

# Psychological Components of Communicative Competence of Medical and Defectological Students

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## Abstract

**Background:** to find out the specifics of the psychological components of the communicative competence of 80 students-medicalists and 80 students-defectologists of Kazan Federal University (Russia). **Methods:** according to "The Big Five" Five-Factor Personality Questionnaire (McCrae-Costa) - extraversion, attachment, control (self-control), emotionality (emotional stability), playfulness (expressiveness); on emotional intelligence (D.V. Lyusin) - interpersonal understanding, interpersonal management, intrapersonal understanding, intrapersonal management, expression control; on coping strategies in stressful situations (CISS) - cognitive, emotional, behavioral strategies. For statistical processing, Student's T-Test and Pearson's correlation analysis were used. **Results:** the features of the psychological components of the communicative competence of students-medicalists and students-defectologists are revealed, significant differences in the psychological components of the communicative competence of students-medicalists and students-defectologists are proved. In almost all studied parameters, the values of defectology students turned out to be higher than those of students-medicalists. But future medics are more prone to activity, dominance, attracting attention and seeking impressions, they are distinguished by their desire to establish warm, trusting relationships built on cooperation, understanding and respect for other people, they are more prone to anxiety, tension, depressive mood background, increased self-criticism and emotional lability than student-defectologists. Students-medicalists are significantly less able to understand and manage the emotions of other people, in contrast to defectology students. However, future medics are much better able to understand and manage their own emotions than future speech therapists. **Discussion:** The practical significance lies in the opportunity to know the communicative characteristics of young specialists working with children with disabilities in the medical and defectological direction. In perspective, this will help to choose the right competency cards, knowing what characteristics students already have and should have, it is necessary to develop recommendations for teachers who train future medics and defectologists.

**Keywords:** *defectology students, medical students, five-character traits, emotional intelligence, coping strategies, communicative competence, students-defectologist, students-medicalists*

## Background

The content of the standards of higher education in Russia indicates the ability of future specialists to establish effective communication. Graduates are required to be able to establish contacts and maintain relationships. Within the framework of higher education institutions, this aspect is of particular importance, because communicative competence is a predictor of success in many areas of professional activity, especially in the medical and special-defectological areas [1].

Competence is understood by the authors as the presence and level of knowledge, skills and abilities. At the same time, some researchers distinguish between the concepts of "competence" and "competence" [2]. Communicative competence in some works is defined as a person's mastery of communicative qualities [1]. Other researchers consider it as a person's ability to interact with others for the purpose of his successful adaptation and functioning in a particular group, society [3]. Also, various components of competence are distinguished: prerequisites for competence, activities and results of human activity [4].

The process of communication is important for the development of students, their social and psychological adaptation, the success of educational activities [5,6,7,8]. According to researchers, the doctor's

communicative competence is manifested in positive interpersonal contacts, in a high level of empathy, in high self-esteem and self-acceptance, in relation to the patient as the subject of interaction [9].

Foreign psychology has also studied the psychological components of successful communication and focuses on the need for adequate training of students-medicalists in effective ways of communication [10,11].

In consequence, communicative competence is currently considered as the main component in general professional competence. According to the majority of researchers, the presence of a high level of communicative competence makes a person more successful and in demand as a partner of social interaction. And in medicine and defectology it is a criterion of success and professionalism.

## **Background**

To find out the specifics of the psychological components of the communicative competence of 80 students-medicalists and 80 students-defectologists of Kazan Federal University (Russia).

**Research hypothesis:** there are differences in the psychological components of the communicative competence of students-medicalists and students-defectologists.

## **Research objectives**

- To identify the features of the psychological components of the communicative competence of students-medicalists and students-defectologists
- Prove significant differences in the psychological components of the communicative competence of students-medicalists and students-defectologists
- Scientific and experimental research base: 80 medical students and 80 defectology students of Kazan Federal University (Russia), the sample size corresponds to the number of students in academic groups.

## **Methods**

According to “The Big Five” Five-Factor Personality Questionnaire (McCrae-Costa), on emotional intelligence (D.V. Lyusin), on coping strategies in stressful situations (CISS)

## **Results**

**Here are the results of the Five:** Factor Personality Questionnaire "The Big Five" (McCrae-Costa). According to the Five-Factor Personality Questionnaire, all generalized psychological components of communicative competence, by average values, turned out to be lower in students-medicalists than in student-defectologists: extraversion (44.19b. vs. 52.16b.), Attachment (50.91b. vs. 60.63b.), control (self-control) (56.22b. vs. 71.17\*b.), emotionality (emotional stability) (48.73b. vs. 51.34b.), playfulness (expressiveness) (51.15b. vs. 56.54b.).

**According to the scale of extraversion:** Introversion, lower parameters were found in students-medicalist than in students-defectologists: activity - passivity (9.82b. vs. 10.51b.), dominance - submission (9.8b. vs. 10.60b.), sociability - isolation (8.08b. vs. 11.88 \* b.), search for impressions - avoidance (7.85b. vs. 9.12b.), attracting attention - avoidance (8.59b. vs. 10.05b.).

**According to the attachment:** Separation scale, lower parameters were revealed in students-medicalists than in students-defectologists: warmth-indifference (11.10b. vs. 11.33b.), cooperation-rivalry (10.17b. vs. 12.86b.), gullibility - suspicion (8.70b. vs. 11.28\*b.), understanding-misunderstanding (9.84b. vs. 12.95\*b.), respect for others - self-respect (11.21b. vs. 12.21b.).

**According to the scale of control:** Naturalness, lower parameters were revealed in students-medicalists than in students-defectologists: accuracy - inaccuracy (11.40b. vs. 12.51\*b.), Perseverance - weak will (11.05b. vs. 12.21b.), responsibility - irresponsibility (11.89b. vs. 12.86b.), self-control - impulsiveness (10.92b. vs. 11.14b.), prudence - carelessness (10.96b. vs. 11.19b.).

**According to the scale of emotionality:** Restraint, lower parameters were revealed in students-medicalists than in students-defectologists in almost all components: anxiety - carelessness (10.49b. vs. 11.26b.), tension - relaxation (9.42b. vs. 9.38b.), depression - emotional comfort (10.0b. vs. 10.49b.), self-criticism - self-sufficiency (9.0b. vs. 9.40b.), emotional lability - emotional stability (9.28b. vs. 10.81b.).

**According to the playfulness:** Practicality scale, lower parameters were found in students-medicalists than in students-defectologists: curiosity - conservatism (9.12b. vs. 11.0\*b.), dreaminess - realism (10.91b. vs. 12.60b.), artistry - unartistic (11.38b. vs. 12.19b.), sensitivity - insensitivity (10.82b. vs. 11.74b.), plasticity - rigidity (8.92b. vs. 9.01b.). \*Note: significant differences according to Student's t-test at the  $p \leq 0.05$  significance level.

Due to the duality (continuity) of the scales of the methodology, we can say that according to the factor "Extroversion-Introversion" medical students have a higher level of extraversion and its components than medical students. That is, future doctors are more prone to activity, dominance, attracting attention and seeking impressions. According to the "Attachment - Separation" factor, medical students also have a higher level of severity in the "Attachment" pole and all its components. Future doctors are distinguished by their desire to establish warm, trusting relationships built on cooperation, understanding and respect for other people. According to the results of the expression of the factor "Control - Naturalness" and its components, we can state that medical students have accuracy, perseverance, responsibility and high self-control, in contrast to students with defectology. In addition, medical students are characterized by a higher level of expression of the "Emotionality - Restraint" factor. Medical students are more prone to anxiety, tension, depressive mood background, increased self-criticism and emotional lability than students of defectologists. These data are also confirmed by indicators for the "Playfulness - Practicality" factor and its components. Medical students have a greater degree of sensitivity, curiosity, daydreaming, artistry, flexibility than students of defectology education.

Here are the results of the questionnaire "Emotional Intelligence" (D.V. Lyusin). In terms of emotional intelligence, almost all psychological components of communicative competence turned out to be lower in average values for medical students than for defectology students:

- Interpersonal understanding, understanding of other people's emotions (21.72b. vs. 26.14\*b.),
- Interpersonal management, management of other people's emotions (16.9b. vs. 19.42 \* b.),
- Intrapersonal understanding, understanding of one's emotions (15.88b. vs. 17.49b.),
- Intrapersonal management, management of one's emotions (11, 8b vs. 13.42b),
- Internal expression, expression control (11.36b vs. 10.21b).

\*Note: significant differences according to Student's t-test at the  $p \leq 0.05$  significance level.

The total scales according to this method confirm the trend of higher results of students-defectologists. Medical students are significantly less able to understand and manage the emotions of other people, in contrast to defectology students. However, future doctors are much better able to understand and manage their own emotions than future speech therapists. This explains the higher intrapersonal emotional intelligence and, in general, the overall level of emotional intelligence among medical students. Let us present the results of the questionnaire "Coping behavior in stressful situations (CISS)". According to the comparative analysis of coping strategies in the studied groups using the Student's t-test method, we can state the presence of significant differences in the severity of some indicators.

Medical students significantly more often in difficult life situations resort to the use of cognitive coping strategies aimed at analyzing the difficulties that have arisen and possible ways out of them, at increasing self-esteem and self-control, at a deeper awareness of their own value as a person, at having faith in their own resources in overcoming difficult situations.

In contrast to them, defectology students, when problems arise, more often use emotional coping strategies of behavior, accompanied by a change in emotional state with active indignation and protest against difficulties and confidence in the existence of a way out in any, even the most difficult situation. This was also manifested in the percentage of the choice of coping strategies.

To determine the statistical significance of the r-Pearson correlation, a table of critical Pearson correlation values is used: in our case,  $r = 0.33$  for  $p = 0.05$  and  $r = 0.42$  for  $p = 0.01$ .

**Direct correlations between the following indicators have been found**

Control (method "The Big Five"), control of expression (method "Emotional Intelligence") and cognitive coping strategies (method of coping strategies) ( $r = 0.40$ ;  $r = 0.45$ ;  $r$ , respectively). That is, the higher the level of accuracy, perseverance, responsibility and self-control of medical students, the more they are able to control the manifestation of their emotional state and use cognitive coping strategies of behavior in difficult situations.

Emotional lability (method "The Big Five"), intrapersonal emotional intelligence (method "Emotional Intelligence") and emotional coping strategies (method of coping strategies) ( $r = 0.44$ ;  $r = -0.41$ ; respectively). The high emotional lability of future doctors is associated with their ability to understand and control their own emotions and, to a lesser extent, emotionally negatively react when resolving problems that arise.

Extraversion (method "The Big Five"), general level of emotional intelligence (Emotional Intelligence method), and cognitive coping strategies (coping strategy method) ( $r = 0.42$ ;  $r = 0.39$ ; respectively). High extroversion of medical students is directly related to their high level of emotional intelligence and the ability to analyze the difficulties encountered and possible ways out of them.

Let us present the results of the correlation analysis in the group of students-defectologists. The conducted correlation analysis revealed the presence in the group of students-defectologists of significant relationships between the following indicators:

**Introversion (the "The Big Five" method)**, understanding one's emotions (the "Emotional Intelligence" method) and emotional coping strategies (the method of coping strategies) ( $r = 0.43$ ;  $r = 0.38$ ;  $r$ , respectively). The more introverted speech pathology students are, the more they are able to understand their own emotions and the more often they use emotional coping strategies of behavior in difficult life situations. The more introverted speech pathology students are, the more they are able to understand their own emotions and the more often they use emotional coping strategies of behavior in difficult life situations.

**Detachment (method "The Big Five")**, interpersonal emotional intelligence (method "Emotional Intelligence") and behavioral coping strategies (method of coping strategies) ( $r = 0.46$ ;  $r = 0.37$ ; respectively). The decrease in the ability to establish trusting, understanding relationships with others in future defectologists is associated with a reduced level of their interpersonal intelligence and the desire to resolve the difficulties that have arisen, resorting to support in the immediate social environment.

**Practicality (method "The Big Five")**, understanding of other people's emotions and cognitive coping strategies (method of coping strategies) ( $r = 0.36$ ;  $r = -0.41$ ; respectively). The more qualities such as conservatism, rigidity, insensitivity are expressed in future defectologists, the worse they are able to understand the emotions of the people around them and to a lesser extent they use a rational analysis of the difficulties that arise and the search for their solution.

**Conclusion**

Due to the fact that students of speech pathologists are more likely to encounter difficult situations of their future clients, they are more responsible in their work, which is reflected in the indicators of the psychological components of the communicative competence of medical students and students of speech pathologists, which are higher among students of pathology.

**Discussion**

The practical significance lies in the opportunity to know the communicative characteristics of young professionals working with children with disabilities. In the future, this will help to choose the right competency cards, knowing what characteristics students already have and should have, it is necessary to develop recommendations for teachers who train future doctors and defectologists. The results obtained can be used to study the psychological components of the communicative competence of the individual by teachers and psychologists of general educational institutions, as well as in the preparation of methodological materials

for working with students, when reading the relevant courses at the university and at the departments of advanced training of educators.

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