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# MANIFESTATIONS OF RESILIENCE IN MEDICAL RESIDENTS AS A FACTOR OF PROFESSIONAL ADAPTATION

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## ABSTRACT

The article reveals the manifestations of hardiness in medical residents as a factor of the professional adaptation. Medical workers are a risk group in terms of emotional burnout and other emotional disorders, since they directly interact with patients' various somatic profiles, as well as a high professional responsibility. The formation and strengthening of resilience in medical personnel is an important task, since resilience is a psychological factor that enables people to successfully cope with stressful situations and reduces internal tension. The study was conducted by clinical psychologists at the Astrakhan State Medical University Astrakhan, Russia) in October 2022. It included clinical residents of the specialties Obstetrics and Gynecology (30 people) and Surgery (28 people). Our study has found that young medical residents have rather high levels of hardiness. This may be attributed to the age of the respondents, since they are at the first stages of their professional activities. A high indicator of "Engagement" was recorded for clinical residents, reflecting their determination and resilience. However, indicators of hardiness and satisfaction in the specialty "Obstetrics and Gynecology" were significantly lower than in the specialty "Surgery". On the basis of the study, a program of psychological support was developed facilitating stress prevention and formation of coping resources and self-regulation in young professionals.

**Keywords:** resilience; clinical residents; professional adaptation; psychological health; life satisfaction; professional activity; interest in life; young doctors

## RELEVANCE

Currently, studies on the problems of psychoemotional disorders in medical personnel are extremely relevant. Medical workers represent a risk group for emotional burnout and other emotional disorders, since they directly interact with patients of various somatic profiles, as well as high professional responsibility [5, 12]. The formation and strengthening of resilience in medical personnel is an important task, since resilience is a psychological factor that enables to successfully cope with stressful situations and reduces internal tension. Of course, psychological health and its strengthening are especially important for young medical workers, since there is a risk of leaving the profession due to both the huge work load and psychoemotional stress. In addition, for successful professional adaptation in medical workers, high levels of hardiness and low levels of anxiety are required [10, 11]. Hardiness is a psychological factor that enables to successfully cope with stressful situations and reduces internal tension. The study by Fomina N.F., Fedoseeva T.E. [9] found that in young medical workers the indicator of resilience is directly related to a wide range of interests, the ability to analyze various professional situations in different ways, including stressful ones. The work by Grigoriev P.E., Vasilyeva I.V. [2] shows the role of emotional intelligence, i.e.

understanding one's own emotions and managing emotional states in the formation of resilience in students of medical specialties. In the dissertation research Stetsishina R.I. [8] found that the main components in the formation of resilience in surgical doctors are "Control" and "Risk Acceptance". In many studies, there is also evidence that it is necessary to develop resilience in medical workers, since it is resilience that prevents the formation of burnout syndrome [1; 4; 6]. Thus, there is a need to improve the psychological health of medical workers, as they are more often subject to professional deformations. On the basis of an empirical study, a psychological support program will be developed and proposed. It is aimed at stress prevention and the formation of resources and self-regulation in young professionals.

**The aim of the study** is to study the features of the manifestation of resilience in medical residents as a factor of professional adaptation; and the development of a psychological support program for preventing stress and forming resources and self-regulation in young professionals.

## MATERIALS AND RESEARCH METHODS

**Materials and research methods:** An empirical study was conducted by clinical psychologists at the Astrakhan State Medical University of the Ministry of Health of Russia in October 2022. It was attended by clinical residents of the specialties "Obstetrics and Gynecology" (30 people) and "Surgery" (28 people) of the first year of study. The clinical base of the specialty "Surgery" is the Department of Surgical Diseases of the PO with a course of coloproctology, for the specialty "Obstetrics and Gynecology" - obstetrics and gynecology of the Pediatric Faculty with a course of postgraduate education. A survey was conducted to study the health factors of clinical residents of the first and second years of study. Most of the respondents are in the age group from 22 to 26 years old, the average age was 24.3. The questionnaire included 30 open and closed questions. The questionnaire included questions about the daily routine of clinical residents, present diseases, emotional stress, etc. Psychodiagnostic testing was used as a psychological research method, which included two psychodiagnostic methods: 1) Muddy's Personal Views Survey (adapted by D.A. Leontiev, E.I. Rasskazova) [7]. Resilience includes three components: involvement, control, risk taking; 2) Life satisfaction index (Life Satisfaction Index A, LSIA) (in Russian, adapted by N.V. Panina [3]. It is intended to determine the general psychological state of a person, the degree of his psychological comfort and socio-psychological adaptation. In addition to the integral indicator, the questionnaire allows us to identify five different aspects of life satisfaction. When processing the obtained data, the statistical Mann-Whitney U-test and the program Statistics 10 were used. The results of the study are presented in figures.

## RESEARCH RESULTS AND DISCUSSION

According to the results of a survey of health factors conducted at the Astrakhan State Medical University, a significant decrease in health indicators among students was noted. There is a high indicator of the factor "Frequent headaches" among residents of the specialty "Surgery" (22.6%), which, in turn, provokes the emergence of various psychosomatic diseases. The clinical residents of the specialty "Obstetrics and Gynecology" noticeably increase the positive dynamics of frequent colds (24.2%). The "No daily routine" indicator is significantly higher among surgical residents (21.3%), because for most residents, in addition to study loads, irrational distribution of work and rest time, work in the specialty is added, which leads to additional stress and diseases. An important component of health is physical activity or sports activities, but according to the results of a monitoring study, there is a decrease or even absence of systematic physical activity and physical exercise during the training period (21.5%) among residents of the specialty "Obstetrics and Gynecology". One of the main factors of health is a full and healthy sleep. The results of the survey also revealed a negative effect of lack of sleep (19.0%) on the general well-being of residents of both specialties.

Analysis according to the Muddy's resilience questionnaire The Personal Views Survey (in Russian adaptation by D.A. Leontiev, E.I. Rasskazova) among medical residents showed different values for the specialties "Obstetrics and Gynecology" and "Surgery" (Figure 1). The vitality of clinical residents of the first year of study in the specialty "Obstetrics and Gynecology" showed values below the average - 71.5%. In other words, medical residents experience psycho-emotional stress, at the moment they feel basic anxiety and are dependent on situational experiences. In addition, residents of this specialty have low rates of "Engagement" - 29.6%, which also serves as an alarm, since they do not enjoy their professional activities, there is a high probability of feeling rejected and feeling "out of life". A trend towards a low indicator was recorded in the "Control" vitality criterion for obstetricians and gynecologists - 27.8%. Low scores indicate their belief that they are unable to influence current events in their own lives and experience helplessness. This result testifies to the low resilience of obstetricians and gynecologists and, consequently, to maladaptation in professional activities. Therefore, for this group it is necessary to develop programs of psychological support. For clinical residents of a surgical profile, the value of vitality is above average - 88.1%, i.e. they are less dependent on basic anxiety and are able to cope with stressful situations without experiencing internal tension. For surgeons, the indicators "Engagement" (36.7%), "Control" (33.8%) and "Risk Acceptance" (17.5%) also have above average values. This result indicates professional adaptation and that they enjoy the activity.

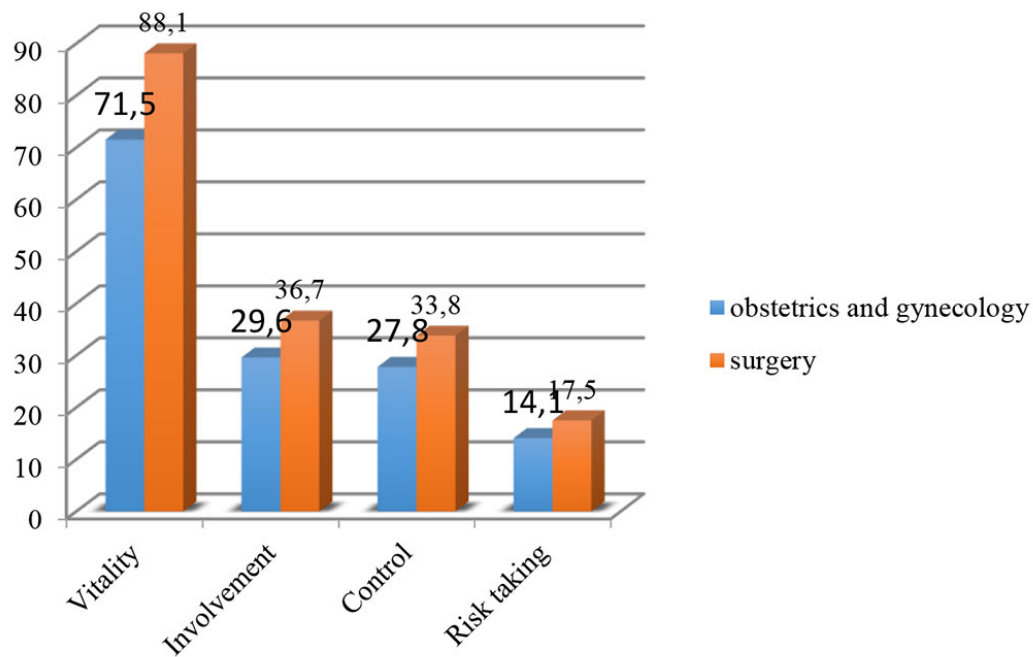
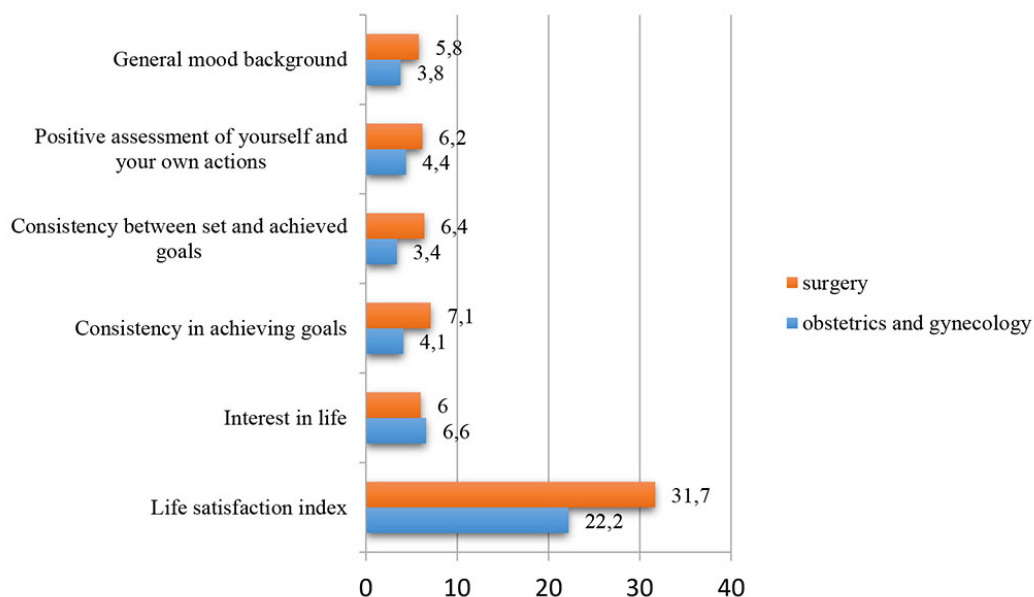


Figure 1. Mean values according to the Muddy's Personal Views Survey (adapted by D.A. Leontiev, E.I. Rasskazova) in medical residents (compiled by the authors based on the research materials)

After analyzing the Life Satisfaction Index A (LSIA) questionnaire (adapted by N.V. Panina in Russian), we can conclude that obstetrician-gynecologists are less satisfied with life - 22.2% (Figure 2). The result obtained is also alarming, since they are characterized by a low general psycho-emotional state and low psycho-emotional comfort. The life satisfaction index includes 5 scales. The specialty "Obstetrics and Gynecology" recorded the following results: "Interest in life" (6.0%), "Consistency in achieving goals" (4.1%), "Consistency between the set and achieved goals" (3.4%), "Positive assessment of oneself and one's own actions" (4.4%) and "General background of mood" (3.8%). Based on the results, we can conclude that obstetrician-gynecologists have a low psycho-emotional state and a low general background of mood. The results of the study on the questionnaire "Index of Life Satisfaction" in ob-gyns confirm the results of the previous method of resilience. Clinical residents of surgical profiles have a more positive situation, the index of life satisfaction is 31.7%, reflecting the high adaptability, adaptability of the individual to life and professional activities. In addition, surgeons are characterized by high integral indicators of life satisfaction, namely: "Consistency in achieving goals" (7.1%) and "Consistency between goals set and achieved" (6.4%). They are characterized by such personal characteristics as determination, perseverance, self-confidence that they are able to achieve their goals, as well as high goal setting.



*Figure 2. Average values according to the questionnaire "Index of life satisfaction" (Life Satisfaction Index A, LSIA) (in Russian adaptation by N.V. Panina) in residents (compiled by the authors based on the research materials)*

The next stage of the study included the application of the statistical Mann-Whitney U-test. The analysis of the data obtained shows that the clinical residents of the specialty "Obstetrics and Gynecology" are characterized by a low level of hardiness and a level of life satisfaction. These indicators are significantly lower in comparison with the psychological indicators of clinical residents of the specialty "Surgery" ( $p \leq 0.001$ ). These results show disadaptation to professional activities, low psycho-emotional background of mood and passivity in decision-making.

Thus, there is an urgent need to develop psychological support for this group of residents, since an unfavorable psycho-emotional state will affect the effectiveness of professional activity and may lead to medical errors. As practical recommendations for psychologists of psychological services in Health, a program for clinical residents was proposed, taking into account the empirical data obtained. The program includes psycho-correctional measures aimed at reducing the level of stress, situational anxiety, the formation of internal resources to achieve the goals, increasing the level of resilience, a positive assessment of oneself and one's own actions. Astrakhan State Medical University has introduced an additional professional program "Techniques of psychological regulation in a stressful situation" (36 hours) for clinical residents, which is aimed at regulating the psycho-emotional state and, accordingly, optimizing the professional adaptation of young professionals. The program includes 6 modules, which consists of a theoretical block on the concept of stress, coping strategies to neutralize stress, as well as training in practical skills for managing emotional states (Ericksonian hypnosis techniques, Jacobson relaxation, anti-stress breathing, autogenic training (based on the classical auto-training Shultz IG). Carrying out psycho-corrective measures for the emotional state, of course, ensures the adaptation of medical workers. Among effective psychotherapeutic methods today are cognitive-behavioral therapy and Ericksonian hypnosis.

## CONCLUSION

It is stated that young medical residents have a rather high rate of hardiness. This is probably due to the age of the respondents, since they are at the first stages of their professional activities. A high indicator of "Engagement" was recorded in the clinical residents relating to their determination and resilience. The low levels of hardiness and life satisfaction in the obstetricians and gynecologists compared to the surgical residents are of concern, as this reflects the maladaptation at the first stage of professional activity. The recorded unfavorable psycho-emotional state of medical residents will affect the effectiveness of professional activities and, as a result, may lead to medical errors. Given the identified psychological factors, there is an urgent need to develop psychological support for this group of residents. On the basis of this study, a program of psychological support was proposed aimed at stress prevention, the formation of resources and self-regulation in young professionals.

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[back](#)