



# **DIGITAL TRANSFORMATION OF SOCIETY: THEORETICAL AND APPLIED APPROACHES**

**Katowice, 2021**



# **DIGITAL TRANSFORMATION OF SOCIETY: THEORETICAL AND APPLIED APPROACHES**

Edited by Magdalena Wierzbik-Strońska  
and Oleksandr Nestorenko

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### **Editorial compilation**

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## 1.5. MENTAL HEALTH AND SOCIAL INTELLIGENCE OF STUDENTS WITH SPECIAL EDUCATIONAL NEEDS OF UKRAINIAN HIGHER EDUCATION INSTITUTIONS

The actual task of every country in modern integration process into the global and European socio-cultural space is to maintain stability of the mental health of all citizens. After all, mental health is an important indicator of the psychological and social well-being of citizens, which confirms their successful adaptation in society and social sphere effectiveness of the country. The main factor of successful socialization is the level of social intelligence of a personality. The laws of Ukraine “On Education” and “On Higher Education” declare the importance of creating the necessary conditions for the successful socialization of students with special educational needs, taking into account their individual abilities and capabilities, which ensure the stability of mental health maintaining, social and psychological well-being of these students. The importance of solving actual government problems increases the importance of researches on the mental health and social intelligence of students with special educational needs of Ukrainian higher education institutions.

In view of the outlined, the purpose of the study is an empirical study of mental health and social intelligence of Ukrainian students with special educational needs who study in domestic higher education institutions.

The solution of the following tasks is contributed to the achievement of this purpose: 1) to determine the psychological essence of the phenomena of “mental health” and “social intelligence” of a personality; 2) empirically study the mental health of students with special educational needs of Ukrainian higher education institutions; 3) empirically investigate the social intelligence of students with special educational needs of Ukrainian higher education institutions; 4) to establish a mental health relationship with the social intelligence of the subjects under study.

The scientific statements on the psychological essence phenomenon of “Mental Health” by C. L. M. Keyes and the phenomenon of “Social Intelligence” by Dzh. Huilford became fundamental in the study. According to C. L. M. Keyes, a person’s mental health without psychopathological characteristics is their psychological, social and subjective well-being, which is confirmed by the frequency of experiencing the relevant characteristics of positive functioning during the recent and short period (month, two weeks). The psychological well-being of a person is shown in a clear awareness and consistent realization of own life goals. Social well-being of a person is related to their readiness and need for socialization and openness to new social experiences. According to Dzh. Huilford, social intelligence is a complex integrated set of people’s abilities to learn and solve problems that determine the success of their interactions with others in society<sup>39</sup>. Social intelligence integrates such abilities of a person shown in their ability to understand different life situations, nonverbal and verbal behavioral expressions and the ability to anticipate the behavior of others<sup>40</sup>.

The questionnaire “The Mental Health Continuum – Short Form” by C. L. M. Keyes adapted by E. L. Nosenko and A. H. Chetveryk-Burchak was used to study the mental health of students with special educational needs without psychopathological characteristics<sup>41</sup>. This questionnaire was used to determine the high, average and low levels of students’ mental health (ranging from 0 to 70 points). As well as high, average and low levels of their psychological (ranging from 0 to 30 points) and social (ranging from 0 to 25 points) well-being.

The study of social intelligence of students with special educational needs was facilitated by the social intelligence test of Dzh. Huilford and M. Sullivan in the adaptation of E. S. Mikhailova (Aleshina)<sup>42</sup>. With the help of this test, the levels (low, below average, average, above average, high) of the four constructs and the general indicator of students’ social intelligence were found.

<sup>39</sup> Keyes, C. L. M. (2002). The Mental Health Continuum: From Languishing to Flourishing in Life. *Journal of Health and Social Behavior*, p. 207-222

<sup>40</sup> Huilford, Dzh. (1965). Three sides of intelligence. *The psychology of thinking*.

<sup>41</sup> Nosenko, E. L. & Chetveryk-Burchak, A. H. (2014). The Mental Health Continuum – Short Form: description, adaptation, application. *Bulletin of Dnipropetrovsk University*. p. 89-97.

<sup>42</sup> Mikhailova (Aleshina), E. S. (2001). Test of Dzh. Huilford and M. Sullivan: diagnostics of social intelligence: methodological guidance.



Such constructs define: 1) the ability of students to understand different life situations; 2) the ability of students to understand nonverbal behavioral expression; 3) the ability of students to understand verbal behavioral expression; 4) the ability of students to anticipate the behavior of others.

To determine the relationship of mental health, social and psychological well-being with constructs and indicators of social intelligence of students with special educational needs, the Pearson correlation coefficient was used.

The empirical study was conducted in a non-remote format in the spring of 2021. The study involved 90 Ukrainian students with special educational needs who study in higher education institutions in Kyiv, Berdyansk and Kamyanyets-Podilsky. The average age of the subjects was 18.7.

The results of research on the empirical study of the mental health of students with special educational needs of Ukrainian higher education institutions are presented in Figure 1.

As shown in Figure 1, the largest number of students with special educational needs is distinguished by the average level of mental health. Students with this level approximately 1 or 2-3 times a week have experienced either happiness or pleasure or interest in life for the past two weeks. The lowest number of students had a high level of mental health. Students with this level have experienced either happiness or pleasure or interest in life for the past two weeks almost daily. Compared to high, low level of mental health is found in twice more students. Students with this level have never experienced happiness, pleasure, or interest in life, or 1-2 times for the last two weeks.

In addition, students' experiences concerned other indicators by which the levels of their social and psychological well-being were determined.

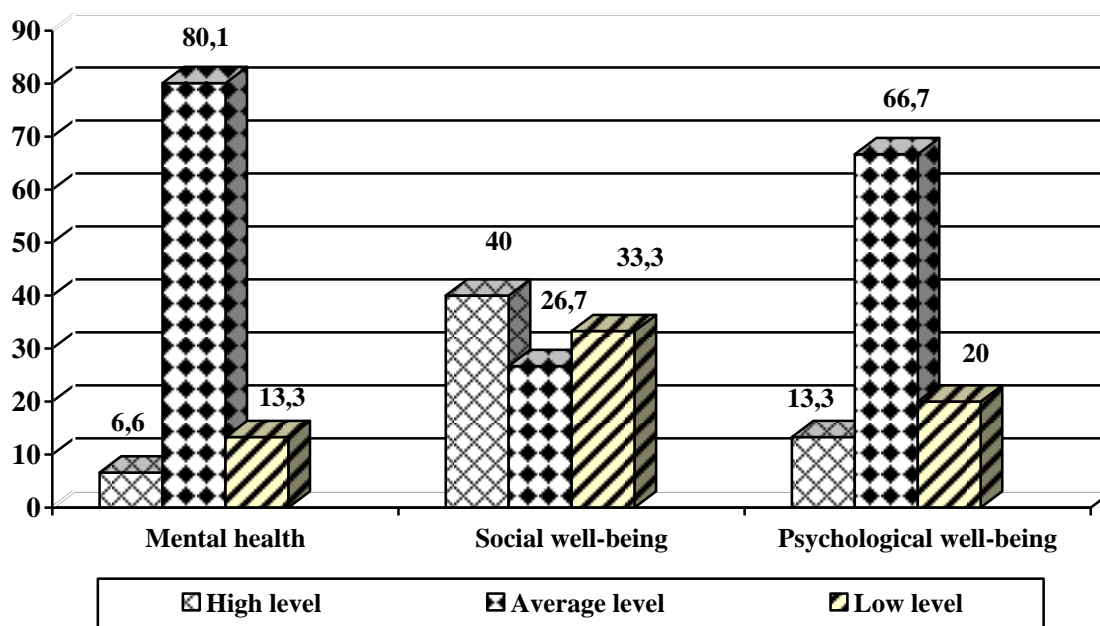


Fig. 1. Levels of mental health, psychological and social well-being of students with special educational needs (data in %)

The experience of social well-being concerned the student's ability to make an important contribution to society, belonging to a certain social group (at the place of study, residence, etc.), better attitude of society and people with similar views, personal significance of social events and perception of others as mostly good. Most students have a high level of social well-being, which is evidenced by the corresponding frequency of experiencing the above conditions (approximately 2-3 times a week, almost daily or every day for the last two weeks). Compared to them, almost a third fewer students have a low level of social well-being, which is confirmed by the corresponding frequency of their experience in the above states (either never, or 1-2 times for the last two weeks, or about 1 or 2-3 times a week in relation to certain of these states during the last two weeks). The lowest number of students showed an average level of social well-being, which was evidenced by

the corresponding frequency of experiencing the above states (approximately 1 or 2-3 times a week, or almost daily for the past two weeks).

The student's experience of psychological well-being was associated with self-satisfaction as a person, successful fulfillment of daily duties, warm and trusting relationships with other significant people, the availability of their own experience as an indentation to self-improvement, confidence in expressing their thoughts and beliefs, the presence of the goal and meaning of life. The largest number of students showed an average level of psychological well-being, which was confirmed by the corresponding frequency of experiencing the above states (approximately 1 or 2-3 times a week, or almost daily for the last two weeks). Compared to them, almost three times fewer students have a low level of psychological well-being, which is evidenced by the corresponding frequency of their experience of the above states (either never, or 1-2 times for the last two weeks, or about 1 or 2-3 times a week some of these states during the last two weeks). The lowest number of students showed a high level of psychological well-being, which is evidenced by the corresponding frequency of experiencing the above states (about 2-3 times a week, almost daily or every day for the last two weeks).

Thus, in general, the largest quantitative data on the mental health, psychological and social well-being of students with special educational needs have been empirically established. The highest numbers of students (four-fifths) have an average level of mental health. A slightly smaller but significant number of students (almost three-fifths) have an average level of psychological well-being. A small but rather large number of students (two-fifths) have a high level of social well-being. The lowest quantitative data relate to the high level of mental health (almost thirteenth part), the average level of social well-being (almost a quarter) and the high level of psychological well-being (almost seventh part). Special attention should be paid to rather large quantitative data on the low level of social (one third) and psychological (one-fifth) well-being of students.

The results of the research problem on empirical study of the constructs of social intelligence of students with special educational needs of Ukrainian higher education institutions are presented in Figure 2.

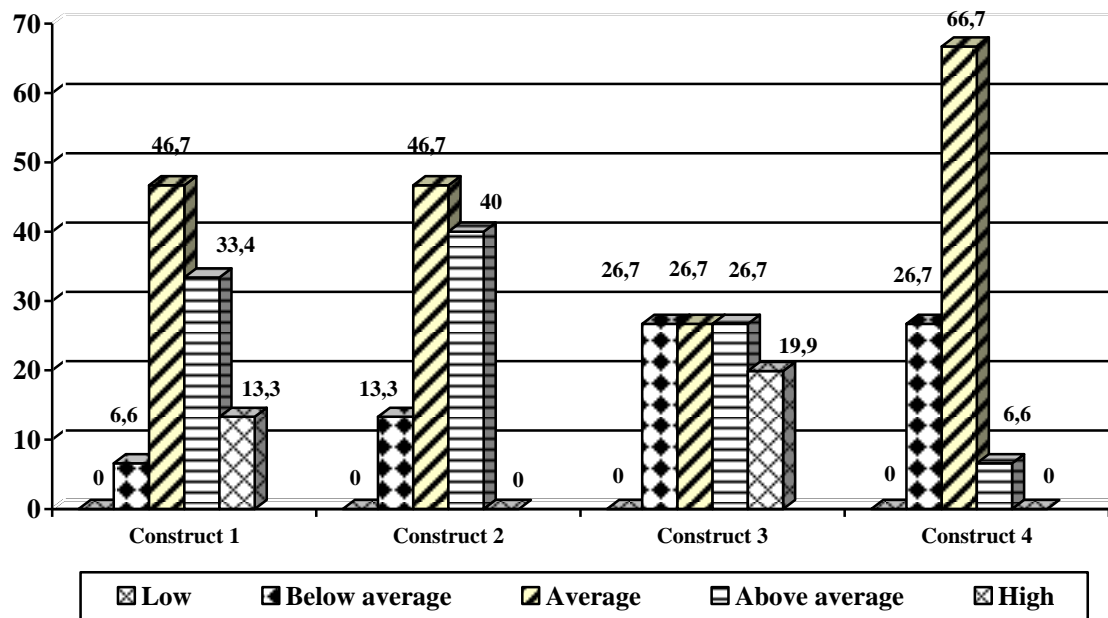


Fig. 2. Levels of constructs of social intelligence of students with special educational needs (data in %)

Note: students' social intelligence constructs are marked as follows:

Construct 1 – the ability of students to understand different life situations;

Construct 2 – the ability of students to understand nonverbal behavioral expression;

Construct 3 – the ability of students to understand verbal behavioral expression;

Construct 4 – the ability of students to anticipate the behavior of other people.

As can be seen from Figure 2, the constructs of social intelligence of students with special educational needs are developed to a different extent. It should be noted that the low level corresponds to the standard score of 1, below average – 2, average – 3, above average – 4, high – 5. Below, the levels of each construct are characterized in more detail.

Construct 1, regarding the ability to understand different life situations, revealed the largest number of students with an average level (standard score 3). Students with this level are able to anticipate the results and consequences of other people's behavior in almost half of communicative interactions. They have the ability to anticipate about half of the further actions and deeds of other people based on the analysis of real situations of communication of these people in different spheres of life – friendly, family, business. Students with this level, who have an average understanding of the feelings, thoughts and intentions of other participants in communicative interactions, have the ability to anticipate almost half of future events. After all, they still need to increase their own knowledge of the role models norms and rules, which regulate the behavior of people. They may make mistakes in anticipating other people's subsequent behavior, which is not typical. These students, for the most part, are distinguished by the ability to clearly define their life strategy, which contributes to the achievement of their goal.

Compared to the subjects with an average level, a significantly smaller number of students have a level of social intelligence that is higher than average (standard score 4); almost three times lower – high (standard score 5) and almost less in seven times – lower than average (standard score 2). The ability of these students to anticipate the results and consequences of other people's behavior relates to the appropriate number of communicative interactions – three-fourths, half or one-fourth. It should be noted that among students with special educational needs, there were no indicators of low (standard score 1) level of construct 1 of social intelligence.

Construct 2, which refers to a person's ability to understand other people's nonverbal behavioral expression, the largest number of students with an average level (standard score 3) was found. Students with this level in only half of life situations are able to correctly assess the feelings, states and intentions of other people, taking into account the manifestations of their nonverbal behavioral expression – facial expressions, postures, and gestures. They do not take into serious attention to such manifestations and do not compare them with the manifestations of verbal behavioral expression, which contributes to the understanding of other people only in about half of the communicative interactions.

Compared to them, slightly fewer students differ above the average level (standard score 4) and almost three times less – lower than the average level (standard score 2). The ability of these students to understand the nonverbal behavioral expression of other people relates to the appropriate number of communicative interactions. Among students with special educational needs, indicators of low (standard score 1) and high (standard score 5) levels of construct 2 of social intelligence are not identified.

Construct 3, which refers to the ability to understand other people's verbal behavioral expression, the largest and equal number of students with below-average, average, and above-average levels (standard scores of 2, 3, and 4, respectively) was found. Students with these levels show sufficient sensitivity to the nature and nuances of human relationships, which allows them to quickly and correctly understand the speech behavioral expression of other people in about a quarter, half and three quarters of communicative interaction situations, respectively. They are also characterized by role plasticity and the ability to choose the appropriate tone of communication with other people in the appropriate number of life situations.

Compared to them, a slightly smaller number of students is distinguished by a high level (standard score 5). The ability of these students to understand other people's verbal behavioral expression applies to almost all situations of communicative interactions. Among students with special educational needs, indicators of low (standard score 1) level of construct 3 of social intelligence were not detected.

Construct 4, which refers to the ability to anticipate other people's behavior, the largest number of students with an average level (standard score 3) was found. Students with this level are



able to understand the dynamics and logic of development of about half of the communicative interactions of other people. They are also able to correctly analyze about half of the communicative interactions, despite their complexity. In addition, they are able to trace the change in meaning of about half of the communicative interactions, if other people are included in such interactions. These students are able to anticipate not only the further behavior of other people, but also their factors and consequences in about half of life situations.

Compared to them, almost twice less number of students differ below the average level (standard score 2) and almost ten times less – above the average level (standard score 4). The ability of these students to understand other people’s nonverbal behavioral expression refers to the appropriate number of communicative interactions – one-fourth or three-fourths. Among students with special educational needs, indicators of low (standard score 1) and high (standard score 5) levels of construct 4 of social intelligence are not detected.

Thus, the level of construct 1 of social intelligence, which shows the ability to understand different life situations, in almost half of students with special educational needs of higher education is average, almost a third – above average, almost a seventh – high and almost a fifteenth – below the average. The level of construct 2 of social intelligence, which reveals the ability to understand nonverbal behavioral expression, in almost half of students with special educational needs is average, two-fifths – above average, almost one-seventh – below average. A high level of construct 2 in students is not identified. The level of construct 3 of social intelligence, which shows the ability to understand verbal behavioral expression, is below average, average and above average for almost a third of students with special educational needs. A high level of this construct is found in one-fifth of students. The level of construct 4 of social intelligence, which shows the ability to anticipate the behavior of other people, in more than half of students with special educational needs is average, almost a fifth – below average and almost fifteenth – above average. A high level of construct 4 in students is not detected. Such students do not differ in the low level of constructs 1-4 of social intelligence.

The results of the empirical study of social intelligence general indicator of students with special educational needs of higher education institutions are presented in Figure 3.

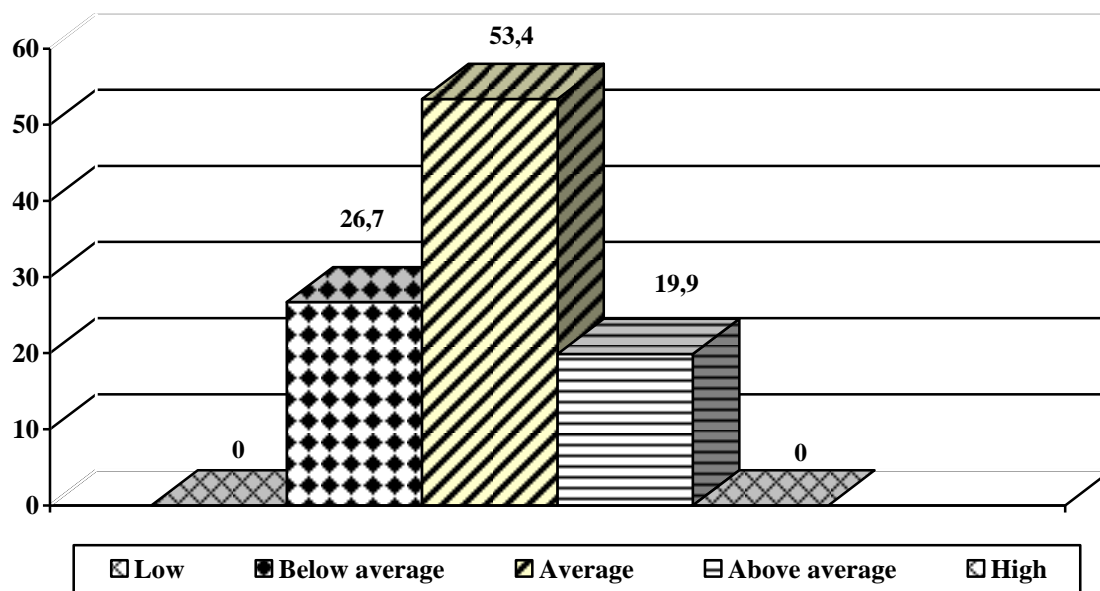


Fig. 3. Levels of social intelligence of students with special educational needs (data in %)

As can be seen from Figure 3, the largest number of students with special educational needs have an average level of social intelligence (standard score 3), which is shown in their respective abilities to learn behavior and solve problems that determine the success of interactions with other people in society. Students with average level are able to anticipate the consequences of other people’s behavior in almost half of life situations. They are also able to anticipate almost half of the

further actions of other people, based on the analysis of real situations of their communication in various areas – friendly, family, business. In addition, students with this level of social intelligence are able to anticipate almost half of the further events, because they have an average understanding of the feelings, thoughts and intentions of other participants in communicative interactions. They may be wrong if the behavior of other participants in communicative interactions is not typical. These students are able to clearly construct a strategy for their behavior to achieve the goal in almost half of life situations. They are able to properly orient themselves in relation to almost half of the verbal and nonverbal reactions of other participants in communicative interactions. After all, their knowledge of role models norms and rules that regulate people's behavior is still incomplete.

Students with an average level of social intelligence in half of life situations are also able to give a correct assessment of the states, feelings and intentions of others, taking into account their nonverbal manifestations, postures, gestures, facial expressions. They do not pay enough attention to the manifestations of nonverbal behavioral expression and compare them with the manifestations of verbal behavioral expression of other people, which allows them to understand these people only in half of the communicative interactions. In addition, students with average level are quite sensitive to the nature and nuances of human relationships, which allows them to quickly and correctly understand the speech behavioral expression of other people in about half of life situations. These students are able to show role plasticity and choose the appropriate tone of communication with other people in about half of the communicative interactions.

Students with an average level of social intelligence are also able to understand the dynamics and logic of development of about half of other people's communicative interactions. They are able to correctly analyze about half of the complex communicative interactions. Moreover, to trace change of the content of approximately half of life situations if other people are involved too. These students are able to anticipate the further behavior of other people, their goals, motives and consequences in about half of communicative interactions.

Compared to subjects with an average level, almost twice less number of students have a level of social intelligence that is below average (standard score 2). The ability of these students to learn behavior and solve problems that determine the success of about a quarter of their interactions with other people in society, are below average. The lowest number of students has a level of social intelligence that is above average (standard score 4). The ability of these students to learn behavior and solve problems that determine the success of about three-quarters of their interactions with other people in society, correspond to above average level. Among students with special educational needs, indicators of low (standard score 1) and high (standard score 5) levels of social intelligence are not identified.

Thus, the level of general social intelligence of almost half of students with special educational needs of higher education institutions is average, a fourth – below average and a fifth – above average. Such students do not differ in low and high level of social intelligence.

The results of the research problem on the study of mental health, social and psychological well-being relationship with the constructs and general indicators of social intelligence of students with special educational needs of Ukrainian higher education institutions are presented in Table 1.

As can be seen from Table 1, a statistically significant direct and strong relationship is found between the mental health of students with special educational needs and construct 3 (ability to understand verbal behavioral expression) ( $r = 0.21$ ;  $p \leq 0.05$ ) and construct 4 (ability to anticipate the behavior of other people) ( $r = 0.23$ ;  $p \leq 0.05$ ) of their social intelligence. A statistically significant direct and strong relationship is defined between students' social well-being and construct 3 (ability of students to understand verbal behavioral expression) ( $r = 0.47$ ;  $p \leq 0.01$ ) and the general indicator ( $r = 0.34$ ;  $p \leq 0.01$ ) of their social intelligence. Statistically significant feedback and a strong relationship is found between students' psychological well-being and construct 2 (ability to understand nonverbal behavioral expression) ( $r = -0.337$ ;  $p \leq 0.01$ ) of their social intelligence. The relationships between mental health, social and psychological well-being relationships and other constructs and general indicator of social intelligence of students with special educational needs are statistically insignificant.

*Table 1. Correlation between mental health and social intelligence of students with special educational needs*

	Social intelligence				
	Construct 1	Construct 2	Construct 3	Construct 4	General indicator
Mental health	0.02	-0.31	0.21**	0.23**	0.12
Social well-being	-0,06	0,03	0,47*	0,3	0,34*
Psychological well-being	-0.01	-0.33*	0.04	-0.16	-0.07

*Note. The value of the correlation coefficient  $r$  at  $p \leq 0.01$  is indicated by \*, at  $p \leq 0.05$  – \*\*.*

Thus, based on the results of an empirical study of the mental health and social intelligence of students with special educational needs of Ukrainian higher education institutions, the following conclusions are made.

Mental health of people without signs of psychopathology is their psychological (clear awareness and consistent realization of life goals) and social (readiness and need for socialization and openness to new social experiences) well-being. Social intelligence is a complex integrated set of people's skills to learn and solve problems, which are shown in their ability to properly understand different life situations, nonverbal and verbal behavioral expression and anticipate other people's behavior and determine the success of their interactions with others in society.

It is empirically proven that the level of mental health of almost four-fifths of students with special educational needs is average, almost one-seventh – low and almost one-thirteenth – high. The psychological well-being level of almost three-fifths of students is average, one-fifth is low, and almost one-seventh is high. The social well-being level of two-fifths of students is high, more than a third – low and less than a third – average.

Among the students with special educational needs of higher education institutions, the general indicator of social intelligence is empirically found in almost half of the students – the average level, the fourth part – below average and the fifth – above average. Low and high levels in students are not identified. In particular, the level of ability to understand different life situations in almost half of the students is average, almost a third – above average, almost one-seventh – high and almost one-fifteenth – below average. The level of ability to understand nonverbal behavioral expression in almost half of the students is average, two-fifths – above average, almost one-seventh – below average. The level of ability to understand verbal behavioral expression is below average, average and above average for almost a third of students, high – in the one-fifth. The level of ability to anticipate the behavior of other people in more than half of students is average, almost one-fifth – below average and almost one-fifteenth – above average.

Students with special educational needs have a statistically significant direct and strong relationship between mental health and the ability to understand verbal behavioral expression and the ability to anticipate other people's behavior. There is a statistically significant direct and strong relationship between students' social well-being and their ability to understand verbal behavioral expression and general indicator of social intelligence. Statistically significant feedback and a strong relationship between students' psychological well-being and their ability to understand nonverbal behavioral expression is found.

The prospects for further research are seen in the empirical study of psychological factors of mental health and social intelligence of students with special educational needs of domestic and foreign higher education institutions.

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