ORIGINAL PAPER

Health Prob Civil. 2025, Volume 19, Issue 4
ISSN 2353-6942, eISSN 2354-0265

HEALTHCARE WORKERS' EMOTIONAL INTELLIGENCE AND THEIR JOB SATISFACTION

Grzegorz Witkowski[1(A,B,C,D,E,F)], **Krzysztof Snoch**[1(B,C,D,E,F)], **Tomasz Orczykowski**[2(E,F)], **Halina Król**[1(D,F)], **Roman Starz**[3(C,D)], **Małgorzata Supińska**[4(E,F)], **Jarosław Piotr Chmielewski**[5,6(D,E)]

[1] Collegium Medicum, Jan Kochanowski University, Kielce, Poland
[2] Study of Practical Training, Radom Academy of Economics, Radom, Poland
[3] Faculty of Humanities, Jan Kochanowski University, Kielce, Poland
[4] Department of Psychiatric Rehabilitation, Nowowiejski Hospital, Warsaw, Poland
[5] Office of the Patient Ombudsman, Warsaw, Poland
[6] Department of Public Health, International European University, Kyiv, Ukraine

Authors' contribution:

A. Study design/planning
B. Data collection/entry
C. Data analysis/statistics
D. Data interpretation
E. Preparation of manuscript
F. Literature analysis/search
G. Funds collection

Summary

Background. The study focuses on considerations relating to emotional intelligence (EI) and job satisfaction. The purpose of this study was to determine the relationship between EI and job satisfaction among healthcare professionals.
Material and methods. A total of 124 healthcare professionals took part in the survey. The respondents were selected so that half (50%) were paramedics and the other half were nurses. The study used a standardized EI questionnaire (INTE) and a proprietary job satisfaction questionnaire. The following tests and statistical coefficients were used to determine the relationships between variables: Kolmogorov-Smirnov test, Mann-Whitney U test, Spearman's rho correlation coefficient.
Results. In terms of job satisfaction, more than half of the respondents (58.9%) reported high scores. Significantly higher job satisfaction scores were recorded among nurses than among paramedics. In terms of general EI, 46.8% of the respondents had average scores and 53.2% had high scores. None of the respondents had low EI. As many as 82.3% of the paramedics and only 24.2% of the nurses had high levels of EI. Research has shown a correlation between job satisfaction and general EI.
Conclusions. In the medical professions studied, there is a correlation between EI and job satisfaction: the higher the EI, the higher the job satisfaction.

Keywords: emotional intelligence, job satisfaction, medical staff, paramedic, nurse

Tables: 9
Figures: 0
References: 32
Submitted: 2024 March 19
Accepted: 2024 May 13
Published Online: 2024 Jun 13

Introduction

Health professionals having close contact with patients should undoubtedly have high levels of factual knowledge so that every decision concerning the patient is as accurate as possible [1]. It has long been recognized that factual knowledge is only part of the necessary skills of health professionals.

Witkowski G, Snoch K, Orczykowski T, Król H, Starz R, Supińska M, et al. Healthcare workers' emotional intelligence and their job satisfaction. Health Prob Civil. 2025; 19(4): 407-417. https://doi.org/10.5114/hpc.2024.139679

Address for correspondence: Jarosław Piotr Chmielewski, Office of the Patient Ombudsman, Młynarska 46, 01-171 Warszawa, Poland, e-mail: j.chmielewski@ios.gov.pl, phone: +48 22 532 82 50

ORCID: Grzegorz Witkowski https://orcid.org/0000-0002-5150-8504, Krzysztof Snoch https://orcid.org/0009-0002-7005-7259, Tomasz Orczykowski https://orcid.org/0009-0002-8623-4184, Małgorzata Supińska https://orcid.org/0000-0002-7268-1760, Jarosław Piotr Chmielewski https://orcid.org/0000-0003-2606-1656

Hippocrates pointed out that a good doctor must be empathetic towards the patient, understanding their pain, fears and anxieties. By understanding the patient, it is easier to establish rapport, gain the patient's trust, and take a correct history. Research shows that it is high levels of emotional intelligence (EI) that may be responsible for the good quality of the relationship between health professionals and patients [2-5].

The concept of EI still evokes vague associations among most of the public and is often misunderstood. It still remains a somewhat mystical and irrational phenomenon, despite the evidence showing that success, broadly defined, depends on EI in as much as 80% and not, as once thought, on linguistic, mathematical or logical skills. Researchers confirm that EI is something quite different from classical IQ. EI can be developed and exercised, and its level is modified throughout one's life under the influence of different kinds of experience. This fact distinguishes EI from classical intelligence, which is innate and remains unchanged [6-9].

Indeed, EI consists of a range of skills that make it possible to use emotions when solving problems, especially in situations involving contact with other people. The higher its level, the easier it is for an individual to discern and interpret their own and other people's emotions, respond more adequately to them and communicate more effectively [8,9].

Working in health care is a special situation that requires specific skills, knowledge, personality and highly developed social competences. It is very dynamic and varied; after all, it is impossible to predict what the next day's work will bring, every case and every patient are completely different. For this reason, healthcare professionals must be flexible, empathetic, resilient and able to adapt to new and difficult situations. However, attunement to human emotions, both their own and in others, is their key skill essential for proper patient management [2,4,10-12].

The first extensive studies on job satisfaction were published towards the end of the first half of the 20th century. Since then, the topic of satisfaction has been addressed frequently in both academic publications and in studies on human capital management and the employers' approach to employees. Many different definitions of job satisfaction can be found. In simple and factual terms, it can be defined as an employee's feelings towards their job duties, both positive and negative. While looking for more complex definitions, it is worth mentioning the one relating to the sources of job satisfaction, where it is defined as the difference between what people experience at work and what they expect of it. This understanding of the term 'satisfaction' refers largely to one's own subjective assessment. Job satisfaction will largely refer to one's positive attitude towards the job as a whole and therefore towards colleagues, the organization, and one's own position. Most people spend a large part of their day at work, so it can be inferred how much influence it has on their life beyond work. Especially when it comes to working with another human being who is a patient, where the fact that it is not only a job but also a vocation and a mission is often mentioned. The emotions felt towards one's workplace often spill over into other areas of life, as well as have a very strong impact on one's effectiveness at work [13-17].

Aim of the work

The purpose of this study was to determine the relationship between EI and job satisfaction among healthcare professionals.

Material and methods

The survey was conducted between July and October 2019 among employees of Hospital Emergency Departments in the Silesian Voivodeship, Poland, with the consent of the management. The respondents were deliberately selected so that half were nurses and nurse practitioners (referred to as nurses for simplicity in the following analysis) and the other half were paramedics and EMTs (referred to as paramedics for simplicity in the following analysis). 140 respondents were willing to take part in the survey. Individuals interested in participating in the survey were given envelopes containing the survey instruments and an instruction manual. Respondents voluntarily and knowingly entered the survey. Only the responses of those 124 respondents who correctly (fully) answered the questions contained in the questionnaire were included in the survey analysis.

Each participant in the study received the information provided with the tools to clarify the subject and purpose of the study. Participation in the survey was voluntary and anonymous. The questionnaires were given to the participants at an individual meeting at their workplaces. The study was conducted in accordance with the principles of the Declaration of Helsinki [18].

The study used two tools. These included a standardized questionnaire on EI (INTE), purchased from the Psychological Testing Laboratory in Warsaw, and an original questionnaire covering issues of broadly understood job satisfaction. In addition to the metric questions, the questionnaire included questions on job satisfaction, enjoyment of work, pride in one's profession, trust in colleagues and superiors, sense of belonging and place of work. It also asked about fatigue related to work duties, resentment or boredom related to work. The proprietary job satisfaction questionnaire was used to calculate an overall satisfaction index ranging from 18-90 based on 18 questions on a scale of 1-5. The higher the score, the greater the job satisfaction. In the absence of sten norms, theoretical norms were adopted to determine satisfaction levels, i.e. up to 1/3 of the possible score (range 18-42) was considered low satisfaction, the range of 43-66 was considered average satisfaction, and scores above 2/3 of the possible score (range 67-90) were considered high satisfaction. For the INTE questionnaire, sten norms calculated according to the key were used to determine low, average and high scores [19].

Analysis of the study results was performed using Statistica Version 13.3. Statistical tests and coefficients were used to determine the relationships between variables: Kolmogorov-Smirnov test, Mann-Whitney U test, Spearman's rho correlation coefficient. The reliability analysis of the proprietary questionnaire was calculated using the Cronbach's Alpha index.

Results

There were slightly more men than women in the study group (54.8%). Women, however, make up the remaining 45.2% of respondents. The majority of respondents (41.1%) had a master's degree. In turn, one in three respondents (33.9%) had a secondary vocational education and one in four (25%) had a bachelor's degree. More than half of the respondents (63.7%) work between 160 and 260 hours per month. In turn, only 11.3% work less than 160 hours per month and 25% work more than 260 hours per month.

The reliability of the proprietary questionnaire was analyzed using the Cronbach's alpha index, which was 0.93 for the entire tool. The reliability, mean and standard deviation of the individual questions are shown in Table 1.

Table 1. Reliability, mean and standard deviation of individual questions

Question number	M	SD	Factor loads
P1	61.56	15.16	0.93
P2	62.23	15.18	0.93
P3	62.15	14.75	0.93
P4	61.22	15.26	0.93
P5	62.36	15.15	0.93
P6	62.15	15.66	0.93
P7	61.52	15.51	0.93
P8	61.72	15.59	0.93
P9	61.50	15.16	0.93
P10	62.28	15.42	0.93
P11	61.98	14.84	0.93
P12	61.23	15.19	0.93
P13	61.37	15.85	0.94
P14	61.87	15.17	0.93
P15	61.65	15.31	0.93
P16	61.56	15.38	0.93
P17	61.48	15.48	0.93
P18	61.77	15.27	0.93

Notes: M – mean, SD – standard deviation.

The analysis of the results of the study began by checking the normality of the distributions of the analyzed variables.

The Kolmogorov-Smirnov test showed that the distributions of all analyzed variables deviate significantly from the normal distribution (Table 2). Therefore, a non-parametric test and coefficient were used in further analysis.

Table 2. Normality tests for the distributions of the analyzed variables

Variables	Kolmogorov-Smirnov		
	K-S	N	*p*-value
Job satisfaction	0.216	124	<0.001***
Ability to use emotions	0.198	124	<0.001***
Ability to recognize emotions	0.162	124	<0.001***
EI in general	0.115	124	<0.001***

Notes: *** K-S – Kolmogorov-Smirnov U Test; $p<0.001$ (statistical significance reached), N – group size.

The results of job satisfaction and EI in the study group are presented in Table 3. On the job satisfaction scale, respondents scored between 20 (low satisfaction) and 89 (high satisfaction). The average was 65.39 (average satisfaction). Half of the respondents had scores higher and half lower than 71 (high satisfaction). The standard deviation shows a moderate variation among respondents in terms of job satisfaction.

Table 3. Job satisfaction and EI for respondents in total

Variables	Min	Max	M	Me	SD
Job satisfaction	20	89	65.39	71.00	16.23
Ability to use emotions	57	77	66.69	66.00	6.03
Ability to recognize emotions	37	58	49.01	49.00	5.27
EI in general	111	159	135.47	134.00	11.82

Notes: Min – minimum value, Max – maximum value, M – mean, Me – median, SD – standard deviation.

In terms of the EI factor, i.e. the ability to use emotions, respondents scored between 57 (average) and 77 (high). The average figure was 66.69 (average EI). Half of the subjects had scores higher and half lower than 66 (average EI). The standard deviation shows that there is little variation among respondents in terms of the factor.

In terms of the EI factor, i.e. the ability to recognize emotions, respondents scored between 37 (average) and 58 (high). The average was 49.01 (high EI). Half of the respondents had scores higher and half lower than 49 (high EI). The standard deviation shows that there is little variation among respondents in terms of the factor.

In terms of general EI, the respondents scored between 111 (average) and 159 (high). The average was 135.47 (average EI). Half of the respondents had scores higher and half lower than 134 (average EI). The standard deviation shows that there is little variation among the respondents in terms of overall EI.

Table 4 shows the results of the Mann-Whitney U test with which the mean indices of job satisfaction and EI were compared among nurses and paramedics. Significantly higher job satisfaction scores were reported among nurses than among paramedics. In contrast, significantly higher scores on individual factors and overall EI were found among paramedics than among nurses. The percentage of individuals who attained a particular level of a particular variable is shown.

Table 4. Job satisfaction and EI among nurses and paramedics

Variables	Occupation				Mann U test -Whitney	
	Nurse		Paramedic medical			
	M	SD	M	SD	Z	*p*-value
Job satisfaction	72.05	7.18	58.73	19.74	-4.588	<0.001***
Ability to use emotions	63.81	5.06	69.56	5.56	-5.451	<0.001***
Ability to recognize emotions	46.89	4.35	51.13	5.29	-3.877	<0.001***
EI in general	130.19	9.05	140.74	11.97	-5.464	<0.001***

Notes: M – mean, SD – standard deviation, Z – normal distribution; *** Mann-Whitney U Test; $p<0.001$ (statistical significance reached).

The extent of job satisfaction is shown in Table 5. As the research shows, more than half of the respondents (58.9%) had high scores, 36.3% had average scores and only 4.8% had low scores. The study showed that up to 82.3% of nurses and only 35.5% of paramedics had high scores. In turn, only the paramedics (9.7%) had low scores, and significantly more paramedics (54.8%) than nurses (17.7%) reported average scores.

Table 5. Occupation and job satisfaction

Job satisfaction	Occupation				Total	
	Nurse		Paramedic			
	N	%	N	%	N	%
Low	0	0.0	6	9.7	6	4.8
Average	11	17.7	34	54.8	45	36.3
High	51	82.3	22	35.5	73	58.9
Total	62	100	62	100	124	100

Notes: N – group size.

In terms of the ability to use emotions, 56.5% of the respondents had average scores and 43.5% had high scores. No one had a low capacity to use emotions. As it turned out, as many as 62.9% of paramedics and only 24.2% of nurses have a high ability to use emotions, while as many as 75.8% of nurses and only 37.1% of paramedics have an average ability to use emotions (Table 6).

Table 6. Occupation and level of ability to use emotions

Ability to use emotions	Occupation				Total	
	Nurse		Paramedic			
	N	%	N	%	N	%
Average	47	75.8	23	37.1	70	56.5
High	15	24.2	39	62.9	54	43.5
Total	62	100	62	100	124	100

Notes: N – group size.

Table 7 presents information on the ability to recognize emotions by occupation. In terms of the ability to recognize emotions, 41.9% of the respondents had average scores and 58.1% had high scores. No one had a low ability to recognize emotions. As it turned out, 62.9% of paramedics and 53.2% of nurses have a high ability to recognize emotions, while 46.8% of nurses and 37.1% of paramedics have an average ability to recognize emotions.

Table 7. Occupation and the level of one's ability to recognize emotions

Ability to recognize emotions	Occupation				Total	
	Nurse		Paramedic			
	N	%	N	%	N	%
Average	29	46.8	23	37.1	52	41.9
High	33	53.2	39	62.9	72	58.1
Total	62	100	62	100	124	100

Notes: N – group size.

The range of general EI is shown in Table 8. 46.8 per cent of the respondents had average scores and 53.2 per cent had high scores. None of the people participating in the study had low EI. As it turned out, as many as 82.3% of paramedics and only 24.2% of nurses had high EI, while as many as 75.8% of nurses and only 17.7% of paramedics had average EI.

Table 8. Occupation and general level of EI

Emotional intelligence in total	Occupation				Total	
	Nurse		Paramedic			
	N	%	N	%	N	%
Average	47	75.8	11	17.7	58	46.8
High	11	24.2	51	82.3	66	53.2
Total	62	100	62	100	124	100

Notes: N – group size.

Table 9 shows the correlation of job satisfaction with EI. The analysis was performed separately among nurses and among paramedics. Spearman's rho coefficient among both nurses and paramedics showed a statistically significant positive correlation between job satisfaction and overall EI. So the greater the EI, the greater the job satisfaction. This correlation is slightly stronger for paramedics than for nurses. Considering the individual factors separately, it appears that only among nurses is there a statistically significant positive correlation between the ability to recognize emotions and job satisfaction, and only among paramedics is there a statistically significant positive correlation between the ability to use emotions and job satisfaction.

Table 9. Correlation between job satisfaction and EI among nurses and paramedics

Emotional intelligence in total	Job satisfaction			
	Occupation			
	Nurse		Paramedic	
	rho	*p*-value	rho	*p*-value
Ability to use emotions	-0.131	0.311	0.368	0.003**
Ability to recognize emotions	0.350	0.005**	0.133	0.304
EI in general	0.257	0.044*	0.368	0.003**

Notes: rho – Spearman's rho coefficient; $p \leq 0.005$ (statistical significance reached).

Discussion

The aim of this study was to find out whether the level of EI influences job satisfaction. The results show that the higher the level of general EI of paramedics and nurses, the higher the job satisfaction. Analyses show stronger correlations for paramedics than for nurses. The results vary for the EI components, a statistically significant relationship between job satisfaction and the ability to recognize emotions exists in the case of nurses only.

For paramedics, there is a statistically significant relationship between the ability to use emotions and job satisfaction. In support of this thesis, it is worth citing a study by Basiaga-Pasternak et al. [20] on the level of EI among students at a medical and dentistry department. The students' EI had a mean of 121.82 and a maximum of 147.00, as compared to the results of our own study of the EI of paramedics and nurses, where the mean was 135.47 and the maximum was 159 [20]. In both our own research and that of the aforementioned authors, the EI of healthcare workers was very high, which supports the thesis that people representing the medical profession should have high level of EI.

The majority of the medical staff participating in our research (56.5% of respondents) had an average ability to use emotions. Others had high levels of EI. The ability to use emotions was lower than the ability to recognize emotions, or the overall level of EI among the respondents in general. The vast majority of paramedics (82.3%) had a strong capacity to use emotions, which may be due to differences regarding the nature of the work done by paramedics and by nurses.

Work at Hospital Emergency Departments is similar to the work of Medical Rescue Teams. It is highly volatile and dynamic. This applies to the place of work, the nature of the assistance required, the frequency of trips, external circumstances and the types of patients. Unforeseen situations and the inability to mentally prepare for them in advance makes EI an extremely important personality construct for both the paramedics and the nurses [2,4,21,22].

The medical staff surveyed work more than 160 hours per month in as many as 88.7% of cases, with as many as 28.2% working for more than 260 hours per month. Research by Chirkowska-Smolak [23] shows that working more than 50 hours a week has a significant impact on the feeling of work-life imbalance. This often results in conflicts within the family, reduced job satisfaction, and as much as 30% lower productivity. The findings presented show that a slight majority of healthcare workers had a high level of EI – they represent 53.2%. The remaining group (46.8%) had an average level of EI, and none of the healthcare workers displayed low levels of EI. The results by occupation proved surprising. As many as 82.3% of the paramedics had a high level of EI while only 24.2% of the nurses had a high level of EI. Healthcare workers overall mostly felt highly satisfied with their jobs (58.9%). The situation was completely different depending on the profession. Only 35.5% of paramedics and as many as 82.3% of nurses experienced high job satisfaction. Among nurses, there were no people who experienced low job satisfaction; for paramedics, it was less than 10%. A study by Kunecka et al. [24] showed that the level of workplace satisfaction depends on the number of previous jobs. Professional burnout is an increasingly discussed topic referring to job satisfaction in healthcare [25]. A study by Wilczek-Rużyczka et al. [26] showed that Polish nurses have a low sense of achievement and a medium level of emotional exhaustion, indicating professional burnout to a medium degree. As research shows, EI plays a key role in perceived job satisfaction [27-29]. Another element studied is the ability of paramedics and nurses to recognize emotions. Intuitively, one would think that it should be as high as the level of general EI. Of the total number of respondents, 58.1% had a high ability to recognize emotions, which is a very good result. Recognizing the emotions the patients are feeling plays a big part in the treatment process. Daily contact with patients is an excellent form of interpersonal training, as high-intensity social activity facilitates the acquisition of EI [30-32].

The workers' ability to recognize their own emotions helps to minimize misunderstandings that occur in the working process, creating a good working atmosphere. Recognizing the importance of these competences, agencies in charge of Emergency Departments should promote training programs focusing on improving EI skills. In doing so, they would not only invest in improving job satisfaction of the staff but

also indirectly improve the quality of care provided to patients. Training in these areas not only benefits organizers of ED work in their leadership roles, but also has an impact on all subordinate staff. On a broader scale, healthcare providers providing ED care should consider incorporating these findings into their policies, particularly those related to staff retention and staff welfare [29].

Limitations of the research

It is important to mention some limitations of our study, which should be kept in mind when interpreting the results. The selected sample cannot adequately represent the wider population of ED staff, which limits the possibility of generalizing the results to the entire professional group. Data for the study were only obtained from a sample consisting of nurses and paramedics working in an ED who consented to participate in the study. The survey was based on the opinions of 124 respondents. To address this limitation, future research should include a larger research sample while using more standardized tools. Repeating the study in different contexts will allow the role of other psychosocial variables that may influence these relationships to be explored, thus deepening the understanding of the phenomenon under study.

Conclusions

1. The study provides a better understanding of the relationship between EI and job satisfaction and shows that high EI can improve the occupational wellbeing of this professional group.
2. Nurses and paramedics have highly developed EI.
3. Nurses display higher levels of job satisfaction than paramedics.
4. EI has a significant impact on job satisfaction. Among both nurses and paramedics, there is a correlation: the higher the level of EI, the higher the job satisfaction.
5. The paramedics mostly reported lower levels of job satisfaction than the nurses. At the same time, their level of EI, the ability to recognize and use emotions, was found to be higher than that of the nurses.

Disclosures and acknowledgements

The authors declare no conflicts of interest with respect to the research, authorship, and/or publication of this article.

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

The study was conducted in accordance with the principles of the Declaration of Helsinki.

Artificial intelligence (AI) was not used in the creation of the manuscript.

References:

1. Chmielewski JP, Karkowski TA, Szpringer M, Florek-Łuszczki M, Rutkowski A. Health education in the professional work of paramedics. Med Og Nauk Zdr. 2019; 25(3): 131-134. https://doi.org/10.26444/monz/111254
2. Gonczaryk A, Chmielewski JP, Strzelecka A, Fiks J, Nowak-Starz G, Florek-Łuszczki M. Effect of selected factors related to emotions and general health on the health behaviours of paramedics. Ann Agric Environ Med. 2022; 29(3): 424-432. https://doi.org/10.26444/aaem/151531
3. Stańczyk U, Gajdziszewska-Dudek P. [The importance of emotional intelligence in man's career]. Zeszyty Naukowe. Organizacja i Zarządzanie/Politechnika Śląska. 2015(85): 507-16 (in Polish).

4. Gonczaryk A, Chmielewski J, Strzelecka A, Zięba E, Wójcik T, Florek-Łuszczki M. Aggression towards paramedics in emergency response teams. Emerg Medl Serv. 2022; 9(2): 155-61. https://doi.org/10.36740/EmeMS202203103
5. Chmielowiec B, Raczek M, Chmielewski J, Puścion M, Florek-Łuszczki M. [Accessibility to healthcare services in Poland at the initial stage of SARS-CoV-2 pandemic – patient perspective]. Med Og Nauk Zdr. 2022; 28(3): 208-16 (in Polish). https://doi.org/10.26444/monz/154663
6. Szczygieł D, Weber J. Emotional intelligence predicts peer-rated social competence above and beyond personality traits. Current Issues in Personality Psychology. 2017; 5(2): 91-101. https://doi.org/10.5114/cipp.2017.64490
7. Kupcewicz E, Kupcewicz A. Emotional intelligence and its importance in human life – case study. Journal of Education, Health and Sport. 2017; 7(12): 553-64.
8. Côté S. Emotional intelligence in organizations. Annu. Rev. Organ. Psychol. Organ. Behav. 2014; 1(1): 459-88. https://doi.org/10.1146/annurev-orgpsych-031413-091233
9. Reyes-Wapano MR. Literature review of emotional intelligence and mental health. International Journal of Research and Innovation in Social Science. 2021; 5(7): 658-668. https://doi.org/10.47772/IJRISS.2021.5733
10. Gonczaryk A, Chmielewski JP, Strzelecka A, Fiks J, Witkowski G, Florek-Luszczki M. Occupational hazards in the consciousness of the paramedic in emergency medical service. Disaster and Emergency Medicine Journal. 2022; 7(3): 182-190. https://doi.org/10.5603/DEMJ.a2022.0031
11. Gonczaryk A, Sady N, Kosoń A, Motyl M, Chojnowska-Ćwiąkała I, Bartyzel M. [Psychosocial occupational risk factors present in the work environment of paramedics]. Med Srod. 2022; 25(3-4): 66-71 (in Polish). https://doi.org/10.26444/ms/161596
12. Barłóg M, Barłóg K. Inter-professional and patient communication as part of the personalized treatment process. A patient–doctor–pharmacist–pharmaceutical plant relationship model. Kwartalnik Naukowy Fides et Ratio. 2022; 50(2): 117-22. https://doi.org/10.34766/fetr.v50i2.1069
13. Pujol-Cols LJ, Dabos GE. [Job satisfaction: a literature review of its main antecedents]. Estudios Gerenciales. 2018; 34(146): 3-18 (in Spanish). https://doi.org/10.18046/j.estger.2018.146.2809
14. Miao C, Humphrey RH, Qian S. A meta-analysis of emotional intelligence effects on job satisfaction mediated by job resources, and a test of moderators. Personality and Individual Differences. 2017; 116: 281-288. https://doi.org/10.1016/j.paid.2017.04.031
15. Al-Abedie AR, Al-Temini AH. The mediating effect of organizational happiness on the relationship between benevolent leadership and organizational outcomes: an empirical study at the University of Babylon. World Journal of Pharmaceutical Research. 2015; 4(09): 214-28.
16. Springer A. [Chosen factors affecting employees' satisfaction]. Problemy Zarządzania. 2011; 34(1): 162-80 (in Polish).
17. Mendonça H, Silva BL, Silva JG, Ferreira MC. Psychological well-being at work measures. Assessing Organizational Behaviors: a Critical Analysis of Measuring Instruments. 2022; 61-85. https://doi.org/10.1007/978-3-030-81311-6_3
18. World Medical Association. World Medical Association Declaration of Helsinki Ethical Principles for Medical Research Involving Human Subjects. JAMA. 2013; 310(20): 2191. https://doi.org/10.1001/jama.2013.281053

19. Jaworowska A, Matczak A. [INTE Emotional Intelligence Questionnaire. Handbook]. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego; 2001 (in Polish).
20. Basiaga-Pasternak J, Malarz I, Malarz M. [Emotional intelligence and social competence among dentistry students of the Jagiellonian University Medical College in Cracow]. Sztuka Leczenia. 2015; 3-4 (in Polish).
21. Gonczaryk A, Chmielewski JP, Strzelecka A, Fiks J, Wojcik T, Florek-Luszczki M. Spinal pain syndrome incidence among paramedics in emergency response teams. Disaster and Emergency Medicine Journal. 2022; 7(4): 215-24. https://doi.org/10.5603/DEMJ.a2022.0035
22. Lee EK, Atallah HY, Wright MD, Post ET, Thomas IV, Wu DT, et al. Transforming hospital emergency department workflow and patient care. Interfaces. 2015; 45(1): 58-82. https://doi.org/10.1287/inte.2014.0788
23. Chirkowska-Smolak T. [Balance between work and private life]. Ruch Prawniczy, Ekonomiczny i Socjologiczny. 2008; 70(1): 235-249 (in Polish).
24. Kunecka D. [Nurses' level of personal and job satisfaction vs. the number of past workplaces]. Bezpieczeństwo Pracy: Nauka i Praktyka. 2016; 12: 16-19 (in Polish). https://doi.org/10.5604/01377043.1226090
25. Gonczaryk A, Chmielewski JP, Strzelecka A, Fiks J, Nowak-Starz G, Florek-Łuszczki M. Effect of selected factors related to emotions and general health on the health behaviours of paramedics. Ann Agric Environ Med. 2022; 29(3): 424-32. https://doi.org/10.26444/aaem/151531
26. Wilczek-Rużyczka E, Zaczyk I. [Professional burnout among Polish nurses – meta-analysis]. Hygeia Public Health. 2015; 50(1): 9-13 (in Polish).
27. Lee HJ. How emotional intelligence relates to job satisfaction and burnout in public service jobs. International Review of Administrative Sciences. 2018; 84(4): 729-745. https://doi.org/10.1177/0020852316670489
28. Winton BG. Disaggregating emotional intelligence: building job satisfaction through emotional abilities. International Journal of Organizational Analysis. 2023; 31(3): 569-586. https://doi.org/10.1108/IJOA-03-2021-2669
29. Soriano-Vázquez I, Cajachagua Castro M, Morales-García WC. Emotional intelligence as a predictor of job satisfaction: the mediating role of conflict management in nurses. Frontiers in Public Health. 2023; 11: 1249020. https://doi.org/10.3389/fpubh.2023.1249020
30. Gong J, Hu C, Chen M, Cao Q, Li Q. Interventions to improve self-efficacy in colorectal cancer patients and/or caregivers: a systematic review and meta-analysis. Journal of Oncology. 2021; 2021: 1-2. https://doi.org/10.1155/2021/4553613
31. Rankin B. Emotional intelligence: enhancing values-based practice and compassionate care in nursing. Journal of Advanced Nursing. 2013; 69(12): 2717-25. https://doi.org/10.1111/jan.12161
32. Kumar A. Emotional intelligence can help healthcare professionals and managers: a way deal COVID-19 pandemic. Asian Journal of Management. 2021; 12(4): 353-358. https://doi.org/10.52711/2321-5763.2021.00053