

## Manifestations of professional maladaptation and emotional burnout syndrome among internship doctors



Oleh F. Khmiliar<sup>1,\*</sup>, Volodymyr V. Krasnov<sup>2</sup>, Liudmyla V. Piankivska<sup>2</sup>, Olha V. Krasnytska<sup>1</sup>, Vasyl A. Krotiuk<sup>3</sup>

<sup>1</sup>Department of Social Sciences, National Defense University of Ukraine named after Ivan Chernyakhovsky, Kyiv, Ukraine

<sup>2</sup>Department of Pedagogy, Psychology, Medical and Pharmaceutical Law, National Medical Academy of Postgraduate Education named after P.L. Shupyk, Kyiv, Ukraine

<sup>3</sup>Department of Psychology and Pedagogy, Ivan Kozhedub Kharkiv National Air Force University, Kharkiv, Ukraine

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### ABSTRACT

The relevance of this work is in the fact that when identifying professional maladaptation and the systemic nature of the “emotional burnout” syndrome manifestations, actions must be developed for their prevention. Otherwise, there will be manifestations of young doctors' professional deformation, depersonalization phenomena, and a deterioration in the quality of life. All this can lead to the risk of outflow of young personnel from the profession. The reform of the medical personnel training system in Ukraine is underway: the time of internship training in a clinic is increasing, and the time for department training is decreasing. The first encounter of the internship doctor with practical activities leads to a number of stresses for them. Signs of professional maladaptation appear. This leads to the emergence of the “burnout” syndrome. All these factors may result in the outflow of young personnel from the profession. A study of the first-year interns' group (n=181) was conducted. A significant degree of emotional burnout symptoms development and a significant level of professional maladaptation manifestations were revealed. It is proposed to integrate mandatory courses for professional development of the personality with the formation of competencies for adaptation, prevention of emotional burnout, self-regulation of psycho-emotional states into the system of an internship doctors training.

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### 1. Introduction

Within the last two years, the system of training of medical personnel has been actively reformed in Ukraine. A phase of continuous professional development (CPD) has emerged in the traditional model, as is the case in many countries around the world. This phase of the CPD is derived from government regulation. Before the CPD phase, there is a postgraduate education phase—the doctor must complete his or her internship training before obtaining admission to independent practical activity. During an internship, practice training takes place in a clinic under the supervision of a physician. Theoretical training takes place in medical educational establishments at clinical departments.

During an internship, the doctor is trained within his future field of work. It is during this phase that former students and future doctors have their first practical encounter with their chosen profession. When reforming the system of medical personnel training, it is planned to significantly reduce the training time at the department in favor of increasing the training time in the clinic. Within the scope of this work, the authors set themselves the task of conducting a study revealing how future doctors adapt and perceive themselves in their new clinical work environment, how strongly they exhibit symptoms of the “emotional burnout” syndrome upon first contact with patients, their relatives, and increased stress, etc. An additional impact factor is the reform of practical healthcare when intern curators find themselves in situations of uncertainty. Preliminary results indicate a great risk for future doctors of developing a sense of their own professional inability, uncertainty concerning the rightful choice of doctor profession, and job dissatisfaction. The analysis of the scientific literature indicates that the issue of professional

\* Corresponding Author.

Email Address: [o.khmiliar6074@murdoch.in](mailto:o.khmiliar6074@murdoch.in) (O. F. Khmiliar)

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Corresponding author's ORCID profile:

<https://orcid.org/0000-0003-2693-1906>

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adaptation in the medical environment of the internship doctors and the symptoms of the “emotional burnout” syndrome during the internship training is relevant, but not sufficiently studied (Pines and Keinan, 2005; Starova et al., 2019; Demianchuk, 2020).

Miller (1997) defined maladaptation as a violation of human adaptation to environmental conditions, which is manifested in behavioral responses. The consequences of maladaptation are negative changes in human activity: A decrease in the effectiveness of the professional activity, a decrease in motivation to perform tasks, conflict in relationships, destructive changes in personality, psychosomatic diseases due to the peculiarities of the profession (Paz et al., 2014; Liu and Gao, 2021). Temporary maladaptation is eliminated through adaptation. Persistent and long-term maladaptation emerges due to the inability of the individual to find ways and methods to adapt. Persistent maladaptation leads to destructive changes, including the manifestation of the “emotional burnout” syndrome (Griesemer et al., 2019).

Emotional burnout syndrome was studied by Maslach et al. (2001). Austrian psychotherapist Laengle (2008) interpreted the “emotional burnout” syndrome as a prolonged state of exhaustion that occurs in activity. Kondo (1991) defined the “emotional burnout” syndrome as a state of personality maladaptation caused by excessive workload and impaired social interaction. He states that burnout symptoms are more common among people who are overly interested in their own work. Burnout is a multidimensional construct that contains a complex of negatively colored experiences and maladaptive behaviors as a result of long interpersonal relationships (Carlini et al., 2016; Moss et al., 2016; Riethof and Bob, 2019; Alkhamees et al., 2020). Maslach et al. (2001) understood burnout as an “erosion of the human soul.” The widest range of professional tasks, daily long-term communication with people, increased responsibility for the life and health of patients, dissonance in expressing emotions, lack of balance between the requirements related to the doctor and his internal resources, the mismatch between the ideal vision of the profession and reality are the main factors contributing to the emergence of “emotional burnout” syndrome symptoms among interns (Vasyakin et al., 2020). Taking into account the scientists' diversity of views, we believe that the manifestations of professional maladaptation among interns are determined by a number of factors that comprehensively depend on both the specifics of their activities and the individual characteristics of an intern.

## 2. Materials and methods

In order to identify the peculiarities of the professional maladaptation and “emotional burnout” syndrome formation among interns, a psychodiagnostic study was conducted among 181 interns of different specializations of the first study

year at the National Medical Academy of Postgraduate Education named after P.L. Shupyk during September-November 2019. Among the studied individuals, 95.19% were female interns, 4.90 % were men. The average length of work as a doctor was 1.10 years. A psychodiagnostic study was carried out using the method of “Evaluation of professional maladaptation” by Nikiforova et al. (2003). By calculating the sum of points, five major indicators were used to assess the severity of professional maladaptation. The results of the study were analyzed in two directions: by assessing the severity of the professional maladaptation level and the identification of some indicators.

Also, the study of the level of “emotional burnout” syndrome formation using the method “Diagnosis of the emotional burnout level” by Boyko (1999). We sought to find out the main symptoms of emotional burnout, the extent of their development in interns, and determine what phase they belong to. The methodology we use is quite meaningful and allows us to identify the measures of psychological prevention. The psychodiagnostic method “Scale of states,” adapted by Leonova and Kuzneczova (2009), which is aimed at assessing the degree of subjective comfort of a person at the time of the study, was also applied. This technique consists of ten bipolar scales describing the positive and negative subjective states. The level of subjective comfort of the current state was determined by calculating the points. The results of the study were processed with the help of Microsoft Office MS Excel and the standardized software package IBM SPSS Statistics 23.0.

In our study, we consider professional maladaptation as a process of breaking the equilibrium in the system “person-professional environment.” The analysis of the results by the method of “Assessment of professional maladaptation” by Nikiforova et al. (2003) showed that 34.57% of the examined internship doctors have a low level of professional maladaptation (to 32 points), in 50.62%—moderate (from 32 to 64 points), and in 14.81%—expressed (from 65 to 95 points). As can be seen from the table, the dominant signs of professional maladaptation (Table 1) are Health deterioration (16.11), somatovegetative disorders (10.78), disturbance of the “dream-vigor” cycle (6.90). The least expressed are the features of individual mental processes (2.78). Emotional shifts (5.67) and feelings of fatigue (3.98) should be noted among the marked signs of the “health deterioration” block.

## 3. Results and discussion

The results indicate that professional maladaptation among interns is expressed as a health deterioration, namely changes in the emotional sphere and a feeling of fatigue, as well as certain somatovegetative disorders.

These identified signs affect the effectiveness of professional activities, lead to deterioration of health, can serve as a breach of interpersonal

relationships with colleagues and patients, and their relatives. It can be stated that it is stressfulness in a professional activity that leads to overstretching and causes the appearance of professional maladaptation. Thus, the level of professional maladaptation among intern doctors depends on the influence of external factors and his/her ability to find solutions to stressful situations. The analysis of the level of "emotional burnout" syndrome formation by the method of "Diagnosis of the emotional burnout level" by Boyko (1999) indicated that the average value of the burnout index in the sample of internship doctors is 167.63 points out of the maximum possible was 360 points.

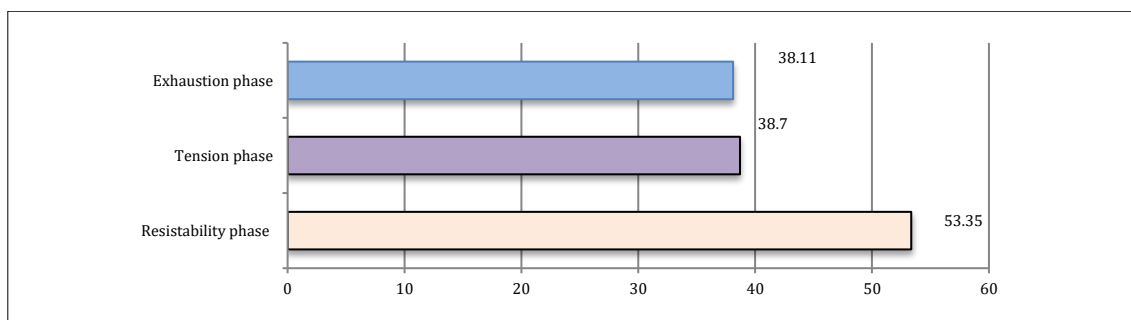
We found out that among all researched individuals three phases of the "emotional burnout" syndrome are at the stage of formation (from 37 to 60 points). The dominance of the resistibility phase (53.35) in the structure of intern burnout was established. This is manifested through selective communication, the pursuit of privacy, comfort in performing professional tasks, and the saving of emotional manifestations in communication with patients and colleagues (Fig. 1).

**Table 1:** Average rates of professional maladaptation in interns

Professional maladaptation	M*±m**
I Health deterioration	16.11±1.04
Emotional shifts	5.67±.43
Peculiarities of individual mental processes	2.78±.23
Decrease in overall activity	3.68±.24
Fatigue	3.98±.31
II Somatovegetative disorders	10.78±.71
III Violation of the "dream-vigor" cycle	6.90±.33
IV Peculiarities of social interaction	5.27±.38
V Reduced activity motivation	3.38±.22

Notes: \*M – mean, \*\*m – standard error of mean

The "Tension" phase gets 38.70 points, which indicates an understanding of the impact of the specifics of their professional activity and the inability to change it. This causes an accumulation of irritability. The least prominent among interns is the "exhaustion" phase (38.11), which indicates a shift of emotions in the negative direction. This decreases the resources of the intern. We sought to classify the levels of symptom formation of "emotional burnout" syndrome in interns in the following sequence: The dominant symptom; the formed symptom; the symptom that is being formed; the symptom that is not formed (Table 2).



**Fig. 1:** The level of "emotional burnout" syndrome phases severity in interns (of the maximum possible–120 points)

**Table 2:** Levels of "emotional burnout" syndrome symptoms formation in interns (%)

Symptoms	Levels of symptoms formation			
	Dominant	Formed	Symptom that is being formed	Not formed
Reduction of professional duties	38.27	19.75	13.58	28.39
Inadequate selective and emotional response	35.81	14.82	34.56	14.82
Emotional and moral disorientation	24.70	4.93	34.56	35.81
Experiencing psycho-traumatic circumstances	16.04	18.52	17.3	48.15
Anxiety and depression	13.6	7.40	33.33	45.67
Emotional detachment	7.40	12.34	54.33	25.93

As can be seen from Table 2, the reduction of professional duties is dominant in 38.27% of interns, not formed in 28.39%, formed in 19.75%, is in the stage of formation in 13.58%. This symptom is manifested by the efforts of interns to reduce the impact of situations that require emotional expression and, as a consequence, patients may be disregarded. The presence of this symptom among interns is also the evidence of a sense of incompetence in their professional activity, a negative evaluation of themselves, and a certain limitation of their own capabilities and the transfer of responsibility to others. It was found that the symptom of "inadequate and selective emotional response" is dominant in 35.81% of the studied, in 34.56% is in the stage of formation; in 14.82%, it is

formed and in 14.82%, it is not revealed. This symptom in doctors can be manifested in two ways: the use of emotions of limited format and moderate intensity, indicating signs of professionalism or limited emotional return by selective response through emotional dryness, indifference (Barchiy and Voronova, 2020).

The symptom of "emotional and moral disorientation" in 35.81% of the subjects is not formed, 34.56% is at the stage of formation, 24.70% is expressed, and 4.93% is formed. It is quite common among persons in the "assisting" professions and is a continuation of inadequate and selective emotional response in interpersonal relationships. At the beginning of his professional activity, the internship doctor begins to realize that

he does not show appropriate emotional responses (sympathy, support, understanding) towards patients and makes excuses, and also expresses evaluative judgments towards them. That is, we agree with the statement that emotional and moral disorientation is a moral defect. Emotional detachment among internship doctors is being formed in 54.33% of persons, 25.93% is not formed, 12.34% is already formed, and 7.40% is dominant. This symptom manifests by the complete leveling of emotions in the professional field of activity, but in everyday life, emotional reactions are quite expressed (Morran, 2008; Olga et al., 2018).

The symptom of “experiencing psycho-traumatic circumstances” in 48.15% of the subjects is not expressed, and in 18.52%, it is formed, in 17.30%, it is at the stage of formation, in 16.04%, it is dominant. That is, the severity of this symptom indicates that the intern is aware of the influence of professional factors on him/herself, but is not able to change them. This causes intrapersonal conflict and facilitates the emergence of negative emotional manifestations. The symptom of anxiety and depression in 45.67% of interns was not formed, and in 33.33% - is in the stage of formation, in 13.6% - is expressed, in 7.40% - is formed. The indicated symptom denotes manifestations of personal anxiety, frustration in oneself, and professional activity. Therefore, it can be argued that the dominant symptoms of “emotional burnout” syndrome among interns are the reduction of

professional duties and inadequate selective emotional response. The indicators of emotional detachment, anxiety, and depression are also at the formation stage. This is the evidence of decreased empathy, selective emotional attitude towards patients and colleagues, and indicates disappointment in the profession, own capabilities, and is the basis for the formation of certain professional stereotypes (Senyuta, 2020).

The results of the study according to the method “Scale of states” adapted by Leonova and Kuzneczova (2009) indicated that in 27.16% of the examined internship doctors there is a reduced level of subjective comfort and poor state of health, in 25.92%, there is a low level of comfort and poor state of health, in 25.92%, there is acceptable comfort and well-being, 20.98%, there is high comfort and well-being. Reduced levels of subjective comfort and impaired state of health are evidence of inadequate adaptive capacity in interns. Thus, the level of subjective comfort is a certain indicator of the intern adaptation level and his/her satisfaction with the successful completion of professional tasks. The nature of the relationship between professional maladaptation indicators and the phases of “emotional burnout syndrome” were studied using Pearson correlation analysis. The highest and statistically significant correlations are between all indicators of professional maladaptation and the “exhaustion” phase (Table 3).

**Table 3:** Correlations between professional maladaptation indicators and phases of emotional burnout syndrome

Professional maladaptation indicators	Phases of emotional burnout syndrome (r)		
	Exhaustion phase	Resistibility phase	Tension phase
I Health deterioration	.45**	.47**	.68**
Emotional shifts	.54**	.54**	.61**
Peculiarities of distant mental processes	.24*	.19	.54**
Decrease in overall activity	.21	.29**	.56**
Feeling fatigue	.37**	.43**	.55**
II Somatovegetative disorders	.48**	.41**	.59**
III Violation of the “sleep-vigor” cycle	.53**	.34**	.43**
IV Social interaction peculiarities	.49**	.51**	.48**
V Reduction of activity motivation	.35**	.34**	.62**
Professional maladaptation	.56**	.52**	.71**

\* p ≤ 0.05, \*\* p ≤ 0.01

A large statistically significant (p<0.01) correlation between the rate of professional maladaptation and the phases of the “emotional burnout” syndrome was found: with the “Tension” phase (r=0.71), “Exhaustion” phase (r=0.56), and the “Resistibility” phase (r=0.52). Statistically significant (p<0.01) correlations were found between professional maladaptation and burnout symptoms. For example, between the index of professional maladaptation and the symptoms: “expansion of the saving emotions sphere” (r=0.65), “anxiety and depression” (r=0.62), “experiencing psycho-traumatic circumstances” (r=0.57), “personal detachment” (r=0.55). This indicates that intern doctors with manifestations of occupational maladaptation due to a glut of professional contacts limit communication with family members. This leads to increased personal anxiety, causes tension,

angry reactions, irritability, and disappointment in the profession. Statistically significant (p<0.01) correlations were found between the indicators of professional maladaptation of “health deterioration” and the phase of “tension” (r=0.68), symptoms of “anxiety and depression” (r=0.65), “expanding the saving emotions sphere” (r=0.57). In other words, deteriorated state of health of interns causes anxiety, avoidance of social interaction with relatives and is the basis for the formation of the symptoms of the “emotional burnout” syndrome.

The indicator of professional maladaptation “somatovegetative disorders” has a statistically significant (p<0.01) correlation with the “tension” phase (r=0.59) and symptoms: “expanding the saving emotions sphere” (r=0.58), “experiencing psycho-traumatic circumstances” (r=0.54). It was found that the indicator of professional

maladaptation “sleep-vigor cycle violation” has a statistically significant ( $p<0.01$ ) correlation with the “exhaustion” phase ( $r=0.53$ ). This indicates that sleep disturbances or insomnia in the subjects appear together with the overall decrease of individual energy potential, depletion of mental resources, and a weakening of the nervous system. A statistically significant ( $p<0.01$ ) correlation was found between the index of professional maladaptation “peculiarities of social interaction” and the symptoms of “expanding the saving emotions sphere” ( $r=0.62$ ), “personal detachment” ( $r=0.56$ ), and the “resistibility” phase ( $r=0.51$ ). This fact indicates that interpersonal relations violation and conflict occur most often through oversaturation from professional communication and may lead to a loss of interest in interacting with patients. A statistically significant ( $p<0.01$ ) correlation was also found between the professional maladaptation indicator of “decreased activity motivation” and the “tension” phase ( $r=0.62$ ). That is, interns have a decrease in motivation due to the awareness of the invariability of psycho-traumatic factors of professional activity, the appearance of tension, and dissatisfaction with themselves.

Thus, the results of the correlation analysis confirm the assumption regarding the correlation between indicators of professional maladaptation and the level of symptoms of the “emotional burnout” syndrome. Professional maladaptation is the basis for its formation. Reduced rates of professional maladaptation are expressed by negative manifestations at the psychophysiological, professional, social, and personal levels. The results of the correlation analysis also indicate the existence of statistically significant ( $p<0.01$ ) inverse relationships between professional maladaptation and subjective comfort index in interns: between professional maladaptation and subjective comfort index ( $r=-0.53$ ); an indicator of professional maladaptation of “health deterioration” and an index of subjective comfort ( $r=-0.60$ ); symptoms of impaired well-being “feeling fatigue” ( $r=-0.58$ ), “emotional shifts” ( $r=-0.50$ ) with a comfort index. The findings indicate that occupational maladaptation indices cause a decrease in subjective comfort index scores and impair intern health. Thus, the subjective comfort index is directly dependent on indicators of professional maladaptation and is an indicator of satisfaction with professional activity.

#### 4. Conclusion

Analysis of the results of the study showed that more than half of interns have experienced professional maladaptation, which is expressed by the deterioration of health and certain somatovegetative disorders. The decline in professional maladaptation is manifested by negative characteristics at the psychophysiological, personal, social, and professional levels. Professional maladaptation determines the “emotional burnout” syndrome. The symptoms of “emotional burnout”

syndrome among intern doctors have also been investigated. The structure of the syndrome in the subjects identified the most expressed phase of “resistibility” and the dominant symptoms of “reduction of professional duties” and “inadequate selective emotional response.” The subject’s level of subjective comfort demonstrates the level of adaptation of the intern doctor and satisfaction with the success in professional activity.

Having analyzed the problem of the detection of professional maladaptation and the syndrome of “emotional burnout” in interns, we are sure, that a number of possible effective methods for their prevention should be considered. Summarizing the achievements of scientists and by obtaining the results of our own research, we believe that in the first internship year of doctors education, it is necessary to introduce a compulsory course of psychological orientation for professional self-development of the individual, which would consider the issues of adaptation, emotional burnout, motivation for professional activity, leadership potential, communication, self-regulation of psycho-emotional states, etc. Intensive study of these issues will allow integrating the knowledge and skills acquired not only for a better understanding of oneself and their own individual character traits but will also facilitate a positive adaptation in their professional activities. In order to prevent negative psycho-emotional states, disappointment in the profession, and maladaptive manifestations, it is advisable to develop and introduce psychological support for a young intern. It is the effective organization of psychological support that will solve the range of public issues and personal interests of the doctor, which will help him not only to perform his duties professionally but will also help him maintain his own health.

#### Compliance with ethical standards

#### Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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