

Personality traits and career orientations of high school students when choosing a medical profession

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Abstract: *The authors conducted a theoretical analysis regarding the problem of professional orientation for high school students. As a result it was determined that offering a proper career orientation for students is necessary in order for their social motives to coincide with student's abilities and received education to be implemented fully in the professional field. It was also determined that professional self-determination is affected by a number of personality subsystems such as intelligential, occupational and psychological. Intelligential subsystem includes cognitive and reflective components, occupational - professional abilities and knowledge, psychological - motivational and moral components.*

In this paper were introduced the results of the empirical research on personality traits and career orientation of high school students who are taking classes in a general education institution with a medical specialization. The obtained results are important for providing the professional orientation to students in high school.

It was discovered that for the majority of pupils are common the following traits:

- 1) *average level of interest regarding a medical career;*
- 2) *the most typical behaviour patterns during a conflict are cooperation and compromise;*
- 3) *the main career values are professional competence, a sense of duty, challenge.*

Discovered correlations prove the importance of the conscious choice, of being well-informed about the variety of medical positions and well-prepared to make a decision regarding one's career path.

Key words: *professional orientation, career choice, medical worker, conscious choice, behaviour patterns during a conflict, career orientations, high school students.*

I. Introduction

Staff shortage is one of the main problems of the primary sector of Russian health care. Valentina Matviyenko notes the regional imbalance in the availability of medical specialists. «Today, the primary link lacks more than 25,000 doctors and more than 130,000 nursing personnel workers,» Matviyenko said. According to her, the main problem is that «training

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and adaptation programs of medical workers as well as management and development of the personnel's potential within the industry does not meet the requirements and needs of the population» [14].

According to The Graduate School of Healthcare Organization and Management less than half of medical universities graduates remain in the professional field three to four years after graduation [1].

The reasons for leaving the profession vary: from social and financial to psychological including mistakes in the primary choice of the professional field. Psychological studies prove that for teenagers choosing an educational institution and study program play a huge role the following social motives: the influence of the family, peers, the status of the profession, the possibility of successful employment in a particular region of Russia, the probability of entering the state funded educational institution, the remoteness of the said institution from the place of residence [6, 9, 10].

American psychologist G. Craig in his book stated that older teenagers inevitably face two main problems:

- 1) gaining independence from their parents;
- 2) identity construction, development of one's own authentic self that would balance different parts of one's personality [20, c. 600].

In other words, older teenagers no longer want to depend on adults, they seek to become independent, both financially and mentally. In addition, they want to find themselves, "become themselves," meaning they want to have unique personality. Another equally important task, according to G. Kraig, is to develop its own system of values by re-evaluating values by comparing values of different people. These values will guide young people in making vital decisions.

"Many high school students nowadays are not ready to make decisions regarding their future on their own for a number of reasons: infantility, lack of interests, lack of knowledge of their strengths and weaknesses. The selection of subjects for SATs is based on the difficulty level of the exam and often absolutely unrelated to the professional self-determination. High school graduates make a lot of mistakes when choosing future occupation [12].

During personal becoming, as E.V. Nizieva argues, the importance of one's own values is increasing, the self-awareness is being developed, the relationship with oneself gets more complicated "manifesting itself in increasing differentiation of self-assessments, in the development of separate self-assessments of individual qualities of personality into well-balanced complete self-image, the ability to separate success and failure in a particular field from the general self-assessments» [15].

"When one asks about the meaning of life, a young man thinks both about the direction of social development in general and about the specific purpose of his own life. He wants not only to understand the objective, social significance of a possible occupation but also to find his personal meaning, to understand what he personally can gain in certain field of work, how does it correspond to his personality: what exactly is my place in this world, in what kind of field my individual abilities will shine the most?" [11, p. 187].

Young people while choosing a profession often rely on what they want, what they are interested in and what can unlock their potential. However, there are countless fields of work, and it is impossible to tell in advance where a person will find themselves. That is why choosing future occupation often becomes an excruciating problem for a high school student, as one does not yet know in which field one will be able to fulfil their potential the most. That's how many end up choosing future field of work based on parents' advice or friends' example, the social status of the profession etc. Not every young man or woman entering a higher education institution is planning to devote their life to the chosen specialization; some young

people get higher education simply because they are expected to and they start looking for their vocation only after graduation. Sometimes it also happens that having chosen a profession of their own accord, a young person later gets disappointed in it. The reason for this may be underestimation (or overestimation) of one's abilities, lack of understanding of the essence and goals of the chosen profession etc.

Thus, it becomes very relevant to conduct a high-quality professional orientation of high school students, so that social motives coincide with the abilities of the student and the education received could be implemented fully in professional activities.

Said contradiction defined the goal of our research: detecting personality traits and career orientations of high school students when choosing a medical profession.

From the point of view of the society, a profession - is a system of professional tasks, types of professional activities, professional characteristics of one's personality, which can ensure the satisfaction of the needs of society in achieving the desired socially important result" [7, p. 167].

The profession is "an activity through which a person participates in the life of the society and which serves as one's main source of income" [13, p. 13].

The generalization of existing interpretations allows to give the following definition of the profession: it is "a historically developed type of work, for which a person must possess certain knowledge and skills, have special abilities and developed professionally important qualities" [5, c. 36].

Defining the essence of the professional self-determination is still an unresolved task. According to N. S. Pryazhnikov, science and art professionals are currently dealing with this problem [19, c. 13]. In the national psychology and pedagogy specialists gained a lot of experience regarding the theory of the professional self-determination, which predetermined, in many ways, modern approach to this problem. These are the classic studies of E. A. Klimov, A. E. Golomstock, L. A. Jovaiša, V. V. Nazimov, S. N. Chistyakova and others. What stands out in all these studies is the increasing attention to the personal aspects of professional self-determination [2; 4; 5; 7; 22].

N.S. Pryazhnikov considers the essence of professional self-determination to be "an independent and conscious discovery of the means of the work performed and all activities in a specific cultural-historical (social-economic) situation" [19].

G. S. Prygin, V. I. Stepanyuk and V. P. Faryutin consider as a factor of influence on the process of professional self-determination the level of development of the conscious mental self-regulation system. Depending on the type of self-regulations said authors distinguish two groups of people - the "autonomous" group and the "dependent" group:

- 1) individuals with a self-contained type of self-regulation are more informed about the chosen profession than individuals from the "dependent" group;
- 2) the amount of autonomy while choosing the profession for "autonomous" group is much higher than that of "dependent";
- 3) the amount of confidence in their choice by the representatives of the "autonomous" group is also much higher;

The conducted theoretical analysis allowed to determine the structure of the professional self-determination of teenagers (image 1).



Image 1 – The structure of professional self-determination of teenagers

Thus, "professional self-determination is a complex process, during which a basic attitude to work and professional choice is formed, professionally significant personal qualities, professional competence are formed [17]. Professional self-determination is influenced by intelligential, occupational and psychological subsystems. The intelligential subsystem includes cognitive and reflective components; occupational - professional abilities and knowledge, psychological - motivational and moral components».

46 people aged from 16 to 18 took part in this research - those were students in the last year of high school with chemical-biological specialization having chosen medical specialization as their future field of work.

II. Research methods and methodology

1. In order to identify the level of conscious choice of the medical profession a questionnaire was used.

We developed a questionnaire with questions that highlighted external and internal factors affecting the choice of the profession. This method helps to determine the readiness to choose a profession, which is characterized by internal awareness of the very fact of making that choice and certainty of professional interests, awareness of the student and assessment of their abilities as well as the influence of external factors on the choice of the profession in a medical field.

The purpose of the questionnaire was to identify the peculiarities of self-training for the chosen profession; opportunities to test your professional qualities in the present moment; interest in the profession and the desire to receive information through literature and medical staff; the presence of relatives and acquaintances among medical professionals; identification of the leading motives of the choice: moral, financial, social, ethical, insightful.

2. In order to identify interest in the medical profession "Map of Interests" was used [16].

This methodology is intended for high school students, includes 144 questions, which are distributed into 24 types of activity: physics, mathematics, chemistry, astronomy, biology, medicine, agriculture, forestry, philology, journalism, history, art, geology, geography, social activities, law, transport, pedagogy, working professions, service, construction, consumer industry, engineering, electrical engineering.

3. In order to identify a strategy of behavior in a conflict situation - "Behavior during a conflict" was used [3].

There are five ways to resolve conflicts: 1. Rivalry or competition; 2. Cooperation; 3. Compromise - a method of mutual concessions; 4. Avoiding - an evasion of decision-making; 5. Adaptation - a sacrifice of one's own interests.

4. In order to identify career orientations - "Career Anchors" was used [21].

As a result of diagnostics, 9 leading professional types are distinguished: 1. Professional competence; 2. Management; 3. Autonomy (independence); 4. Stability of work; 5. Stability of residence; 6. Service; 7. Challenge; 8. Integrating lifestyles; 9. Entrepreneurship.

5. As a statistics methods: calculating averages and Spearman's Rank correlation were used.

III. Results

Identification of awareness of the choice of profession of medical worker found three categories (Image 2):

1. Category with a high degree of interest 8.69% of high school students (from 14 to 20 points). High school students in this group often take part in biology clubs, read popular science, are surrounded by relatives and acquaintances health workers, they express the desire to benefit society, which shows the high degree of interest.

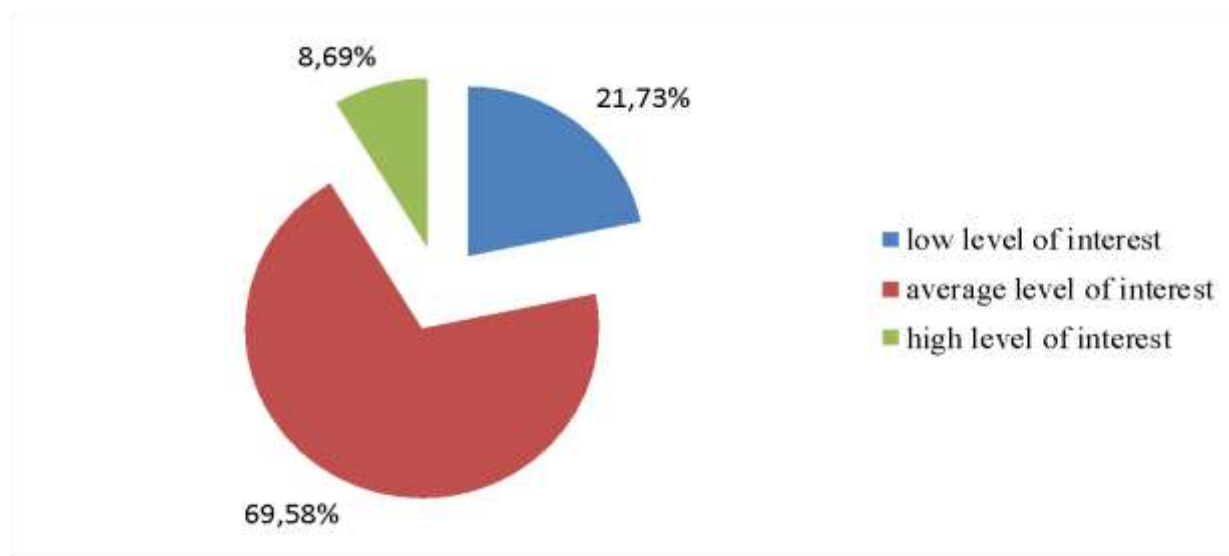


Image 2 – The level of awareness in a choice of the medical worker profession

(as a percentage of the total number of participants)

2. Category with an average degree of interest 69.58% of high school students (from 8 to 13 points). This category is most pronounced. Students in this category also read the literature, communicate with medical professionals, but they are still at the stage of the primary choice of profession, they doubt if they are making the right choice and are ready to change their decision.

3. Category with low interest rate 21.73% of high school students (from 0 to 7 points). High school students in this category were in the class of biological and chemical profile for reasons not related to further admission to medical institutions, they do not communicate with medical professionals, they are not very interested in this profession.

«Map of Interests» methodology (modification of A. E. Golomstock methodology) [16, p. 119-127].

v The results in the experimental group allowed to distinguish 3 categories of students depending on the level of interest in the medical field:

1. Low degree of interest in the medical profession - high school students who received from -5 to 0 points on this scale;
2. Average degree of interest in the medical profession - from 1 to 6 points;
3. High degree of interest in the medical profession - from 7 to 12 points (Image 3)

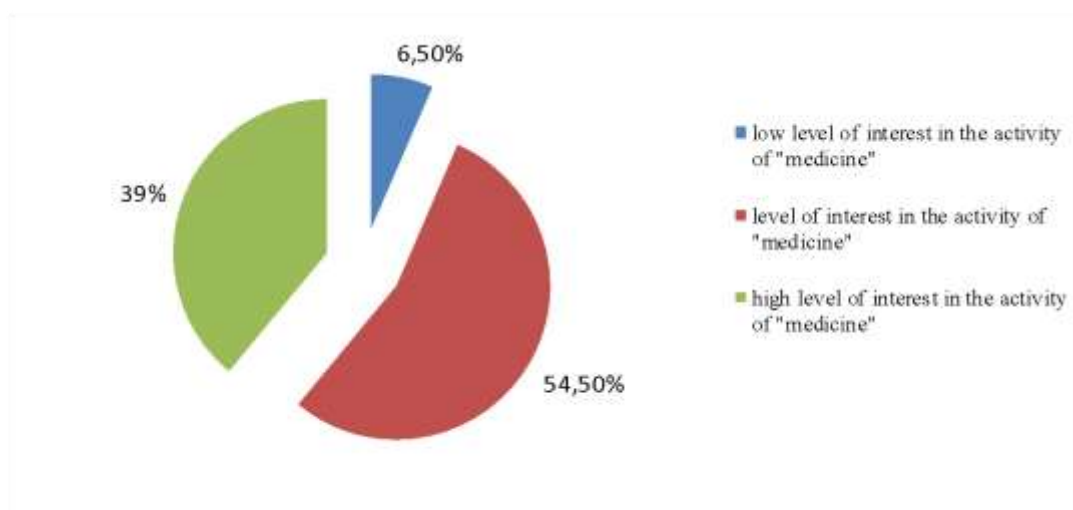


Image 3 – Level of interest in the medical worker's profession in the Map of Interests

(as a percentage of the total number of participants)

Thomas's test «Style of behavior in conflict»

The peculiarities of the nervous system and the emotional sphere largely determine our predisposition to conflict behavior. A health care professional needs to be able to control oneself and the situation during conflict situations. The diagnostics revealed the peculiarities of the strategies preferred by high school students in conflict situations (Image 4).

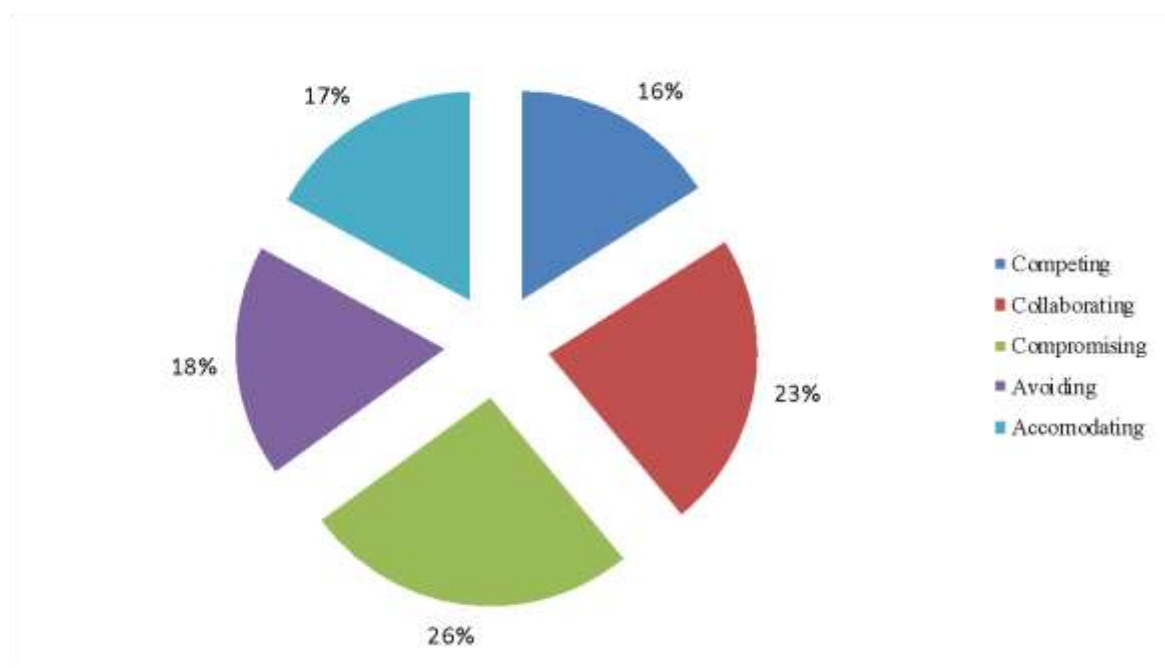


Image 4 – Style of behavior in conflict

(as a percentage of the total number of participants)

The largest number of respondents choose cooperation as their preferred behavior strategy (23%) and compromise (26%). Thus, high school students in a conflict situation are looking for a solution that suits both sides. This preference in behavior suggests that they care about the other side and this strengthens the relationship and provides mutual benefits. The "compromise" strategy demonstrates the flexibility and diplomacy of our subjects.

Career Anchor Test by E. Shein

During the diagnostics of the survey we identified the following key career orientations: professional competency (30%), service (20%), challenge (20%) - this orientation data, from our point of view, reflects the personality traits inherent to medical professionals (Image 5).

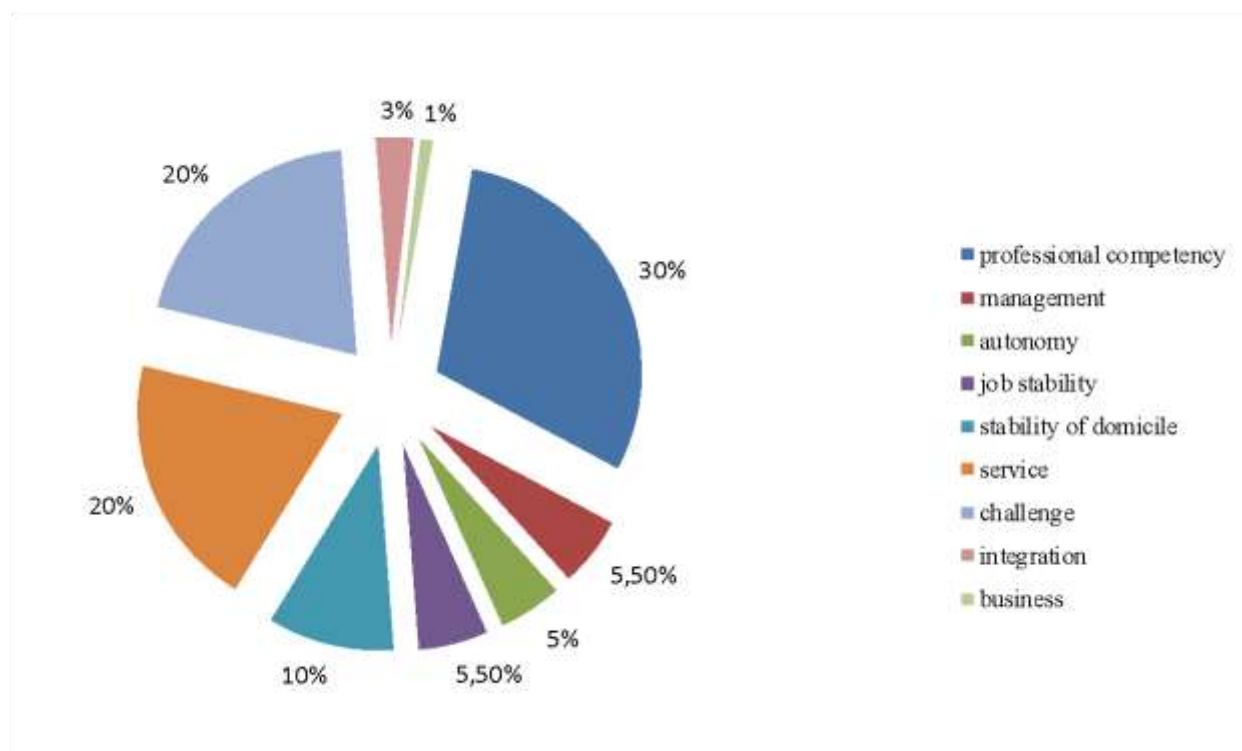


Image 5 – Moral orientations in career
(as a percentage of the total number of participants)

IV. Discussion of the results

This study was conducted in order to test the hypothesis that personality of a person is related to the professional qualities necessary for successful work within the medical field. We began our study by identifying the operations by which the phenomena corresponding to these categories (awareness of choice, choice of medical field) can be measured. Then we analyzed the received data. To ensure the validity of the results, we removed from our comparative analysis high school students who do not want to continue to work in the medical field, so the final group consisted of 36 people. We used The Spearman's Rank correlation to conduct static processing. The analysis uses results at the level of statistical significance of at least 0.05.

First of all, we decided to identify connection between the awareness of the choice of the profession of a medical worker with the choice of the profession ($r = 0.33$). The strategy of behavior in a conflict situation “cooperation” has a connection with the indicator “choice of medical field” ($r = 0.35$). This connection proves - a high desire to work in medicine, coincides with a high desire for cooperation. When a person is ill, the stage of recovery depends on mutual understanding and trust between the health care professional and the patient, at the stage of recovery the patient is important how the communication relationship between him and the medical professionals will be built, it becomes important whether they sympathize with the patient, whether they want to help them, whether they are affectionate.

Thus, it becomes obvious that the choice of the profession of medical field should be distinguished by a high level of awareness.

To increase the level of awareness of professional choice is possible with the help of a specially organized program of psychological support "I make the decision myself!"

Comprehensive program aimed at developing cognitive strategies of professional choice: includes four areas of work:

1. Professional information sharing;
2. Professional diagnostics (combination of contact and remote form: implemented using google-forms and direct work with psychologists);
3. Professional counselling;
4. Professional agitation.

"Training teenagers to make a successful decision in a professional choice situation has its own nuances. It is based both on general psychological principles and on psychological reinforcement of the behavior of students, which contributes to the making of an effective decision that affects the success of the individual in the choice of professional trajectory. All this allowed us to highlight the mechanisms of psychological support of professional self-determination. <...>

I. Mechanism of conformity of psychological and educational knowledge, skills of the teacher of cognitive sphere of the student.

An important socio-psychological factor in the development of a behavioral strategy is the personality of the teacher. Special requirements are made to the communication skills and skills of the teacher, which include active listening, the ability to explain, ask questions, the presence of a positive emotional tone, the ability to pick up examples. <...>

II. Mechanism of matching the job to the professional interests of the teenager.

The greatest effect of the accompaniment is provided by a variety of approaches - the greater the degree of participation of adolescents in the process of learning about the world of professions, the more information and skills are absorbed by them.

In this regard, the orientation of the program to a wide range of psychological growths of adolescents, which does not so much give a proper advice but rather a tool for reorienting the meaning and order of the organization of the entire process of orientation, taking into account the psychological characteristics of the individual. <...>

III. Synergistic effect mechanism of the group.

The strategy of joint productive activities of the teacher, students and psychologist is aimed at becoming a self-encouraging and self-regulating cognitive activity of students, overcoming passivity of the student position, the emergence of initiative and high inclusion in the process of professional orientation of the school. <...>

Psychological accompaniment pays attention to such universally recognized values as the ability to see the goal, make decisions, the ability to say no in response to attempts of negative influence from peers.

The completeness of the plans of a holistic professional orientation situation, which is deliberately designed by the teacher and psychologist, allows to appeal to the personality of the student, and not only to their skills. <...>

This approach highlights the process of professional orientation productive rather than reproductive tasks, which take into account the psychological characteristics of the individual and show the teenager the fullness and substantive and sociocultural meanings of the mastered activity.

References:

1. Doctors leave because of the depreciation of the profession / Medicinskaya Rossia. January 20, 2020 – 20.01.2020 <https://medrussia.org/33924-vrachi-ukhodyat-iz-za-obescenivaniya-prof/>
2. Golomshtok, A.E. Vybor professii i vospitanie lichnosti shkol'nikov. – M.: Pedagogika, 1979. – 158 p.
3. Greben' N.F. Psihologicheskie testy dlya professionalov. – Mn.: Sovremennaja shkola, 2007. – 496 p.
4. Zeer, Je.F., Pavlova, A.M., Sadovnikova, N.O. Proforientologija: Uchebnoe posobie dlya vsey shkoly. – M.: Akademicheskij proekt; Ekaterinburg: Delovaja kniga, 2004. – 192 p.
5. Jovaiša, L.A. problemy professional'noj orientacii shkol'nikov. – M.: Pedagogika, 1983. – 128 p.
6. Kamyshanov A.A., Klimova E.M. Razvitie kar'ernyh orientacij kursantov kak pokazatel' stanovlenija professionala // Nauchnye i obrazovatel'nye problemy grazhdanskoj zashhity. 2016. # 4 (31). p. 101-106.
7. Klimov, E.A. Psihologija professional'nogo samoopredelenija. – M.: Izdatel'skij centr «Akademija», 2004. – 304 p.
8. Klimova E.M. Kognitivnye strategii prinjatija reshenija shkol'nikami i ih vzaimosvjaz' s uspešnost'ju obuchenija /avtoreferat dissertacii na soiskanie uchenoj stepeni kandidata psihologicheskikh nauk / Moskovskij gosudarstvennyj oblastnoj universitet. Moskva, 2008. 22 s.
9. Klimova E.M., Utlik Je.P., Poruchkina S.M. Vzaimosvjaz' psihologicheskikh osobennostej i professional'nogo samoopredelenija podrostkov // Vestnik Moskovskogo gosudarstvennogo oblastnogo universiteta. 2015. # 1. . 9.
10. Kochetkov I.G., Bulgakov A.V., Klimova E.M., Kamyshanov A.A., Polyakov A.S. Yoth Public Associations As A Factor Of Professional Self-Determination Of Young People // Man in India. 2017. T. 97. № 15. C. 107-116.
11. Kon, I.S. Psihologija rannej junosti: Kn. Dlja uchitelja. – M.: Prosveshhenie, 1989. – 255 s.
12. Kulikova T. A., Pronina N. A. Sistema proforientacionnyh mer kak sredstvo povyshenija osoznannosti vybora professional'nogo puti // Azimut nauchnyh issledovanij: pedagogika i psihologija. 2019. T. 8. # 2(27). S. 189 – 193.
13. Makushkin, V.G. Lekcii po kursu «Osnovy fiziologii i psihologii truda». – M.: Prosveshhenie, 1971. – 423 s.
14. Medicinskie kadry berut v oborot // Kommersant". - #194 (6674) ot 23.10. 2019 g. <https://www.kommersant.ru/doc/4134260>
15. Niz'eva, E.V. Psihologicheskie osobennosti razvitija lichnostnoj sfery u starsheklassnikov // Materialy H regional'noj nauchno-tehnicheskoy konferencii «Vuzovskaja nauka – Severo-Kavkazskomu regionu». – SevKavGTU, 2006.
16. Ovcharova R.V. Spravochnaja kniga shkol'nogo psihologa.— M: Prosveshhenie, 1993.

17. Poruchkina S.M. Gotovnost' uchitelja k proforientacionnoj rabote kak pedagogičeskaja problema /Evropa i Sovremennaja Rossiya. Integrativnaja funkcija pedagogičeskoj nauki v edinom obrazovatel'nom prostranstve Materialy HIV Mezhdunarodnoj nauchnoj konferencii. 2018. S. 219-231.
18. Prygin, G.S., Stepaniskij, V.I., Farjutin, V.P. Vlijanie osobennostej samoreguljacji dejatel'nosti na professional'noe samoopredelenie starsheklassnikov // Voprosy psihologii, 1987. - #4 – s. 45-51.
19. Prjazhnikov, N.S. Professional'noe i lichnostnoe samoopredelenie. – M.: izd-vo «Institut praktičeskoj psihologii», Voronezh: NPO «MODJeK», 1996. – 256 s.
20. Psihologija razvitija / Pod red. G. Krajg. – 7-e izd. – SPb.: Piter, 2003. – 992 p.
21. Chiker V.A. Psihologičeskaja diagnostika organizacii i personala. SPb.: Rech', 2006
22. Chistjakova, S.N., Zaharov, N.N. Professional'naja orientacija škol'nikov: organizacija i upravlenie. – M.: Prosveshhenie, 1987. – 386 p.