Original article



DOI: 10.2478/aiht-2023-74-3672

A study on the relationship between sociodemographic characteristics and job stress and satisfaction among healthcare workers in Turkey during the COVID-19 pandemic

Hasan Tuna¹, Osman Oğulcan Türkmen², and Sirer Albayrak³

¹ Gümüşhane University Kelkit Aydın Doğan Vocational School, Department of Electricity and Energy, Gümüşhane, Turkey ² Gümüşhane University Kelkit Sema Doğan Vocational School of Health Services, Department of Child Care and Youth Services,

Gümüşhane, Turkey

³ Ağrı İbrahim Çeçen University Vocational School, Department of Mechanical and Metal Technology, Ağrı, Turkey

[Received in July 2022; Similarity Check in July 2022; Accepted in February 2023]

The aim of this study was to determine the sociodemographic characteristics that affect job stress and job satisfaction in 454 healthcare workers (physicians, nurses, midwives, technicians, and other healthcare personnel) working with COVID-19 patients in primary healthcare institutions in Turkey with a cross-sectional, web-based survey between 9 and 30 August 2021. The survey included a personal information form, a standard job stress scale, and the Minnesota Satisfaction Questionnaire. The levels of job stress and job satisfaction did not differ between male and female respondents. Singles reported lower job stress and higher job satisfaction than the married respondents. Job stress did not differ between departments, but respondents on the front line who worked in a COVID-19 intensive care unit (ICU) (at any point and/or at the time of the study) or the emergency department reported lower job satisfaction than those working in other departments. Similarly, while stress did not differ by educational status, satisfaction of respondents with bachelor's or master's degree was lower than that of the rest. Our findings also suggest that working in a COVID-19 ICU and age are significant predictors of higher stress, whereas lower education, working in a COVID-19 ICU, and being married are good predictors of lower satisfaction. Further research should include other sociodemographic variables that may affect stress and satisfaction at work, and similar studies should follow up to see what was left in the wake of the pandemic.

KEY WORDS: age; education; frontline healthcare workers; gender; job stress scale; marital status; Minnesota Satisfaction Questionnaire

The COVID-19 pandemic brought additional stress to healthcare workers, which included concern about coronavirus infection, inadequate protection, heavy workload, isolation from the family, and hopelessness (1–4). Frontline healthcare workers seem to have taken the brunt of the pandemic-related stress, and one of the consequences has been lower satisfaction with their jobs (3). This, in particular, concerns healthcare workers assigned to intensive care units (ICU) treating COVID-19 patients, including specialisations unrelated to pulmonary infections to make up for the shortage of staff (5–7).

Studies of job satisfaction and stress in healthcare workers done so far have relied on many different factors. However, there are but a few studies dealing with the job stress and job satisfaction of healthcare workers in terms of various sociodemographic variables during the COVID-19 epidemic in Turkey. The aim of this study was therefore to assess how gender, age, marital status, department (including the COVID-19 unit), and educational status related to job stress and satisfaction in Turkish healthcare workers and how they related to each other during the COVID-19 pandemic.

PARTICIPANTS AND METHODS

Study design and data collection

This cross-sectional study included 454 of 500 invited (over 90 % response rate) healthcare workers (physicians, nurses, midwives, technicians, and other health personnel) working with COVID-19 patients in primary healthcare institutions across Turkey selected through convenience sampling. They all received an email with a link to a web-based questionnaire, which explained the purpose of the study and information that participation was voluntary. The survey took place between 9 and 30 August 2021.

The study was approved by the Gümüşhane University Scientific Research and Publication Ethics Committee (approval No. E-95674917-108.99-56174). As authors, we take the full responsibility for the integrity of the questionnaire, study design, and data collection and analysis. Instead of a written consent, the respondents provided one by completing the agreement section of the questionnaire.

Corresponding author: Osman Oğulcan Türkmen, Gümüşhane University Kelkit Sema Doğan Vocational School of Health Services, Department of Child Care and Youth Services, Gümüşhane, Turkey

E-mail: osmanogulcan.turk.men@gumushane.edu.tr, ORCID: 0000-0001-8320-3572

The survey consisted of a personal information form and adapted job stress and Minnesota satisfaction questionnaires. Personal information included gender, age, marital status, department, and whether the respondent ever worked in a COVID-19 intensive care unit (at the time of the study or any time before that), and education.

For the job stress scale we relied on the questionnaire developed by Dr Suzanne Haynes and adapted to Turkish by Aktaş (8). The questionnaire consists of 10 questions, and total scores <12 indicate low stress, 12–30 moderate stress, and >30 high stress. The reliability of the Turkish version was high in two different studies (8, 9). In our study, Cronbach's alpha was 0.46 when all items were included. To raise it to an acceptable level, we ran factor analysis to eventually remove items 2 and 5, which had a low relationship with the scale. This boosted reliability to an acceptable level of 0.61.

To measure job satisfaction we relied on the questionnaire developed by Weiss et al. (10) and adapted to Turkish by Baycan (11). It consists of 20 items scored on a 5-point Likert-type scale, each ranging from "I am not satisfied" (1 point) to "Very satisfied" (5 points). The reported reliability is 0.77, but in our study it was 0.93.

Statistical analysis

All statistics were run on the IBM SPSS 26 package (IBM Corp., Armonk, NY, USA). The significance level was set to p < 0.05. First we determined the normality of distribution with the Shapiro-Wilk test and it resulted normal (p=0.148). We then used the independent samples *t*-test and one-way analysis of variance (ANOVA) for paired comparisons. Data showing significant differences were then further analysed with Tukey's test for pairwise comparison, since the groups

were homogeneously distributed and the frequencies of the groups were not equal. The effect of sociodemographic characteristics on job stress and job satisfaction was analysed with multiple regression, and categorical variables compared with the chi-squared test.

RESULTS

Participants' characteristics

Table 1 shows no significant differences between male and female healthcare workers by marital status, whether they worked in the COVID-19 ICU, or age, but differences were significant in the distribution by department and education.

Job stress and satisfaction by sociodemographic characteristics

Table 2 shows the relationship between job stress and satisfaction with sociodemographic characteristics of healthcare workers determined with the *t*-test and one-way ANOVA. As expected, healthcare workers ever stationed in the COVID-19 ICU had higher stress and lower job satisfaction. Married respondents also reported significantly higher stress. No significant differences were found between the genders.

Gender also did not influence self-reported job satisfaction, but marital status did, as single healthcare workers reported significantly higher satisfaction than the married ones. The same is true for healthcare workers with the lowest education compared to the rest, and the satisfaction dropped with higher education. In contrast, respondents who worked in the emergency department and the

Table 1 Healthcare worker distribution by sociodemographic characteristics (N=454)

Variables		Total (N=454)	Female (N=280)	Male (N=174)	χ^2	p*
Marital status	Single	289	177 (63.2)	112 (64.4)	- 0.06	0.804
	Married	165	165 103 (36.8) 62 (35.6)			0.804
Department	Emergency	78	78 51 (18.2) 27 (15.5)			
	Outpatient clinic	105	50 (17.9)	55 (31.6)	12.26	0.004
	COVID-19 ICU [#]	64	47 (16.8)	17 (9.8)	- 13.30	
	Other (surgery, radiology, laboratory, etc.)	207	132 (47.1)	75 (43.1)	-	
Ever working in a COVID-19 ICU	Yes	270	168 (60.0)	102 (58.6)	- 0.08	0.771
	No	184	112 (40.0)	72 (41.4)		
Education	Secondary	48	30 (10.7)	18 (10.3)		0.005
	Vocational	181	94 (33.6)	87 (50.0)	12.02	
	Bachelor's degree	183	128 (45.7)	55 (31.6)	- 13.02	0.005
	Master's degree and higher	42	42 28 (10.0) 14 (8.0)			
					t	p**
Age	Mean±SD	27.89±7.23	27.92±7.23	27.85±7.24	0.10	0.923

*Chi-squared test; **Independent samples t-test; # at the time of the study (August 2021)

We wish les	Category	N	Job stress				Job satisfaction				
variables		IN	Mean	SD	t/F	р	Mean	SD	t/F	р	
Gender	Female	280	27.27	4.65	t=0.98	0.330 -	62.44	4.70	t=-0.97	0.335	
	Male	174	26.82	4.96			63.86	5.19			
Marital status	Single	289	26.77	4.98	t=-2.01	0.045**	65.13	14.75	- t=4.06	0.000*	
	Married	165	27.67	4.35			59.22	15.19			
Department	1. Emergency	78	27.36	4.56	F=1.10	0.350 -	60.19	14.24	F=9.22	0.000*	
	2. Outpatient clinic	105	26.44	4.77			68.02	14.65			
	3. COVID-19 ICU [#]	64	27.70	4.41			56.48	12.34		Significant difference between	
	4. Other (surgery, radiology, lab, etc.)	207	27.15	4.96			63.49	15.66		1 vs 2; 2 vs 3; 3 vs 4***	
Ever working in a COVID-19 ICU	Yes	270	27.78	4.34	+-2 (0)	0.000*	59.98	14.95	- t=-5.26	0.000*	
	No	184	26.10	5.20	1-3.00	0.000*	67.39	14.40			
Education	1. Secondary	48	25.81	5.02	F=2.40	0.067	69.27	14.27	F=15.47	0.000*	
	2. Vocational	181	26.78	5.29			67.05	15.42			
	3. Bachelor's degree	183	27.57	4.33			58.15	13.73		Significant	
	4. Master's degree and higher	42	27.86	3.59			59.31	13.67		difference between 1 vs 3; 1 vs 4; 2 vs 3; 2 vs 4***	

Table 2 Self-reported job stress and satisfaction by sociodemographic characteristics among healthcare workers

*p<0.001; **p<0.05; ***Tukey's test; # at the time of the study (August 2021)

COVID-19 ICU at the time of the survey reported significantly lower satisfaction than those working in other departments.

Prediction of job stress and job satisfaction by sociodemographic characteristics of healthcare workers

Table 3 shows the results of multiple regression analysis predicting the effects of sociodemographic characteristics on job stress and job satisfaction. Sociodemographic characteristics explain 5 % of the variance related to job stress and 12 % of the variance related to job satisfaction.

In the order of importance the most significant predictors of job stress were working in the COVID-19 ICU and older age and of job satisfaction education level, working in the COVID-19 ICU and being married.

DISCUSSION

Our finding of no significant difference in job stress between the genders opposes earlier reports of higher stress in female healthcare workers in China (4, 12) and Turkey (13).

As concerns job satisfaction, our findings that there are no significant gender differences support an earlier report on Turkish healthcare workers (14), but other studies report higher satisfaction in men (15–18).

Marital status, on the other hand, seems to significantly predict job stress and satisfaction in our study, which is in line with reports of higher job stress among married healthcare workers in China (19).

In line with the above, single healthcare workers reported higher job satisfaction. This is an interesting finding, considering that marital status did not seem to affect job satisfaction before the pandemic (15, 17, 18). This shift may be related to increased workload during the pandemic, pushing the married healthcare workers to extremes, as they also have families to take care of.

As for working in an intensive care unit for COVID-19 patients, our findings are quite expected and confirm earlier reports of higher stress for healthcare workers in China, Japan, or Germany (4, 20, 21).

Significantly lower self-reported job satisfaction in these healthcare workers working in a specialised COVID-19 ICU is also in line with expectations and corroborates other reports (22–24).

Lower education was also one of significant predictors of higher job satisfaction in our study and is in line with Şenturan et al. (25), who reported a negative relationship between education level and job satisfaction, but not with Tekingündüz et al. (18), who reported no significant relationship between education and job satisfaction.

Madal	Job stress					Job satisfaction				
Model	В	SE	β	t	р	В	SE	β	t	р
Constant	26.96	1.40	-	19.25	0.000	64.97	4.26	-	15.24	0.000
Gender	-0.39	0.45	-0.04	-0.86	0.388	0.50	1.38	0.02	0.36	0.718
Marital status	-0.13	0.56	-0.01	-0.24	0.812	-4.78	1.70	-0.15	-2.81	0.005
Department	-0.03	0.19	-0.01	-0.14	0.885	0.14	0.59	0.01	0.24	0.807
Ever working in a COVID-19 ICU	1.55	0.45	0.16	3.41	0.001	-6.19	1.38	-0.20	-4.47	0.000
Education	0.19	0.32	0.03	0.60	0.548	-4.56	0.97	-0.24	-4.71	0.000
Age	0.10	0.04	0.14	2.33	0.020	0.22	0.12	0.10	1.76	0.079
	$R=0.23, R^2=0.05, F_{e,up}=4.31, p=0.000$				$R=0.36, R^2=0.12, F_{a}=11.29, p=0.000$					

Table 3 Predictors of job stress and satisfaction by sociodemographic characteristics of healthcare workers

B – beta coefficient; β – standardized beta coefficient; p – statistical significance; R² – coefficient of determination; SE – standard error

Besides working in a COVID-19 ICU, age was the most significant predictor of job stress. Earlier studies reported diverse results, some showing lower (26, 27) and others higher (28, 29) stress with age.

CONCLUSION

The limitations of our study include selection bias and the possibility that our sample may not be representative of all healthcare workers in Turkey. Even so, it does raise some issues related to the pandemic that need to be addressed to improve satisfaction and to lower stress at work. This can be achieved through stress-coping strategies psychoeducation programmes (30, 31), professional psychological support to dissatisfied and overloaded workers, rewards (through salaries and bonuses), training, and improved working conditions.

Future research should include other sociodemographic variables that may affect stress and satisfaction at work, and similar studies should follow up to see what was left in the wake of the pandemic.

REFERENCES

- World Health Organization. Coronavirus disease (COVID-19) [displayed 20 February 2022]. Available at https://www.who.int/ health-topics/coronavirus#tab=tab_1
- Zhang SX, Liu J, Jahanshahi AA, Nawaser K, Yousefi A, Li J, Sun S. At the height of the storm: Healthcare staff's health conditions and job satisfaction and their associated predictors during the epidemic peak of COVID-19. Brain Behav Immun 2020;87:144–6. doi: 10.1016/j.bbi.2020.05.010
- Zhang SX, Chen J, Jahanshahi AA, Alvarez-Risco A, Dai H, Li J, Patty-Tito RM. Succumbing to the COVID-19 pandemic-healthcare workers not satisfied and intend to leave their jobs. Int J Ment Health Addict 2022;20:956–65. doi: 10.1007/s11469-020-00418-6

- Zhang W, Wang K, Yin L, Zhao W, Xue Q, Peng M, Min BQ, Tian Q, Leng HX, Du JL, Chang H, Yang Y, Li W, Shangguan FF, Yan TY, Dong HQ, Han Y, Wang YP, Cosci F, Wang HX. Mental health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. Psychother Psychosom 2020;89:242– 50. doi: 10.1159/000507639
- Barili E, Bertoli P, Grembi V, Rattini V. Job satisfaction among healthcare workers in the aftermath of the COVID-19 pandemic. PLoS One 2022;17(10):e0275334. doi: 10.1371/journal.pone.0275334
- Sharma M, Creutzfeldt CJ, Lewis A, Patel PV, Hartog C, Jannotta GE, Blissitt P, Kross EK, Kassebaum N, Greer DM, Curtis JR, Wahlster S. Health-care professionals' perceptions of critical care resource availability and factors associated with mental well-being during coronavirus disease 2019 (COVID-19): Results from a US survey. Clin Infect Dis 2021;72(10):e566–76. doi: 10.1093/cid/ciaa1311
- Smallwood N, Karimi L, Bismark M, Putland M, Johnson D, Dharmage SC, Barson E, Atkin N, Long C, Ng I, Holland A, Munro JE, Thevarajan I, Moore C, McGillion A, Sandford D, Willis K. High levels of psychosocial distress among Australian frontline healthcare workers during the COVID-19 pandemic: A cross-sectional survey. Gen Psychiatr 2021;34(5):e100577. doi: 10.1136/gpsych-2021-100577
- Aktaş AM. Bir kamu kuruluşunun üst düzey yöneticilerinin iş stresi ve kişilik özellikleri [Stress levels and characteristics of personalities of top-level managers of the government sector, in Turkish]. Ankara University SBF Journal 2001;56:26–42.
- Vatansever-Bayraktar H, Gökpınar İ. Sinif öğretmenleri ve eğitim yöneticilerinin iş stresi düzeylerinin çeşitli değişkenlere göre incelenmesi [Examination of job stress level of primary school teachers and educational administrators according to various variables, in Turkish]. Int J Eurasia Soc Sci 2021;12:870–85. doi: 10.35826/ ijoess.3018
- Weiss DJ, Dawis RV, England GW, Lofquist LH. Manual for the Minnesota Satisfaction Questionnaire. Minneapolis: University of Minnesota; 1967 [displayed 22 February 2023]. Available at https:// vpr.psych.umn.edu/sites/vpr.umn.edu/files/files/monograph_ xxii_-_manual_for_the_mn_satisfaction_questionnaire.pdf
- Baycan FA. An analysis of the several aspects of job satisfaction between different occupational groups. [MSc thesis]. Boğaziçi: Institute of Social Sciences, University; 1985.

- Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, Ho RC. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. Int J Environ Res Public Health 2020;17:1729. doi: 10.3390/ijerph17051729
- Şahin T, Aslaner H, Eker OO, Gökçek MB, Doğan M. Effect of COVID-19 pandemic on anxiety and burnout levels in emergency healthcare workers: A questionnaire study. Res Square 2020;1–22. doi: 10.21203/rs.3.rs-32073/v1
- Tözün M, Çulhacı A, Ünsal A. Aile hekimliği sisteminde birinci basamak sağlık kurumlarında çalışan hekimlerin iş doyumu (Eskişehir) [The job satisfaction of physicians that working in primary health care institutions in family medicine system (Eskişehir), in Turkish]. TAF Prev Med Bul 2008;7(5):377–84.
- Akbolat M, Işık O, Uğurluoğlu Ö. Sağlik çalişan-larinin kontrol odaği, iş doyumu, rol belirsizliği ve rol çatişmasinin karşilaştirilmasi [Comparison of locus of control, job satisfaction, role ambiguity and role conflict of health employees, in Turkish]. Hacettepe University J Econom Admin Sci 2011;29:23–48.
- Nur D. Kamu hastanelerinde çalişan sağlik personelindeiş doyumu ve stres ýlişkisi [Relationship between job satisfaction and stress the employee of health personnel in public hospitals, in Turkish]. Turk J Clin Psych 2011;14:230–40.
- 17. Erşan EE, Yıldırım G, Doğan O, Doğan S. Sağlık çalışanlarının iş doyumu ve algılanan iş stresi ile aralarındaki ilişkinin incelenmesi [Job satisfaction and perceived job stress of the health professionals and the relationship between them, in Turkish]. Anatol J Psych 2013;14:115–21. doi: 10.5455/apd.34482
- Tekingündüz S, Top M, Seçkin M. İş tatmini, performans, iş Stresi ve işten ayrilma niyeti arasındaki ilişkilerin incelenmesi: Hastane örneği [Analysing the relationship between job satisfaction, performance, job stress and the intention to leave: Hospital case, in Turkish]. J Product 2015;4:39–64.
- Wang H, Liu Y, Hu K, Zhang M, Du M, Huang H, Yue X. Healthcare workers' stress when caring for COVID-19 patients: An altruistic perspective. Nurs Ethics 2020;27:1490-500. doi: 10.1177/096973302093414
- Sahashi Y, Endo H, Sugimoto T, Nabeta T, Nishizaki K, Kikuchi A, Matsumoto S, Sato H, Goto T, Hasegawa K. Worries and concerns among healthcare workers during the coronavirus 2019 pandemic: A

web-based cross-sectional survey. Hum Soc Sci Commun 2021;8:41. doi: 10.1057/s41599-021-00716-x

- Bohlken J, Schömig F, Lemke MR, Pumberger M, Heller SG. COVID-19-Pandemie: Belastungen des medizinischen Personals [COVID-19 pandemic: Stress experience of healthcare workers, in German]. Psychiatr Prax 2020;47:190–7. doi: 10.1055/a-1159-5551
- 22. Savitsky B, Radomislensky I, Hendel T. Nurses' occupational satisfaction during COVID-19 pandemic. Appl Nurs Res 2021;59:151416. doi: 10.1016/j.apnr.2021.151416
- Abd-Ellatif EE, Anwar MM, AlJifri AA, El Dalatony MM. Fear of COVID-19 and its impact on job satisfaction and turnover intention among Egyptian physicians. Saf Health Work 2021;12:490–5. doi: 10.1016/j.shaw.2021.07.007
- Labrague LJ, de Los Santos JAA. Fear of COVID-19, psychological distress, work satisfaction and turnover intention among frontline nurses. J Nurs Manag 2021;29:395–403. doi: 10.1111/jonm.13168
- Şenturan L, Gürel M, Eker S, Şabablı Y. Özel diyaliz ünitelerinde çalışan hemşirelerin tükenmişlik düzeyi ve iş doyumu ilişkisi [The relationship of burnout and job satisfaction of nurses who work in private dialysis units, in Turkish]. J Nephrol Nurs 2011;8:42–9.
- Im Choi J, Koh MS. Relations of job stress, burnout, mindfulness and job satisfaction of clinical nurses. Int J Biosci Biotech 2015;7:121–8. doi: 10.14257/IJBSBT.2015.7.3.12
- Park SA, Ahn SH. Relation of compassionate competence to burnout, job stress, turnover intention, job satisfaction and organizational commitment for oncology nurses in Korea. Asian Pac J Cancer Prev 2015;16(13):5463–9. doi: 10.7314/APJCP.2015.16.13.5463
- Achour M, Azmi IBAG, Isahak MB, Nor MRM, Yusoff MYZM. Job stress and nurses well-being: Prayer and age as moderators. Community Ment Health J 2019;55:1226–35. doi: 10.1007/s10597-019-00410-y
- Guo H, Ni C, Liu C, Li J, Liu S. Perceived job stress among community nurses: A multi-center cross-sectional study. Int J Nurs Pract 2019;25(1):e12703. doi: 10.1111/ijn.12703
- Bagheri T, Fatemi MJ, Payandan H, Skandari A, Momeni M. The effects of stress-coping strategies and group cognitive-behavioral therapy on nurse burnout. Ann Burns Fire Disasters 2019;32:184–9. PMID: 32313531
- Tahara M, Mashizume Y, Takahashi K. Coping mechanisms: Exploring strategies utilized by Japanese healthcare workers to reduce stress and improve mental health during the COVID-19 pandemic. Int J Environ Res Public Health 2021;18(1):131. doi: 10.3390/ijerph18010131

Ispitivanje utjecaja sociodemografskih karakteristika na profesionalni stres i zadovoljstvo u zdravstvenih radnika u Turskoj tijekom pandemije bolesti COVID-19

Cilj je ovoga presječnog ispitivanja bio utvrditi sociodemografske karakteristike koje utječu na profesionalni stres i zadovoljstvo u 454 zaposlenika (liječnika, medicinskih sestara, bolničara, primalja, tehničara i drugih) u ustanovama primarne zdravstvene skrbi u Turskoj tijekom pandemije bolesti COVID-19. Ispitanici su od 9. do 30. kolovoza 2021. odgovarali na *online* upitnik, koji se sastojao od osobnih podataka, standardne ljestvice za ocjenu profesionalnoga stresa i od Minnesotskoga upitnika o zadovoljstvu. Razine profesionalnoga stresa i zadovoljstva nisu se razlikovale među spolovima. Ispitanici koji nisu u braku iskazali su niži stres i višu razinu zadovoljstva od onih u braku. U pogledu profesionalnoga stresa nije uočena razlika između odjela, ali su ispitanici na prvoj crti izloženosti, tj. oni koji su ikad radili ili rade s pacijentima oboljelima od bolesti COVID-19 na odjelu intenzivne njege (u trenutku ispunjavanja upitnika) odnosno na odjelu hitne pomoći, iskazali slabije zadovoljstvo poslom od ispitanika koji su radili na drugim odjelima. Isto tako nije bilo razlika u razinama stresa između ispitanika prema obrazovnom statusu, ali su ispitanici s najvišim obrazovanjem (bakalaureat, magisterij i više) iskazali slabije zadovoljstvo poslom od ostalih. Kad je o pretkazateljima stresa riječ, najznačajniji su rad na COVID-odjelu intenzivne njege i dob koji su, uz brak, također najznačajniji pretkazatelji nezadovoljstva poslom. Buduća bi istraživanja trebala obuhvatiti i druge sociodemografske varijable koje mogu utjecati na profesionalni stres i zadovoljstvo, a valjalo bi i nastaviti pratiti te parametre kako bi se vidjele promjene nakon proglašenja prestanka pandemije.

KLJUČNE RIJEČI: dob; obrazovanje; zdravstveni radnici na prvoj crti izloženosti; rod; ljestvica profesionalnoga stresa; bračno stanje; Minnesotski upitnik o zadovoljstvu