

Yekhalov V. V., Gorbuntsov V.V. Psychological features of a modern intern dynamic observation. Bioenergetics in Medicine and Biology, Dubai, 2021. v. 1(6). P. 1-20. DOI 10.26886/2523-6938.1(6)2021.1. UDC 616.253.2-055: 378.147: 159.955.

Bioenergetics in Medicine and Biology № 1(6), 2021

**DOI 10.26886/2523-6938.1(6)2021.1**

**UDC 616.253.2-055: 378.147: 159.955**

**PSYCHOLOGICAL FEATURES OF A MODERN INTERN IN DYNAMIC OBSERVATION**

**Vasily V. Yekhalov, MD, PhD, Associate Professor**

<https://orcid.org/0000-0001-5373-3820>

**Viacheslav V. Gorbuntsov, MD, PhD, DSc, Professor**

<https://orcid.org/0000-0001-7752-0993>

*e-mail: sesualiy@gmail.com*

Dnipro State Medical University, Ukraine, Dnipro

*The interns training of the specialty "Skin and Venereal Diseases" for the licensed integrated exam "Krok-3" is a part of an important problem of modern postgraduate education. More than 2000 anonymous questionnaires of interns of various specialties of the 1st year of study at the present time and ten years ago were processed, a comparative characteristic of the dynamics of psychotypes, the ability to remember, reproduce, systematize and use the information received in practice was carried out. Outdated educational methods require specific revision and rethinking, maximum adaptation to changes in consciousness and modern behavioral stereotypes. Methodological ways of resolving the existing contradictions are proposed.*

*Key words: intern, postgraduate education, psychology, thinking.*

*В. В. Ехалов, кандидат медицинских наук, доцент; В. В.*

*Горбунцов, доктор медицинских наук, профессор. Психологические особенности современного интерна в динамическом наблюдении / Днепропетровский государственный медицинский университет, Украина, Днепр*

Bioenergetics in Medicine and Biology № 1(6), 2021

*Подготовка врачей-интернов специальности «Кожные и венерические болезни» к лицензионному интегрированному экзамену «Крок-3» является частью важной проблемы современного последипломного образования. Было обработано более 2000 анонимных анкет врачей-интернов разных специальностей 1-го года*

*обучения в настоящее время и десятилетней давности, проведена сравнительная характеристика динамики психотипов, способности запоминать, воспроизводить, систематизировать и использовать на практике полученную информацию.*

*Устаревшие образовательные методики требуют конкретного пересмотра и переосмысления, максимальной адаптации к изменениям сознания и современных поведенческих стереотипов. Предложены методологические пути разрешения сложившихся противоречий.*

*Ключевые слова: интерн, мышление, последипломное обучение, психология.*

*В. В. Єхалов, кандидат медичних наук, доцент; В. В. Горбунцов, доктор медичних наук, професор.*

*Психологічні особливості сучасного інтерна в динамічному спостереженні / Дніпровський державний медичний університет, Україна, Дніпро.*

*Підготовка лікарів-інтернів за фахом «Шкірні та венеричні хвороби» до ліцензійного інтегрованого іспиту «Крок-3» є частиною важливої проблеми сучасної післядипломної освіти. Було опрацьовано понад 2000 анонімних анкет лікарів-інтернів різних спеціальностей 1- го року навчання у нинішній час та десятирічної давності, проведено порівняльну характеристику динаміки психотипів, здатності запам'ятовувати, відтворювати, систематизувати та використовувати на практиці отриману інформацію. Застарілі освітні методики вимагають конкретного перегляду та переосмислення, максимальної адаптації до змін свідомості та*

Bioenergetics in Medicine and Biology № 1(6), 2021

*сучасних поведінкових стереотипів. Запропоновано методологічні шляхи вирішення сформованих протиріч.*

*Ключові слова: інтерн, мислення, післядипломне навчання, психологія.*

**Introduction.** Employees of the Department of Anesthesiology, Intensive Therapy and Medicine of Emergency Conditions of the DSMU have been preparing interns of all specialties for the "Krok-3" license exam in the "Emergencies" module since 2006. As initially there was no methodological basis for conducting this kind of classes, we gradually investigated this problem, studied the opinions of subjects of learning in dynamics, improved the styles and methods of teaching and developed a number of principles and andragogical approaches to solving this problem. The subject of discussion that we have encountered in the last decade was a progressive change in public consciousness: moral and ethical standards, culture of behavior and communication, the ability to assimilate, compare, process and apply information in practice, including individual creative abilities.

It is important to note that the current epidemic of the COVID-19 has clearly highlighted these problems and showed not only new possible problems, but also new ways of solving old problems and of progress.

**Materials and methods.** A comparison of the results of an anonymous survey of current interns in the specialty "Skin and Venereal Diseases" and the results of a survey of ten years ago (50 questionnaires) was carried out. To exclude any possible influence on the sincerity of the answers, the questioning was carried out after passing the oral interview, test control and bringing the result into the test book. Also, more than 2000 questionnaires of interns of other medical specialties were analyzed, special attention was paid to their comparison in the temporal aspect.

Bioenergetics in Medicine and Biology № 1(6), 2021

**Results and discussion:** Groups of interns are far from representing the homogeneous groups. Among them are experienced nurses (paramedics) with a certain practical and life experience, and graduate personalities who still have not left the full paternal guardianship (Peter Pan syndrome). If a teacher wants to get a decent result, then he will need an individual approach to each young colleague. On the basis of long-term observation in groups of trainees according to the module "Emergencies" at the beginning of the last decade, we identified certain psychotypes of interns [1], and now we are examining the dynamics of the distribution of individual characteristics among them. We did not find any statistically significant differences between the results of a survey of interns in the specialty "Skin and Venereal Diseases" and other medical professions. It was found that the "ideal variant", which initially constituted 72 % of all respondents, has now barely reached 64.5 %; at the same time the part of:

- the "Carefree" almost doubled (up to 7.5 %);
- "Unreasonably self-confident" increased three times (from 4 % to 12.5 %);
- "Slow workers" increased from 4 % to 9.5 %;

at the same time, the "Humorists" practically disappeared.

Those who "hope for others" over the past decade have changed their characterization to "hope for modern technologies"; their part is still about 7 % of the total number of the respondents.

"He understands everything, but can't say anything" – this indicator decreased from 8 % to 5.5 %, but now it is mostly not because of ignorance, but because of the problems of the culture of speech, which complicate the verbal contact "Teacher – Intern" [2].

The democratization of society requires taking into account the opinions and suggestions of trainees. Higher educational institutions must look for new

---

Bioenergetics in Medicine and Biology № 1(6), 2021

ways to expand research and innovation. Greater flexibility is needed in organizing systems of scientific researches so that science and interdisciplinarity can better serve the needs of society. To ensure the quality and integrity of higher education, faculty must be able to research and gain knowledge. Academic freedom is one of the fundamental values that must be defended in today's changing and volatile global environment.

A study of the public opinion of interns of various specialties regarding the means and methods of teaching the provision of emergency care to the population will make it possible to make the necessary adjustments in the educational process to improve the quality of training of young colleagues.

At the end of the cycle (when the interns no longer depend on us in anything), we ask them to state in writing their vision of the educational process in the "Emergencies" module, reflect the positive aspects and make critical comments. Anonymous questionnaires make it possible to analyze the positive sides and shortcomings of the educational process "from the inside", draw appropriate conclusions and direct efforts to eliminate shortcomings that were not suspected previously.

When interns assessed the received educational material as "interesting" and "useful", this difference in the 2006-2007 academic year was  $(39.2 \pm 0.7) \%$  [1]. This indicated that the term "interesting material" in their concept is fundamentally different from the definition of "useful". In this case, the definition "interesting" corresponds more to the term "fascinating".

The definition of "useful" for them is something inevitably necessary, requiring an investment of labor and time. When analyzing the questionnaires of interns, we noted every year a progressive decrease in the percentage difference between these definitions, which in the 2011-2012 academic year was already  $(7.2 \pm 0.2) \%$ , and in 2020-2021 – only  $(3.2 \pm 0.1) \%$ . Introducing certain elements of fun into the learning process optimized the psychological climate in preparation for the licensing exam.

Bioenergetics in Medicine and Biology № 1(6), 2021

Our employees are in the strict limitations of the educational and production plan. For the given period of time it is impossible to retrain, for example, a sports medicine doctor to be an "intensive", but this is not our task. The teacher has a corrective role, that is, such training of interns so that they not only achieve the required percentage of correct answers on the exam, but in the future, in fact, could effectively use the acquired knowledge and skills to preserve the life and health of the patient or victim. Over the past two years (first for 7 years), intern doctors (9.5 %) noted in their questionnaires that when teaching the module "Emergencies", teachers teach them to think clinically.

In our teaching activities today we are faced with a new generation born in 1983-2002, which modern sociologists have designated as generation Y or “millennials”. The social situation of the 1990s formed in children and adolescents, whose growing up happened at this time, a reluctance to make long-term plans, and to replace planning for the future with orientations towards quickly attainable goals.

Unlike graduates of higher medical educational institutions at the beginning of the century, in modern postgraduate education interns show a weak and declining interest in such a form of pedagogical work as lectures, since they are accustomed to mono-tasking and it is difficult for them to focus on single information flow [3]. To solve this problem, we have developed a series of lectures with the maximum semantic load, but have divided them into “blocks” with a message duration of up to a maximum of 30 minutes. More than 90 % of respondents of all specialties highly appreciated this version of lectures as “dubbed presentations”. The lectures are posted on the university website and are open to everyone. The intern, who is preparing for the lesson, independently switches the slides that are voiced by the lecturer (voice-over). Naturally, the quality of lectures should correspond to the task at hand, the possibility of using accentuation

Bioenergetics in Medicine and Biology № 1(6), 2021

techniques is somewhat limited, but quite real [4]. The advantage is that the learner can return to insufficiently assimilated information or skip information that is already familiar to him [5]. We were pleasantly surprised when, after such preparation, the number of correct answers during an oral interview exceeded those after traditionally held lectures. However, our joy was short-lived: the interns enriched their short-term memory, but returning to the topic a few days later the results were worse than after conducting a traditional lecture.

Short-term and long-term memories are interconnected and work as a single system. Short-term memory is characterized by its limited volume; when it overflows, new incoming information displaces the information stored there, which disappears irrevocably. German andragogues concluded that the information obtained is best assimilated while it is reworked (working with a synopsis, etc.) within 9 hours, after which irreversible losses begin [6]. The motivation for the transfer of information from short-term to long-term is achieved quite simply: several blitz-polls are conducted on mixed topics with verbal test at the end of the cycle, in case of a "failure" of which the intern is not allowed to the final test control with the ensuing unpleasant consequences for him.

The democratization of the modern internship environment consists in the difficulty of high self-esteem, in upholding the inalienable right to personal sovereignty, in a sense of greater freedom and greater flexibility

than older generations had. As a result of the "adaptation to the subject of training" of practical classes, it should be noted that:

- 71.5 % of interns now believe that, in preparing for a licensed exam, theoretical thematic analysis should be of primary importance (versus 13.5 % of respondents ten years ago);
- 21.5 % of respondents consider theoretical studies and analysis of test items equivalently important (with the previous questioning – 41 %);

Bioenergetics in Medicine and Biology № 1(6), 2021

- only 7 % (against the previous 45.5 %) believe that the lion's share of the educational process should be devoted to memorizing and analyzing answers to tasks from test bases.

Millennials are very touchy, even the requirements of the academic discipline for them often becomes a subject of tension and irritation; so now [7]:

- 71.5 % of respondents believe that it is possible to freely leave the classroom during a lesson at any time (versus 7.5 % in 2010);
- 46.5 % consider it their right to use mobile communications during a lesson (during the previous survey – 12 %); so they are of little interest to the fact that they interfere with the teacher and their comrades.

The problem is also that fragmentary (clip) thinking is inherent in modern youth as an intensely progressive process. Being distracted from the topic of the lesson, they lose fragments of the whole; as a result, the effectiveness of the lesson decreases sharply, since the “puzzle did not work out”, the information is not “looped”; as a result, there are separate fragments that the owner of clip thinking is not able to assemble into a single whole [8-12]. The working group of the American company Grovo, which is engaged in distance learning of employees, based on a five-year social study concluded that millennials want to feel happy at work, but have not yet found a guide to help them with this.

What to do in such a situation, if the respect of young people for the older generation is progressively declining [3], if moral foundations and deontological norms are violated [13, 14]? An answer is creation of a highly professional environment of an educational institution, in which the creative moment of working with millennials will be expressed most fully, contributing to self-development, self-disclosure and self-actualization of the individual. The millennial needs to “run through” the transmitted values in such a way that they become “his” values [3].

Bioenergetics in Medicine and Biology № 1(6), 2021

The authority gained only by virtue of age is untenable. As the folk hero Khoja Nasreddin said: "A turban does not make a sage." Respect

must be deserved, earned. The teacher must be, first of all, a highly qualified specialist who is able to show his skills and train young colleagues. He must be demanding of himself more than others, master the literary and professional language to perfection, freely operate with didactic methods, monitor his behavior and appearance, be benevolent and much more; then everything will change for the better. Young people are more sensitive to a good attitude, but we need to make them understand that it is not in smiles and helpfulness, but in exactingness and respect [1, 15]. Undoubtedly, the negative perception of the teacher's requirements is inherent not to excellent students, but to those who want to relax during the lesson or go into their own problems. However, our goal is to educate everyone, not some of the best (those only need to help systematize knowledge). Trying to impose your own style, "reforge it for yourself" is a bad idea, doomed to failure.

Modern publications call for demonstrating in the audience the results of own research and, to a moderate extent, to entertain students in the classroom, as well as to transfer training courses from the audience to online mode, to use electronic resources in educational technologies [16]. We propose to change the methodology of the lesson, giving priority to student-centered learning, including in the educational process elements of "imaginary" self-government in the group, but clearly adhering to the planned direction. When the "opposing individuals" are dissatisfied with the complexity (heterogeneity, varying degrees of difficulty) of the questions asked, it is suggested to involve the entire group in the survey. First, to ask a valid question, you need to have a good command of the topic; secondly, the tension and the feeling of "nagging" disappear. The interns praised this approach, jokingly calling the interrogators a "firing squad."

The current generation of interns is characterized by academic procrastination, that is, endlessly postponing the most important things. Modern psychology defines this phenomenon as a voluntary delay in the implementation of the planned topics, despite the possible consequences. And this is not a simple manifestation of laziness, but a certain phobia in decision-making, a kind of protection against mental and physical overload. According to the survey results, 69.5 % of today's respondents consider themselves to be procrastinators (versus 78.5 % in 2011). In preparation for classes, we offer each intern to independently create a high-quality test and appropriate distractors; each task is then analyzed in the group, its analysis is carried out, the best sides and shortcomings are noted [17]. The use of "phasic" tasks increases the motivation of trainees. In Russian psychology, the realization of needs in the course of search activity and thereby the transformation of its objects into motives, "objects of needs" is considered

as a general mechanism for the emergence of a motive. Hence follows the central regularity: the development of a motive occurs through a change and expansion of the range of activities that transform objective reality. The motives are [18, 19]:

- continuation of education, regardless of the form in which it will be carried out (education in full-time and distance learning, self-education in the course of professional activity);
- attainment of competence - compliance of one's awareness and general professional qualities of an individual with the requirements of professional activity;
- clearly expressed selective nature of motives and goals from the point of view of choosing a profession.

Recently, among students and interns of medical higher educational institutions, the culture of speech has been progressively decreasing. Most interns cannot correctly formulate not only the answer, but also the

Bioenergetics in Medicine and Biology № 1(6), 2021

question. The tendency towards degradation of verbal communication in this environment has clearly become apparent in the last 3-4 years.

According to the survey data, the number of "book lovers" among interns over the past decade has decreased by 21.5 %. With such dynamics, in the long term, verbal contact between people will progressively weaken, being replaced by modern technologies. Teachers state that it is becoming increasingly difficult for young people who read little to express their thoughts. Ultimately, his professional competence depends on the doctor's ability to master a word, the level of his speech culture. This skill helps not only to communicate with people much more efficiently, but also to achieve success faster in a career plan. Unfortunately, the culture of speech in undergraduate and postgraduate higher medical education is going through hard times, being replaced by rationalism. However, the effectiveness of verbal communication in any field of activity is an important factor in solving problems of any level. Therefore, even if new forms of obtaining information are the most technologically advanced and progressive, this "live contact" will never lose its relevance. An attempt to interest interns with medical examples of fiction did not bring the expected success [2].

Today's generation of future professionals expects learning to be enjoyable. The image of a severe professor as a "wise man on stage" is no longer acceptable. The main reason is the simplification and standardization of assessment procedures through the test system and the commercialization of education. Only that which is not burdensome, but fun, can be successfully sold. Humor creates calm, engaging, and safe environments. It has been suggested that the use of humor can spark a fire of curiosity in our students. If you turn the thesis "I must" into "I want", then



any business will become much easier. The proposed questions "with a salt" aroused genuine interest of the audience and provided certain information to consolidate the acquired knowledge in the memory of young colleagues

Bioenergetics in Medicine and Biology № 1(6), 2021

(knowledge survival). The main thing here is not to overdo it: bread is not baked from the raisin alone [4, 20].

The deviations of thinking of modern youth make it possible to navigate without psychological deficit in a progressively increasing flow of information. Submitting to the progressive trend towards rationalism, it is not memorization that comes to the fore, but the need to distinguish truth from fake. It was encouraging that since 1930 IQ test scores have increased by three points every decade; this trend is called the Flynn effect. In 1987, D. Flynn took the position that such a large increase indicates that IQ tests do not measure intelligence, but only a secondary kind of "abstract problem-solving ability" that has little practical value. He argued that if the rise in IQ did indeed reflect the rise in intelligence, then there would be subsequent changes in our society that were not observed (the supposed absence of a "cultural revival"). Multicentric studies conducted after 2000 (with updated tests) have shown that IQ growth slows down, stops or even gives way to a decline [21]. 7 % of young colleagues consider themselves to be able to perfectly reproduce the information received (the previous result is 16.5 %), well – 35.5 % (against 47.5 %), satisfactory – 40.5 % (and 10 years ago – 32.5 %), and unsatisfactory – 17 % (previously 3.5 %). There is a natural negative dynamics associated with deviation of thinking, impoverishment of speech and social culture, revaluation of values, etc.

Time passes, epochs, foundations, social consciousness change, and this process is irreversible. The older generation of teachers sees significant modern problems in the educational process, develops new ways to solve the contradictions that have arisen. Outdated educational methods require specific revision and rethinking, maximum adaptation to changes in consciousness and behavioral stereotypes. The current COVID-19 epidemic has clearly demonstrated these problems.

Bioenergetics in Medicine and Biology № 1(6), 2021

We have coped with training interns in "the dashing nineties", and we can handle millennials as well. However, the formed and adapted teaching principles [22] require readaptation after a certain time interval, which will further decrease. The current generation is no worse than the previous ones, it's just that they are already different, not like us, and they need to be taught in a different way too, nevertheless preserving the existing intellectual and moral values as much as possible. It is important to discern

the personality in each of them, making the most of an individual approach to try to turn disadvantages into advantages. After all, "we are for them, and not they are for us."

### **References:**

1. Клигуненко Е.Н., Ехалов В.В., Слива В.И., Станин Д.М., Лященко О.В. Перспективы оптимизации подготовки врачей-интернов по модулю «Неотложные состояния». Медицина неотложных состояний. 2012. № 5 (44). С. 71-74.
2. Стусь В.П., Єхалов В.В., Бараннік С.І., Моїсеєнко М.М., Романюта І.А. Проблеми мовного спілкування у вищій медичній освіті. Урологія, 2020. т. 24. № 1. С. 63-67. DOI: 10.26641/2307-5279.24.1.2020.199502
3. Султанов К.В., Воскресенский А.А. Особенности и проблемы поколения у в образовательном пространстве современной России. Общество. Среда. Развитие, 2015. № 3. С.150-153.
4. Ехалов В.В., Святенко Т.В., Хоботова Н.В. Педагогические приёмы оптимизации восприятия лекционного материала. Дерматовенерология и эстетическая медицина. 2015. № 3 (27). С.28-34.
5. Клигуненко Е.Н., Ехалов В.В., Сединкин В.А., Кравец О.В., Площенко Ю.А. Некоторые возможности дистанционного обучения врачей-интернов на цикле «Неотложные состояния». Медицина неотложных

- Bioenergetics in Medicine and Biology № 1(6), 2021  
состояний. 2017. № 5 (84). С. 105-109. DOI: 10.22141/2224-0586.5.84.2017.109368
6. Єхалов В.В., Куш К.О. Особливості сучасних типів конспектування лекційного матеріалу у післядипломному медичному навчанні. Південноукраїнський медичний науковий журнал. 2018. № 20. С. 40-42.
  7. Водопьянова Е.В. Миллениалы: российская и европейская версии. Научно-аналитический вестник ИЕ РАН, 2020. № 1. С. 129-133. DOI: <http://dx.doi.org/10.15211/vestnikieran12020129133>
  8. Barannik S.I., Yechalov V.V., Barannik K.S., Lyachenko P.V. Evolutionary Aspects of "Click Hole" in Medicine Students and and their Integration in Higher Education. Collection of conference II International Scientific-Practical Conference «Modern View of Science and Practice» (08.06.2019 London, Great Britain). London, Great Britain, 2019. P. 38-45.
  9. Melnyk Y.B., Yekhalov V.V., Sedinkin V.A. The Role and Influence of "Clip Thinking" on the Educational Process in Medical Education. Interdisciplinary Journal of Virtual Learning in Medical Sciences. 2020. v.11. № 1. P.61-64. DOI:

10.30476/IJVLMS.2020.85375.1019

10. Єхалов В.В., Гайдук О.І., Кузьміна А.П., Гайдук Т.А. Клінічне та «кліпове» мислення на різних етапах навчання за фахом «Загальна практика-сімейна медицина». Медичні перспективи. 2018. т. XXIII. № 1. ч. 2. С. 76-79. [https://doi.org/10.26641/2307-0404.2018.1\(part2\).126954](https://doi.org/10.26641/2307-0404.2018.1(part2).126954)
11. Barannyk S., Ekhalov V., Trofimov M. Développement Évolutionnaire de la "Clip thinking" Chez les Étudiants Médicaux et Leur Intégration Dans L'enseignement Médical Supérieur. Theory, Science and Practice: Abstracts of III International Scientific and Practical Conference. Tokyo, Japan. 2020 (October 05-08). P. 234-238. DOI - 10.46299/ISG.2020.II.III
12. Yekhalov V.V., Sedinkin V.A. Present Day Deviations of Thinking of the Internship Doctors. International Journal of Science Annals. 2020. V.3. №1. 57-59. DOI:10.26697/ijsa

Bioenergetics in Medicine and Biology № 1(6), 2021

13. Єхалов В.В., Клигуненко О.М., Муризіна О.Ю. Медична деонтологія очима лікаря за фахом "Загальна практика-сімейна медицина". Сімейна медицина/ 2015. № 6. С. 33-35.
14. Єхалов В.В., Павлиш О.С., Єгоров С.В. Медична етика та деонтологія в практиці лікаря-дитячого анестезіолога. Медицина неотложных состояний. 2019. №3 (98). С. 137-139. DOI: 10.22141/2224-0586.3.98.2019.165489
15. Єхалов В.В., Станін Д.М., Седінкін В.А., Хоботова Н.В. Оптимізація роботи молодого викладача в процесі підготовки лікарів-інтернів за різними фахами. Південноукраїнський медичний науковий журнал, 2016. № 13(13). С. 76-78.
16. Радаев В.В. Миллениалы: как меняется российское общество. М.: Изд. дом Высшей школы экономики, 2019. 224 с. DOI: 10.17323/978-5-7598-1985-1
17. Муризіна О.Ю., Клигуненко О.М., Єхалов В.В. Організація самостійної роботи з медицини невідкладних станів у сімейних лікарів. Медичні перспективи, 2014. т.19. №2, ч.1. С. 119-122
18. Моїсєєнко М.М., Бараннік С.І., Горбунцов В.В., Єхалов В.В. Фазисні ситуаційні завдання в формуванні професійної компетентності спеціаліста за фахом "Урологія". Урологія, 2017. №1. С.91-95.
19. Єхалов В.В., Кравець О.В., Богатирьова О.В. Принцип междисциплинарної інтеграції та апіорної мотивації в медицині невідкладних станів. Медичні перспективи. 2014, том XIX . №2. ч.1. С. 103-105.
20. Єхалов В.В., Самойленко А.В., Романюта І.А. Гумор як сучасний підхід до навчання лікарів-інтернів. Південноукраїнський медичний науковий журнал. 2020. №25 (25). С. 32-34.
-

Bioenergetics in Medicine and Biology № 1(6), 2021

21. Trahan L.H., Stuebing K.K., Fletcher J.M., Hiscock M. The Flynn effect: A meta-analysis. *Psychological Bulletin*. 2014. №140(5), P.1332- 1360.

<https://doi.org/10.1037/a0037173>

22. Клигуненко О.М., Єхалов В.В., Дюдюк А.Д., Горбунцов В.В., Святенко Т.В. Адаптовані принципи підготовки лікарів-інтернів за спеціальністю «Дерматовенерологія» до ліцензійного інтегрованого іспиту «Крок-3». *Дерматовенерологія. Косметологія. Сексопатологія*. 2015. № 3-4. С.168-173.

### References:

1. Kligunenko, E.N., Yekhalov, V.V., Sliva, V.I., Stanin, D.M., Lyashchenko, O.V. (2012). Perspektivy optimizatsii podgotovki vrachey-internov po modulyu «Neotlozhnyye sostoyaniya» [Prospects for optimizing the training of interns in the "Emergencies" module]. *Medsina neotlozhnykh sostoyaniy [Emergency medicine]*. No. 5 (44). S. 71-74. [in Russian]

2. Stus, V.P., Yekhalov, V.V., Barannik, S.I., Moiseenko, M.M., Romanyuta, I.A. (2020). Problemy movnoho spilkuvannya u vyshchiiy medychniy osviti [Problems of language communication in higher medical education]. *Urolohiya [Urology]*. v. 24. №1. Pp. 63-67. DOI: 10.26641 / 2307-5279.24.1.2020.199502. [in Ukrainian]

3. Sultanov, K.V., Voskresensky, A.A. (2015). Osobennosti i problemy pokoleniya y v obrazovatel'nom prostranstve sovremennoy Rossii [Features and problems of generation y in the educational space of modern Russia]. *Obshchestvo. Sreda. Razvitiye [Society. Environment. Development]*. №3. P.150-153. [in Russian]

4. Yekhalov, V.V., Svyatenko, T.V., Hobotova, N.V. (2015). Pedagogicheskiye priomy optimizatsii vospriyatiya lektsionnogo materiala [Pedagogical methods of optimizing the perception of lecture material]. *Dermatovenerologiya i esteticheskaya meditsina [Dermatovenereology and aesthetic medicine]*. №3 (27). P.28-34. [in Russian]

Bioenergetics in Medicine and Biology № 1(6), 2021

5. Kligunenko, E.N., Yekhalov, V.V., Sedinkin, V.A., Kravets, O.V., Ploshchenko, Yu.A. (2017). Nekotoryye vozmozhnosti distantsionnogo obucheniya vrachey-internov na tsikle «Neotlozhnyye sostoyaniya» [Some possibilities of distance learning for interns on the "Emergencies" cycle]. *Medsina neotlozhnykh sostoyaniy [Emergency medicine]*. No. 5 (84). S. 105-109. DOI: 10.22141 / 2224-0586.5.84.2017.109368. [in Russian]

6. Yekhalov, V.V., Kushch, K.O. (2018). Osoblyvosti suchasnykh typiv konspektuvannya lektsiynoho materialu u pislyadyplomnomu medychnomu navchanni. [Features of modern types of annotation of lecture material in postgraduate medical education]. *Pivdenoukrayins'kyy medychnyy*

- naukovyy zhurnal [South Ukrainian Medical Scientific Journal]. № 20. pp. 40–42. [in Ukrainian]
7. Vodopyanova, E.V. (2020). Millenialy: rossiyskaya i yevropeyskaya versii. [Millennials: Russian and European versions]. *Nauchno-analiticheskiy vestnik IYe RAN [Scientific and analytical bulletin of IE RAS]*. No.1. S. 129-133. DOI:<http://dx.doi.org/10.15211/vestnikieran12020129133>. [in Russian]
8. Barannik, S.I., Yechalov, V.V., Barannik, K.S., Lyachenko, P.V. (2019). Evolutionary Aspects of "Click Hole" in Medicine Students and their Integration in Higher Education. Collection of conference II International Scientific-Practical Conference «Modern View of Science and Practice» (08.06.2019 London, Great Britain). London, Great Britain. P. 38-45.
9. Melnyk, Y.B., Yekhalov, V.V., Sedinkin, V.A. (2020). The Role and Influence of “Clip Thinking” on the Educational Process in Medical Education. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*. v.11. № 1. P.61-64. DOI: 10.30476/IJVLMS.2020.85375.1019
10. Yekhalov, V.V., Gaiduk, O.I., Kuzmina, A.P., Gaiduk, T.A. (2018). Klinichne ta «klipove» myslennya na riznykh etapakh navchannya za fakhom «Zahal'na praktyka-simeyna medytsyna» [Clinical and "clip"

- Bioenergetics in Medicine and Biology № 1(6), 2021  
thinking at different stages of training in the specialty "General practice-family medicine"]. *Medychni perspektyvy [Medical prospects]*. v. XXIII. №1. Part 2. pp.76-79. [https://doi.org/10.26641/2307-0404.2018.1\(part2\).126954](https://doi.org/10.26641/2307-0404.2018.1(part2).126954). [in Ukrainian]
11. Barannyk, S., Ekhalov, V., Trofimov, M. Développement Évolutionnaire de la "Clip thinking" Chez les Étudiants Médicaux et Leur Intégration Dans L'enseignement Médical Supérieur [Evolutionary Development of Clip Thinking Among Medical Students and Their Integration into Higher Medical Education]. Theory, Science and Practice: Abstracts of III International Scientific and Practical Conference. Tokyo, Japan. 2020 (October 05-08). P. 234-238. DOI - 10.46299/ISG.2020.II.III. [in French]
12. Yekhalov V.V., Sedinkin V.A. (2020). Present Day Deviations of Thinking of the Internship Doctors. *International Journal of Science Annals*. V. 3. №1. 57-59. DOI:10.26697/ijsa.
13. Yekhalov, V.V., Kligunenko, O.M., Murizina, O.Y. (2015). Medychna deontolohiya ochyma likarya za fakhom "Zahal'na praktyka-simeyna medytsyna" [Medical deontology through the eyes of a doctor in the specialty "General practice-family medicine"]. *Simeyna medytsyna [Family Medicine]*. № 6. pp. 33-35. [in Ukrainian]
14. Yekhalov, V.V., Pavlish, O.S., Egorov, S.V. (2019). Medychna etyka ta deontolohiya v praktytsi likarya-dytyachoho anestezioloha [Medical ethics and deontology in the practice of pediatric anesthesiologist]. *Medytsyna*

neotlozhnykh sostoyanyy [*Emergency medicine*]. №3 (98). Pp. 137-139.  
DOI: 10.22141/2224-0586.3.98.2019.165489. [in Ukrainian]  
15. Yekhalov, V.V., Stanin, D.M., Sedinkin, V.A., Hobotova, N.V. (2016).  
Optymizatsiya roboty molodoho vykladacha v protsesi pidhotovky likariv-  
interniv za riznymi fakhamy [Optimization of the work of a young teacher in  
the process of training interns in various specialties]. *Pivdenno-ukrayins'kyy*

Bioenergetics in Medicine and Biology № 1(6), 2021  
*medychnyy naukovyy zhurnal [South Ukrainian Medical Scientific Journal]*.  
№ 13 (13). Pp. 76-78. [in Ukrainian]  
16. Radaev, V.V. Millenialy: kak menyayetsya rossiyskoye obshchestvo.  
[Millennials: how Russian society is changing]. M.: Izd. dom Vysshey shkoly  
ekonomiki [Moscow: Ed. House of the Higher School of Economics],  
2019.224 p. DOI: 10.17323 / 978-5-7598-1985-1. [in Russian]  
17. Murizina, O.Y., Kligunenko, O.M., Yekhalov, V.V. (2014). Orhanizatsiya  
samostiynoyi roboty z medytsyny nevidkladnykh staniv u simeynykh likariv  
[Organization of independent work on emergency medicine at family  
doctors]. *Medychni perspektyvy [Medical Perspectives]*. vol.19. №2, part 1.  
Pp. 119-122. [in Ukrainian]  
18. Moiseenko, M.M., Barannik, S.I., Gorbuntsov, V.V., Yekhalov, V.V.  
(2017). Fazysni sytuatsiyni zavdannya v formuvanni profesiynoyi  
kompetentnosti spetsialista za fakhom "Urolohiya" [Phase situational tasks  
in the formation of professional competence of a specialist in "Urology"].  
*Urolohiya [Urology]*. №1. P.91-95. [in Ukrainian]  
19. Yekhalov, V.V., Kravets, O.V., Bogatyreva, O.V. (2014). Pryntsyp  
mezhdydsiplanarnoyi intehtratsiyi ta apriornoyi motyvatsiyi v medytsyni  
nevidkladnykh staniv [The principle of interdisciplinary integration and a  
priori motivation in emergency medicine]. *Medychni perspektyvy [Medical  
prospects]*. Volume XIX. №2. part 1. Pp. 103-105. [in Ukrainian]  
20. Yekhalov, V.V., Samoilenko, A.V., Romanyuta, I.A. (2020). Humor, yak  
suchasnyy pidkhid do navchannya likariv-interniv [Humor as a modern  
approach to the training of interns]. *Pivdennoukrayins'kyy medychnyy  
naukovyy zhurnal [South Ukrainian Medical Scientific Journal]*. №25 (25).  
Pp. 32-34. [in Ukrainian]  
21. Trahan, L.H., Stuebing, K.K., Fletcher, J.M., Hiscock, M. The Flynn  
effect: A meta-analysis. *Psychological Bulletin*. 2014. №140(5), P.1332-  
1360. <https://doi.org/10.1037/a0037173>

Bioenergetics in Medicine and Biology № 1(6), 2021  
22. Kligunenko, O.M., Yekhalov, V.V., Dyudyun, A.D., Gorbuntsov, V.V.,  
Svyatenko, T.V. (2015). Adaptovani pryntsypy pidhotovky likariv-interniv za  
spetsial'nistyu «Dermatovenerolohiya» do litsenziynoho intehtrovanoho

ispytu «Krok-3». [The principles of interns training in the specialty "Dermatovenereology" for the licensed integrated exam "Step-3" have been adapted]. *Dermatovenereolohyya. Kosmetolohyya. Seksopatolohyya* [Dermatovenereology. Cosmetology. Sexopathology]. № 3-4. P.168-173. [in Ukrainian]

Citation: Vasily V. Yekhalov, Viacheslav V. Gorbuntsov (2021).

PSYCHOLOGICAL FEATURES OF A

MODERN INTERN IN DYNAMIC OBSERVATION. Frankfurt. TK Meganom LLC. Bioenergetics in Medicine and Biology. 1(6). doi: 10.26886/2523-6938.1(6)2021.1

---

Copyright Vasily V. Yekhalov, Viacheslav V. Gorbuntsov ©. 2021. This is an openaccess article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) or licensor are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms