Self-assessment development of the future doctor professionally significant personal qualities from the position of a dynamic approach

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Abstract. The paper presents a study on the formation of the self-esteem of personal, professionally important qualities of a future doctor among first-year students of the medical faculty of a medical university. The aim of the study was to identify the formation dynamics of objective self-esteem in the development of specialist professionally important personal qualities, within the framework of the developed and applied diagnostic program in the learning process of the discipline "Psychology and pedagogy." At the beginning of training activities in one of the first classes in the study of the discipline, the students were given the opportunity to evaluate themselves subjectively regarding the formation of professionally important qualities in accordance with the student's psychodiagnostic card. In the course of training activities in the classroom on “Psychology and pedagogy”, students studied their personal qualities for one semester in accordance with the program of the discipline using the valid techniques described in the paper. At the final stage of mastering the discipline, a repeated self-assessment was conducted taking into account the results of the applied methods. Analysis of the results of the applied methods gave rise to a review of self-esteem and allowed to compare the primary (subjective) self-assessment of the personal qualities of students with the secondary (refined, objective) self-assessment. The result of the study was the analysis of the dynamics of self-esteem.

1. Introduction
Identifying the self-esteem of a future doctor professionally important personal qualities in the educational process of a higher education institution means, on the one hand, awareness of the personal significance and meaning of educational and professional activities, and on the other, correlation of its own value system with the values of the profession. This contributes to the strengthening of the specialist professional identity, increases learning motivation. This awareness is especially important at the initial stage of professional development for professional groups with a deontological status: doctors, teachers, psychologists [1]. It is in these groups that the personal characteristics of a specialist are the main tool for realizing the values of the profession and themselves act as the value orientations of the professional development of an individual.

In modern psychological and pedagogical interpretation, self-esteem is considered as a value, significance, with which an individual endows himself as a whole and certain aspects of his personality, activity, behaviour; it includes opinions, judgments of a person about himself, his
qualities, virtues, shortcomings, his own abilities, moral qualities and actions; it is an important regulator of behaviour; it has a significant impact on attitudes towards learning activities; it determines the relationship of a person with others, his critical, demanding of himself, attitude to success and failure [2].

In this paper, we will consider self-assessment as an assessment of one’s place and role among other people, the social significance of the activity in which he is engaged, and its effectiveness [3]. Formation of the person self-esteem occurs under the influence of cultural features, upbringing style, life experience and personal characteristics.

Self-esteem performs many different functions. The main functions performed by self-assessment are: regulatory, protective and developmental. The regulatory function ensures that the person accepts tasks and choices. A.V. Zakharova divides this function into evaluation, control, stimulating, blocking and protective [4]. The protective function ensures the relative stability of the individual and his independence. The developmental function stimulates the personality to develop and improve. Also, prognostic, corrective, retrospective functions [5], motivating, adaptive, etc. are distinguished.

We see that the relationship of a person with others, his critical nature, exactingness to himself, attitude to successes and failures depend on self-esteem.

Most often, self-esteem is characterized by the following parameters: level - high, medium and low; realism - adequate and inadequate, among which there is an understated and overestimated self-esteem; features of the structure - conflict and conflict-free (one can also call it constructive and destructive). Self-esteem also varies in the degree of stability, autonomy and criticality.

Professional self-esteem is evaluation of the labour subject himself as a specialist, his professional capabilities, qualities, achievements and place in the professional environment. Self-assessment has a great influence on the effectiveness of a person’s professional activity, further development and development of him as a specialist.

In the process of educational and professional activities, adequate self-assessment of personal, professionally important qualities is a prerequisite for the successful formation and achievement of professional competence by students [6-7].

Thus, personal professionally important qualities are the qualities necessary for a subject of activity to perform a certain type of professional activity at its various levels. They are formed at the intersection of personal and professional spheres, mediated by the subject of labour, manifested at a certain stage of professional activity. They are the basis of professional self-realization. They provide professional ability and professional competence, as well as quality of activity and contribute to maintaining the professional health of the subject of activity [8].

DaKrush Sampayo Antero identifies several approaches to the study of self-esteem: 1) the personal approach, which considers self-esteem as an essential component of the self-consciousness of the individual; 2) structurally holistic approach, involving consideration of self-esteem as one of the components of an integral personality structure and at the same time as a false systemic in nature education: it is holistic and at the same time multidimensional, has a multi-level structure and a hierarchical structure, is included in many intersystem relations with others mental formations, in different activities; 3) the activity approach which involves the consideration of self-esteem as a factor affecting the quality of the results of a person’s activities (including professional ones); 4) a dynamic approach which is used when considering self-esteem in the process of an age-related change of an individual in conjunction with the formation of a personality; 5) psychopathological approach in which self-assessment is considered as an indicator of a person’s mental health as a person; 6) the functional approach which involves the consideration of self-esteem as one of the main functions of the individual [9].

In our research we use a dynamic approach to study the problem of the formation of professional self-esteem of personal, professionally important qualities of a specialist who is a future doctor.

Students go through several stages in the formation of professional consciousness (development). At the early stage of vocational training, students are already aware of their professional abilities, potential and prospects, but at the same time there is a tendency to overestimate professional self-
esteem [10]. In the second year of the learning process, there is a significant correction of ideas about professional activity, which changes the professional self-image and corrects professional self-esteem. These changes occur with the manifestation of emotional discomfort [11].

2. Materials and methods
As a hypothesis, it was suggested that in order to correct students’ professional self-esteem, to overcome emotional discomfort and to increase academic motivation in subsequent courses, it is necessary to create conditions conducive to the students’ knowledge about themselves [12]. The criterion of the gradual formation of adequate professional self-esteem is the increase in accuracy and clarity in the awareness of their personal, professionally important qualities [12], and as a result, a change in self-esteem [13].

The study was conducted in the course of educational and professional activities within the discipline “Psychology and Pedagogy” for students of the 1st course of “General Medicine” specialty. The purpose of the study is to identify and compare the level of professional self-esteem at the initial and final stages of training the discipline on the following topics:

- Sensations and perceptions. Methods for the study of sensations.
- Memory and attention. Methods for the study of memory and attention.
- Thinking. Imagination. Speech Intelligence. Methods for the study of thinking, imagination, speech and intelligence.
- Emotional mental processes. Emotions and feelings. Willful activity. Behavior.
- Psychology of Personality. Structure, consciousness, temperament, character.
- Psychology of Personality. Motivation, activity.
- Personality and illness. Method “Type of attitude to the disease” (In interactive form)
- Psychosomatics. Psychosomatic disorders.
- Stress, psychological defences, coping behaviour and ways to overcome them.
- Psychology of conflict, styles of behaviour in a conflict situation. Conflict management.

To improve the accuracy and clarity in the awareness of personal, professionally important qualities, a diagnostic program was developed, including the techniques given in table 1.

The diagnostic program was designed to intensify the activities of students to obtain information about themselves and their personal qualities that are important for their professional development.

To build a diagnostic program, we used the professiogram “Doctor”, which became the basis for preparing a psychodiagnostic map, reflecting the psycho-physiological requirements for the profession.

The psychodianostical map includes four blocks of the studied parameters: 1) psychophysical intensity in work; 2) the requirements of the profession to the individual abilities of a specialist; 3) requirements for personal, professionally important qualities; 4) medical contraindications.

The first group of parameters includes factors that can bring psycho-physiological tension to the work of a doctor, namely: increased moral responsibility for the life and health of people; constant communication with people and the associated emotional stress; physical activity (the need to work for a long time in an uncomfortable position); the performance of duties in the night shift, the possibility of emergency calls to the sick; the possibility of danger associated with the risk to the health of the patient and his own (infection); violation of the social need for aesthetic sensations in the perception of another person (age and physical characteristics of the patient, uncleanliness).

The second group of parameters includes profession requirements for individual abilities of a specialist, includes neuropsychic stability, developed verbal-logical, analytical thinking, good long-term logical and sensory memory (visual, auditory, olfactory, tactile), voluntary attention, physical endurance, high coordination of brushes hands and fingers, fine tactile sensitivity of the fingers and the ability to measure and measure the efforts, endurance of the visual analyser, clear speech.
The third group of parameters unites the requirements of the profession to personal abilities and qualities of a specialist, namely: stress tolerance, self-management, personal organization, social intelligence (ability to understand other people's behaviour), communication skills, responsibility, ability to empathize with patients, ability to navigate in extreme conditions correctly, poise and tact.

The fourth group of parameters describes the medical contraindications.

In this work, we studied the group of parameters representing the third category, namely the level of self-assessment of the formation of personal abilities and the professionally important qualities of the future doctor.

For each indicator of the third block of the psychodiagnostic card, valid methods were chosen, which allow to obtain more complete and objective information about oneself and evaluate the selected personal qualities objectively (table 1).

### Table 1. Methods used to study the personal, professionally important qualities of the future doctor.

| Indicators of personal and professional qualities | Techniques used |
|-------------------------------------------------|-----------------|
| Stress resistance                               | The Spielberger alert scale (State-Trait Anxiety Inventory, STAI), Leonhard-Schmischek Test, or the SchmieschekFragebogen Test |
| Self-management, personal organization          | The style of behaviour self-regulation (SBSR), the level of subjective control (LSC) |
| Social intelligence (ability to understand the behavior of other people) | Toronto alexithymy scale TAS-26, Hall EQ Emotional Intelligence Test |
| Communication skills                            | Personality Questionnaire EPI (Eysenck Personality Inventory), Symantical Differential of Ch. Oskuda |
| The ability to empathize with the sick conditions | Toronto alexithymy scale TAS-26 |
| Ability to navigate in extreme conditions       | Leonhard-Shmischen test, or SchmieschekFragebogen Questionnaire, Style of behaviour self-regulation (SBSR) |
| Poise behaviour                                 | Leonhard-Schmischek test, or the SchmieschekFragebogen questionnaire, EPI (Eysenck Personality Inventory) personal questionnaire, Hall EQ Emotional Intelligence Test |

All the methods listed in the diagnostic map are valid and recommended for use in the educational process.

We shall give them a brief description.

The Spielberger-Khanin Anxiety Scale test was developed by Charles Spielberger, and the Russian-language adaptation was made by Yu. L. Khanin.

Measuring anxiety as a personality trait is especially important, since this property largely determines the behaviour of the subject. It is necessary to take into account that a certain level of anxiety is a natural and obligatory feature of the active activity of any personality. Each person has his own optimal, or desired, level of anxiety - this is the so-called useful anxiety. Man’s assessment of his condition in this regard is for him an essential component of self-control and self-education. This scale makes it possible to evaluate not only personal anxiety, as a component of a stable characteristic of a person, but also situational anxiety as a reactive state.

The state of reactive (situational) anxiety arises when getting into a stressful situation and is characterized by subjective discomfort, tension, anxiety and vegetative excitement. Naturally, this state is characterized by instability in time and different intensity depending on the strength of the impact of a stressful situation. Thus, the value of the final indicator for this subscale allows us to
estimate not only the level of the subject’s current anxiety, but also to determine whether he is under
the influence of a stressful situation and what is the intensity of this effect on him.

Personal anxiety is a constitutional trait causing a tendency to perceive a threat in a wide range of
situations. With a high personal anxiety, each of these situations will have a stressful effect on the
subject and cause him pronounced anxiety. Very high personal anxiety directly correlates with the
presence of a neurotic conflict, with emotional and neurotic breakdowns and psychosomatic diseases.

Comparison of the results for both subscales makes it possible to assess the individual significance
of the stressful situation for the subject.

The test of emotional intelligence Hall EQ is the Emotional Intelligence Self-Evaluation) was developed by Nicholas Hall.

The method is based on the general theoretical ideas about emotional intelligence as personal
characteristics that allow you to recognize your emotions, control them, and recognize feelings in each
specific situation. The test of emotional intelligence (N. Hall’s method) shows how you use emotions
in life, it takes into account different aspects of emotional intelligence, such as attitudes towards
oneself and others, communication skills, attitudes towards life.

The technique includes:

- Emotional awareness is the awareness and understanding of one’s emotions.
- Managing one’s emotions is emotional reflexion, emotional flexibility, etc., in other words,
  arbitrary control of your emotions.
- Self-motivation is management of one’s behaviour, due to the ability to control one’s
  emotional sphere.
- Empathy is the understanding of other people, the ability to empathize with the current
  emotional state of another person, as well as the willingness to provide support. This is the
  ability to understand the state of a person by facial expressions, gestures, shades of speech
  and posture.
- Managing the emotions of other people - the ability to influence the emotional state of
  other people.

The Leonhard-Schmischek test, or the SchmieschekFragebogen Questionnaire was a personal
questionnaire developed by the German psychologist G. Schmieschek in 1970. It was designed to
diagnose the type of personality accentuation and it is the implementation of a typological approach to
its study.

The theoretical basis of the questionnaire is the concept of “accentuated personalities” of the
prominent German psychiatrist Karl Leonhard. In accordance with his concept, all personality traits
can be divided into basic and additional. The main features are the core of the personality; they
determine its development, adaptation processes, and mental health. With significant severity of the
main features characterize the person as a whole. Personalities, whose main features are pronounced,
are called Leonard accentuated. Accentuated personalities should not be considered as pathological,
this is a case of “sharpening” of certain features inherent in each person. However, in the event of
exposure to adverse factors, they can become pathological in nature, destroying the personality
structure. According to Leonhard, accentuated personalities potentially contain both opportunities for
socially positive achievements and a socially negative charge.

According to Karl Leonhard, 10 types of accentuated personalities are distinguished, which are
quite arbitrarily divided into two groups: character accentuation (demonstrative, pedantic, stuck,
excitable) and temperament accentuation (hyperthymic, dysthymic, anxious-fearful, cyclothymic,
affectively exalted, emotive).

The accentuation in this study implied an assessment of individual traits, which in the subjects were
ecessarily strengthened, as a result of which a selective vulnerability could be revealed in relation to
some psychogenic influences while maintaining good resistance to others.
We used EPI (Eysenck Personality Inventory) personal questionnaire. This is the third version of Eysenck’s personal questionnaire, published in 1963. It consists of scales: extraversion-introversion and neuroticism, plus a scale assessing the sincerity of the answers. This questionnaire confidently occupies one of the first places in terms of frequency of use among psychodiagnostic methods. Using the survey data on the scales of extraversion, introversion and neuroticism, one can derive indices of personality temperament according to Pavlov’s classification, which described four classical types: sanguine (according to the main properties of the central nervous system is characterized as strong, balanced, mobile), choleric (strong, unbalanced, mobile), phlegmatic (strong, balanced, inert), melancholic (weak, unbalanced, inert).

The style of behaviour self-regulation (SBSR): The “Style of Behaviour Self-Regulation” (SBSR) was created in 1988 at the Laboratory of Psychology of Self-Regulation of the Psychological Institute of the Russian Academy of Education (its head is V.I. Morosanova) and is intended both for scientific research and for practical diagnosis of various aspects of individual self-regulation.

The purpose of the method is to diagnose the development of individual self-regulation and its individual profile, including indicators of planning, modelling, programming, evaluation of results, as well as indicators of the development of regulatory and personal characteristics, such as flexibility and independence.

Most of the methods listed above are very voluminous and informative and give an idea of the personal qualities of the respondents in many aspects. For our research, in each technique only those aspects were selected that reflect the degree of formation of only the stated personal and professionally important qualities.

3. Results
The first-year students of the medical faculty of Krasnoyarsk state medical university whose average age was 18.5 years took part in the research.

At the first stage of the study, we conducted a survey of 162 students, during which the initial level of self-assessment of the formation of personal abilities and professionally important qualities of the future physician was identified. The initial level of self-esteem was a subjective evaluation on a three-point system, which implied the ability to assess oneself in certain qualities from 1 to 3. Where “1” is an insufficient level of quality manifestation; “2” - sufficient level of quality manifestation; “3” - the optimal level of quality. At the first, critical level - “insufficient”: the student does not cope with the majority of difficult life situations, at the second level - “sufficient” – the student copes with the majority of life situations; at the third level - the student copes with all life situations.

Respondents were asked to assess the formation of their personal, professionally important qualities for the following indicators:

- stress resistance,
- self-control, personal organization,
- social intelligence (ability to understand the behaviour of other people),
- communication skills
- a responsibility,
- the ability to empathize with the sick,
- ability to properly navigate in extreme conditions,
- poise behaviour.

Analysis of the data showed that the majority of respondents rated the formation of their abilities and professionally important qualities of a future doctor such as: self-management, personal organization - 47.5%; social intelligence (the ability to understand the behaviour of other people) - 40%; the ability to empathize with the sick - 37.5%; balance - 37.6%. At the same time such personal qualities as stress tolerance - 30% were evaluated with the lowest score; ability to properly navigate in extreme conditions - 40%.
During the semester during the training activities, the students underwent a self-examination in accordance with the diagnostic program. After completing the program, at the second stage of the study, students were asked to re-evaluate their personal, professionally important qualities, but based on the results of the study of their personal qualities, obtained using the above methods. The results of re-self-assessment allowed students to carry out a correction and compare the primary (subjective) assessment of personal qualities with a secondary (refined, objective) assessment.

4. Conclusions
Analysis of the results of the correction made it possible to draw the following conclusions:
1. At the first stage of the study, the majority of respondents (62.5%), on average, showed an overestimated, inadequate self-assessment of their personal, professionally significant qualities for all selected indicators (figure 1).
2. At the second stage of the research, after the applied methods, there was a significant shift in the inadequate self-assessment of the personal professionally important qualities of the future doctor, namely, the values of such indicators as “self-control, personal organization” decreased from 47.4 to 12.5%; “Social intelligence (the ability to understand the behavior of other people)” from 40% to 25%; “The ability to empathize with the sick” from 37.6 to 10%.
3. As a result of the comparison of subjective and refined, objective assessments, the values of indicators such as “stress tolerance” increased from 30% to 37.5% and the ability to correctly navigate in extreme conditions from 40 to 57.5%.

![Figure 1. The results of the ratio of subjective and refined (objective) self-assessment of the degree of formation of personal, professionally important qualities of a doctor.](image)

Thus, as a result of educational and professional activities with the use of the diagnostic program for first-year students of the medical faculty, there was a tendency to change self-esteem.

To understand the significance of the results of the identified dynamics and its correction by the students, a survey was conducted, the purpose of which was to establish the value attitude of students...
to the results of vocational and educational activities to study personal, professionally important qualities and the correction of self-esteem towards its objectivity.

Based on the results of the survey of students, it can be said that high self-esteem leads to frustration in learning activities, loss of motivation.

People with high self-esteem hypertrophically assess their merits, set higher goals for themselves than those they can actually achieve; they have a high level of aspirations that do not correspond to their real possibilities. Frustration occurs, which is manifested by self-doubt and self-doubt.

The exaggerated data on the self-assessment of the first subjective evaluation at this age can be associated with the manifestation of youthful maximalism, as well as the lack of practical experience. During this period, there are important changes in the development of the personality: the development of self-consciousness, the formation of their own worldview, and subjective view of the world.

Low self-esteem of students provides instability of the individual, which cannot be the impetus for his personal development. Such an attitude towards oneself may eventually lead to permanent internal and/or interpersonal conflict.

Adequate self-esteem supports dignity and gives moral satisfaction. A positive attitude towards oneself leads to harmony of spirit, providing reasonable self-confidence [14].

It is important for accepting oneself at this age so that there is a possibility of comparing and realizing the self-esteem of the formation of personal, professionally important qualities from the point of view of subjectivity and objectivity. That is, direct visibility, which gives the student an awareness and understanding that in the process of studying “I can change this” and “I can influence it”. Thus, an opportunity to motivate educational activity is being formed.

The experiment showed that the creation of conditions conducive to expanding students’ knowledge about themselves forms an adequate self-esteem and warns emotional discomfort on subsequent courses, and what affects the degree of frustration, increases students’ motivation to learn, makes it personally significant.

We believe that at the stage of the development of professional growth it is very important to have objective and relevant information that fully gives an idea of the degree of formation of the personal, professionally important qualities of a doctor, because a person with real data about his personal, professionally important qualities, there is an opportunity adjust, develop and successfully apply.

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