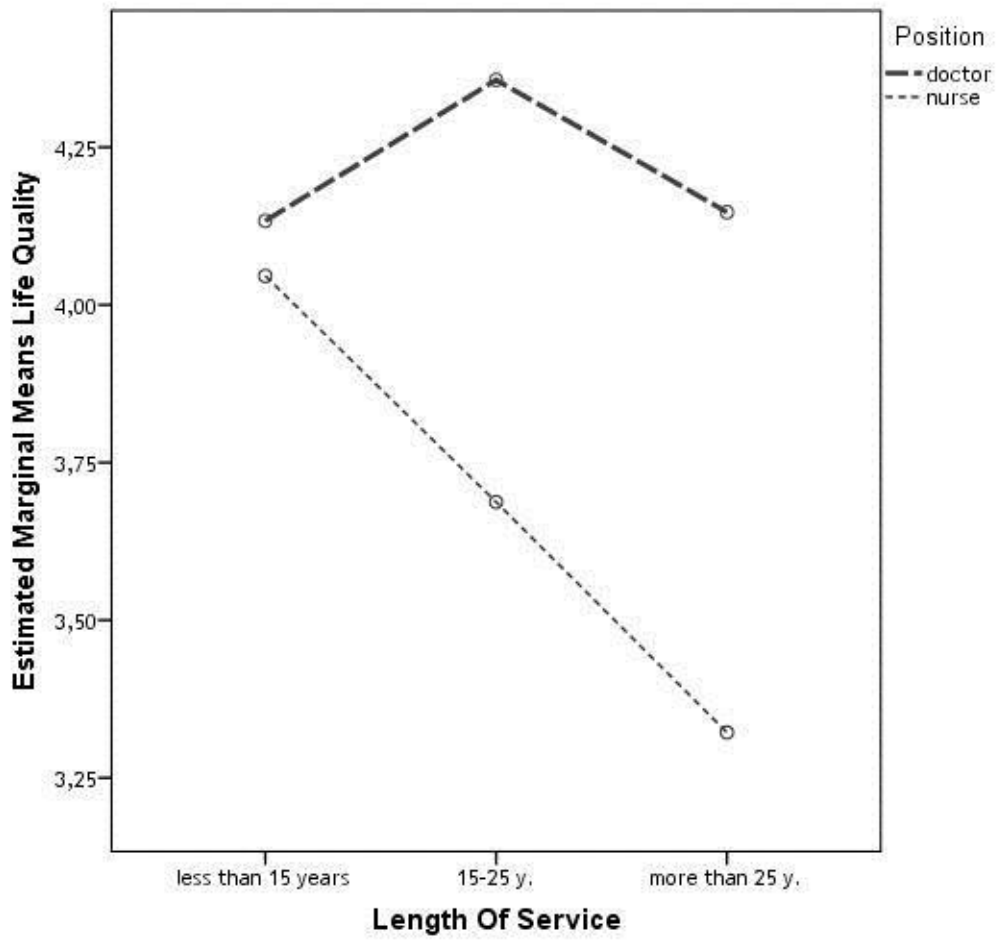
**Charts**

**Chart 1.**

**Differences in the average values of total stress among nurses and doctors – by length of service**



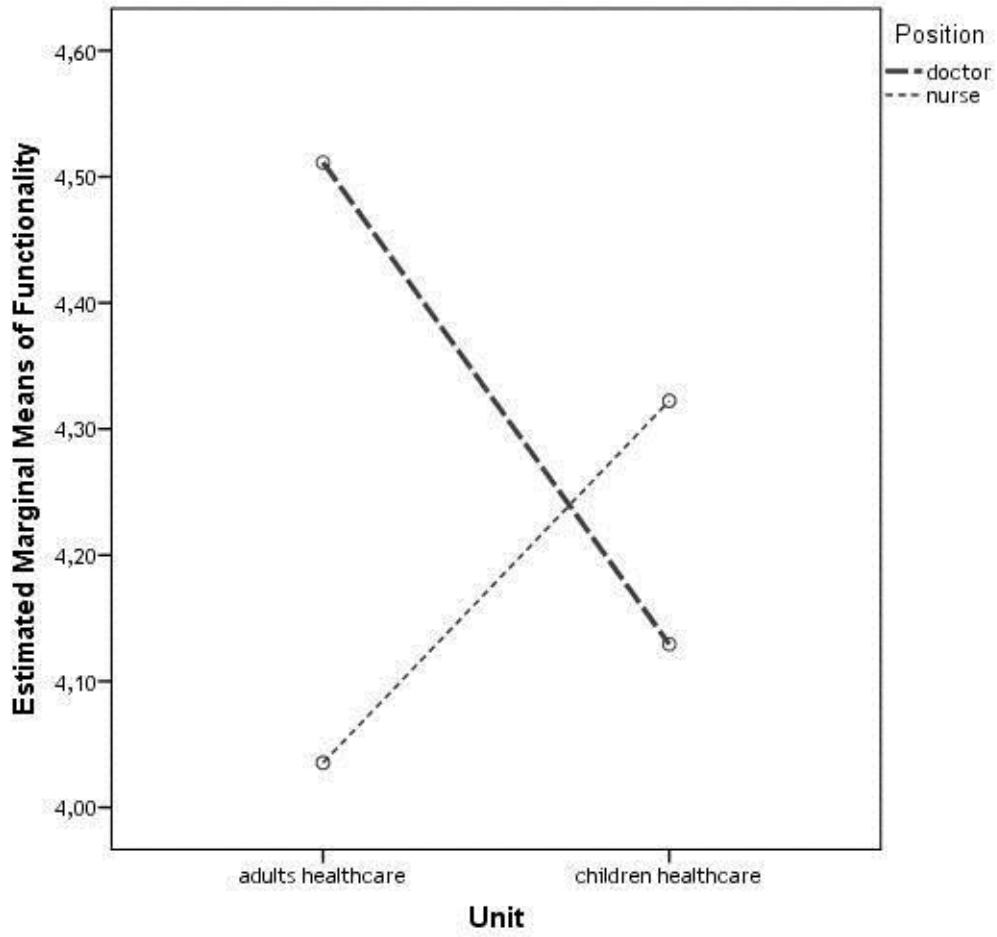
**Chart 2.**  
**Differences in the average values of the life quality of nurses and doctors – by length of service**



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**Chart 3.**

**Differences in the average values of the functionality of nurses and doctors – by units**

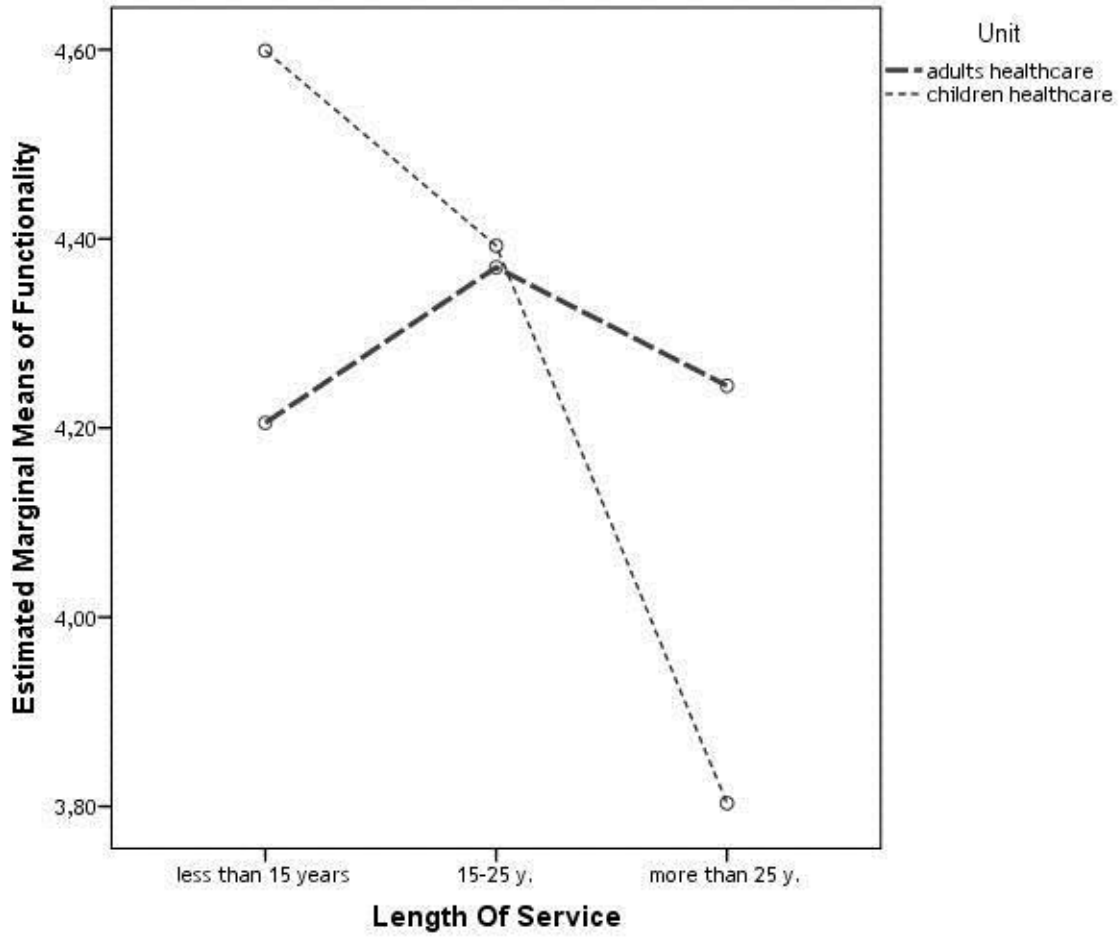


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**Chart 4.**

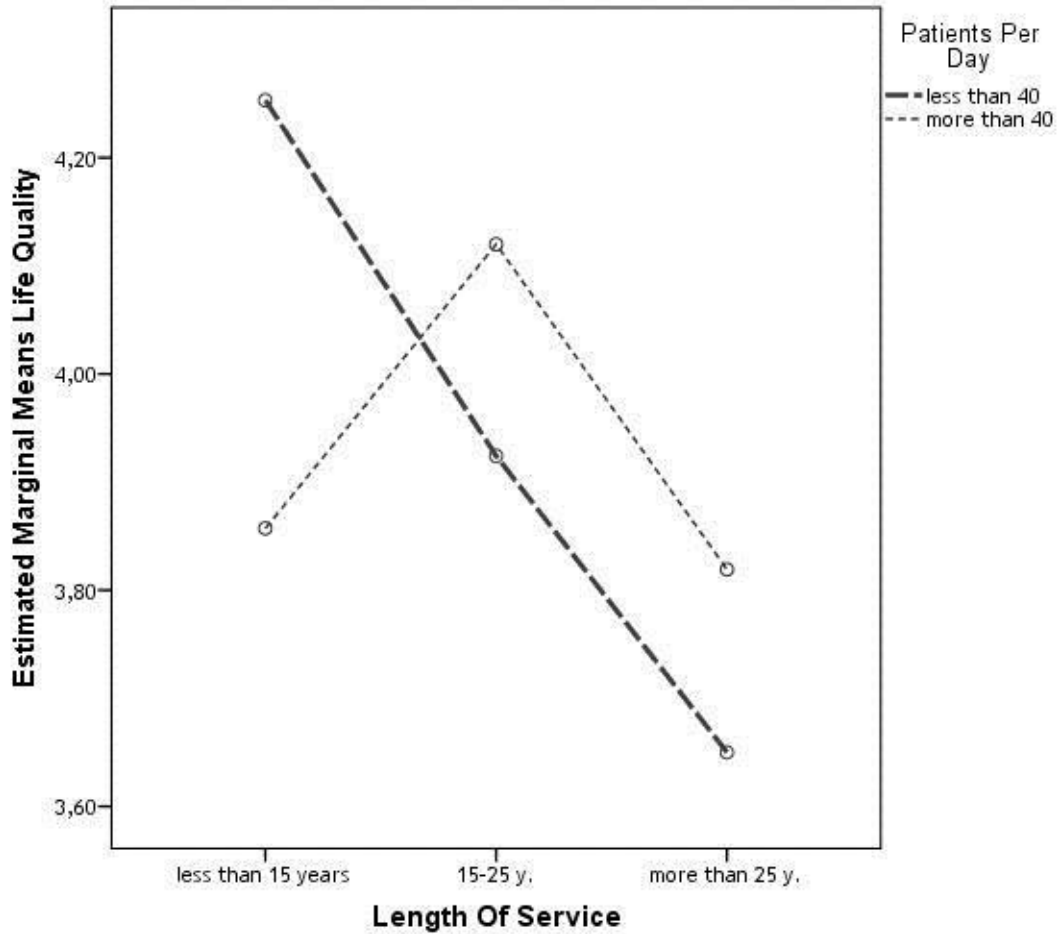
**Differences in the average values of functionality of healthcare workers who work with children – on one hand, and those who work with adults – on the other hand – by length of service**



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**Chart 5.**

**Differences in life quality average values of those who examine less than 40 patients per day – on one hand, and those examine more than 40 patients per day – by length of service**



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