



Research Article

UDK 159.9

<https://doi.org/10.21702/rpj.2024.1.8>

Psychological Barriers to Inclusive Interaction as a Risk Factor for the Safety of the Educational Environment for Students

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Annotation

Introduction. The risks of an inclusive educational environment are associated with the emergence of psychological barriers to the interaction of its subjects. In this study, we provided the results of cluster analysis characterizing the psychological barriers to interaction between students and teachers. **Methods.** The total number of subjects is 192 people (128 children aged 8–10 years (primary school students - both with disabilities and limited health, and ordinary children from educational organizations in Stavropol); 64 teachers of educational organizations (schools)). As the main method we used J. Kelly's method of repertory lattices. Factor, cluster and correlation analysis were used to process the obtained data. **Results.** As a result of the study, the presence and essence of psychological barriers to interaction in dyads of subjects of the inclusive educational process were revealed: teachers-children, children-children. The qualitative characteristics of psychological barriers in these dyads are shown in the context of the types of barriers we have identified: communicative, activity and personal. In the teacher-children dyad, all types of barriers were identified, the sources of which are the teachers themselves. In the child-child dyad, communication and activity barriers predominate. The degree of severity of psychological barriers to interaction among teachers is concentrated in the range from excessive to average, and in the sample of children from above average to low. **Discussion.** The results obtained were considered as risk factors for the safety of the educational environment. For subjects of the inclusive educational process, the presence

of psychological barriers leads to risks that hinder the success of educational outcomes and social integration.

Keywords

security risk factors, inclusive educational process, subjects of the inclusive educational process, psychological barriers to interaction

For citation

Kolokolnikova M. V., Borozinec N. M., Kryzhevskaya N. N., Zhikrevetskaya J. V. (2024). Psychological barriers to inclusive interaction as a risk factor for the safety of the educational process for students. *Russian psychological journal*, 21(1), 151–167. <https://doi.org/10.21702/rpj.2024.1.8>

Introduction

Psychological safety of the educational environment is one of the most important conditions for ensuring a high-quality educational process and the harmonious formation of students' personality (Andreeva, 2008).

Ensuring psychological safety during the interaction of subjects of the educational process makes it possible to reduce the number of stressful situations in teaching practice (Schouwenburg, 2004). Topical issues include modeling and designing a safe inclusive educational environment in which the individual is in demand and functions freely, and its subjects feel protected and have their basic needs (Baeva, 2017).

Scientific analysis of risks as a subject of psychological and pedagogical research identifies certain types of risks that exist in social reality, including in the educational environment, and tools for managing them from the point of view of prevention and overcoming (Koroleva, 2016).

The educational environment in modern educational organizations is inclusive. Inclusion is the process of including students with special educational needs in the general educational process (Egorova, 2022). The category of students with special educational needs includes: gifted children, migrant children, children with disabilities and disabilities (Laktionova, 2019). It is students with disabilities and disabilities who are more often objects of risk in the educational environment due to the fact that previously they studied only in special (correctional) educational organizations (Vincent-Lancrin, Urgel, Jacotin & Kar, 2019). The stereotype of the benefits of differentiated learning continues to exist among normative people (Kunitsyna, 2001).

Risks to the safety of the educational environment arise in the process of interaction between subjects of the educational process (Baeva & Tarasov, 2017). Inclusive interaction

in the context of our study is situationally determined personal contact between teachers and students with disabilities (Fishman, Dede & Means, 2017). Properly organized inclusive interaction in the educational process contributes to the development of non-linear thinking, creative problem-solving skills, and awareness of the resource aspects of personality by both categories of participants (Slusareva, 2019).

However, practice shows that inclusive interaction is a source of psychological barriers that have a negative impact on its quality characteristics (MacLellan, 2005; Kerr, 2015). Psychological barriers are a significant factor in violating the safety of an inclusive educational environment, primarily for students (Pisarev & Pisareva, 2009). As examples, we can identify the negative professional attitudes of teachers who do not want to teach children with disabilities and disabilities in the general class, explaining this by the negative impact on the quality of the educational process for normative students and the formation of negative stereotypes regarding students with disabilities and disabilities in the children's environment under the influence of attitudes of adults (Belinskaya 2003; Matuyshkin, 2009).

We have identified three groups of psychological barriers to interaction, which are typical in the interaction of subjects of the inclusive educational process.

Communication barriers are problems in the exchange of information between subjects of the educational process. Teachers experience difficulties in taking into account the peculiarities of students' perception of educational information (visually, auditorily, practically), children find it difficult to understand each other, show impatience and irritation in the communication process (Kondrashova, Mayorova & Kolesova, 2022).

Activity barriers characterize difficulties associated with pedagogical and collaborative activities. (Hansen, Cottle, Negrine & Newbold, 2005). Difficulties are associated with the level and nature of teachers' possession of inclusive competence, i.e. the ability to take into account the special educational needs of students when preparing and transmitting the subject content of the educational process, and in a children's environment - a willingness to cooperate and accept human diversity (Kochneva, 2018)

Personal barriers are complexes of values and attitudes that are negatively oriented towards interaction partners. They are manifestations of social stereotypes regarding disability (Noss & Kovaleva, 2019)

Thus, psychological barriers to inclusive interaction are specific psychological states of subjects of the educational process in relation to students with disabilities and disabilities, which impede the implementation of quality education and joint activities, the personal and social development of students and contribute to the emotional burnout of teachers (Filak & Sheldon, 2013) which, in turn, violates the safety of the educational process. **The purpose of the study** is to identify the essence of psychological barriers to interaction between teachers and students in the inclusive educational process by analyzing the personal constructs that determine their occurrence.

Methods

Sample

The following groups of subjects from educational organizations in Stavropol took part in the study (total number – 192 people):

- students of inclusive classes of primary school age (8–10 years old) with normotypical development in the amount of 112 people and with motor impairments and hearing impairments in the amount of 16 people;
- teachers of general education organizations in the amount of 64 people.

Research methods

We used J. Kelly's repertory grid technique. The technique allows you to update stable ideas, expectations and strategies of people's behavior in relation to certain objects, objects and phenomena of the surrounding world, which can be expressed in acceptance and constructive interaction or, conversely, non-acceptance (rejection) and destructive interaction (Taratuhina & Ionceva, 1997).

In our study, the repertory grid method was used to obtain information about the personal constructs of teachers and children in relation to the inclusive educational process for students with disabilities and disabilities functioning in various roles. Objects (roles) were developed in advance and assigned to respondents, and personal constructs were evoked using the triad method (Schoenenberg, Raake & Koepe, 2014). Next, respondents were asked to rank the degree of expression of certain constructs on a scale from 1 to 7, where 7 is the most pronounced emergent (construct-similar) pole, and 1 is the most pronounced opposite pole. For children, the digital scale has been replaced by a color scale (Minor & Tierney, 2005).

To examine a sample of children, we selected the following role repertoire: "I am a student", "my friend", "a blind person", "a deaf person", "a person who cannot walk", "a good student", "a bad student", "my mother", "mother of a disabled child". To survey a sample of teachers, the following role repertoire was selected: "I am a teacher", "child (student) is disabled", "good student", "bad student", "disabled", "successful (known) disabled", "authoritative person (teacher, colleague)", "non-authoritative person (teacher, colleague)", "teacher who works with children with disabilities", "my supervisor (director, methodologist, head teacher)", "parent of a disabled child" (Jaasma & Koper, 1999).

Based on the role list, each respondent filled out a repertoire test form using the following algorithm: comparing three people from their own environment, identifying two people who are more similar to each other based on some characteristic that distinguishes them from a third person. Next, the construct developed in this way is entered into the answer form, after which an assessment occurs by assigning it to one of the poles of the construct. As a result, a matrix is formed, which is subject to

further processing. We used hierarchical cluster analysis as the main method of scientific search. To construct tree diagrams (dendrograms), we used the methods of single linkage (the "nearest neighbors" method) and complete linkage (the "distant neighbors" method), because clustered objects (variables) are not homogeneous in their indicators. Statistical calculations were carried out using computer processing of the results using the STARTSOFT STATISTICA 6.1 program.

Results

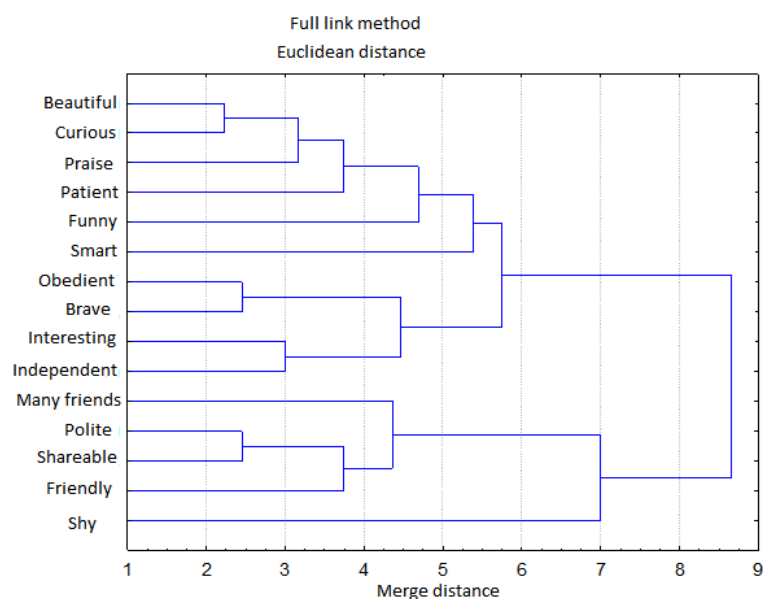
When processing the results of the sample of children, 15 personal constructs were used.

Hierarchical cluster analysis of children's personal constructs

The results of the cluster analysis of children's personal constructs are presented in the form of a dendrogram in the figure 1.

Figure 1

Dendrogram of children's personal constructs (15 variables)



According to the results of hierarchical cluster analysis, exactly three clusters were identified, characterizing the personal, communicative and activity spheres. This suggests that children's personal constructs are simple, less differentiated, and therefore more amenable to change, which in turn confirms the process of formation of individual self-awareness.

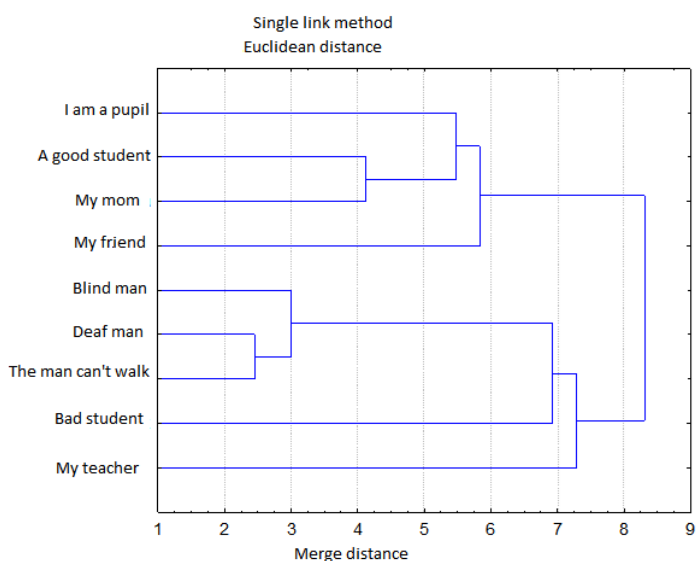
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The first cluster combined constructs characterizing personality traits. This cluster includes the construct "beautiful – scary (unpleasant)", relating to appearance. In the sample of children, an external feature that was important to them was identified. So, the key here has become the construct of "adults praise – scold" the child, as well as such constructs as "inquisitive – indifferent", "patient – touchy", "cheerful – sad", "smart (a good student) – stupid (failing student)." Consequently, the system of evaluating others in children of primary school age is formed by adults (teachers, parents). It should be noted that the role of the teacher is higher, because Grades at this age are based on success in educational activities. The second cluster includes characteristics of activity: "obedient – spoiled (harmful)", "brave – cowardly", "interesting – boring", "independent – dependent".

The third cluster includes characteristics of the communicative sphere and communication: "many friends – no friends", "polite – rude (impudent)", "sharing – greedy", "friendly – intrusive", "shy – arrogant". We also subjected the objects of children's personal constructs to cluster analysis. The results are presented as a dendrogram in Figure 2.

Figure 2

Dendrogram of role repertoires (objects) of children (9 observations)



This analysis identified 2 clusters and 2 monoclusters.

The first cluster combined the roles: "I am a student", "a good student", "my mother", "my friend". We can say that the child evaluates himself unambiguously positively in close connection with significant subjects who also have subjective positive evaluations. The second cluster concentrated the roles of people with disabilities: "blind person", "deaf person", "person who cannot walk". This suggests that children slightly differentiate the characteristics of people with disabilities and disabilities, because, perhaps, they have

little experience interacting with them. The important thing is that these roles are neutral. We can say that children have not yet developed a stereotype of disability as a negative phenomenon. The “bad student” monocluster and the “my teacher” monocluster emphasize the significant role of the teacher in shaping children’s assessments of the world around them.

Qualitative analysis

Analysis of the results obtained by ranking personal constructs in relation to the proposed roles shows that the assessments of children, both normotypical and children with disabilities and special needs, are still poorly differentiated and concentrated mainly in the emergent (similar construct) pole. People with disabilities score low on measures of attractiveness (rank 1–3 out of 7), academics (rank 2–3 out of 7), courage (rank 2–3 out of 7), and interest in children (rank 2–3 out of 7 possible). We can say that when assessing children with disabilities and disabilities, normotypical children notice external manifestations of disability, opportunities for interesting pastime and the quality of their studies. The expert transmitting the assessment is the teacher.

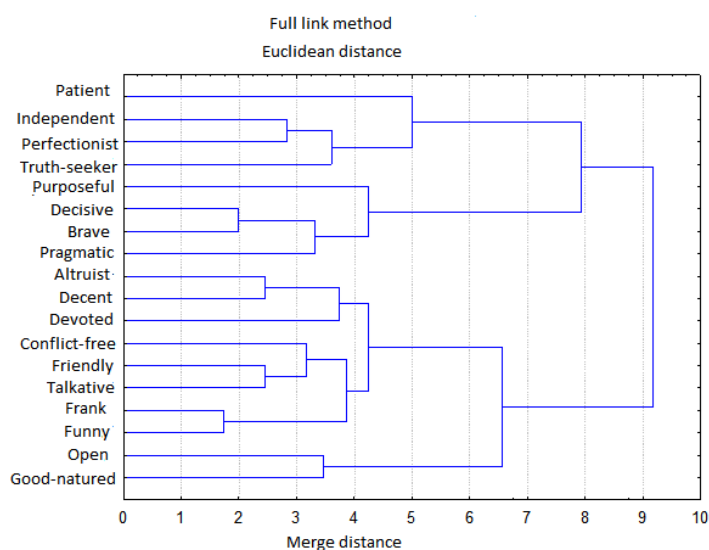
When processing the results of the sample of teachers, 18 personal constructs were used.

Hierarchical cluster analysis of personal constructs of teachers

The results of the cluster analysis of personal constructs of teachers are presented in the form of a dendrogram in Figure 3.

Figure 3

Dendrogram of personal constructs of teachers (18 variables)



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From the dendrogram it is clear that personal constructs are divided into 4 clusters. Moreover, when characterizing them, it can be noted that personal constructs are grouped from the periphery to the center.

The first and fourth clusters combine constructs characterizing personal qualities. Moreover, the fourth cluster combines 2 constructs "open - closed" and "good-natured – embittered", which characterize individual typological characteristics of a person, which, in turn, reflect the characteristics of a person's temperament. The first cluster unites 4 constructs "patient – touchy", "independent – dependent", "perfectionist – careless", "truth-teller – hypocrite", which can be interpreted on the one hand as acquired character traits, and on the other – as behavioral strategies or manipulation mechanisms.

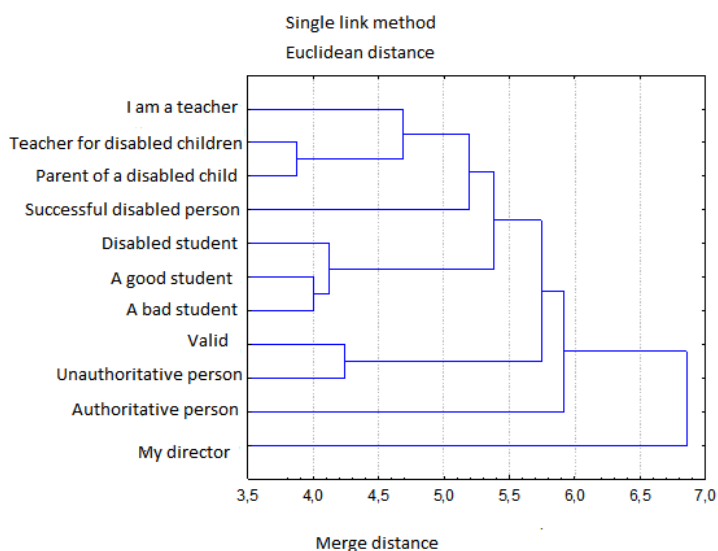
The second cluster combines 4 constructs "purposeful – weak-willed", "decisive – cautious", "brave – cowardly", "pragmatic – impractical", which are directly related to the characteristics of activity.

The third cluster combines 8 constructs: "altruistic – selfish", "decent – mean", "loyal – traitor", "conflict-free – quarrelsome", "benevolent – envious", "talkative – silent", "frank – distrustful", "cheerful – serious", which are revealed only in relationships with other people and can be designated as communicative characteristics of the individual.

We also subjected the objects of personal constructs of teachers to cluster analysis. The results are presented as a dendrogram in Figure 4.

Figure 4

Dendrogram of role repertoires (objects) of teachers (11 observations)



Here, 3 clusters and 2 monoclusters are distinguished, clearly reflecting the role and evaluative positions of objects.

Within the first cluster, the objects "I am a teacher", "Teacher for children with disabilities", "Parent of a disabled child" are closely united and the unifying object "Successful (known) disabled person" is defended. This clustering suggests that respondents are generally able to associate themselves with the role of a teacher working with children with disabilities and disabilities and their parents, but subject to success (fame), i.e. ability to achieve some success.

The second cluster unites the role positions of children: "child (student) is disabled," "good student," "bad student." The closeness of the connections shows that for teachers the assessment is more important: good or bad. The role of disability remains neutral. That is, teachers do not deny that a student with a disability can be either a bad student or a good one.

The third cluster combines the roles "disabled" and "non-authoritative person", which corresponds to the stigmatizing attitudes that exist in our society. This idea persists despite the fact that there is a more loyal attitude towards children (students).

Isolating the "authoritative person" monocluster shows that teachers do not associate their profession as highly authoritative. They also do not give authority to people with disabilities or recognize this personality characteristic in children.

The presence of the "leader" monocluster suggests that recognition of a leader in the teaching environment will take place regardless of the level of his authority, and, consequently, professionalism and personal qualities. That is, the formal role in this case is decisive and can influence the positions of the teaching staff, including in matters of inclusive education.

Qualitative analysis

The results obtained were subjected to ranking of personal constructs in relation to the proposed roles. It was revealed that average and low ratings for most personal constructs prevail among the objects "disabled person", "non-authoritative person", "parent of a disabled child" and "manager". A disabled person is rated as a cautious, touchy, selfish, quarrelsome, envious, hypocritical person (rank 3 out of 7 possible) and less pronounced as weak-willed, embittered, distrustful, withdrawn, mean, cowardly, treacherous and impractical (rank 4 out of 7 possible). He is united with an unauthoritative person by such indicators as touchy, selfish, withdrawn, embittered, quarrelsome, envious, distrustful, mean-spirited, cowardly, treacherous and impractical (rank varies from 2 to 4 out of 7 possible).

Characteristics of a parent of a disabled child are predominantly characterized at an average level by the following traits: touchy, withdrawn, embittered, distrustful, does not care about the result, hypocritical, quarrelsome (rank 4 out of 7 possible).

The leader is endowed with such qualities as selfish, embittered, quarrelsome, envious, pragmatic (rank varies 1–3 out of 7 possible).

As for a disabled child (student), the most clearly highlighted positive qualities are determination (perseverance), openness, good nature, decency (rank 7 out of 7 possible), the most striking negative quality is touchiness.

Psychological barriers to interaction in dyads of subjects

We identified the following dyads as the main dyads for analyzing psychological barriers to interaction: teachers–children, children–children. Next, we used the method of correlation analysis to process the data. Having applied it, we obtained the data shown in Table 1.

Table 1

Psychological barriers to interaction between children and teachers in an inclusive educational environment

Diad	Barriers to interaction
	Personal barriers (-0,58)
Teachers-children	Communication barriers (-0,72)
	Activity barriers -(0,72)
Children-children	Communication barriers (0,88)
	Activity barriers (0,83)

Table 1 shows that in the teacher-children dyad all types of barriers are observed; in the child-children dyad, communication and activity barriers predominate. The strength of the correlations is uneven. Negative values mean a one-way correlation of psychological barriers in "teacher-children" dyads and point to teachers as the source of barriers.

Next, we analyzed the intensity of manifestation of psychological barriers to interaction in children and teachers based on their personal constructs. The results are presented in Table 2.

Table 2

Quantitative analysis of the manifestation of psychological barriers to interaction between children and teachers in an inclusive educational environment

Barrier type	Degree (%)							t – criterion (p<0,05)
	Exces- sive	High	Above ave- rage	Average	Below the average	Low	Ab- sent	
Children								
Personal				8,6	60,8	30,6		6,2646
Commu- nicative			45,2	54,8				6,0365
Active	15,6	14	27,3	43,1				8,2441
General indicator	5,2	4,6	24,1	35,5	20,2	10,2		6,8636
Techers								
Personal		37,5		62,5				11,8429
Commu- nicative		78		22				14,8540
Active	21,9	20,3	37,5	20,3				14,7829
General indicator	7,3	45,3	12,5	34,9				13,8187

The degree of severity of psychological barriers to interaction among teachers is concentrated in the range from excessive to moderate, and in the sample of children from above average to low.

Discussion

This article examines psychological barriers to interaction between subjects of the inclusive educational process as risk factors for the safety of the educational environment. Identifying, preventing and overcoming risks allows you to manage them without compromising the psychological well-being of students (Baeva, 2017; Laktionova & Gayazova, 2019; Slyusareva & Plugina, 2021).

Psychological barriers are considered as states of experiencing obstacles that arise in the process of interaction between subjects of an inclusive educational environment, caused both by the characteristics of joint activities (activity barriers) and by the personality characteristics of the subjects of interaction (personal barriers) (Slyusareva, 2019, Goryanin, 2008).

Our study revealed that teachers of general education organizations are characterized not only by personal and activity barriers, but also by communication barriers in interaction with children with disabilities and disabilities (Dubrovina, 2019). They perceive disability as a social stigma with all its negative attributes, and are willing to reconsider their beliefs regarding inclusive education only in a guaranteed situation of success. However, expectations of negative trends on the part of management and parents block these trends and aggravate the barriers. These conclusions are consistent with the provisions of scientific works (Koroleva, 2016; Fominykh, 2017; Dunaevskaya, 2018).

At the same time, children studying in inclusive classes are not sources of psychological barriers to interaction, however, all negative trends from the groans of adults come down to the children's team (Efimova, 2011). Refracting all types of teachers' barriers, children begin to transmit them to each other, although initially only external formal signs can cause difficulties in interaction (Bogdanova, 2016; Godovnikova, 2017; Kostina, Dunaevskaya & Bogomyagkova, 2020).

Conclusions

Children have a neutral attitude towards disability, including because they do not have much experience interacting with disabled children. The assessments of adults, especially teachers, are of decisive importance in the formation of relationships between children. The key positions that children themselves focus on are the appearance of other children and the characteristics of joint activities. In childhood, psychological barriers to interaction predominate in the communicative (difficulty of mutual understanding) and activity spheres (difficulty in organizing interesting joint activities). The degree of severity

of psychological barriers to interaction in the sample of children varies from above average to low.

Teachers of general education organizations are subject to negative attitudes towards persons with disabilities, but at the same time they are more loyal towards children, which suggests a potential readiness to organize an inclusive educational process, but only in a situation of success. A wide range of activity and communicative characteristics of the individual, assessed negatively in the context of disability, as well as the identification of personality traits interpreted as mechanisms of manipulation, indicate that the attitude to interaction is wary with the expectation of problems from parents and management. The role of the head of an educational organization is recognized on formal grounds, which emphasizes the tendency towards conformity in matters of corporate policy. The prerequisites for the emergence of psychological barriers to interaction with subjects of the inclusive educational process among teachers occur in the personal (stigma of disability), communicative (expectation of manipulation and problems) and activity (conformity, avoidance of failures) spheres. The degree of severity of psychological barriers to interaction among teachers is concentrated in the range from excessive to moderate degree.

All identified trends on the part of teachers create safety risks in the inclusive educational environment for students, which must be taken into account and mitigated.

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Received: November 07, 2023

Revision received: January 01, 2024

Accepted: January 23, 2024

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Natalya Mikhailovna Borozinets – development of methodological research tools, analysis and interpretation of data, preparation and editing of the article;

Yulia Vladimirovna Zhikrivetskaya – data collection, statistical analysis, technical preparation of the article text;

Natalya Nikolaevna Kryzhevskaya – preparing a literary review, writing the introductory part of the article.

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Conflict of Interest Information

The authors have no conflicts of interest to declare.