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Symptoms of secondary traumatic stress in assisting professions

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ABSTRACT. The article presents the results of an empirical study on the specificity of secondary traumatic stress disorder (STSD) symptoms among assisting professions. Specialists with assisting roles are at an increased risk of experiencing occupational stress and STSD, making it necessary to differentiate STSD from other similar conditions. Russian studies of STSD among assisting specialists have mainly investigated its association with professional burnout. At the same time, issues relating to job satisfaction, the subjective assessment of professional success, individual characteristics, self-regulation skills, and the establishment of psychological boundaries have not been addressed by any research. The aim of the study was to identify the specificity of STSD symptom expression in assisting specialists, depending on the nature of their professional activities. The study sample consisted of 399 assisting specialists. The group of social workers was subdivided into those who provide support to the families of SMO (Special Military Operation) participants (n=58). The second group consisted of social services staff who perform regular duties without additional workloads (n=274). The third group included medical workers (n=67). The severity of STSD symptoms was assessed using the "Secondary Traumatic Stress Assessment Scale". The author's questionnaire was used to clarify subjective attitudes toward various aspects of professional activity and working conditions, as well as to analyze sociodemographic features. The results were analyzed and interpreted using descriptive statistics, and the non-parametric Kruskal–Wallis (H) test was used for intergroup comparisons. During the study, differences in the etiology of STSD symptoms among helping professionals were identified. Medical workers exhibited the most pronounced STSD symptoms. All respondents with pronounced STSD symptoms reported feelings of emotional desolation, underlying irritation, and persistent mental preoccupation with work-related issues after work hours. Significant differences in the prevalence and qualitative content of individual STSD symptoms were found among respondents in different groups with pronounced STSD symptoms.

KEYWORDS: secondary traumatic stress disorder, STSD, secondary trauma, assisting specialists, doctors, social workers, families of Special Military Operation participants

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Симптомы вторичного травматического стрессового расстройства у специалистов помогающих профессий

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РЕЗЮМЕ. В статье представлены результаты эмпирического исследования специфики симптомов вторичного травматического стрессового расстройства (ВТСР) у специалистов помогающих профессий, которые относятся к группе повышенного риска по выраженности профессионального стресса и ВТСР. Существует необходимость дифференциации ВТСР от других сходных состояний. Отечественные исследования ВТСР у лиц помогающих профессий в основном исследуют связь с профессиональным выгоранием. При этом за границами исследований остаются вопросы, связанные с удовлетворенностью профессиональной деятельностью, субъективной оценкой собственной профессиональной успешности, индивидуально-личностными особенностями специалистов, навыками саморегуляции и наличием психологических границ. Целью исследования стало выявление специфики выраженности симптомов ВТСР у специалистов помогающих профессий в зависимости от особенностей профессиональной деятельности. Выборку настоящего исследования составили 399 специалистов помогающих профессий. Группа социальных работников была разделена на сотрудников социальных служб, сопровождающих семьи участников Специальной военной операции (СВО) (n=58). Вторую группу составили сотрудники социальных служб, исполняющие обычные профессиональные обязанности и не имеющие дополнительных нагрузок (n=274). Третья группа респондентов состояла из медицинских работников (n=67). Выраженность симптомов ВТСР оценивалась на основе «Шкалы оценки вторичного травматического стресса». Для прояснения специфики субъективного отношения к различным аспектам профессиональной деятельности и условиям труда, а также для анализа социально-демографических особенностей применялась авторская анкета. Анализ и интерпретация результатов проводились методами описательной статистики, для межгруппового сравнения использовался непараметрический критерий Краскелла–Уоллиса (H). В ходе исследования удалось выявить различия в этиологии симптомов ВТСР у лиц помогающих профессий. Наибольшая выраженность симптомов ВТСР характерна для медицинских работников. Все респонденты с выраженными симптомами ВТСР отмечают чувство эмоциональной опустошенности, фоновое раздражение и частое мысленное возвращение к работе с клиентами в нерабочее время. Среди респондентов разных групп с выраженными симптомами ВТСР были обнаружены значимые различия в доминировании и качественном наполнении отдельных симптомов ВТСР.

КЛЮЧЕВЫЕ СЛОВА: вторичное травматического стрессовое расстройство, ВТСР, вторичная травма, специалисты помогающих профессий, врачи, социальные работники, семьи участников Специальной военной операции

INTRODUCTION

Assisting specialists (hereafter termed "helping professionals" per standard trauma terminology) are at increased risk of high occupational stress. Research suggests that, more than others, they routinely interact with trauma survivors in their work — a significant factor contributing to job-related stress and potential secondary traumatic stress disorder (STSD) [1–4]. While numerous studies have examined workplace stress and its consequences, a particularly compelling avenue of research in this field involves empathy-based stress [5] among helping professionals.

The scientific literature offers varied definitions for related psychological conditions observed in professionals working with traumatized clients. Below, we briefly review key constructs used to describe the consequences of empathy-based stress.

Secondary traumatic stress disorder (STSD) was first described by C.R. Figley in 1995 as "the natural consequent behaviors and emotions resulting from knowledge about a traumatizing event experienced by a significant other — the stress resulting from helping or wanting to help a traumatized or suffering person" [1]. Its classical presentation largely overlaps with post-traumatic stress disorder (PTSD). However, while PTSD develops through direct exposure to a stressor, STSD represents an indirect effect of empathic engagement in helping relationships. What distinguishes STSD from vicarious trauma is that it primarily reflects the professional's behavioral (external) responses to traumatic material.

Vicarious trauma (VT). This concept, introduced by I.L. McCann and L.A. Pearlman in 1990, describes a process of (cognitive) transformation resulting from chronic professional exposure to trauma survivors, leading to fundamental changes in core beliefs about safety, trust, and control [2].

Compassion fatigue. The term was first introduced by C. Joinson in 1992 when discussing nurse burnout. Classically defined as a combination of secondary traumatization and burnout symptoms, compassion fatigue received a broader definition from C.R. Figley: *"compassion fatigue* occurs through the regular use of empathy when treating patients who are in some degree of suffering" [1]. This condition can affect not only physicians but all helping professionals.

Professional burnout (PB). First described by H. Freudenberger in 1974, burnout arises from workplace stressors. Contemporary understanding defines PB as a sustained stress response comprising: depletion of emotional and physical resources, detached attitude toward clients and work, feelings of incompetence, and reduced professional efficacy [6].

Numerous studies confirm the relatively high prevalence of STSD among physicians and social workers [2, 7–11]. Research indicates that male physicians are more susceptible to STSD than their female counterparts [12–14]. Married physicians experience higher rates of STSD-related burnout, which may contribute to marital discord [13, 14]. Studies demonstrate that clinicians with children are more likely to develop STSD [13–15]. Furthermore, physicians working 12-hour shifts or longer, as well as those covering night shifts, show significantly higher rates of STSD symptoms [12, 16]. A 2020 analysis of burnout prevalence among physicians across specialties identified urologists as the most vulnerable group to stress-induced burnout (ranked first), followed by nephrologists (second) and neurologists (third). Between 2015–2020, the highest burnout prevalence was consistently documented in critical care, emergency medicine, family medicine, internal medicine, neurology, and urology [17, 18]. Among organizational stressors contributing to burnout, physicians ranked: excessive bureaucratic tasks as the most significant factor, prolonged working hours as second, and workplace disrespect/lack of institutional support as third [18, 19]. Furthermore, studies confirmed significant associations between compassion fatigue levels and both STSD and occupational burnout among clinicians [12, 20].

Data on social workers and STSD were first published by T.A. Cornille and T.W. Meyers in 1999 [21]. Their study identified significant positive correlations between secondary trauma severity and three occupational factors: career duration, workload volume, and frequency/duration of client contact. Male professionals reported significantly higher levels of interpersonal distress, depressive symptoms, anxiety, and paranoid ideation compared to their female colleagues. Conversely, female workers exhi-

bited elevated scores in somatization, hostility, and obsessive-compulsive distress [21, 22].

Research on STSD among helping professionals in Russia remains strikingly limited, with existing studies predominantly focusing on STSD-burnout correlations. However, the current evidence base is inadequate to conclusively establish STSD symptoms as burnout components, as researchers have consistently overlooked critical mediating factors including job satisfaction, self-perceived professional competence, individual psychological characteristics, self-regulation capacity, and psychological boundary maintenance. A systematic review of available literature reveals that while studies reliably document the presence of subjective STSD complaints and symptom severity distribution across helping professions, they uniformly fail to examine how symptom manifestation varies by specific occupational roles. As previously noted, the research emphasis continues to center on STSD-burnout relationships and distinctions between STSD and post-traumatic stress disorder (PTSD), leaving clinically relevant occupational moderators unaddressed.

AIM

The aim of this study was to investigate the prevalence and symptom profiles of STSD among helping professionals, with particular focus on occupational-specific manifestations. We hypothesized that professional exposure characteristics (including duration and frequency of contact with trauma-affected individuals) would be significantly associated with distinct qualitative patterns of STSD symptomatology.

MATERIALS AND METHODS

Study design and setting. The study was conducted across multiple state institutions in Saint Petersburg, including municipal "Centers for Social and Psychological Assistance to Families and Children" in various districts, government-operated medical inpatient facilities, and emergency medical service substations. Data collection was carried out anonymously through surveys, with all participants providing voluntary informed consent prior to enrollment. Following study completion, participating organizations received evidence-based recommendations for psychological support of employees exhibiting pronounced STSD symptoms, along with individualized counseling sessions conducted upon participant request.

Study Participants. The empirical sample comprised 399 helping professionals, including staff from state-funded social service institutions (n=332) and healthcare workers (n=67) employed in public medical facilities.

The sample was stratified into three groups based on professional roles. Group 1 (n=58) comprised social service professionals providing support to families of participants in the Special Military Operation (SMO). Group 2 (n=274) included social workers performing standard duties without additional workloads. Group 3 (n=67) consisted of medical professionals working in city hospitals and emergency medical substations.

Methods. This study employed *an original author-designed questionnaire* specifically developed for this research, consisting of two parts. The first part assessed sociodemographic characteristics (gender, age, education, marital status, work experience). The second part evaluated professional activities across three dimensions: job responsibilities, subjective work attitudes, and occupational conditions.

Respondents also completed the Secondary Traumatic Stress Scale (STSS) [23] to evaluate STSD symptoms.

All data were processed using IBM SPSS Statistics 20.0. Descriptive statistics were employed for initial data characterization, with between-group comparisons conducted using the Kruskal-Wallis (H) non-parametric test.

RESULTS AND DISCUSSION

The groups were homogeneous in terms of sociodemographic features (Table 1), with statistically significant differences observed only for age. However, existing literature suggests age is not a primary factor in STSD symptom development. Notably, STSD symptom severity showed no association with professional roles, with equally high scores observed among both managerial and frontline staff.

Medical professionals exhibited the most severe traumatic symptoms. Social workers supporting families of military personnel (SMO participants) demonstrated the second-highest STSD symptom severity, while social service profes-

sionals performing standard duties without additional workloads presented the most favorable outcomes (Table 2).

The identification of participants with pronounced STSD symptoms in each group warranted subgroup stratification. Notably, most affected respondents reported: emotional exhaustion, persistent irritability, and intrusive work-related thoughts during off-hours.

Significant intergroup differences emerged in both symptom prevalence and qualitative manifestations among respondents with marked STSD symptoms (Table 3).

Group 2 respondents demonstrated significantly lower intensity of individual STSD symptoms compared to other cohorts (Table 3). Social workers supporting families of SMO participants exhibited a distinct STSD profile characterized by deep emotional engagement with clients' problems (permeating all life domains) and active avoidance of specific cases. This clinical presentation was further marked by persistent uncertainty, chronic anticipation of negative events, and significant mood deterioration triggered by work-related reminders. Group 3 respondents showed significantly stronger associations between STSD symptom severity and specific physiological hyperarousal components, particularly sleep disturbances, fatigue, heightened irritability, and concentration difficulties, combined with pronounced future-related anxiety (Table 3).

These findings reveal that Group 1 respondents experienced significant client-relationship difficulties, while Group 3 predominantly exhibited cognitive and autonomic STSD components.

Table 1

Sociodemographic features of respondents

Таблица 1

Социально-демографические характеристики респондентов

Параметр / Indicator	**Группа 1 / Group 1**	**Группа 2 / Group 2**	**Группа 3 / Group 3**	**H (p)**
Возраст* / Age (m±SD)	42,72±9,78	51,64±11,9	34,94 ±8,59	0,000
Пол / Gender (n): Мужчины / males Женщины / females	 3 55	 20 252	 18 49	 0,458
Образование / Education (n): Среднее специальное образование / Specialized secondary education Высшее образование / Higher education	 1 57	 106 166	 12 55	 0,425
Семейный статус / Marital status (n): Холост/не замужем / Single Совместное проживание вне брака / Free cohabitation Женат/замужем / Married	 13 4 41	 103 10 157	 19 7 41	 0,548
Стаж работы (m±SD) в годах / Length of service (m±SD) in years	10,92±7,58	12,67±8,92	9,58±8,58	0,415

* m±SD (m — среднее / mean; SD — стандартное отклонение / standard deviation).

Table 2

Comparative analysis of secondary traumatic stress symptoms according to occupational characteristics

Таблица 2

Выраженность симптомов вторичной травмы в зависимости от специфики профессиональной деятельности

Параметр / Indicator	**Группа 1 / Group 1 (m±SD)***	**Группа 2 / Group 2 (m±SD)**	**Группа 3 / Group 3 (m±SD)**	**H (p)**
Вторжение / Intrusion	9,24±3,16	8,69±2,66	10,23±4,0	0,038
Избегание / Avoidance	13,5±3,90	11,75±3,44	15,44±5,8	0,000
Физиологическая возбудимость / Arosal	9,5±3,16	8,58±3,00	11,88±5,0	0,000
Общий показатель / Total	32,40±8,98	29,07±8,01	37,56±13,9	0,000

* m±SD (m — среднее / mean; SD — стандартное отклонение / standard deviation).

Table 3

Comparative analysis of the Secondary Traumatic Stress symptoms in groups with high STS based on the items of "Secondary Traumatic Stress Scales"

Таблица 3

Выраженность симптомов вторичной травматизации в группах респондентов с высокими показателями ВТСР на основе анализа отдельных пунктов «Шкалы оценки вторичного травматического стресса»

Шкала / Scale	Пункт / Item	Группа 1/ Group 1 (m±SD)*	Группа 2 / Group 2 (m±SD)	Группа 3 / Group 3 (m±SD)	H (p)
Вторжение / Intrusion	Воспоминания о моей работе с клиентами расстраивают меня / Reminders of my work with clients upset me	**3,2±1,14****	2,32±0,86	2,5±1,14	0,040
	В нерабочее время я мысленно возвращаюсь к работе с клиентами / I thought about my work with clients when I didn't intend to	3,4±0,63	**3,39±0,83**	**4,2±0,81**	0,001
	Мне снились тревожные сны о моей работе с клиентами / I had disturbing dreams about my work with clients	1,66±0,97	2,14±1,11	**3,1**±1,19	0,001
Избегание / Avoidance	Я чувствовал себя эмоционально опустошенным / I felt emotionally numb	**3,46±0,74**	**3,28±0,93**	**3,6±0,85**	0,624
	Я чувствовал неуверенность в будущем / I felt discouraged about the future	2,46±1,24	2,57±1,16	**3,5±0,91**	0,012
	Я был менее активен, чем обычно / I was less active as usual	2,86±0,99	2,71±0,80	**3,8±0,73**	0,000
	Я хотел избежать работы с некоторыми клиентами / I wanted to avoid working with some clients	**3,2±1,01**	2,89±0,95	**3,5±0,96**	0,411
Физиологическая возбудимость / Arosal	У меня возникли проблемы со сном / I had troubles sleeping	2,6±1,24	2,89±1,10	**3,1±1,26**	0,409
	Я испытывал раздражение / I felt jumpy	**3±1,00**	**3±0,76**	**3,7±1,03**	0,023
	Мне было трудно сосредоточиться / I had trouble concentrating	2,73±0,79	2,78±0,78	**3,5±1,01**	0,012
	Я легко раздражался / I was easily annoyed	2,73±1,03	2,82±0,86	**3,7±1,04**	0,009
	Я ожидал, что случится что-то плохое / I expected something bad to happen	**3,13±0,91**	2,32±0,86	**3,4±0,95**	0,001

* m±SD (m — среднее / mean; SD — стандартное отклонение / standard deviation).
** Жирным шрифтом выделены баллы, указывающие на наличие выраженных симптомов ВТСР / The Secondary Traumatic Stress symptoms are marked in bold.

CONCLUSION

The study of STSD manifestations among helping professionals indicates varying etiological origins of symptoms. For social workers supporting families SMO participants, symptom development is rooted in feelings of uncertainty and lack of confidence in their professional competence and the quality of care provided. These practitioners report profound emotional engagement with clients' traumatic experiences. Such reactive psychological states are inherently transient in nature. Implementing structured care protocols, establishing robust peer and administrative support systems, and providing regular clinical supervision with competency-based training would effectively reduce STSD symptoms.

For Group 2 respondents, STSD symptom severity primarily correlates with empathy-induced stress and identification processes. Notably, 87% of these practitioners work primarily with elderly clients. Through daily exposure to clients' struggles, professionals unconsciously internalize negative self-perceptions, anticipating future personal illness and disability. The constant focus on negative life experiences diminishes work productivity in these professionals, potentially precipitating occupational burnout and autonomic nervous system distur-

bances. For this employee cohort, we strongly advocate implementing specialized training programs focused on developing psychological boundary establishment and emotion regulation skills.

Group 3 respondents exhibit distinct STSD characteristics marked by heightened somatic awareness, sleep disturbances, and emotional discomfort. These manifestations may stem from underlying chronic fatigue syndrome. Preventive measures for this cohort should emphasize: sleep hygiene regulation, balanced nutrition, and moderate physical activity.

All helping professionals are at risk for STSD, though dominant symptoms and patterns of subjective complaints vary significantly across occupational contexts. These context-dependent variations should guide the development and implementation of targeted STSD prevention programs and psychological support interventions for affected professionals.

ADDITIONAL INFORMATION

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

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REFERENCES

1. Figley C.R. Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those Who Treat the Traumatized. NY: Brunner/Routledge; 1995.
2. Newell J.M., MacNeil G.A. Professional Burnout, Vicarious Trauma, Secondary Traumatic Stress, and Compassion Fatigue: A Review of Theoretical Terms, Risk Factors, and Preventive Methods for Clinicians and Researchers. Best Practice In Mental Health. 2010;6(2):57–68.
3. Thompson I.A., Amatea E.S., Thompson E.S. Personal and Contextual Predictors of Mental Health Counselors' Compassion Fatigue and Burnout. Journal of Mental Health Counseling. 2014;36(1):58–77. DOI: 10.17744/mehc.36.1.p61m73373m4617r3.
4. Fogel A. Effective Ways Social Workers Respond to Secondary Trauma. MA Dissertation. Sophia: the St. Catherine University repository website. 2015. Available at: https://sophia.stkate.edu/msw_papers/444 (accessed 13.11.2024).
5. Rauvola R.S., Vega D.M., Lavigne K.N. Compassion Fatigue, Secondary Traumatic Stress, and Vicarious Traumatization: a Qualitative Review and Research Agenda. Occup Health Sci. 2019;3:297–336. DOI: 10.1007/s41542-019-00045-1.
6. Timofeeva M.G. Professional burnout of social workers. Vestnik of North-Eastern Federal University. Pedagogics. Psychology. Philosophy. 2023;1(29):64–72. (In Russian). EDN: GJEDSM.
7. Boscarino J.A., Figley C.R., Adams R.E. Compassion fatigue following the September 11 terrorist attacks: A study of secondary trauma among New York City social workers. International Journal of Emergency Mental Health. 2004;6(2):57–66.
8. Bride B.E. Prevalence of secondary traumatic stress among social workers. Social Work. 2007;52(1):63–70. DOI: 10.1093/sw/52.1.63.
9. Choi G. Secondary traumatic stress of service providers who practice with survivors of family or sexual violence: A national survey of social workers. Smith College Studies in Social Work. 2011;81:101–119. DOI: 10.1080/00377317.2011.543044.
10. Lee J.J., Gottfried R., Bride B.E. Exposure to Client Trauma, Secondary Traumatic Stress, and the Health of Clinical Social Workers: A Mediation Analysis. Clin Soc Work J. 2018;46:228–235. DOI: 10.1007/s10615-017-0638-1.
11. Cuthrell K.M., Villamar M., Green T. Analysis of Secondary Traumatic Stress Among Physicians. Asian Journal of Advances in Medical Science. 2022;4(4):72–86.

12. Bellolio M., Cabrear D., Sadosty A., Hess E., Campbell R., Lohse C., Sunga K. Compassion fatigue in similar emergency medicine residents compared to other medical and surgical specialties. Western Journal of Emergency Medicine. 2013;15:629–635. DOI: 10.5811/westjem.2014.5.21624.
13. Dirik D., Sak R., Tuba Sahin-Ska I. Compassion fatigue among obstetricians and gynecologists. Current Psychology. 2021;40:4237–4254. DOI: 10.1007/s12144-021-02022-w.
14. Weintraub A., Geithner E., Stroustrup A., Waldman E. Compassion fatigue burnout and compassion satisfaction in neonatologists in the US. Journal of Perinatology. 2016;36:1021–1026. DOI: 10.1038/jp.2016.121.
15. DeLucia J., Bitter C., Fitzergerald J., Greensberg M., Dalwari P., Buchanana P. Prevalence of post-traumatic stress disorder in emergency physicians in the United States. West of Journal Emergency Medicine. 2019;20(5):740–746. DOI: 10.5811/westjem.2019.7.42671.
16. Khan A., Khan M. Bokhari S. Association of specialty and working hours on compassion fatigue. Pakistan Armed Forces Medical Journal. 2016;66:143–146.
17. Guest R., Riches J. Physician burnout. 2020. Available at: https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-education-and-research-center-for-occupational-safety-and-health/m20_handouts/Riches_MARCOEM_Oct_2020_10.7_1.pdf (accessed: 13.11.2024).
18. Medscape. Lifestyle burnout; 2020. Available at: https://advisory.com/daily-briefing/2020/01/16/physician-burnout-2020 (accessed: 13.11.2024).
19. Oppedizano M.D., Artyukh L.Y. Human adaptation to extreme conditions of activity. Physiological mechanisms (structural trace of adaptation). Forcipe. 2021;4(4):18–25. (In Russian).
20. Ivanov D., Kozina N., Lukomskaya A., Averin V., Fedyaev A. The problem of occupational stress of pediatricians in a pandemic. Medicine and Health Care Organization. 2023;8(1):60–70. (In Russian). DOI: 10.56871/MHCO.2023.16.89.006.
21. Cornille T.A., Meyers T.W. Secondary Traumatic Stress Among Child Protective Service Workers Prevalence, Severity and Predictive Factors. Traumatology. 1999;5(1):15–31.
22. Berceli D., Napoli M. A proposal for a mindfulness-based trauma prevention program for social work professionals. Complementary Health Practice Review. 2006;11(3):153–165. DOI: 10.1177/1533210106297989.
23. Tarabrina N.V. The Impact of Event Scale-R-IES-R. In: Praktikum po psihologii posttravmaticheskogo stressa. Saint Petersburg: Piter; 2001:125–139. (In Russian).

ЛИТЕРАТУРА

1. Figley C.R. Compassion Fatigue: Coping with Secondary Traumatic Stress Disorder in Those Who Treat the Traumatized. NY: Brunner/Routledge; 1995.
2. Newell J.M., MacNeil G.A. Professional Burnout, Vicarious Trauma, Secondary Traumatic Stress, and Compassion Fatigue: A Review of Theoretical Terms, Risk Factors, and Preventive Methods for Clinicians and Researchers. Best Practice In Mental Health. 2010;6(2):57–68.
3. Thompson I.A., Amatea E.S., Thompson E.S. Personal and Contextual Predictors of Mental Health Counselors' Compassion Fatigue and Burnout. Journal of Mental Health Counseling. 2014;36(1):58–77. DOI: 10.17744/mehc.36.1.p61m73373m4617r3.
4. Fogel A. Effective Ways Social Workers Respond to Secondary Trauma. MA Dissertation. Sophia: the St. Catherine University repository website. 2015. Available at: https://sophia.stkate.edu/msw_papers/444 (accessed: 13.11.2024).
5. Rauvola R.S., Vega D.M., Lavigne K.N. Compassion Fatigue, Secondary Traumatic Stress, and Vicarious Traumatization: a Qualitative Review and Research Agenda. Occup Health Sci. 2019;3:297–336. DOI: 10.1007/s41542-019-00045-1.
6. Тимофеева М.Г. Профессиональное выгорание у социальных работников. Вестник Северо-Восточного федерального университета им. М.К. Аммосова. Серия: Педагогика. Психология. Философия. 2023;1(29):64–72. EDN: GJEDSM.
7. Boscarino J.A., Figley C.R., Adams R.E. Compassion fatigue following the September 11 terrorist attacks: A study of secondary trauma among New York City social workers. International Journal of Emergency Mental Health. 2004;6(2):57–66.
8. Bride B.E. Prevalence of secondary traumatic stress among social workers. Social Work. 2007;52(1):63–70. DOI: 10.1093/sw/52.1.63.
9. Choi G. Secondary traumatic stress of service providers who practice with survivors of family or sexual violence: A national survey of social workers. Smith College Studies in Social Work. 2011;81:101–119. DOI: 10.1080/00377317.2011.543044.
10. Lee J.J., Gottfried R., Bride B.E. Exposure to Client Trauma, Secondary Traumatic Stress, and the Health of Clinical Social Workers: A Mediation Analysis. Clin Soc Work J. 2018;46:228–235. DOI: 10.1007/s10615-017-0638-1.
11. Cuthrell K.M., Villamar M., Green T. Analysis of Secondary Traumatic Stress Among Physicians. Asian Journal of Advances in Medical Science. 2022;4(4):72–86. (In English).
12. Bellolio M., Cabrear D., Sadosty A., Hess E., Campbell R., Lohse C., Sunga K. Compassion fatigue in similar

emergency medicine residents compared to other medical and surgical specialties. Western Journal of Emergency Medicine. 2013;15:629–635. DOI: 10.5811/westjem.2014.5.21624.
13. Dirik D., Sak R., Tuba Sahin-Ska I. Compassion fatigue among obstetricians and gynecologists. Current Psychology. 2021;40:4237–4254. DOI: 10.1007/s12144-021-02022-w.
14. Weintraub A., Geithner E., Stroustrup A., Waldman E. Compassion fatigue burnout and compassion satisfaction in neonatologists in the US. Journal of Perinatology. 2016;36:1021–1026. DOI: 10.1038/jp.2016.121.
15. DeLucia J., Bitter C. Fitzergerald J., Greensberg M., Dalwari P., Buchanana P. Prevalence of post-traumatic stress disorder in emergency physicians in the United States. West of Journal Emergency Medicine. 2019;20(5):740–746. DOI: 10.5811/westjem.2019.7.42671.
16. Khan A., Khan M. Bokhari S. Association of specialty and working hours on compassion fatigue. Pakistan Armed Forces Medical Journal. 2016;66:143–146.
17. Guest R., Riches J. Physician burnout. 2020. Available at: https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-education-and-research-center-for-occupational-safety-and-health/m20_handouts/Riches_MARCOEM_Oct_2020_10.7_1.pdf (accessed: 13.11.2024).
18. Medscape. Lifestyle burnout. 2020. Available at: https://advisory.com/daily-briefing/2020/01/16/physician-burnout-2020 (accessed: 13.11.2024).
19. Оппедизано М.Д., Артюх Л.Ю. Адаптация человека к экстремальным условиям деятельности. Физиологические механизмы (структурный след адаптации). Forcipe. 2021;4(4):18–25.
20. Иванов Д., Козина Н., Лакомская А., Аверин В., Федяев А. Проблема профессионального стресса педиатров в условиях пандемии. Медицина и организация здравоохранения. 2023;8(1):60–70. DOI: 10.56871/МНСО.2023.16.89.006.
21. Cornille T.A., Meyers T.W. Secondary Traumatic Stress Among Child Protective Service Workers Prevalence, Severity and Predictive Factors. Traumatology. 1999;5(1):15–31.
22. Berceli D., Napoli M. A proposal for a mindfulness-based trauma prevention program for social work professionals. Complementary Health Practice Review. 2006;11(3):153–165. DOI: 10.1177/1533210106297989.
23. Тарабрина Н.В. Шкала оценки влияния травматического события (impact of event scale-r — ies-r). В кн.: Практикум по психологии посттравматического стресса. СПб.: Питер; 2001:125–139.