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THE MANIFESTATION OF OCCUPATIONAL STRESS BURNOUT SYNDROME AMONG HEALTHCARE PROFESSIONALS

Specialty: 511.02 – Developmental and educational psychology

Thesis summary

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CONCEPTUAL LANDMARKS OF RESEARCH

Topicality of the subject. The balance of the classic coordinates of the affirmation of the human being - family, profession, society - is today marked by the complexity of professional tasks and the pressure generated by them, with implications on all general human activities, affecting, from various points of view, individuals subjected to almost permanent mental tensions, the expression of which is stress. Fierce economic competition engages current social life, which leads to the emergence of sources of stress in occupational activities, affecting people through the phenomenon of 'occupational stress'. Occupational stress is therefore one of the many problems of modern society. It is generated by the professional life, the working conditions and environment, it has direct consequences on the occupational activity, but also on the health of employees [14, p. 91-92].

The research conducted on health care workers in hospitals and clinics demonstrated the high degree of exposure of the staff to the burnout syndrome by the very specifics of the activity, the employees of the respective field being permanently put in a position to manage urgent situations associated with a high coefficient of human risk. The burnout syndrome was initially identified by Christina Maslach [29] and three major components were established: emotional exhaustion, depersonalization and minimization of personal achievement. This research will focus on the three-dimensional model elaborated by Maslach and Leiter [24; 25; 26, 27; 28], since the study mainly targets the employees involved in the direct relationship with patients and their relatives [17; 18]. In this context, being aware of the responsibilities of medical staff and the implications of occupational stress in the health care worker-patient relationship, studying this topic is justified as it aims at identifying and measuring the level of stress perception, delimiting the components of the burnout syndrome and coping strategies of the medical staff, while developing an intervention program that will contribute to reducing the negative impact of these phenomena.

Description of the situation in the research field and identification of the research problem.

Fundamental theoretical approaches and conclusive empirical research on the topic, but also the understanding of the specificity and complexity of the phenomenon of occupational stress and burnout syndrome, can be found in the studies of researchers in different countries.

The concept and definitions of occupational stress: Cox, Holt, Maslach, Hobfoll, Орел [16, 23, 14, 21, 22, 24, 25, 26, 27, 28, 32] and others. All the mentioned researchers consider occupational stress as a biological state of alertness that mobilizes the body to respond to demands or threats.

In Romania, theoretical analyses and empirical research on the degree of spread, specificity and effects of the burnout syndrome on work performance in various occupational categories, especially in the educational environment, were carried out by Bora H. M. [2], Neculau A. [9] at all.

The phenomenon of occupational stress in health care has been studied internationally by various researchers, including: Quick J. C. [33], Henderson D. F. [32], Herr R. [21], Stoica M. [13] et. al. In their studies, they advocate for a differentiated approach to burnout syndrome. The approach to that phenomenon takes on particular importance from the perspective of identifying functional solutions and streamlining intervention practices to strengthen personal resources needed to overcome dysfunctional situations at work. The contributions made by these researchers also served as arguments for the development of the intervention program appropriate to the specific manifestation of occupational stress and burnout syndrome in the case of health care workers.

In the Republic of Moldova, important contributions in the research of occupational stress and burnout syndrome in various occupational fields belong to researchers M. Borozan [3], N. Bucun (for judges) [4], S. Rusnac (for university teachers, doctors and nurses) [12], E. Losai [7,8], A. Verdes (for high school and auxiliary school teachers) [14], V. Gorincioi (for university teachers) [6], I. Baxan [1], A. Potang , [10] et. al.

Despite the large number of studies focused on this issue at the international level, as well as those existing in our country, the research problem is not addressed exhaustively. The reason for which there is a lack (especially in the scientific circuit of the Republic of Moldova) of studies in which organizational stress and burnout are researched differently from the perspective of the profile of manifestations specific to various categories of health care workers (nurses, resident doctors and doctors) , as well as from the perspective of *gender, seniority, fields of activity* (*public health care institutions with different activity profiles:* MIA CH – Clinical Hospital of the Ministry of Internal Affairs, MIA Polyclinic – Polyclinic of the Ministry of Internal Affairs, Narcology DR – Dispensary of Narcology, Psychiatry CH – Clinical Hospital of Psychiatry, MCH Sfanta Treime – Municipal Clinical Hospital Sfanta Treime, MCH for Children – Municipal Clinical Hospital for Children).

The important results obtained that contribute to solving the scientific problem are aimed at determining and describing the particularities and factors of occupational stress and burnout syndrome in health care workers, identifying the coping mechanisms for different categories of health care workers (doctors, resident doctors, nurses) as protective factors against burnout syndrome, as well as developing a psychological intervention program aimed at reducing occupational stress and burnout syndrome in this professional category.

Scientific novelty includes:

- carrying out a theoretical-empirical study with reference to occupational stress, burnout syndrome and coping strategies for health care workers;
- setting up a psychological intervention program aimed at informing health care workers about the sources and effects of the phenomenon of occupational stress, developing adaptive coping strategies, emotional skills, cognitive restructuring and development of social skills in order to reduce occupational stress and burnout syndrome in health care workers;
- developing recommendations for specialists in the field of psychology, for health care staff, but also for specialists of the human resources service and managers.

Theoretical value. Making a synthesis of relevant theories and models of organizational stress and highlighting the historical context of the evolution of the concept of occupational stress; the conceptualization of the burnout phenomenon in a medical context, in correlation with OS and coping mechanisms; synthesizing the results of fundamental and applied research on organizational stress and burnout syndrome, as well as the experience of nationally and internationally recognized specialists in the field of stress and medical psychology.

The applicative value of the work consists in the possibility of using the complex program to reduce occupational stress and professional exhaustion among health care workers, with an undesirable effect on the quality of work of health care workers and their psychosomatic state, the program being able to form the basis of a methodological guide for psychologists in the medical system.

Approval of results. The research results were approved at the scientific conferences organized by SPU "Ion Creanga", in seminars and workshops organized in educational institutions, but also published in specialized scientific magazines:

1. The scientific-practical conference of PhD students in SPU "Ion Creanga", October 2017, *Useful points for addressing occupational stress from the perspective of different authors*, article published in the conference proceedings, VOL. XVI, Part II, Chisinau, 2017.
2. The scientific-practical conference of PhD students in SPU "Ion Creanga", *Manifestation of the burnout syndrome on the physical and mental health of employees,* paper published in the conference proceedings VOL. XVII, Part II, Chisinau, 2018.
3. The scientific-practical conference of PhD students in SPU "Ion Creanga", *Emotional exhaustion syndrome in health care workers*, article published in *Scientific Annals of PhD and postdoctoral students,* VOL. XVII, Part III, Chisinau, 2019.
4. Scientific-practical psychology journal, *Perception of stress among health care workers*, Chisinau, 2021, page. 23-39 http://psihologie.key.md
5. "Univers Pedagogic" magazine, *The finding study regarding the level of professional*

exhaustion as a component of burnout in health care workers. No 3 to 2021, page 94 - 101. https://up.ise.md/wp-content/uploads/2021/11/Coperta_UP_Nr.-3_2021.pdf

6. "Vector European" magazine, *Burnout syndrome in health care workers*. No. 2, 2021, p. 171-178.https://usem.md/uploads/files/Activitate_%C8%98tiin%C8%9Bific%C4%83_USEM/Vector/Vector_European_2021_2.pdf
7. Didactica Pro magazine, *Occupational stress in the context of current research.* No 4-5, 2021, page 60-63. http://www.prodidactica.md/revista/Revista_128-129_Cuprins.pdf
8. The Moldovan Medical Journal, *Smoking as a method of coping for medical workers*, Chisinau, September, 2021, pag. 16-24. http://moldmedjournal.md/wp-content/uploads/2021/09/Moldovan-Med-J-vers-6-Sept-2021-V64-No6.pdf

The scientific research methodology consists of: *theoretical methods* such as scientific documentation, analysis, synthesis, theoretical modelling and generalization of specialized literature regarding the research problem; the hypothetical-deductive method for interpreting and explaining the research results; the following *empirical methods*: Perceived Stress Questionnaire (Levenstein et al., 1993), MBI Maslach Bournout Inventory (Maslach and Leiter, 1997), COPE Inventory (Carver et al., 1989); but also *statistical-mathematical data processing methods*: MANOVA multivariate analysis, ANOVA analysis of variance, T-Welch test, Multiple Linear Regression, Pearson Correlation, Partial Correlation, Wilcoxon–Mann–Whitney U test.

Publications on the topic of the thesis: 8 scientific papers, including **5** articles in national and international scientific journals and **3** articles in the materials of scientific conferences.

Volume and structure of the paper. The thesis consists of annotations in Romanian, Russian and English, list of abbreviations, introduction, three chapters, general conclusions and recommendations, bibliography of scientific works, appendices.

Key words: occupational stress, burnout syndrome, coping strategies, health care workers.

THESIS CONTENT

The ***Introduction*** includes the theoretical and practical premises that underpin the topicality and importance of the addressed problem, the aim and objectives of the thesis, as well as the scientific novelty of the research. Following the established goal, the research methodology is also reflected here. The theoretical importance and applied value of the work and the way in which the research results were approved are also argued.

Chapter 1, entitled *'Theoretical and applied foundations of occupational stress and burnout syndrome in health care workers'*, carries out a detailed analysis of the specialized literature that focused on historical and etymological incursions in defining the concept of *stress*. Another aspect concerns the analysis of occupational stress and burnout syndrome in the context of current research, the elucidation of theories and theoretical models of occupational stress and its sources. Also, the specifics of occupational stress and burnout syndrome among health care workers are described, synthesizing research at both international and national levels.

Chapter 2 entitled *'Empirical research regarding the manifestation of occupational stress* and *burnout syndrome in health care workers'*, presents the purpose, objectives, hypotheses and methodology of the research used in the experimental ascertainment investigation, in which 210 people aged between 25 and 68 participated. The health care workers participating in the study were divided into 3 categories according to seniority: 0 - 10 years, 11 - 30 years and 31 - 45 years. The subjects included in the research are health care workers from 5 public health care institutions in the municipality of Chisinau.

The methodology used was based on the application of the complementarity of data collection methods and techniques. The written testing method was used, applying the following tests:

1. COPE Inventory (Carver et al., 1989);
2. Perceived Stress Questionnaire (Levenstein et al., 1993);
3. MBI Maslach Bournout Inventory. Emotional burnout test (cf. G. Cociovia et al., 1997).

The aim of the paper was to study occupational stress, burnout syndrome, coping strategies, which would allow the development and implementation of the intervention program aimed at reducing them in health care workers.

Objectives:

- Arguing theoretically the phenomenon of organizational stress and the burnout syndrome in health care workers.
- Determining the level of stress perception in health care workers.
- Investigating the burnout syndrome in health care workers.
- Studying coping strategies used by medical staff.

- Establishing the relationship between stress perception, burnout syndrome and coping strategies.
- Developing and implementing the psychological intervention program aiming at reducing occupational stress and burnout syndrome.
- Determining the effectiveness of the training program.
- Formulating the scientific conclusions of the research and developing recommendations relevant to the solution of the problem addressed.

Research hypothesis: We estimate that organizational stress and the burnout syndrome in health care workers are determined by a series of factors specific to the professional environment (high stress level, seniority, type of healthcare, type of services provided), as well as individual factors (gender, coping strategies and age).

The general hypothesis allowed the following **operational hypotheses** to be put forward:

1. We hypothesize that there are differences in the perception of stress according to the type of healthcare, age, gender, seniority and the type of services provided.
2. We estimate that there are differences in the manifestation of burnout syndrome in health care workers according to the type of healthcare, age, gender, seniority and the type of services provided.
3. We hypothesize that stress coping strategies are used more frequently depending on how healthcare is provided and its type.
4. We anticipate there is a positive relationship between stress perception, burnout syndrome and coping strategies.

For the investigations derived from the hypotheses and objectives of the research, a series of methods to research the variables subject to the research as precisely as possible were chosen. The independent variables are gender, seniority and age.

Results of experimental research on occupational stress and burnout syndrome.

Results of the Perceived Stress Questionnaire. Operational hypothesis assumes that there are differences in the perception of stress according to the type of healthcare, age, gender, seniority and the type of services provided.

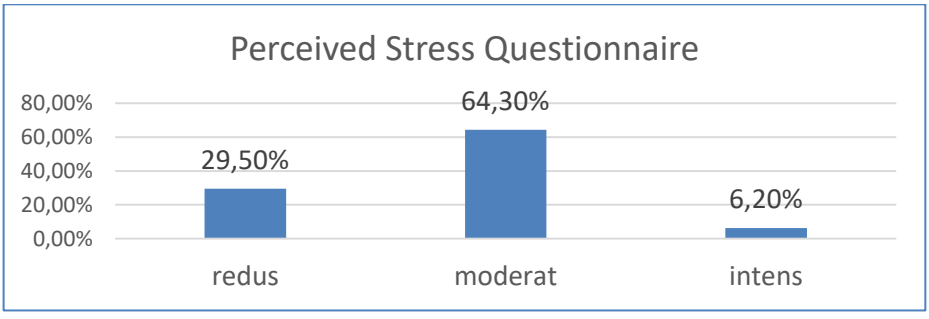

Fig. 1. Distribution of results regarding the *stress perception* in health care workers by general lot

Most of the medical personnel perceive stress at a moderate level, that is 64.30%, 29.50% have a low level of stress and 6.20% perceive stress at an intense level. Moderate stress is manifested when medical workers face daily demands, work tasks, situations perceived as difficult or of major importance. It can also be related to poor time management, the high flow of patients, but also unsatisfactory working conditions.

When comparing stress perception to the type of healthcare, we determined that the major scores are held by resident doctors (12.10%) and nurses (7.40%). We hypothesize that the results obtained by resident doctors are determined by the fact that they have just started their careers, with minimal professional experience, and feel a great deal of responsibility. In the case of doctors, the stress is not so strongly felt, no person with a high coefficient of stress perception being registered, thus obtaining maximum values of perceived stress at an average level (69.70%). Another possible explanation for the high level of perceived stress among resident doctors would be that they, recently graduating from medical schools, have gone through a rather stressful period.

As far as nurses are concerned, the perception of stress could be related to the large number of patients they work with, the shortage of staff, the multiple professional tasks, but also the degree of satisfaction of patients and relatives with the services provided. Respectively, 59.10 percent of the nurses feel stress at an average level.

Analysing the results regarding *stress perception* according to the type of services provided, we determined that the highest values lie with the medical staff in the psychiatric hospital, who denote the highest level of stress perception (12.8%) compared to employees in other medical institutions included in the research (2.9% - DR Narcology and 2.60% MIA RH). The comparative post hoc analysis allowed for the statistically significant difference to be identified by means of the Games Howell test between the results regarding *stress perception* among the health care workers in Narcology DR (M=70.22: SD=11.69) and MCH for Children (M= 62.26; SD=11.69) at a materiality level p=0.048.

The maximum scores regarding stress perception according to gender are at the moderate level, with women recording higher values (65.90%) than men (61.30%). Thus, female workers have a moderate stress level higher than male workers, which can be explained by the fact that women are more empathetic and show more compassion, dealing with difficult, nervous or rude patients, or with cases where patients even die, which is a trauma difficult to manage and overcome. A third of the male staff (32%) and slightly more than a fourth (28.10%) of the female staff feel stress at a low level and only 6.7 percent of the men included in the research and 5.9 percent of women perceive stress at a high level.

During the research, we found that health care workers who are at the beginning of their career (0-10 years of experience) have higher stress perception scores (8.5%), followed by those with 11-30 years of experience - 5.3%, and those with 31 - 45 years of experience - 3%. Therefore, with the accumulation of work experience, health care workers tend to manage better situations involving a high level of stress. Major quotas are reached at a moderate level by health care staff with 0 to 10 years of experience - 64.2%, those with 31 to 45 years of experience reach 60.5%, and those with 11 to 30 years of experience reach 66.7%. We can deduce that health care workers, for the most part, show an average level of stress.

Results of the test *COPE Inventory (Carver et al., 1989)*. Operational hypothesis assumes that stress coping strategies are used more frequently depending on how healthcare is provided and its type.

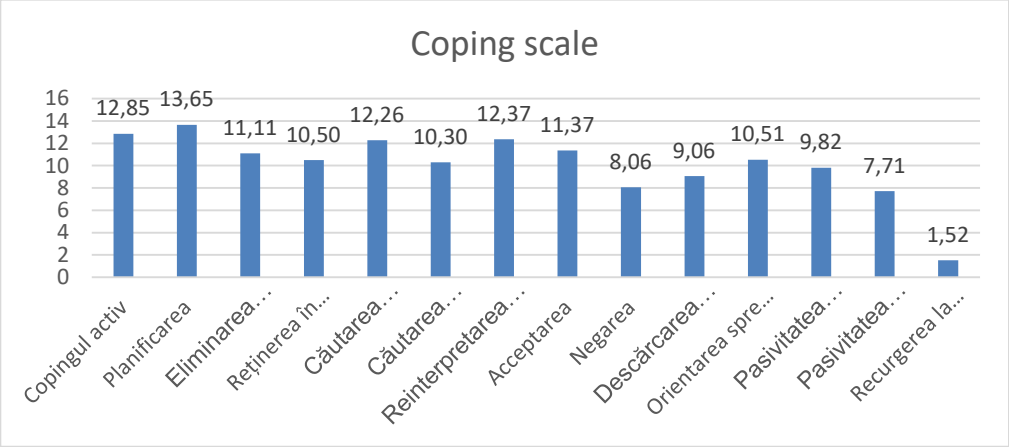

Fig. 2 Distribution of average values according to *COPE Inventory* per general lot

We found that the medical staff used both adaptive and maladaptive strategies. Thus, these employees *plan* (M=13.65) and direct their thinking towards steps and ways to act in stressful situations. They demonstrate active coping by *seeking social and instrumental support* (M=12.26), tending to request advice, information or other necessary help to improve the situation. Health care workers also use the *positive reinterpretation* strategy (M=12.37), showing a tendency to extract the good, positive aspects from an undesirable situation or with negative consequences. This defence mechanism is not only intended to reduce distress, but can be the starting point for another kind of action on the stressor. Regarding the *acceptance* (M=11.57) of stressful situations, the medical staff has the possibility to select one of two options: accepting the reality of the threatening factor, in order to act on it, and/or accepting the situation itself and the fact that there is nothing left to do to improve the situation. To avoid distraction from the problematic situation and to be able to focus on its solution, health care workers tend to use the coping strategy *removal of competing activity* (M=11.1). *Orientation towards religion* (M=10.51) is the coping strategy that was conceived by the authors of the questionnaire as the one with the function that can serve for positive reinterpretation, for emotional support, being a

form of active coping with a stressor to which some medical workers can resort in uncertain moments.

With reference to the results obtained per general lot in the case of maladaptive coping strategies, we can find *mental passivity* (M=9.82), used by certain people to avoid confronting the problem and 'escape' in such activities as watching movies or shows, video games, etc., this being the tendency opposite to suppressing any activities in order to focus on the problem. *Denial* (M=8.06) involves not only 'running away' from the problem, as I explained in the case of mental passivity as a coping strategy, but also the refusal to believe that the stressor exists, this being a strategy included in the category of defensive mechanisms. Some of the medical staff tend to *discharge emotionally* (M=9.06) to reduce their stress level by expressing negative effects and emotions. Another maladaptive coping strategy identified in the investigated individuals is *behavioural passivity* (M=7.71), expressed by the tendency to reduce effort as a reaction to stress. As for the *substance use* (M=1.52), we found that this is a coping strategy less used by medical workers.

Analysing the results obtained by the medical staff on the coping scale, depending on the type of healthcare, we determined maximum values on the *planning* scale, with a mean of 14.30 for resident doctors, 13.71 for doctors and 12.96 for nurses. Therefore, we can assume that orientation in thinking and concrete steps in action are the active coping strategies adopted by the respective categories of medical workers. Through statistical calculations, it was established that there are no significant differences in the case of coping strategies by *type of healthcare*, but the analysis of the data obtained in the empirical research, taking into account the means obtained based on the samples, allows us to conclude that in some health care workers higher scores are found.

The comparative analysis of the results obtained by the subjects on the variables related to coping strategies, depending on the type of healthcare, by means of the ANOVA statistical test, demonstrated that there are statistically significant differences in the variables: *planning* (F_2=3.253; p=0.013); *refraining from action* (F_2=2.538; p=0.041); *seeking social and instrumental support* (F_2=4.815; p=0.001); *orienting towards religion* (F_2=2.929; p=0.022) and *using substances* (F_2=3.116, p=0.016). By means of the Tukey HSD test, statistically significant differences were obtained for the variable *seeking social and instrumental support* between Narcology DR (M= 13.00; SD=2.43) and MCH Sfanta Treime (M=11.26; SD=2.82) at a materiality level p=0.015, between MCH Sfanta Treime and MCH for Children (M=13.15; SD= 2.26) at a materiality level p=0.004, between Psychiatry CH (M=12.74; SD=2.22) and MCH Sfanta Treime at a materiality level p=0.045. By means of the Tukey HSD test, differences were obtained for the variable *orienting towards religion* between Psychiatry CH (M= 9.61; SD=3.73)

and MCH for Children (M=12.02; SD=3.66) at a materiality level p=0.039; for the variable *using substances* between Narcology DR (M=1.85; SD=1.11) and MIA RH (M=1.28; SD=0.65) at a materiality level p=0.038, for the variable Narcology DR and MCH for Children (M=1.26; SD=0.55) at a materiality level p=0.026. By means of the Tukey HSD test for the *planning* variable, a statistically significant difference was obtained between the subjects MIA RH (M=14.52; SD=1.88) and MCH Sfanta Treime (M=12.93; SD=2.93) at a materiality level p=0.018.

Seniority also did not prove to be an impact variable in terms of the coping scale. Through statistical calculations, it was established that there are no significant differences in the coping scale according to *seniority*. But the analysis of the data obtained in the empirical research, taking into account the means obtained on the samples, allows us to conclude that higher scores are accumulated in some groups of health care employees (medical staff with a seniority between 31 and 45 years).

The analysis of statistical data regarding gender differences revealed statistically significant differences in the *denial* variable ($t_{1,\ 204.613}$=8.633, p=0.004) and in the *orienting towards religion* variable $t_{1\ 149.482}$=12.318, p=0.001), with values higher for female subjects. The results allow us to state that women, in uncertain moments, resort to divinity more frequently than men, using this coping strategy for positive reinterpretation, for emotional support or as a form of active coping with a stressor. At the same time, women choose to deny the existence of the stressor, refusing to believe that it exists.

Results of the Maslach Burnout Inventory (MBI). From the analysis of the obtained data, it is found that a little under fifty percent (43.30%) of the medical staff participating in the research obtained a high level on *reduction of personal achievements* scale. In this context, we can state that almost half of the investigated medical staff have a tendency to self-appreciate, in a negative way, their capabilities and achievements, professional success, thus limiting their own possibilities.

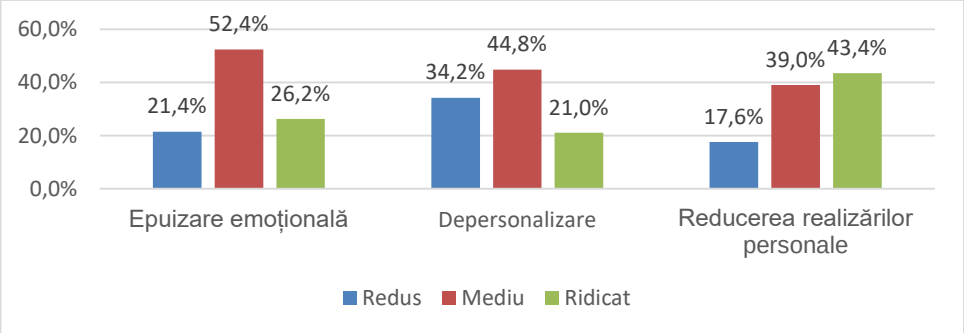

Fig. 3 Average values regarding burnout syndrome, MBI, per general lot

Regarding *emotional exhaustion*, we note that just over a quarter (26.2%) of those included in our study feel it at a high level These results allow us to find that at least a quarter of

the medical staff experience exhaustion or emotional fatigue as the absence of emotional energy and that their own resources are not suitable and sufficient to manage the situation. A little over a fifth (21%) intensely manifests the phenomenon of *depersonalization*, the second component of the burnout syndrome, which could include the absence of emotions, cold affective relationships with patients, who are perceived as depersonalized objects, showing even an attitude of cynicism towards people seeking consultations and treatments. More than half (52.4%) of the medical workers included in the research feel *emotionally exhausted* at an average level, followed by employees who manifest the phenomenon of *depersonalization* (44.80%), then by staff who tend to *reduce personal achievement* (39%).

Table 1. Manifestation of burnout syndrome components (MBI Burnout) in health care workers by the type of healthcare N=210 (percentage values)

Components of the Burnout Syndrome	**Doctors**			**Resident doctors**			**Nurses**		
	low	medium	high	low	medium	high	low	medium	high
Emotional exhaustion	23.7%	64.5%	11.8%	21.2%	43.9%	34.8%	19.1%	47.1%	33.8%
Depersonalization	31.6%	53.9%	14.5%	36.4%	39.4%	24.2%	35.3%	39.7%	25%
Reduction of personal achievements	26.3%	40.8%	32.9%	13.6%	50%	36.4%	11.8%	26.5%	61.8%

Analysing the data regarding the manifestation of the burnout syndrome in the case of the medical staff subjected to the experiment, by the type of healthcare, we find that a high level of *emotional exhaustion* is characteristic for 34.8% of the resident doctors, 33.8% of the nurses and 11.8% of doctors. A possible explanation of the emotional exhaustion mostly in resident doctors would be related to the fact that residency is a stage of life that requires adaptation to various stressful situations, both professionally and personally (Rios et al., 2006). The stress quotient in the medical career being high (Mumford, 1983), resident doctors feel affected by emotional exhaustion, neglecting their personal needs in an attempt to satisfy their need for affirmation. Regarding the more intense experience of emotional exhaustion by nurses (33.8%) in relation to doctors (11.8%), we found similar results in other studies comparing nurses with doctors, the former consistently reporting higher levels of burnout in general and emotional exhaustion in particular. Referring to the *depersonalization* component of the burnout syndrome in medical staff by type of healthcare, we can state that the highest level is recorded in nurses (25%) and resident doctors (24.20%), followed by doctors (14.20%). Nurses scored the highest percentage on the *reduction of personal achievements* scale (61.80%), followed by resident doctors

(36.40%) and doctors (32.90%). This component of the burnout syndrome is directly accompanied by a decrease in the person's self-esteem, the main manifestations of the symptom being the tendency towards a negative assessment of one's own person, one's own professional achievements and successes, negativism in relation to work duties, a decrease in professional motivation, etc.

Table 2. Manifestation of MBI burnout syndrome components in health care workers by seniority N=210 (percentage values)

Components of the Burnout Syndrome	**1 - 10 years**			**11 - 30 years**			**31 – 45 years**		
	low	medium	high	low	medium	high	low	medium	high
Emotional exhaustion	5.7%	24.5%	69.8%	44.7%	34.2%	21.1%	27.3%	37.9%	34.8%
Depersonalization	0%	42.5%	57.5%	2.6%	73.7%	23.7%	0%	74.2%	25.8%
Reduction of personal achievements	0%	40.6%	59.4%	5.3%	65.8%	28.9%	9.1%	59.1%	31.8%

The analysis of the results regarding the manifestation of burnout syndrome components by seniority, indicates that beginners and those with little work experience (0 - 10 years) show a higher level of burnout in relation to those with increased work experience, obtaining the maximum values for the three components of the professional burnout syndrome: *emotional exhaustion* (69.80%), *depersonalization* (57.5%) and *reduction of personal achievements* (59.4%). The debut period and the first years of career have a major impact, with stressful implications, on those who are at the beginning of their professional path in any occupational field, this being felt in particular by the medical staff. At the same time, 34.8% of the respondents who are part of the internship group, 31 - 45 years, showed a high level of *emotional exhaustion*. It is worth noting that the same group of seniority showed higher and medium scores (37.9% for 31 - 45 years, compared to 34.2% for 11 - 30 years and 24.7% for 1 - 10 years), and no low values were recorded for this group (0% for 31 - 45 years, 0% for 1-10 years, compared to 2.6% for 11-30 years) of emotional exhaustion, which justifies the development of this syndrome.

The comparative analysis of the results obtained by the subjects according to the *seniority*, by means of the same MANOVA statistical test, demonstrated that there is a statistically significant multivariate difference between the three categories of seniority (Pillai coefficient $F_{14,404}$= 8,218; p=0,001, η^2partial=0.222).

Table 3 Manifestation of burnout syndrome components (MBI Burnout) in health care workers by the type of healthcare N=210 (percentage values)

Components of the Burnout	**Emotional exhaustion**	**Depersonalization**	**Reduction of personal achievements**

Syndrome	low	mediu m	high	low	mediu m	high	low	mediu m	high
Narcology DR	14.3%	48.6%	37.6%	28.6%	48.6%	22.9%	11.4%	33.3%	54.3%
MIA RH	21.1 %	57.9%	21.1%	34.2%	42.2%	23.7%	23.7%	36.8%	39.5%
MCH for Children	36.8%	44.7%	18.4%	52.6%	39.5%	7.9%	28.9%	26.3%	44.7%
MCH Sfanta Treime	15%	58.3%	26.7%	23.3%	51.7%	25%	10%	48.3%	41.7%
Psychiatry CH	23.3%	48.7%	28.2%	38.58 %	38.32 %	23.1%	17.9%	43.6%	38.6%

The data exposed indicate that the medical staff in the Narcology Dispensary (37.6%), followed by the psychiatry staff (28.2%), by the staff in MCH Sfanta Treime (26.7%), the staff in the Hospital of the Ministry of Internal Affairs (21.2%) and the staff in the Children's Hospital (18.4%) show high rates in the *emotional exhaustion* component of the burnout syndrome. These results allow us to conclude that medical staff with patients with addictions and mental disorders have feelings of exhaustion and/or lack of energy. We note that the maximum values are at the average level on this scale: MCH Sfanta Treime - 51.30%, Narcology DR - 48.60%, MIA RH - 48.60%, MCH for Children - 44.70%, Psychiatry CH - 48.70%. An important remark regarding the results obtained on this scale is that the medical staff working in the children's hospital are the least impacted in terms of emotional exhaustion. At the same time, the lowest scores are obtained at the high level in the second component *depersonalization (MBI)*, with the lowest values for the medical staff in the children's hospital (7.9% thus recording maximum scores at the low level of this component). We note that the maximum values of the staff from three hospital institutions, MCH Sfanta Treime (51.70%), Narcology DR (48.60%), MIA RH (42.10%), are at the average level of *depersonalization*. The highest frequency of high-level burnout syndrome among the staff of various medical institutions is attested to *reduction of personal achievements*. More than half (54.3%) of the medical staff in the Narcology Dispensary and less than half (44.7%) of the staff in the Children's Hospital, but also the staff in the MCH Sfanta Treime 41.7%) tend to reduce their personal achievements. These results make us suppose that health care workers with high scores reduce their capacity to establish relations with others and to progress at the workplace. As a result, it is possible that they evaluate negatively their achievements at the workplace.

MANOVA comparative analysis of the results obtained by the subjects by the *type of healthcare* demonstrated that there is a statistically significant multivariate difference between the five types of healthcare (Pillai coefficient $F_{28.808}$= **2.146**; p=0,001, η^2partial=0.069).

Table 4 Significance of MANOVA burnout syndrome individual analyses by sex, MBI

Components of the Burnout Syndrome	**Women**			**Men**		
	low	mediu m	high	low	mediu m	high

Emotional exhaustion	22.2%	49.6%	28.1%	44.7%	57.3%	22.7%
Depersonalization	39.9%	40.7%	22%	25.3%	52%	22.7%
Reduction of personal achievements	17%	33.3%	49.6%	18.7%	49.3%	32%

The data presented in Table 4 indicate that 28.1% of the female medical staff showed a high level of *emotional exhaustion*, while the male subjects - only 22.2%. 49.6% of the female respondents showed a *reduction in personal achievements* compared to 32% of the men, which proves a higher level of impact on the female medical staff in these two dimensions of the burnout syndrome. *Depersonalization*, on the other hand, is felt at about the same level by women and men in the healthcare field.

Relationship between stress perception, burnout syndrome and coping strategies. One of the objectives of the study is to identify the relationship between perceived stress, coping strategies and burnout syndrome, on the one hand, and work motivation, on the other. Hence, the following *operational hypothesis***:** We anticipate there is a positive relationship between stress perceived, burnout syndrome and coping strategies.

In an attempt to find out what is the relationship between the coping strategies adopted by the medical staff and their burnout syndrome, we performed the Pearson correlation.

Table 5 Establishing the correlation between coping strategies and burnout syndrome in medical staff

Pearson correlation		**1**	**2**	**3**
Active coping	**r**	**-0.326**	**-0,347**	**-0,200**
Planning	**r**	**-0,211**	**-0,352**	**-0,336**
Removal of competing activity	**r**	**-0,331**	**-0,301**	**-0,342**
Refrain from action	**r**	**0,287**	**0,257**	**0,274**
Positive reinterpretation	**r**	**-0,261**	**-0,374**	**-0,268**
Emotional discharge	**r**	**0,345**	**0,289**	**0,315**
Mental passivity	**r**	**0,331**	**0,441**	**0,571**
Behavioural passivity	**r**	**0,353**	**0,335**	**0,576**
Substance use	**r**	**0,396**	**0,363**	**0,316**
Denial	**r**	**0,352**	**0,563**	**0,216**
Acceptance	**r**	**0,296**	**0,488**	**0,327**

Correlation is significant at the level ***p≤0.001***

Note: 1-Emotional exhaustion MBI; 2-Depersonalization; 3-Reduction of personal achievements MBI

The correlational analysis confirmed that there is an association relationship between *active coping* and *emotional exhaustion* variables (r=-0.326, p=0.038), then between *active coping* and *depersonalization* variables (r=-0.347, p=0.033), and later it is found that medical staff who adopt *active coping* strategies experience a low level of *reduction in personal achievements* (r=-0.200, p≤0.001). Correlations are indirect, strong, and medium, statistically significant. This type of results informs us that medical staff who adopt active coping strategies

tend to have a lower level of burnout syndrome. Likewise, there is a statistically significant medium direct correlation between *planning* variable as an active coping strategy and *emotional exhaustion* (r=-0.211, p≤0.007), which denotes that medical staff who adopt *planning* strategies as active coping face less *emotional exhaustion*, also identifying a direct correlation with *depersonalization* (r=-0.352, p=0.028) and *reduction of personal achievements* variables, in this way a correlation between these two variables being attested (r=-0.336, p≤ 0.001). A medium, statistically significant indirect correlation was also identified between *removal of competing activity* as an active coping strategy and *emotional exhaustion* variables (r=-0.331, p≤0.001), but also with the *depersonalization* variable (r=-0.301, p≤ 0.001) and, at the same time, with the *reducing own achievements* variable *(*r=-0.342, p≤0.001*).*

Regarding one of the passive coping strategies, we mention the following results obtained after data have been statistically processed. Thus, a direct, weak, statistically significant correlation can be seen between *refraining from action* and *emotional exhaustion* variables (r=0.287, p≤0.001), with the *depersonalization* variable (r=0.257, p≤0.001) and *reducing personal achievements* variable (r=0.342, p≤0.001). Regarding this aspect, we note that there is a tendency to associate passive coping with high levels of burnout.

A negative, weak, statistically significant correlation is attested between *positive reinterpretation* and *emotional exhaustion*, but also with the *depersonalization* variables (r=0.374, p≤0.001). An indirect, weak, statistically significant correlation is attested between *positive reinterpretation* and *reduction of personal achievements* variables (r=-0.268, p≤0.001).

A direct, medium, statistically significant correlation was obtained between *emotional discharge* as an active coping strategy and *emotional exhaustion* variables (r=0.345, p≤0.001). A direct, weak, statistically significant correlation was obtained between *emotional discharge* and *depersonalization* variables (r=0.289, p≤0.001). A direct, medium, statistically significant correlation was obtained between *emotional discharge* and *reduction of personal achievements* variables (r=0.315, p≤0.001).

One of the active coping strategies with a destructive tendency showed that there is a direct, medium, statistically significant correlation between *substance use* and *emotional exhaustion* (r=0.396, p≤0.001) and *depersonalization* variables (r=0.363, p≤0.001); a direct correlation between *substance use* and *reduction of personal achievements* variables (r=0.316, p≤0.001), which means that the *reduction of personal achievements* would decrease if medical staff would consume less alcohol and vice versa, if the medical staff would resort to substances, personal achievements would be minimized.

Mental and behavioural passivity, likewise, are no exception when referring to the passive coping strategies of medical staff. Thus, a medium, direct, statistically significant

correlation was attested between *mental passivity* and *emotional exhaustion* variables (r=0.331, p≤0.001) with the *depersonalization* variable (r=0.441, p≤0.001) and a strong, direct correlation between *mental passivity* and *reduction of personal achievements* variables (r=0.571, p≤0.001). The same dynamics is kept for the variable behavioural passivity that correlated with *emotional exhaustion* variable; a medium, direct, statistically significant correlation (r=0.353, p≤0.001) was attested in *depersonalization* variable (r=0.335, p≤0001); a strong, direct correlation between *mental passivity* and *reduction of personal achievements* variables (r=0.576, p≤0.001).

We note that the *orientation towards religion* coping strategy did not show statistically significant correlations with any of the burnout levels. *Acceptance* and *denial* instead, as an active coping strategy, showed that there is a statistically significant direct correlation between the *denial* and *emotional exhaustion* variables. Also, a medium, direct, statistically significant correlation was attested (r=0.352, p≤0.001) with *depersonalization* variable(r=0.563, p≤0.001) and a strong, direct correlation between *denial* and *reduction of personal achievements* variables (r=0.216, p≤0.001). Also, a direct, statistically significant correlation was attested between *acceptance* and *emotional exhaustion* variables, and a medium, direct correlation between(r=0.296, p≤0.001) with *depersonalization* variable (r=0.488, p≤0.001), a strong, direct correlation between *acceptance* and *reduction of personal achievements* variables (r=0.327, p≤0.001).

Given the above, we conclude that passive coping strategies contribute to a higher professional burnout than active coping strategies, which, on the contrary, decrease the professional burnout of medical staff. Comparing the two situations, we notice that, in the first case, the medical staff cannot overcome the stress situation and any attempt to cope is an unsuccessful step that affects the current situation even more seriously. In the second case, the medical staff takes concrete steps to overcome the existing situation and, as statistical data shows, this proves to be effective in reducing the negative effect of professional burnout in the case of medical staff.

Table 6 Establishing the correlation between coping strategies and stress

Pearson correlation		**Stress**
Active coping	**r**	-0.480*
Planning	**r**	-0.410*
Removal of competing activity	**r**	-0,590
Refrain from action	**r**	-0,011
Search for social and instrumental support	**r**	0,054
Search for social and emotional support	**r**	-0,031
Positive reinterpretation	**r**	-0.342*
Acceptance	**r**	0,064
Denial	**r**	0,053
Emotional discharge	**r**	0.408**

Orientation towards religion	**r**	-0,10
Mental passivity	**r**	0,086
Behavioural passivity	**r**	0.139*
Substance use	**r**	0.349**

*. Correlation is significant at the level 0.05.

**. Correlation is significant at the level 0.01.

The correlational analysis of coping strategies in relation to stress highlighted the fact that medical staff who adopt active (constructive) coping strategies have a lower level of stress. The following coping strategies correlated with the stress variable: *active coping* (r=0.480, p≤0.001), *planning* (r=0.410, p≤0.001), *positive reinterpretation* (r=0.342, p≤0.001), *emotional discharge* (r=0.408, p≤0.001), *substance use* (r=0.349, p≤0.001). In all other cases, no statistically significant relationships were identified. The maladaptive coping strategies adopted by the medical staff did not correlate with the *Perceived Stress Questionnaire.*

Table 7 Establishing the correlation between burnouts and stress

Pearson correlation		**Stress**
Emotional exhaustion_MBI_index	**r**	0.620**
Depersonalization_MBI_index	**r**	0.479**
Reduction of personal achievements_MBI_index	**r**	-0,126

*. Correlation is significant at the level 0.05.

**. Correlation is significant at the level 0.01.

The correlation between burnout and stress showed that *emotional exhaustion* correlated directly with *stress* (r=0.620, p≤0.001) and is a strong, direct, statistically significant one. For the *depersonalization* variable, we also obtained a correlation index (r=0.479, p≤0.001). For the *reduction of personal achievements* variable, we did not obtain a statistically significant correlation. This speaks to the association relationship between stress and burnout in health care workers.

The data obtained in the finding experiment formed the basis for the development of the training program, in which the theoretical premises pointed out in the conceptual part of the research were capitalized. Based on the findings, the directions necessary for the development of the intervention program that would contribute to the reduction of occupational stress and burnout syndrome in the case of medical staff were identified.

Chapter 3*, 'Reducing occupational stress and burnout syndrome in medical staff,* includes the *Psychological intervention program for reducing occupational stress and burnout syndrome,* which includes a series of methods and techniques aimed at familiarizing with the notions of occupational/professional stress , burnout syndrome, knowing the causes and consequences of this phenomenon, reducing stress levels and burnout syndrome by developing coping strategies, emotional skills, cognitive restructuring and developing social skills.

The purpose of the formative experiment was to develop and implement a program to reduce occupational stress and burnout syndrome among health care workers.

The objectives proposed at this stage were:

1. Developing and implementing the psychological intervention program related to the reduction of stress and burnout syndrome among medical workers;
2. Evaluating stress reduction and burnout syndrome parameters, as well as the coping strategy modelling parameters in the case of medical staff at the test/retest stage;
3. Determining the impact of psychological intervention on stress and burnout syndrome among medical staff;
4. Analysing the differences between the results of the experimental group and those of the control group (EG and CG);
5. Interpreting the results and evaluating the effectiveness of the intervention program.

Independent variable is the psychological intervention program. Therefore, we assumed that the psychological intervention program can modify certain factors involved, according to the studied specialized literature. ***Dependent variables*** **are**: (1) level of stress perception; (2) emotional exhaustion; (3) depersonalization; (4) reduction of personal achievements; (5) coping strategies.

Hypothesis for this research compartment: we estimate that the *psychological intervention program may decrease the occupational stress and burnout syndrome among health care workers.*

The formative research was carried out with the participation of 24 health care workers aged between 28 and 54 years. The selection criterion of the participants was based on high indices obtained on the *Perceived Stress Questionnaire* (Levenstein et al., 1993*),* high scores on the scales: emotional exhaustion, depersonalization and reduction of personal achievements (Maslach Bournout Inventory, Maslach and Leiter, 1997*),* as well as data obtained on *COPE Inventory (*Carver et al., 1989*)* in the finding experiment. The complete research group included an experimental group (EG) and a control group (CG). Each group consisted of 12 people, this being the maximum size accepted in developmental and psychotherapy groups. The control group was constituted to validate the results obtained from the experiment based on the experiential group. We formed the two groups randomly, and later we checked the homogeneity of the experimental groups.

In order to demonstrate the homogeneity of the experimental and control groups, formed based on the results of the finding experiment, we administered the Mann-Whitney U test. No statistically significant differences were identified between the two groups. The training program

proves its effectiveness by making three statistical comparisons: experimental group in test/retest, experimental group/control group in retest and control group in test/retest.

To determine the reduction in the intensity of occupational stress, due to the psychological intervention program, we examined the results of the medical staff in the experimental group at the test and retest stages (EG/test-EG/retest), obtained by using the Wilcoxon test.

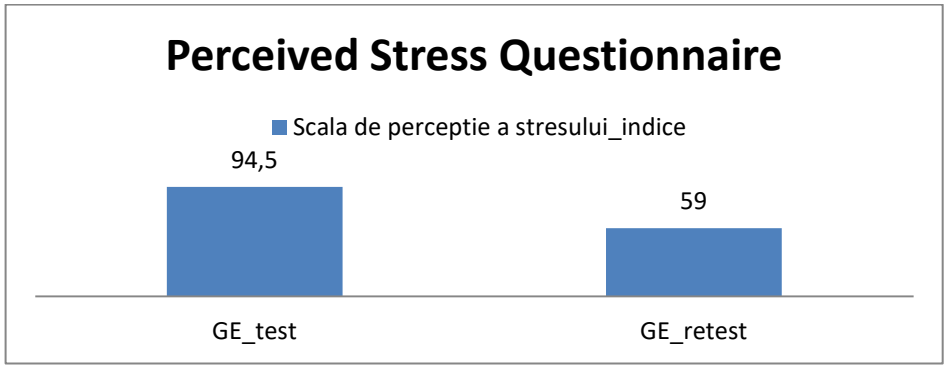

Fig. 4 Mean values for the Perceived Stress Questionnaire, EG-test and EG - retest index

Comparing the results between the test and retest stages in the experimental group allows us to find statistically significant differences in the *stress perception* (Z=-0.198, p≤0.843),

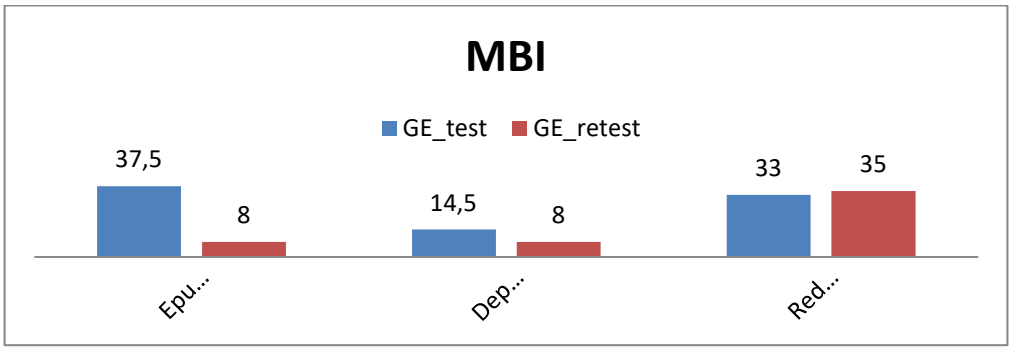

Fig. 5 Mean values for MBI emotional burnout syndrome index,
EG-test and EG - retest index

The comparison of the results shows differences of means due to the psychological intervention in the formative experiment in all MBI variables: *emotional exhaustion* (Z=-1.962, p≤0.055), *depersonalization* (Z=-0.426, p≤0.670), *reduction of personal achievements* (Z=-1.387, p≤0.165) allows us to note the lack of statistically significant differences.

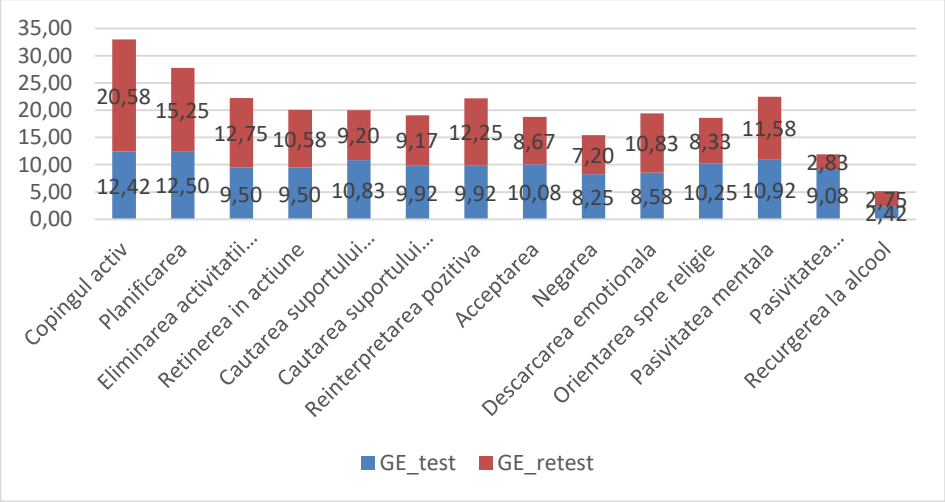

Figure 6 Mean values for the coping scale, EG-test and EG - retest

Comparing the results on the coping scale allows us to find differences between the means, due to the psychological intervention in the formative experiment in: *active coping* (Z=-2.823, p≤0.001), *planning* (Z=-0.144, p≤0.001), *removal of the competing activity* (Z=-2.215, p≤0.046), *refraining from action* (Z=-2.125, p≤0.001), *search for instrumental and social support* (Z=-0.383, p≤0.001), *search for emotional and social support* (Z=-1.727, p≤0.001), *positive reinterpretation* (Z=-1.631, p≤0.001), *acceptance* (Z=-1.499, p≤0.001), *denial* (Z=-3.200, p≤0.001), *emotional discharge* (Z=-2.270, p≤0.001), *orientation towards religion* (Z=-0.214, p≤0.001), *mental passivity* (Z=-0.872, p≤0.001), *behavioural passivity* (Z=-0.959, p≤0.001), *substance use* (Z=-4.294, p≤0.001).

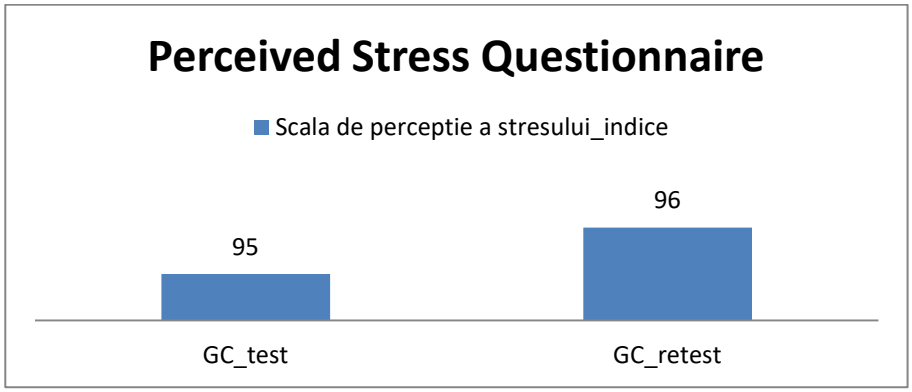

Fig. 7 Mean values for the Perceived Stress Questionnaire, CG-test and CG - retest

Comparing the results for the same variable, the perceived stress questionnaire between the stage in the test and retest control group, allows us to find practically similar results, without identifying a certain dynamic, with differences in means, for *stress perception* variable GC/test (M_1=**95**) and GC/retest (M_2=96). This fact confirms that *stress perception* variable in the control group remained constant. Comparing the results for the *stress perception* variables (Z=-0,198, p≤0,843),

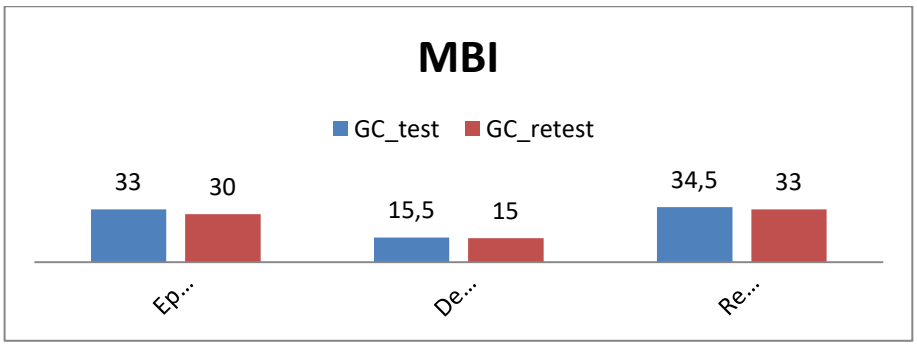

Fig. 8 Mean values for the MBI burnout syndrome, CG-test and CG-retest index

The comparison of the results for variables *MBI questionnaire: emotional exhaustion* (Z=-1.962, p≤0.055), *depersonalization* (Z=-0.426, p≤0.670), *reduction of personal achievements* (Z=-1.387, p≤0.165) allows us to note the lack of statistically significant differences.

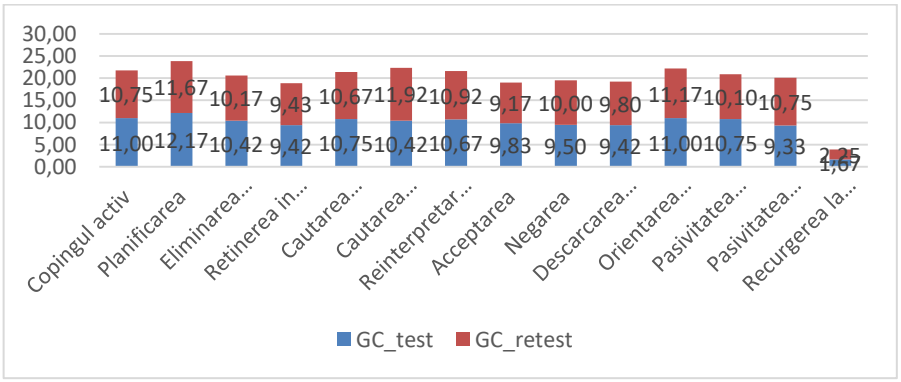

Figure 6 Mean values for the coping scale, CG-test and CG - retest

For the validity of the formative experiment, the necessary statistical measures were performed by the nonparametric Wilcoxon test on paired samples. Statistically significant differences were not revealed in all variables of the Coping Scale: *active coping* (Z=-0.965, p≤0.335), *planning* (Z=-0.887, p≤0.375), *removal of competing activity* (Z=-0.359, p≤0.719), *refraining from action* (Z=-2.609, p≤0.090), *search for instrumental and social support* (Z=-0.119, p≤0.959), *search for emotional and social support* (Z=-2.670, p≤0.080), *positive reinterpretation* (Z=-0.510, p≤0.959), *acceptance* (Z=-0.834, p≤0.404), *denial* (Z=-2.756, p≤0.006), *emotional discharge* (Z=-1.770, p≤0.077), *orientation towards religion* (Z=-1.472, p≤0.141), *mental passivity* (Z=-1.917, p≤0.055), *behavioural passivity* (Z=-2.141, p≤0.092), *substance use* (Z=-3.088, p≤0.082).

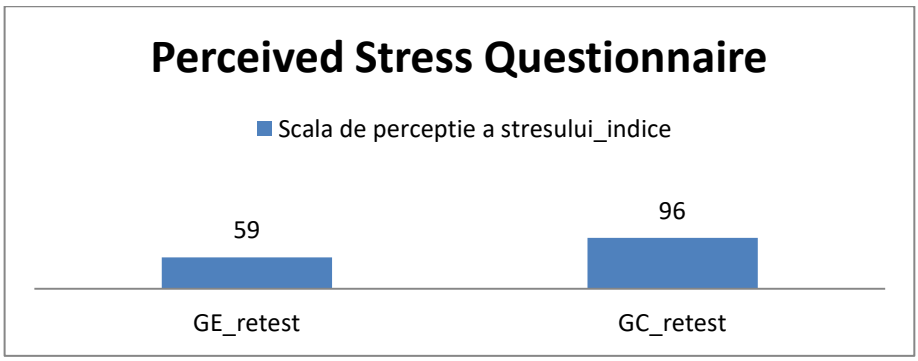

Fig. 10 Mean values for the Perceived Stress Questionnaire, CG-test and EG - retest index

To determine if there are statistically significant differences between EG and CG in the researched variables after the introduction of the experimental factor, we applied the Mann-Whitney U statistical test: *stress perception* (U = 0.000, p≤**0.001**).

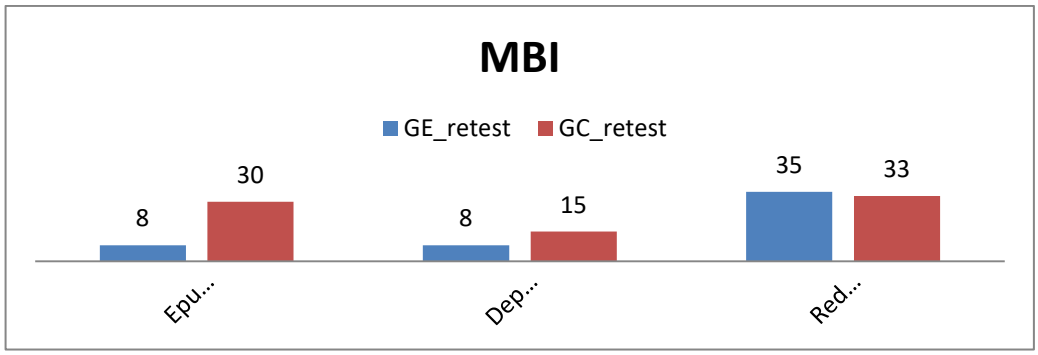

Fig. 11 Mean values for the MBI emotional burnout syndrome, CG-test and EG-retest index

Applying the Mann-Whitney U test, we obtained statistically significant differences between the results obtained at the retest stage by subjects from the control and experimental groups on all scales of the MBI test: *emotional exhaustion* (U = 2.500, p≤**0.001**); *depersonalization* (U = 27.500, p≤**0.010**); *reduction of personal achievements* (U = 51,000, p≤0,225).

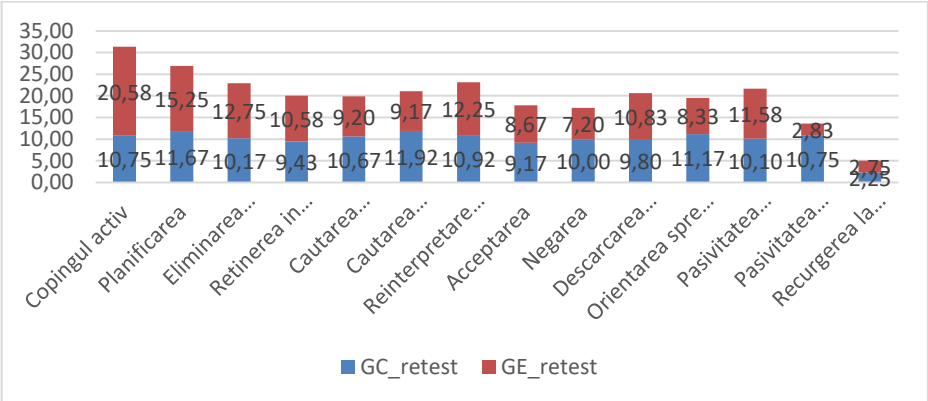

Figure 6 Mean values for the coping scale, CG-test and EG - retest

The results obtained allowed to find that there are statistically significant differences between the experimental group and the control group on the coping scale as follows: *active coping* variable (U=9.00, p=0.001), *planning* (13.00, p=0.001), *removal of competing activity* (U=20.50, p=0.003), *refraining from action* (U=61.5, p=0.039), *search for instrumental and*

social support (U=52.0, p=0.043), *search for emotional and social support* (U =11.5, p=0.001), *positive reinterpretation* (U=51.0, p=0.019), *acceptance* (U=59.0, p=0.041), *denial*(U=62.0, p=0.048), *emotional discharge* (U=65.50, p=0.003), *orientation towards religion* (U=31.50, p=0.018), *mental passivity* (U=38.50, p=0.050), *behavioural passivity* (U=14, 50, p=0.01), *substance use*(U=0.00, p=0.01). Statistically significant differences between the analysed data demonstrate the effectiveness of the psychological intervention program.

In conclusion, we find that the results of the intervention program are true, and following the formative experiment, the stress of the medical staff decreased, with mediating effects also on the burnout syndrome, which is a basic criterion in managing stress at work. Thus, following the experimental intervention, it was found that the burnout syndrome decreased in parallel with the stress, but there were also changes at the level of coping strategies, in favour of constructive coping strategies.

General conclusions and recommendations present the quintessence of the results obtained in the analysis of the specialized literature, the finding, training and control study. The obtained results contributed to the *solution of the important scientific problem***,** namely the identification of the specific manifestation of occupational stress in health care workers and the development of a psychological intervention program aimed at reducing occupational stress and burnout syndrome in this professional category.

The analysis of the theoretical and empirical results allowed us to formulate the following conclusions:

1. The phenomena of OS and BS in the medical staff of the Republic of Moldova are increasingly becoming subjects of study, especially in the context of the pandemic situation, for now they are characterized by certain research limits such as those related to numerically less representative samples and not specified by specialization professional, gender and seniority.
2. This study identified a medium level of perceived stress in more than half of the medical staff, with a higher degree of BS in resident doctors and those with little work experience.
3. Medical staff use both adaptive and maladaptive stress coping strategies, causing some medical personnel to avoid confronting the problem, deny its existence or reduce their level of distress by expressing negative effects and emotions, highlighting the needs of affiliation and esteem mainly for those with long work experience. The high degree of job dissatisfaction demonstrates that this is a vulnerability factor in traversing high stressful situations.
4. High stress was associated with high emotional exhaustion, a pronounced need for security, and a low need for self-realization.

5. The results of the training and control intervention demonstrate a positive impact of the specific intervention activities carried out with the medical staff, showing its effectiveness. The psychological intervention program for the prevention of stress and reduction of OC designed and experimentally verified by us can be used both for the purpose of prevention and reduction of BS in health care workers.

Healthcare managers: 1) Considering the high social costs caused by occupational stress and burnout syndrome, taking certain steps to improve the quality of life at work would serve as a point of thought and guidance for the authorities in the health care system; 2) Establishing mentoring assistance in medical institutions, which would allow sharing the experience of medical staff with more seniority for those at the beginning of their careers and guiding the latter in adapting to the realities of the profession; 3) Increasing the attractiveness of the medical profession through: promotion prospects, by emphasizing the positive feedback and recognizing the contribution brought by the medical worker and by the motivating remuneration; 4) The activities of promoting health at the workplace and maintaining the balance of professional life must be supported; 5) Developing informative material to be offered to each newly arrived medical staff in the medical institution that would contain information regarding occupational stress and burnout syndrome: causes, symptoms, consequences, prophylaxis methods, assessment methods. This would contribute a lot to the prevention of burnout syndrome.

Health care workers: 1) Avoiding delays at work, refusing additional tasks, establishing personal boundaries; 2) Respecting the regime of work, rest and nutrition. Establishing a balance between personal life and professional activity; 3) Determining personal goals and possibilities for professional growth; 4) Ergonomics and workplace layout, creating the most comfortable conditions possible.

Limitations of this study can be found in the suggestions for future investigations:

a) A reason that would explain the limits of the research is related to the sample of subjects that does not have a national representativeness, being carried out in the hospitals and clinics of the city of Chisinau. We propose as a future research direction to increase the group of subjects and the number of staff at the national level from the urban and rural environment and several medical fields; b) Although interventions referring to the reduction of organizational stress and burnout syndrome have helped medical workers to cope with stress more effectively, they do not eliminate the sources of stress at work and therefore may lose their effectiveness over time. We suggest interventions at the organization/system level as well with the aim of reducing the impact of OS and BS. c) We suggest carrying out some research at the management/leadership level, which would highlight and identify the differences related to the impact of organizational stress and burnout syndrome according to the position held; d) The

study we have carried out allowed to collect data that captured the current states of the subjects, a fact that can limit the formulation of certain and firm conclusions regarding the sources and causality of occupational stress and burnout syndrome. In this sense, we consider it indicated to carry out a longitudinal research on the subject of OS and BS among health care workers.

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ADNOTARE

Lilia Grati. ***Manifestarea stresului ocupațional și sindromului burnout la personalul medical. Teză de doctor în psihologie*. Chişinău, 2023.**

Structura tezei: introducere, trei capitole, concluzii generale şi recomandări, bibliografie din 229 de titluri, 5 anexe, 116 pagini de text de bază, 34 figuri, 35 tabele. Rezultatele obținute sunt publicate în 5 lucrări științifice.

Cuvinte-cheie: stres ocupațional, sindromul burnout, strategii de coping, personal medical.

Domeniul de studiu: Psihologia organizațională și psihologia personalității personalului medical.

Scopul: Studierea stresului ocupațional și a sindromului burnout la personalul medical, precum și elaborarea, implementarea și determinarea eficienței programului de intervenție orientat spre diminuarea acestora.

Cercetarea a fost realizată prin trasarea următoarelor **obiective:** argumentarea teoretică a fenomenului stresului organizaţional și sindromului burnout la personalul medical; determinarea nivelului percepției stresului personalului medical; investigarea sindromului burnout în cazul personalului medical; studierea strategiilor de coping utilizate de către cadrele medicale; stabilirea relației dintre stresul perceput, sindromul burnout și strategiile de coping, elaborarea și implementarea programului de intervenție psihologică având drept obiectiv diminuarea stresului ocupațional și a sindromului burnout; determinarea eficienței programului formativ; formularea concluziilor științifice importante ale cercetării și elaborarea recomandărilor relevante soluționării problemei abordate.

Rezultatele obținute care contribuie la soluționarea problemei ştiinţifice importante constau în determinarea nivelului stresului ocupațional și sindromului burnout la personalul medical în corelație cu strategiile de coping utilizate, precum și în elaborarea unui program de intervenție psihologică de diminuare a acestora.

Noutatea științifică a rezultatelor obținute: realizarea unui studiu teoretico-empiric al stresului ocupațional și sindromului burnout la personalul medical; stabilirea gradului de afectare a personalului medical în urma stresului ocupațional și sindromului burnout; comensurarea impactului stresului ocupațional și sindromului burnout în funcție de gen, vechime în muncă, domeniu de activitate și categorii profesionale medicale; determinarea raportului dintre stresul perceput, sindromul burnout și strategiile de coping; elaborarea programului de intervenție psihologică de diminuare a stresului ocupațional și sindromului burnout la personalul medical.

Importanţa teoretică a lucrării constă în completarea abordărilor teoretice cu referire la cauzele și factorii implicați în declanșarea stresului ocupațional și sindromului burnout la personalul medical.

Valoarea aplicativă a lucrării constă în experimentarea și validarea statistică a programului complex de diminuare a stresului ocupațional și a sindromului burnout la personalul medical, cu efect indezirabil asupra calității muncii cadrelor medicale, putând constitui baza unui ghid de bune practici pentru aceștia și ghid metodologic pentru psihologii din sistemul medical.

Implementarea rezultatelor ştiinţifice. Rezultatele obţinute au fost implementate în cinci instituții medicale din municipiul Chișinău în cadrul cursurilor de pregătire profesională, prezentate în comunicări la câteva simpozioane și conferințe naționale și internaționale și reflectate în 8 articole științifice publicate.

Annotation

Lilia Grati. Manifestation of occupational stress and burnout syndrome in medical personnel. PhD thesis in psychology. Chisinau, 2023.

Structure of the thesis: introduction, three chapters, general conclusions and recommendations, bibliography of 229 titles, 5 appendices, 117 pages of basic text, 34 figures, 35 tables. The obtained results are published in 5 scientific papers.

Key words: occupational stress, burnout syndrome, coping strategies, medical personnel

Field of study: Organizational psychology and medical personnel personality psychology

Purpose: To study occupational stress and burnout syndrome in medical personnel, as well as to develop, implement and determine the effectiveness of the intervention program aimed at reducing them. The research was carried out by tracing the following objectives: the theoretical argumentation of the phenomenon of organizational stress and the burnout syndrome among medical personnel; determining the level of stress perception among medical personnel; investigation of burnout syndrome among medical personnel; studying coping strategies used by medical professionals; establishing the relationship between perceived stress, burnout syndrome and coping strategies, developing and implementing a psychological intervention program aimed at reducing occupational stress and burnout syndrome; determining the effectiveness of the training program; the formulation of important scientific conclusions of the research and the development of recommendations relevant to the solution of the problem addressed.

Obtained results that contribute to the solution of the important scientific problem consist in determining of the level of occupational stress and burnout syndrome among medical personnel in correlation with the coping strategies used, as well as the development of a psychological intervention program to reduce them.

Scientific novelty of the obtained results: carrying out a theoretical-empirical study of occupational stress and burnout syndrome in medical personnel; establishing the degree of affectation of medical personnel by occupational stress and burnout syndrome; measuring the impact of occupational stress and burnout syndrome according to gender, seniority, field of activity and medical professional categories; determining the relationship between perceived stress, burnout syndrome and coping strategies; development of the psychological intervention program to reduce occupational stress and burnout syndrome among medical personnel.

Theoretical importance of the work consists in completing the theoretical approaches with reference to the causes and factors involved in the triggering of occupational stress and burnout syndrome among medical personnel.

Applicative value of the work consists in the experimentation and statistical validation of the complex program to reduce occupational stress and burnout syndrome in medical personnel, with an undesirable effect on the quality of work of medical personnel, which can form the basis of a good practice guide for them and a methodological guide for psychologists from the medical system.

Scientific results implementation. The obtained results were implemented in the work activity of five medical institutions in the city of Chisinau within the professional training courses; presented in several communications at national and international symposia and conferences; reflected in 8 published scientific papers.

АННОТАЦИЯ

Лилия Грати. Проявление профессионального стресса и синдрома эмоционального выгорания у медицинского персонала. Кандидатская диссертация по психологии. Кишинев, 2023.

Структура диссертации: введение, три главы, общие выводы и рекомендации, библиография из 229 наименований, 5 приложений, 117 страниц основного текста, 34 рисунка, 35 таблиц. Полученные результаты опубликованы в 5 научных работах.

Ключевые слова: профессиональный стресс, синдром эмоционального выгорания, копинг-стратегии, медицинский персонал

Область исследования: Организационная психология и психология личности медицинского персонала

Цель: изучить профессиональный стресс и синдром эмоционального выгорания у медицинского персонала, а также разработать, внедрить и определить эффективность программы психологического вмешательства. Исследование проводилось, преследуя следующие **задачи исследования**: теоретическое обоснование феномена организационного стресса и синдрома эмоционального выгорания; определение уровня восприятия стресса, синдрома эмоционального выгорания и копинг-стратегий, используемых медицинскими работниками; установление взаимосвязи между воспринимаемым стрессом, синдромом выгорания и стратегиями его преодоления; разработка, реализация и определение эффективности программы психологического вмешательства, направленного на снижение профессионального стресса и синдрома выгорания; формулирование важных научных выводов исследования и рекомендаций.

Полученные результаты, способствующие решению важной научной проблемы, заключаются в определении уровня профессионального стресса и синдрома эмоционального выгорания у медицинского персонала в корреляции с используемыми копинг-стратегиями, а также в разработке программы психологического вмешательства для их снижения.

Научная новизна полученных результатов: проведение теоретико-эмпирического исследования профессионального стресса и синдрома эмоционального выгорания у медицинского персонала; установление степени воздействия профессионального стресса и синдрома эмоционального выгорания на медицинский персонал; измерение влияния профессионального стресса и синдрома эмоционального выгорания в зависимости от пола, стажа работы, сферы деятельности и категорий медицинских работников; определение взаимосвязи между воспринимаемым стрессом, синдромом эмоционального выгорания и копинг-стратегиями; разработка программы психологических вмешательств по снижению профессионального стресса и синдрома эмоционального выгорания.

Теоретическая значимость работы заключается в доработке теоретических подходов применительно к причинам и факторам, способствующим возникновению профессионального стресса и синдрома эмоционального выгорания у медперсонала.

Прикладная ценность работы заключается в экспериментальной и статистической проверке комплексной программы снижения профессионального стресса и синдрома эмоционального выгорания у медицинского персонала, оказывающего нежелательное влияние на качество их работы, что может лечь в основу надлежащей практики. руководство для них и методическое пособие для психологов из медицинской системы.

Внедрение научных результатов. Полученные результаты были внедрены в работу 5 медицинских учреждений г. Кишинева, в рамках курсов повышения квалификации;представлены в нескольких выступлениях на национальных и международных симпозиумах и конференциях; отражено в 8 опубликованных научных работах.

GRATI LILIA

THE MANIFESTATION OF OCCUPATIONAL STRESS BURNOUT SYNDROME AMONG HEALTHCARE PROFESSIONALS

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