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Russian Psychological Journal

Russian Psychological Journal

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Research article

Developing Speech and Socio-communicative Skills in Older Preschool Children

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Abstract
Introduction. In recent decades, living conditions, the organization of classes, and the requirements for children both in families and educational institutions (in kindergartens) have changed dramatically, which negatively affects their development. Fragmentary studies do not provide an objective picture of the development of modern preschoolers. In recent decades, there have been no comprehensive population-based studies covering socio-communicative development and all the components of the cognitive development of children. Therefore, the relevance and timeliness of this study is obvious. The results of foreign studies are of interest. However, they cannot always be used for comparative assessment due to high variability of educational processes in different countries. This determines the need to study age dynamics and the relationship between speech and socio-communicative development in older preschoolers living in different regions of Russia. **Methods.** To conduct the study, the tasks for assessing speech and socio-communicative development of the Comprehensive Technique for Diagnosing the Development of Preschoolers were used. There were examined 1650 children aged 5–6 years old (in 2019) and 1982 children aged 6.5–7.5 years old (in 2020), residing in 7 regions of Russia. **Results.** As a result of the population-based study, the features of speech and socio-communicative development of 3632 preschool children aged 5–6 and 6.5–7.5 years old were studied and identified. The study revealed positive dynamics in the development of all components of speech from 31.3 % in 5–6-year-old children to 66.5 % in 6.5–7.5-year-old children. However, 33.5 % of future first-graders showed insufficient speech development, which creates the risk of school difficulties. Most preschoolers of both age groups had an optimal level of socio-communicative development; however, one fifth (19.9 %) of preschoolers at the age of 6.5–7.5 y.o. had difficulties in social adaptation, which can complicate their adaptation to school. **Discussion.** The results of the study indicate positive age-related dynamics of sound-letter analysis, the formation of correct sound pronunciation, and socio-communicative skills (understanding various emotional situations and actions of other people, ability to seek help, apologize, etc.). However, it should be noted that with the increase in the development of almost all speech features in children from 5–6 years old to 6.5–7.5 years old, a fairly large number of future first-graders demonstrate limited vocabulary and inability to build sentences correctly, which characterizes general speech development.

Keywords

population-based study, developmental diagnostics, developmental level, speech development, sound pronunciation, vocabulary, social development, communication skills, correlations, preschool age

Highlights

➢ Approximately 20 % of future first-graders have difficulties in communication skills, which can cause long and difficult adaptation to the new schooling environment.
➢ A reliable correlation between speech and socio-communicative development was established. It increases from 5 to 7 years old.
➢ When planning game lessons with preschoolers, teachers need to pay special attention to expanding their grammar and vocabulary.
➢ Child adaptation to society occurs not only among peers, but also with the help of parents who actively participate in daily communication using a variety of speech formulas in different contexts.

Introduction

Abrupt changes in socio-cultural life conditions of modern children, associated with digitalization, limited communication and ultra-early child education creates the illusion that cognitive and social development of preschoolers is thus being stimulated (Batenova, 2017; Andreeva, 2015). Speculations about extraordinary abilities of generation Z children need to be confirmed (or refuted), but this requires data not from fragmentary, but from representative population-based studies, including the study of different aspects of development. In 2019–20, such a comprehensive study including the analysis of speech, cognitive, socio-communicative, artistic, aesthetic and physical development and health was conducted in seven regions of Russia. This article presents a fragment of this study, in particular the analysis of speech and socio-communicative development.

Older preschool age is one of the most important periods of speech development. Most children have clarity of articulation, correct pronunciation, and phonemic perception developed precisely by this age. Coherent monologue speech, ability to have a dialogue with peers and adults, ability to talk about past events and their own impressions is available to most children at the age of 6.5–7.5. Language proficiency is an important factor contributing not only to cognitive development, but also to a child's personality. Almost a hundred years ago, L. S. Vygotsky, when discussing the importance of speech, wrote that both intelligence and personality development, including character and emotions, depend on speech (Vygotsky, 1984).

Clegg, Law, Rush, Peters, & Roulstone (2015) found the impact of early language development (rich active vocabulary at the age of 2) on the favorable development of emotional and regulatory functions at the age of 6–7. A number of studies of voluntary functions conclude that both during

school and older preschool years, specific speech impairments lead to difficulties in working memory, emotional development, control and switching, and action planning (Vissers, Koolen, Hermans, Scheper, & Knoors, 2015; Vugs, Hendriks, Cuperus, & Verhoeven, 2014).

The relationship between speech and communication skills is confirmed by numerous recent studies (Rosenqvist, Lahti-Nuuttila, Laasonen, & Korkman, 2014; O'Neill, Thornton, Marks, Rajendran, & Halperin, 2016; Bakopoulou, & Dockrell, 2016). At the same time, reliable data on the development of these functions in today's children is lacking, which determines the need for population-based studies of age speech characteristics and socio-communicative skills in 5–6-year-old preschoolers and their developmental trends dynamics by the age of 6.5–7.5.

Methods

The participants of this study were pupils of preschool educational organizations from seven regions of Russia: Arkhangelsk, Kaliningrad, Moscow, Novosibirsk, Penza regions, the Republic of Bashkortostan, and Moscow. In 2019, the diagnostics of children aged 6.5–7.5 years old was carried out in 75 preschool organizations of the regions mentioned above. After collecting the data on 1.760 children, a unified database was created; the results were mathematically processed, and the final statistical analysis of 1.650 examined children was made. In 2020, a comprehensive diagnostics of the development of 2017 5–6-year-old preschoolers was carried out. When the overall database was made, and the outlying values were removed, the final statistical analysis included the results of diagnostics of 1982 children.

Differences in total scores for each section between preschoolers of different age groups were assessed using the Mann–Whitney test using Z-value analysis, a normal approximation of the Mann–Whitney statistics for large samples.

The Technique for Comprehensive Diagnostics of the Development of 5–6 and 6–7-year-old Children (Bezrukikh, Filippova, & Verba, 2021a; Bezrukikh, Filippova, & Verba, 2021b) corresponds to the five areas of development of preschoolers presented in the Federal State Educational Standard for Education and includes seven blocks. This article presents the results of the diagnostics of socio-communicative and speech development. Each block includes 5 tasks, which were evaluated on a five-point scale. Each task was assessed depending on how well the task was performed. Depending on the amount of points received, the following 4 groups were distinguished: high level of development (high LD), average level of development (average LD), level of development below average (LD below average), low level of development (low LD).

Diagnostics of speech development included the assessment of sound pronunciation and phonemic perception, skills of sound-letter analysis, lexical and grammatical structure of speech, as well as speech coherence when making up a story based on pictures.

Socio-communicative Development Survey included tasks assessing the ability to communicate with peers and seek help when needed; the ability of a preschooler to correctly identify and distinguish emotions in schematic drawings; read pictures, understand familiar emotionally significant situations and adequately respond to them.

Results

The study showed that the level of optimal speech development was noted in 31.3 % of preschool children aged 5–6 y.o. and 66.5 % of children aged 6.5–7.5 y.o. The positive dynamics of speech development in older preschoolers occurs together with significant decrease in the

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number of children with low speech LD from 42.1 % at the age of 5–6 to 11.8 % at the age of 6.5–7.5 (Fig. 1).
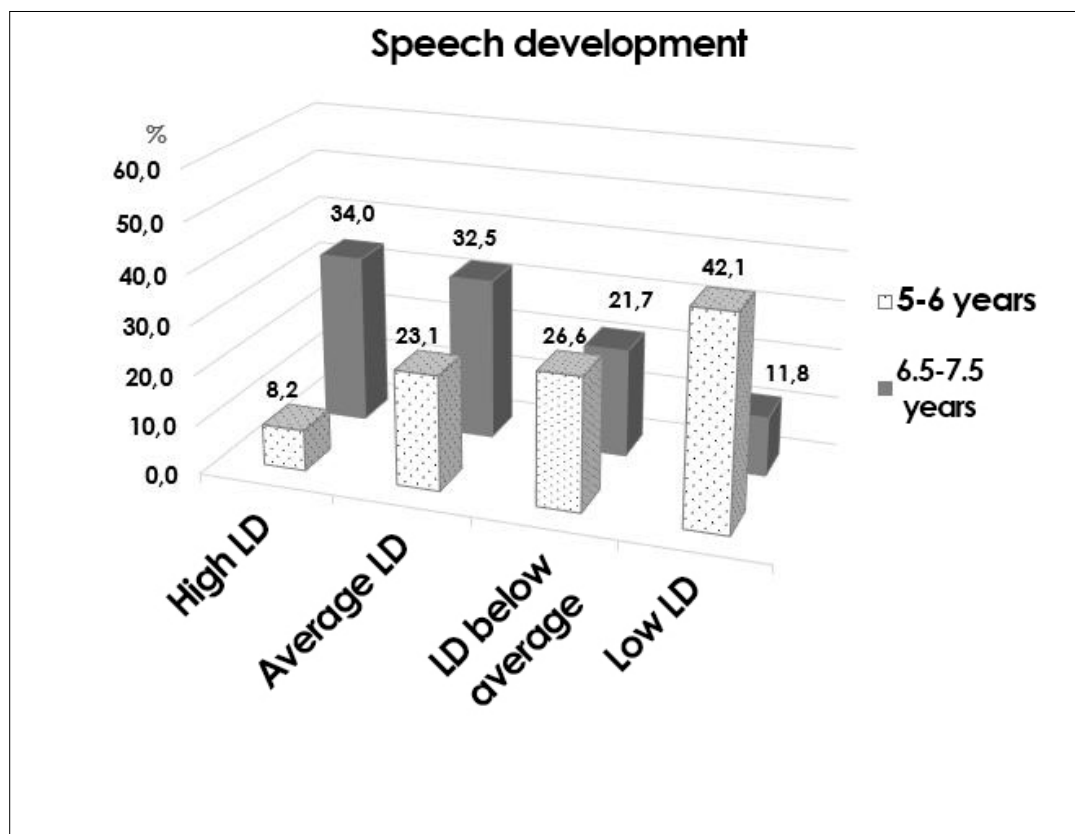
Figure 1. Distribution of 5–6 and 6.5–7.5-year-old children (in %) by the level of speech development

For the in-depth analysis of speech development, the results for each task were mathematically processed (Table 1). From the age of 5–6 to 6.5–7.5 years old, significant changes for each indicator were revealed (see Table 1). 5–6-year-old children demonstrate significantly lower results in speech and socio-communicative development compared to those at the age of 6.5–7.5. The diagnostics of the speech development of preschool children showed that more intensive development from 5–6 years old to 6.5–7.5 years of age occurs at the level of sound-letter analysis, sound pronunciation, and articulation (Table 1). This may result both from age-related features of the development of sound pronunciation, and from regular speech therapy, which begins at the age of 5–6, and it is these aspects of speech that speech therapists pay the most attention to. Only 2 % of preschoolers before school have problems in pronouncing sounds clearly and correctly. The same favorable dynamics applies to the ability to distinguish sounds: at the age of 5–6, low LD was found in 27.0 % of children, and among 6.5–7.5-year-old children, the number was only 3.1 % of children. However, the total number of future first-graders with LD below average and low LD in completing task 1, which characterizes phonetic-phonemic perception, is 14 %, which can cause problems in sound-letter analysis in elementary school.

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Table 1

Comparative analysis of assessment of different components of speech development in 5–6 and 6.5–7.5-year-old children (%)

Indicators of speech development	Levels of development	Number of children (%)	
		5–6 y.o. (n = 1982)	6,5–7,5 y.o. (n = 1650)
Task 1. Recognizing sounds in words (***)	High LD	19.1	61.5
	Average LD	26.8	24.5
	Below average LD	27.2	10.9
	Low LD	27.0	3.1
Task 2. Making sentences from words (***)	High LD	11.4	33.7
	Average LD	27.1	35.3
	Below average LD	30.7	22.9
	Low LD	30.8	8.1
Task 3. Use of prepositions/ability to ask questions	High LD	39.2	33.4
	Average LD	30.5	33.2
	Below average LD	20.3	20.8
	Low LD	10.0	12.5
Task 4. Making up a story based on pictures (***)	High LD	10.4	33.2
	Average LD	33.9	45.1
	Below average LD	34.6	17.6
	Low LD	21.0	4.1
Task 5. Pronunciation of sounds (***)	High LD	24.8	61.6
	Average LD	34.6	28.1
	Below average LD	23.6	8.3
	Low LD	16.9	2.0

*Note: * – $p \leq 0.05$; ** – $p \leq 0.001$; *** – $p \leq 0.0000$.*

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Significant positive dynamics was also noted in the ability to compose 3–4-word sentences. The number of children who had difficulty in performing this task (the total number of children with low LD and LD below average) at the age of 6.5–7.5 is almost 2 times less in comparison with those at the age of 5–6 y.o. (31 % and 61.5 % respectively) (Table 1). However, one third of future first-graders have insufficient vocabulary and experience difficulties in constructing correct sentences. This is also confirmed by the results of the task, in which the children had to compose a story using prepositions. This may be explained by the fact that this task was a little more complicated for 6.5–7.5-year-old children, and in addition to the main task, they were asked to ask questions about the drawing. When assessing the ability to compose a story using sequential pictures, pronounced difficulties were identified in 55.6 % of 5–6-year-old children and 21.7 % of 6.5–7.5-year-old children (the total number of children with low LD and LD below average).

The study of the socio-communicative development of preschoolers showed that the majority of 5–6-year-old children (55.2 % in total) have high and average LD, which allows them to adapt successfully to the group of peers, interact with them and adults. Despite the fact that from 5 to 7 years old there goes active development of socio-communication skills, almost one fifth of older preschoolers (19.9 % of the total number of children aged 6.5–7.5 years old with low LD and LD below average) have a number of difficulties in the development of these important skills by the beginning of schooling (Fig. 2).
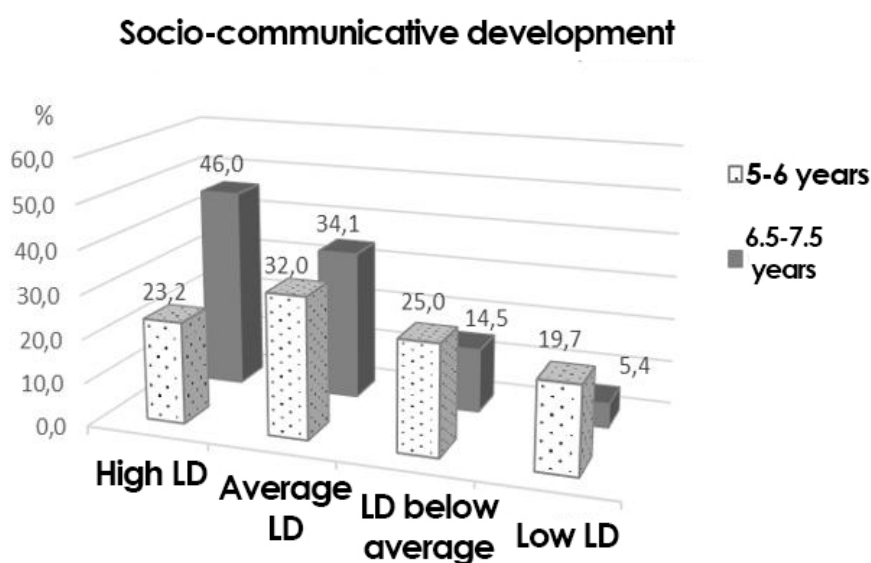
Figure 2. Distribution of children aged 5–6 years and 6.5–7.5 years old (in %) by the level of socio-communicative development

A more detailed analysis of all indicators of emotional and communicative development made it possible to see that the number of children with high LD increased almost 2 times from 23.2 % to 46.0 % (Fig. 2). At the same time, 17.2 % of future first-graders found it difficult to correctly determine and name the mood and expression of graphically depicted faces (joyful, sad, frightened, angry, and surprised), while among 5–6-year-old children 35.4 % of preschoolers

found it difficult to perform the same task (Table 2) (the total number of children with low LD and LD below average is indicated).

From the age of 5–6 by the age of 6.5–7.5, the number of preschool children incapable or having difficulty in understanding emotions, which makes it possible to predict possible reactions of other people (adults and children), has almost halved. If at the age of 5–6 y.o. the number of preschoolers experiencing these difficulties was 32.6 %, at the age of 6.5–7.5 y.o., the number of children who found it difficult to analyze the situation and understand the feelings and actions of other people was 15.9 % (the total number of children with low LD and LD below average).

Nevertheless, older preschoolers are still not able to assess and analyze fully and accurately why some situations and subsequent reactions happen: only half of 6.5–7.5-year-old children (48 %) and 27.2 % of 5–6-year-olds successfully coped with task 4, which characterizes the ability to understand the situation and anticipate the actions of the characters (Table 2).

Only one third of children aged 5–6 years (30.6 %) were able to easily understand emotionally significant situations (task 2) depicted in the drawings, and choose the appropriate facial expression for them, while by the age of 6.5–7.5 y.o. the number of children was 52.9 % (Table 2). These data show that almost half of the children before school do not have a foundation for effective communication. It is interesting to note that situations involving unambiguous reactions did not cause doubts in children. For example, preschoolers assessed the picture of a girl with a cake with candles as a joyful event. Or almost all children named fear and/or fright in a boy who was picking mushrooms and came across an angry dog in the forest. At the same time, children's opinions about the emotion of a fisherman who caught a boot instead of a fish ranged from "surprise" to "disappointment" and "sadness". Negative emotions (frustration and sadness) were named by the majority of children (78.3 %) in both age groups. The predominance of negative emotions when seeing a neutral situation may be the result of increased anxiety under the influence of a large amount of negative information in which modern children are involuntarily involved. Surprise, as a natural reaction to something new or unusual, was very rare in the course of the diagnostics.

Table 2

Comparative analysis of assessment of different components of the socio-communicative development in 5–6 and 6.5–7.5-year-old children (%)

Indicators of socio-communicative development	Levels of development	Number of children (%)	
		5–6 y.o. (n = 1982)	6.5–7.5 y.o. (n = 1650)
Task 1. Distinguishing between emotions (from pictures) (*)	High LD	29.7	43.5
	Average LD	34.9	39.3
	Below average LD	26.5	14.3
	Low LD	8.9	2.9

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Table 2

Comparative analysis of assessment of different components of the socio-communicative development in 5–6 and 6.5–7.5-year-old children (%)

Indicators of socio-communicative development	Levels of development	Number of children (%)	
		5–6 y.o. (n = 1982)	6.5–7.5 y.o. (n = 1650)
Task 2. Selection of graphic facial expressions for situations (**)	High LD	30.6	52.9
	Average LD	40.0	36.0
	Below average LD	19.3	8.9
	Low LD	10.0	2.2
Task 3. Choice between collective or individual play (*)	Collective play	54.1	73.6
	Individual play	9.2	3.7
	Both variants of play	36.7	22.7
Task 4. Understanding the situation and characters actions (**)	High LD	27.2	48.0
	Average LD	40.3	36.0
	Below average LD	21.3	12.7
	Low LD	11.3	3.2
Task 5. Ability to use formulaic expressions (**)	High LD	51.0	73.6
	Average LD	29.5	21.7
	Below average LD	13.9	3.8
	Low LD	5.6	0.9

*Note: * – p ≤ 0.05; ** – p ≤ 0.001; *** – p ≤ 0.0000.*

When studying such an indicator as "choice between collective or individual play" (task 3), there are also differences between age groups: there is an increase in the number of children (by 19.5 %) who choose collective play (Table 2). However, this indicator rather shows individual preferences of the preschoolers. Therefore, in this subtest, we did not reveal the levels of development, but only noted the child preference. Most children aged 5–6 years (54.1 %) and 6.5–7.5 years (73.6 %) prefer collective play (Table 2).

By the age of 6.5–7.5, the majority of preschoolers (73.6 %) master the simplest speech formulas in various social situations: apologizing, congratulating, meeting a new person, and requesting something (task 5). Among 5–6-year-old preschoolers, only half of the children (51 %) managed

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to cope with these situations freely (Table 2). Before school, only 4.7 % (the total number of children with low LD and LD below average is indicated) of children aged 6.5–7.5 y.o. do not know or are not able to use these speech formulas.

The analysis of correlations between speech and socio-communicative development showed that these indicators are moderately connected, which tends to increase from 5–6 to 6.5–7.5 years old (r = 0.446, p < 0.001; r = 0.549, p < 0.001). It can be assumed that as speech improves and the repertoire of speech communications expands, the correlation between these indicators of development will increase.

Discussion

The study reveals insufficient LD of speech in 33.5 % of preschoolers (the total number of children aged 6.5–7.5 with LD below average and low LD). Even more than a decade ago, Müürsepp, Ereline, Gapeyeva, & Pääsuke (2009) showed a trend towards a decrease in the level of speech development in older preschoolers compared to the previous years. The data obtained in this study show there are problems associated with vocabulary growth and the development of speech grammatical structure in modern preschoolers. More than half of 5–6-year-old children (61.5 %) and almost a third of future first-graders (31 %) have low LD and LD below average. Insufficient level of speech development can complicate the development of reading and writing skills and cause learning difficulties (Bezrukikh, 2016; Bezrukikh & Kreshchenko, 2013).

It is known that parents' speech and communication with children at an early age are of great importance for the development of grammatically correct, coherent speech, for active and passive vocabulary. Children whose parents use extended speech in child-parent communication, give more explanations, and ask questions, have a higher level of speech development in older preschool age (Rowe, 2013; Gurgel, Vidor, Joly, & Reppold, 2014). However, recent studies show that the time of children-parents communication, which was not even that extensive before, is now constantly decreasing because of more time children spend with gadgets (Belousova, Karpov, & Utkuzova, 2014; Agustin et al., 2019). Obviously, much depends on parents and the amount of communication with children, but it is necessary for the preschool teachers to consider this as well. It is educators who can radically change the situation. They might involve children in active verbal activities, encourage free reasoning, use role-playing games and drama effectively.

Our study showed that 68.7 % of 5–6-year-old children have the LD of speech skills below average and low (Fig. 1). This, apparently, is one of the reasons for the underdevelopment of socio-communicative skills in almost 20 % of children aged 6.5–7.5 years with low LD and LD below average (in total) (Fig. 2). This is also confirmed by the works of the last decade, which showed the importance of speech development for the development of cognitive, emotional, and regulatory functions (Ardila, 2013; Vissers et al., 2015; Vugs et al., 2014; O'Neill et al., 2016). Rosenqvist et al. (2014) in their studies revealed that in 5–6-year-old preschoolers, the ability to recognize non-verbal emotions of other people develops simultaneously with other functions, but speech development is the most important for the successful development of this skill.

In addition, complex language development difficulties in older preschool years may have a significant impact on social communication skills and interaction with peers and adults (Foster-Cohen, Friesen, Champion, & Woodward, 2010; Maggiolo, Varela, Arancibia, & Ruiz, 2014). The ability to adequately express one's emotions and the ability to understand the emotional state of other people play a significant role in the development of communication skills in

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preschoolers (Grom, 2016; Lapteva & Morozova, 2016). According to the results of this study, 15.9 % of children at the age of 6.5–7.5 (the total number of children with low LD and LD below average) have difficulty in analyzing emotionally significant situations. In their work, Bakopoulou & Dockrell (2016) highlight the importance of emotions in social and communicative activities of preschool children, namely the ability to understand emotions, determine the reasons for other people's emotional states, as well as the importance of knowing conflict resolution models, which in general determines children social behavior. Moreover, emotional development is closely related to the ability to plan and control one's actions (Rints, McAuley, & Nilsen, 2015; Rodrigo-Ruiz, Perez-Gonzalez, & Cejudo, 2017), which is particularly important for school education.

E. A. Zavalko (2012) notes how important it is to address children and to use other speech formulas that perform various functions. According to the author, most often children use greetings, because the very situation of meeting and/or establishing contact is a positive moment in the life of a preschooler, which means that it is absorbed more quickly and used more often. However, our study showed that not only the request, but also the situation of meeting new people and the use of appropriate speech formulas cause difficulties in 5–6-year-old children. When completing task 5 (Table 2), 5.6 % of the children could not pick up a single speech formula, and 13.9 % of the children chose only one formula out of four. These data must be taken into account by specialists of preschool educational institutions and parents when communicating with children.

Some researchers emphasize the role of educators and primary school teachers in developing emotional competence (Ersay, Kaynak, & Türkoğlu, 2014). It is educators who show emotional reactions to different situations and children behavior, being with their pupils for a large amount of time (Morris, Denham, Basset, & Curby, 2013). Herndon, Bailey, Shewark, Denham, & Bassett (2013) showed that preschoolers' ability to control and regulate their emotions is closely related to teachers' assessments of school adaptation. Therefore, there is a need to train teachers to use social-emotional methods of parenting in a group of children, to discuss emotional situations and feelings of other children and adults (Garner, Bolt, & Roth, 2019).

Conclusion
The population-based studies conducted for this research showed that only half of the surveyed children have a high level of socio-communicative development necessary for the successful adaptation to the new student status at the beginning of education.

The features of speech development identified as a result of the study should be considered when planning game classes with preschoolers. Particular attention should be paid to expanding vocabulary and speech grammatical structure.

A positive correlation was found between speech and socio-communicative development, which increases within the studied age range.

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M. M. Bezrukikh prepared materials for diagnostics, contributed to the design of the population-based study and analyzed findings.
A. S. Verba prepared materials for diagnostics, coordinated the population-based studies, and made the overall database of the research results.
T. A. Filippova wrote the literature overview and prepared the manuscript.
V. V. Ivanov performed statistical data analysis.

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Research article

A Comparative Analysis of Emotional Health Among First-grade Children Raised with Different Parenting Styles

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Abstract
Introduction. Parenting styles have a considerable impact on the emotional health of children. This study aims to identify the characteristics of emotional health among first-grade children raised with different parenting styles. **Methods**. The study used the following psychological assessment tools: (a) the Sixteen Personality Factor Questionnaire, 16PF, developed by R. Cattell (junior version); (b) the test for Diagnostics of the Level of Empathic Abilities by V. V. Boyko; (c) the School Anxiety Scale, SAS, developed B. Phillips; (d) Buss–Durkee Hostility Inventory; and (e) the Emotional Faces test developed by N. Ya. Semago. To assess parenting styles, we used the Parental Attitude Research Instrument, PARI (E. S. Schaefer, R. K. Bell) and the Analysis of Family Relationships questionnaire, AFR (E. G. Eidemiller, V. V. Yustitskis). A total of 283 children aged 7–8 years from the schools of Arkhangelsk city (123 girls and 160 boys) participated in the study. Statistical analysis was performed using descriptive statistics, maximum likelihood factor analysis with varimax normalized rotation, and parametric ANOVA. **Results and Discussion**. Emotional awareness, aggression, anxiety, and empathy were the most significant characteristics of emotional health for all the first-grade students. Indulgent hyperprotection was associated with a high level of school anxiety; disturbance in family role attitudes correlated with difficulties in the ability to recognize and understand emotions; attachment trauma was associated with a high level of aggression and a low level of empathy. Therefore, unfavorable parenting styles may cause emotional health disorders in children and lead to an increase in the levels of anxiety and aggression, difficulties in recognizing and understanding emotions, and a low level of empathy. Negative parenting styles are a predictor of emotional health disorders in children, which requires timely prevention.

Keywords
emotional health, anxiety, aggression, empathy, emotional awareness, parenting styles, hyperprotection, risk groups, first-grade children

Highlights

➢ In our study, the most common parenting styles were indulgent hyperprotaction, disturbance in role attitudes, and attachment trauma.

➢ Emotional awareness, aggression, anxiety, and empathy were the most significant characteristics of emotional health for all the first-grade students.

➢ Unfavorable parenting styles exert a 'damaging' impact on the emotional health of children. Indulgent hyperprotaction parenting style leads to a high level of school anxiety; disturbance in family role attitudes correlated with difficulties in the ability to recognize and understand emotions; attachment trauma leads to a high level of aggression and a low level of empathy.

Introduction

School age is an important stage in life that determines the direction of the emotional sphere development and the mechanisms of its regulation. In the process of school education, school students often face critical situations that cause a 'surge' of emotional reactions and emotional overstrain. Long-term negative emotional states that children experience may become stable. In the future, it may manifest itself in a particular way of life and behavior style (Kokaeva, Bozhenskaya, & Tetermazova, 2015; Chanchaeva, Aizman, Sidorov, Popova, & Simonova, 2019).

According to current information sources, by adolescence, 40 % of children aged 7–8 years with behavioral disorders may have illegal behavior deviating from the norms of society. In 90 % of adolescent offenders, predictors of such a behavior were manifested at earlier stages of ontogenesis. We should note that the problem of emotional health is acute not only in the territory of the Russian Federation, but also in other countries. For example, a nationwide survey in the UK (2019) showed that 66 % of primary school students suffer from anxiety (HR news). According to UNESCO, approximately 30 % of all the students faced some kinds of school aggression every year (Shamlikashvili, Kharitonov, Pchelintseva, & Grafskii, 2018).

To date, there is no unambiguous interpretation of the concept of emotional health. Several studies attempt to operationalize this concept using their own research findings within various approaches. However, the definition of 'emotional health' was originally introduced by L. V. Tarabakina. According to the scientist, being a part of a person's psychological health, it is a generalized emotional state that implies the stability and adequacy of a child's emotional reactions and attitudes when interacting with the environment; this enables the child to successfully adapt in society (Tarabakina, 2015). In our study we applied this definition.

The problem of preserving the emotional health of children is very urgent. As researchers note, children with emotional health disorders may experience high level of anxiety, fears (Kim & Choi, 2020), and inadequate self-esteem (Sankalaite et al., 2021). There is an increasing importance of studies that consider the factors influencing the emotional experience of children in the education process (Lohndorf, Vermeer, de la Harpe, & Mesman, 2020), the influence of school and family on emotional health (Sankalaite et al., 2021; Masagutov & Yuldashev, 2011), and, of course, its

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preservation (Kulikova, Nguyen, & Nguyen, 2017). The Internet, the child's temperament traits, and other children's behaviors were found to be risk factors for aggressive behavior among schoolchildren. Living conditions and microsocial (intrafamily) factors also play a role (Junco-Guerrero, Ruiz-Fernández, & Cantón-Cortés, 2021; Sleed, Isosävi, & Fonagy, 2021).

Not only the school but also the family determines children's education. It becomes its coordinator and regulator and lays the groundwork for children's socialization process (Chanchaeva et al., 2019; Lohndorf et al., 2021). Some researchers note that the resilience of the family environment is a decisive factor (Junco-Guerrero et al., 2021). Parenting styles and intra-family relations may contribute considerably to the harmonious development of emotionally stable individuals. The parent-child relationship determines the further personal development and children's behavior in society (Brandi et al., 2021, Avdulova & Ukhanova, 2019), their self-awareness and the adequacy of decision-making in work and education activities (Tian et al., 2021). Thus, abnormal behavior of parents or confusion in family roles are often accompanied by emotional detachment from children. This entails anxiety, emotional contradictions, obsessive and withdrawn behavior in children (Sleed et al., 2021). Those subjected to domestic violence may have various fears, a low level of emotional security (Stenson, van Rooij, Carter, Powers, & Jovanovic, 2021; Masagutov & Yuldashev, 2011), and a high level of emotional insecurity (Junco-Guerrero et al., 2021). Emotional distress in children is more often observed in families with a lack of father participation in childrearing activities (Kesebonye & Amone-P'Olak, 2021).

Therefore, this study aims to identify the characteristics of emotional health among first-grade children raised with different parenting styles.

Methods

This study involved 283 first-grade children (160 boys and 123 girls, 7–8 years old) and their parents. To assess parenting styles, we used the Parental Attitude Research Instrument, PARI (E. S. Schaefer, R. K. Bell) (Raigorodskii, 2019); this assessment tool examines parents' attitudes (primarily mothers) towards various aspects of family life (family role). To determine parenting impairments and the causes of these impairments, we used the Analysis of Family Relationships questionnaire, AFR (E. G. Eidemiller, V. V. Yustitskis) (Aleksandrova, Alekseeva, Rodionova, Khomenko, & Shchedretsova, 2019).

To obtain the necessary empirical data characterizing the emotional health of children, we used standardized assessment tools.

(a) To examine child personality characteristics, we used the Sixteen Personality Factor Questionnaire, 16PF, developed by R. Cattell (junior version) (Dvoryanchikov et al., 2017).

(b) We used the School Anxiety Scale, SAS, developed B. Phillips to diagnose general school anxiety, frustration of the need to achieve success, social stress, fear of examination and self-expression situations, fear of not meeting the expectations of others, problems and fears in relationships with teachers, and physiological resistance to stress.

(c) To assess the index of aggression and hostility, verbal, physical, and indirect aggression, tendencies to irritation, suspicion, resentment, negativism, feeling of guilt or autoaggression, we used Buss–Durkee Hostility Inventory (Raigorodskii, 2019).

(d) Using the test for Diagnostics of the Level of Empathic Abilities by V. V. Boyko we identified empathic abilities. We assessed the following seven indicators: (i) rational, (ii) emotional, and (iii) intuitive channels of empathy; (iv) attitudes that contribute to empathy; (v) penetrating ability in

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empathy; (vi) identification in empathy; and (vii) the general level of empathy (Raigorodskii, 2019). The assessment tool was preliminarily tested on a sample of 7–8 years-old children (N = 283). We calculated reliability using Cronbach's alpha and determined the internal consistency of the questionnaire and its reliability. The reliability analysis of the test showed good consistency of questions for the scales of each indicator. Using Cronbach's alpha, we obtained the following scale reliability indicators: rational channel of empathy (α = 0.904), emotional channel of empathy (α = 0.885), intuitive channel of empathy (α = 0.854), attitudes that contribute to empathy (α = 0.890), penetrating ability in empathy (α = 0.802), identification in empathy (α = 0.871), and general empathy level (α = 0.862). Thus, for almost all the test scales, the level of Cronbach's alpha ranged from 0.802 to 0.904, which indicated a sufficient level of reliability of these scales and enabled us to use this assessment tool in our study. Correlation analysis between the indicators revealed their associations (p < 0.01). This corresponds to the test structure and the goals of measuring the corresponding indicators.

(e) Using the Emotional Faces test developed by N. Ya. Semago, we determined the quality and accuracy of emotional state recognition among the children, the possibility of comparison and correlation with their own experiences and interpersonal relationships. Each child passed the test individually in the following three stages: (i) identification of emotional states of schematic images, (ii) identification of real photographic images in accordance with a child's gender, and (iii) inventing a story based on a certain image (Semago, 2007).

The data processing was carried out using the SPSS Statistics 23.00 software package for Windows. We used descriptive statistics to identify the most common parenting styles. Maximum likelihood factor analysis with varimax normalized rotation with a normal distribution (Shapiro–Wilk test; p = 0.403) was performed to reveal the most significant characteristics of first-grade children's emotional health. The one-way analysis of variance (ANOVA) was used to compare three independent samples with a normal distribution; Levene's test for homogeneity of variance was 0.134. The Kaiser–Meyer–Olkin (KMO) test was 0.823; a significance level for the Bartlett's test (p = 0.032) suggests that there is substantial correlation in the data, which confirms the appropriateness of using factor analysis. We analyzed the arithmetic mean and the standard error of the mean to present quantitative analysis data with a normal distribution. When testing hypotheses, the critical level of statistical significance was p < 0.05.

Results and Discussion

We revealed the most common parenting styles, including attachment trauma (34.04 %), impairment of role attitudes (22.29 %), and indulgent hyperprotection (13.25 %). These data enabled us to distinguish the following three comparison groups: Group 1 – children raised with the 'attachment trauma' parenting style (N = 30; 19 boys and 11 girls); Group 2 – children raised by parents with 'disturbance in family role attitudes' (N = 30; 23 boys and 7 girls); Group 3 – children raised with 'indulgent hyperprotection' parenting style (N = 30; 16 boys and 14 girls).

We analyzed a total of 46 indicators of the children's emotional health. We carried out maximum likelihood factor analysis with varimax normalized rotation and selected the indicators of emotional health with significant factor loadings (/a/ > 0.6). That made it possible to detect the most significant parameters of the first-grade children's emotional health. Tables 1 and 2 present the results of factor analysis.

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Table 1
Characteristics of factors among first-grade children

Factor	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.971	22.981	22.981	5.777	11.619	11.619
2	4.878	20.605	43.586	4.380	21.807	33.426
3	3.451	17.403	60.989	3.900	23.543	56.969
4	2.464	6.107	67.096	2.708	10.127	67.096

Note: we used principal component analysis as an extraction technique.

Table 2
Factor matrix of emotional health indicators among first-grade children

Characteristics of emotional health	Factors			
	1	2	3	4
Adequacy of emotional state recognition	**0.985**	0.001	−0.011	0.019
Emotional awareness (schematic image)	**0.916**	−0.079	−0.055	−0.014
Emotional awareness (photographic image)	**0.883**	0.066	0.027	0.042
Adequacy of emotional state recognition, accuracy and quality of this recognition (schematic image)	**0.863**	−0.059	−0.015	0.056
Differentiation of emotional manifestations, adequacy of using the corresponding vocabulary (photographic image)	**0.829**	0.009	0.093	0.118
Adequacy of emotional state recognition, accuracy and quality of this recognition (photographic image)	**0.674**	0.094	−0.140	−0.035
Differentiation of emotional manifestations, adequacy of using the corresponding vocabulary (schematic image)	**0.643**	−0.078	0.056	−0.112
Aggression index	0.031	**0.882**	0.141	−0.117
Indirect aggression	0.029	**0.764**	0.011	−0.009

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Table 2
Factor matrix of emotional health indicators among first-grade children

Characteristics of emotional health	Factors			
	1	2	3	4
Irritation	−0.035	**0.739**	0.041	−0.189
Physical aggression	−0.018	**0.628**	0.034	−0.109
Suspicion	−0.043	0.057	**0.649**	−0.097
Fear of examination	−0.022	0.079	**0.649**	0.068
Frustration	0.031	−0.096	**0.613**	−0.077
General school anxiety	−0.122	0.198	**0.609**	0.023
General level of empathy	−0.147	−0.169	0.195	**0.825**
Identification	−0.092	−0.127	0.149	**0.652**

Figure 1 shows the factor structure of the children's emotional health.
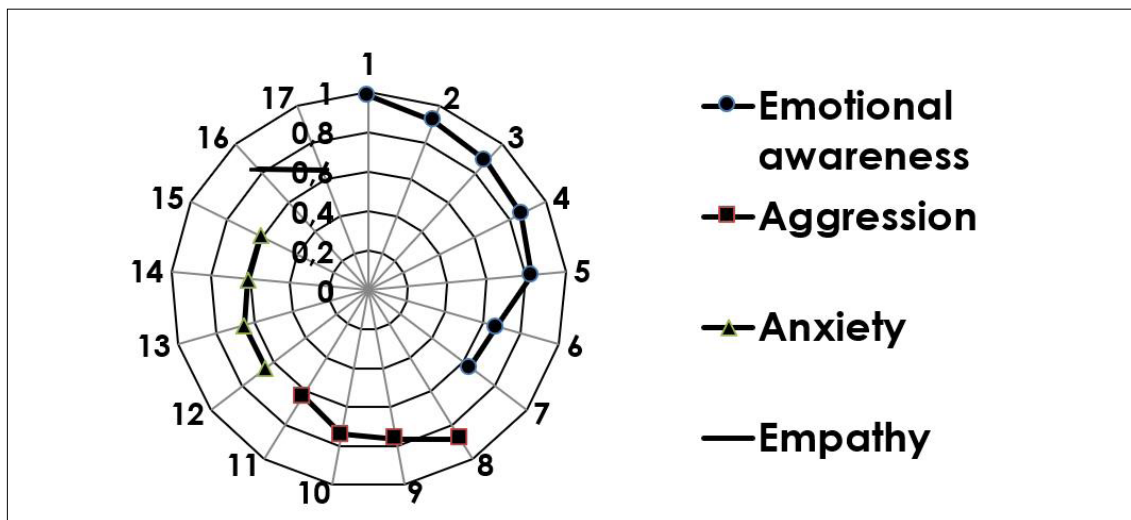
Figure 1. The factor structure of the first-grade children's emotional health

Note: 1 – overall emotional awareness, 2 – emotional awareness (schematic image), 3 – emotional awareness (photographic image), 4 – adequacy of emotional state recognition, accuracy and quality of this recognition (schematic image), 5 – differentiation of emotional manifestations, adequacy of using the corresponding vocabulary (photographic image), 6 – adequacy of emotional state recognition, accuracy and quality of this recognition (photographic image), 7 – differentiation of emotional manifestations, adequacy of using the corresponding vocabulary (schematic image), 8 – aggression index, 9 – indirect aggression, 10 – irritation, 11 – physical aggression, 12 – suspicion, 13 – fear of examination, 14 – frustration, 15 – general school anxiety, 16 – general level of empathy, 17 – identification.

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We found four main factors that determined 67 % of the sample variance. The general factor (factor 1, 22.9 % of the variance) provides a picture of the awareness of emotions with a significant contribution made by adequacy of emotional state recognition, accuracy and quality of this recognition (schematic and photographic images), differentiation of emotional manifestations, adequacy of using the corresponding vocabulary (schematic and photographic images), and emotional awareness (schematic and photographic images). Factor 2 (20.6 % of the variance) describes the level of aggression, combining almost all its components – aggression index, indirect aggression, irritation, and physical aggression. Factor 3 (17.4 % of the variance) characterizes some features of anxiety with the greatest contribution made by the following indicators: general school anxiety, fear of examination, frustration, and suspicion. Factor 4 (6.1 % of the variance) characterizes empathy with the most significant contribution made by the general level of empathy and identification.

Factorial designs for the groups of children raised with different parental styles had a similar tendency in the general structure of distribution of emotional health parameters. Obviously, regardless of parental styles, the 'emotional awareness' parameter makes the most significant contribution to emotional health.

We used individual factors scores for a comparative analysis of first-grade children raised with different parental styles. The comparison revealed significant differences (Table 3).

Table 3
Statistically significant differences in factor scores of the groups of first-grade children

Parenting style	SP	Factor scores			
		Factor 1	Factor 2	Factor 3	Factor 4
Indulgent hyperprotaction	mean	0.156	−0.252	0.198	0.176
	sd	0.127	0.173	0.160	0.105
	min	−3.090	−1.848	−1.715	−1.499
	max	0.755	1.588	2.086	1.705
Disturbance in role attitudes	mean	−0.212	−0.182	0.189	0.262
	sd	0.161	0.033	0.004	0.190
	min	−2.931	−1.844	−1.809	−1.937
	max	0.772	1.865	2.450	2.919
Optimal emotional contact	mean	0.177	0.285	−0.184	−0.460
	sd	0.034	1.01	0.149	0.072
	min	−1.768	−1.768	−1.927	−2.251
	max	1.933	1.933	2.514	1.339
Reliability (p)		0.049	0.050	0.048	0.010

Note: reliability is based on one-way ANOVA; *SP* – statistical parameters; *mean* – arithmetic mean, *sd* – standard deviation, *min* – minimum, *max* – maximum.

The analysis of factor loadings showed that the 'indulgent hyperprotection' parenting style (a child is treated as a family idol; it represents a combination of overprotection, over-satisfaction of the child's needs with insufficient requirements/duties, requirements/prohibitions, and minimal sanctions) (Borovkova, Nikolaeva, Petrova, Razbirina, & Isaeva, 2020) is characterized by a significantly high level of school anxiety. The obtained data are consistent with findings from another study suggesting that such characteristics of interaction as the attitude towards a child's infantilization (immaturity, behaving or having appearance characteristics that are associated with previous age periods), authoritarian hypersocialization (unconditional obedience and discipline demands), childrearing confrontation (conflicting communication between generations with the use of a competitive strategy, accompanied by the accumulation of mutual grudges), and high involvement are qualities of parents whose children have high indicators of anxiety (Mazurova & Trofimova, 2013). Studying the influence of parental attitudes, researchers note that indulgent hyperprotection contributes to the formation of fears and breakdown in communication with the social environment. A conflict between exaggerated claims and underestimation of objective conditions arises. The frustration of the need for success and the fear of being unrecognized lead to emotional overstrain and anxiety. This may cause the development of neurosis (Sharapova, & Kutbiddinova, 2018).

We found that 'disturbance in family role attitudes' (a woman's interests and values are restricted to her family and family-related worries; this parenting style is characterized by her dissatisfaction with a homemaker role, her husband's indifference, his lack of involvement in childrearing activities; feeling of the mother's role self-sacrifice) is associated with difficulties in children's ability to recognize and understand emotions. This is a reliably distinctive feature of the examined group. Experts argue that another person's inconsistency and unpredictability affect children's ability to recognize, understand, and anticipate others' emotions, and the ability to identify their own emotional states as well. This may be explained by the fact that this parenting style 'impairs' the feedback related to a child's own behavior. In a certain situation, children cannot foresee adults' behavior; they interpret adults' reactions as their own misunderstanding of the situation (Krasnov, 2016).

A comparative analysis of factor loadings showed that first-grade children with 'attachment trauma' (parents' indifference and emotional distance from a child) are characterized by a high level of aggression and a low level of empathy. In current studies on childhood aggression, scholars note that aggression develops due to frustration associated with a lack of parental love and permanent parental punishments (Bandura & Walters, 2000). Emotional and physical distancing that characterize 'rejection' as a psychological type of parental attitude cause the development of a child's ability to aggressive antisocial behavior (Brandi et al., 2021). Attachment trauma manifests itself in detachment, rejection of children's inner world, non-acceptance of their feelings, and unwillingness to provide them help and support. This parenting style yields no positive emotional context that unites parents and their children and is important to develop empathy (Junco-Guerrero et al., 2021).

Conclusion

In our study sample, the most common parenting styles were indulgent hyperprotection, disturbance in family role attitudes, and attachment trauma. For all the groups of children, the most significant characteristics of emotional health included emotional awareness, aggression,

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anxiety, and empathy. As a result, we found differences in the emotional health of primary schoolchildren raised with different parenting styles. 'Indulgent hyperprotection' (when a child is raised as a family idol) causes a reliably high level of school anxiety in children. 'Disturbance in family role attitudes' is associated with difficulties in children's ability to recognize and understand emotions of others. 'Attachment trauma' is associated with a high level of aggression and a low level of empathy in first-grade children.

This study emphasizes the importance of family relationships and the role of parents, who must develop personality traits in their children, which would enable them to adequately overcome all life difficulties. Raising an emotionally stable individual, who knows how to establish humane relationships with adults and peers and to control himself/herself, is one of the most important responsibilities of the family. The results of the study also emphasize the importance of early high-quality diagnosis of children's emotional health for planning and carrying out corrective measures to prevent difficulties in school and extracurricular activities, emotional and social adaptation, including depression. Maintaining the emotional health of younger students through a thorough preliminary analysis of parenting styles and parent-child relationship and the implementation of corrective measures may help prevent risky antisocial behavior in the future (in particular, in adolescence) and thereby support and ensure well-being of younger generation.

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E. V. Kazakova conducted the empirical study, analyzed and interpreted findings, worked with sources, wrote the literature overview, and contributed to the critical review and revision of the manuscript.

L. V. Sokolova conducted the empirical study, analyzed and interpreted findings, worked with sources, wrote the literature overview, and contributed to the critical review and revision of the manuscript.

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Research article

Motivations for Using Social Media, Online Risk Factors, and Psychological Well-being of Adolescents in Relation to the Integration of Social Media into Everyday Activity

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Abstract

Introduction. This study examines the role of social media in everyday activity. The amount of time spent on social networking sites, number of social contacts, and motives for using social media are interrelated characteristics that affect the emotional state and psychological well-being of adolescents. In this study, the authors sought to explore associations among substantial and formal characteristics of social media, motives for using social media, and risk factors. The study aimed to identify the impact of the indicators of activity on social network sites on adolescents' subjective psychological well-being. **Methods**. An online survey was used for data collection. A total of 409 social network users aged 14 to 17 years took part in the study. The authors assessed formal indicators of social media use, motives for using social networking sites, online risk factors, and subjective psychological well-being. The authors used the Social Media Use Integration Scale to assess the degree of social media integration into everyday activity. **Results**. Social media use indicators (the amount of time spent on social networking sites and number of friends) were associated with higher levels of social media integration and online risks. Motivations for using social media were associated with higher risks; preserving anonymity in social media was associated with lower risks. Adolescents' subjective psychological well-being decreased while risks increased and social media became much more integrated into their lives. Nevertheless, a large number of friends and the presence of a potential for realizing self-presentation motives enhanced life satisfaction. **Discussion**. The integration of social media into adolescents' everyday lives leads to multidirectional effects, increases online risks, and contributes to the realization of socialization motives, which, in its turn, differently affects their psychological well-being.

Keywords

social networking sites, social media, adolescents, psychological well-being, motives, risk factors, Internet, life satisfaction, online risks, self-presentation motive

Highlights

➤ Integration of social media into everyday life represents a characteristic of behavioural, social, and emotional involvement of adolescents in daily social media use, and their intense activity on social networking sites.

➤ Online risks are related to increased communicative and interactive motives. However, specific characteristics of motives and risks are different. Thus, communicative motives are associated with the risk related to getting acquainted with others; self-representation motive is associated with experiencing negative emotions.

➤ Subjective psychological well-being of adolescents is inversely proportional to social and emotional risk factors in online interaction.

For citation

Introduction

Social media is an intrinsic part of today's reality and represents a new context for socialization of children and adolescents (Soldatova, Rasskazova, & Chigarkova, 2020). The degree of involvement in the online environment is determined by various personality traits of young adults (Kruzhkova & Vorob'eva, 2019) and manifests itself in various representations of behaviour in social media (Karabanova & Georgievskaya, 2019). Annual growth of the number of social media users (Digital 2021: Global overview report, 2021) intensifies the need for a proper study of psychological phenomena that lie behind the use of social media and take place in such an environment.

Motivations for using social media

Research on motivations for using social media revealed both age and gender differences and certain specific characteristics of its relationship with learning (Sobkin & Fedotova, 2019; Khlybova, Tomicheva, & Girenko, 2021). The following motives are considered important for social media use: creative, socialization, economical, entertaining, and informational ones (Bulut & Doğan, 2017). Self-representation motive is also noted; it manifests itself in the aspiration to create a realistic or false image and differs depending on personality traits, age, and gender (Kornienko, Rudnova, & Gorbushina, 2021; Ovcharova, 2021; Sobkin & Fedotova, 2019). Despite the fact that motives for using social media are different between adults and adolescents, both groups share the major one – the need for maintaining contact with others (Soldatova & Teslavskaya, 2018). Apart from the motive of being connected to a social group, motivation for avoiding boredom also remains an important predictor for negative consequences of excessive integration of social media in adolescents' everyday lives (Stockdale & Coyne, 2020). However, we should not only focus on the negative effect of social media. Any motivation for using social media is ultimately aimed at the establishment of social contacts, better socialization (Karabanova, 2020; Solodnikov & Zaitseva, 2021), joining various social groups, and receiving psychological support (Stockdale & Coyne, 2020; Alekseeva, Veretina, & Orlova, 2019).

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Risks associated with social media

Negative effects of social media have been debated a lot in various studies (for example, see Panov & Patrakov, 2020). Yet, most studies examine the Internet-related addictive behaviors, obsessive Internet use, and cyberbullying (Kiryukhina, 2019). Normally, the time spent on Internet and social networking sites and passion for online games are considered as formal factors in such studies (Marín-López, Zych, Ortega-Ruiz, Hunter, & Llorent, 2020; Masi, 2018). Neuroticism, low self-control, aggression, need for reward, and low levels of communication skills and social competences are among personal factors (Sobkin & Fedotova, 2018; Kholmogorova & Gerasimova, 2019). The profile of the qualities contributing to adolescents' addictive behaviour can be extended through studying the characteristics of their lifestyle and relationship with parents (Gao et al., 2020).

Communication-related risks in social media represent another problem. They were also defined in EU Kids Online project (Staksrud, Ólafsson, & Livingstone, 2013). However, such risks are not unequivocal. For example, meeting a new person on a social network site provides new opportunities for communication and expands an individual's social circle. On the other hand, it creates a possibility of negative reactions from this new acquaintance. Due to the ambivalence of such risks, their harmful potential actually depends on other factors. Since communication risks are primarily related to social media, their examination in the context of other variables is considered an important task.

Psychological well-being and the use of social media

The research of various aspects of psychological well-being and use of digital gadgets revealed that the amount of time spent on social networking sites (Bruggeman, Van Hiel, Van Hal, & Van Dongen, 2019), number of friends in social media (Gorelova & Inozemtsev, 2020), and social media addiction (Suntsova & Burdyko, 2018) were the most influential factors. Moreover, children with a high level of happiness and well-being demonstrated the highest frequency of using digital gadgets (Bruggeman et al., 2019). Such an outcome may be explained by several hypotheses, including negative hypothesis, positive hypothesis, hypothesis of social skills, and compensation hypothesis.

The positive hypothesis considers communication in social media from an optimistic perspective and claims that such a communication provides more opportunities for interaction and improves the quality of communication in real life. Adolescents maintain contact with their friends in the online format, which has a positive effect on their psychological well-being (Ellison, Steinfield, & Lampe, 2007). The negative hypothesis suggests that online communication lowers the level of psychological well-being because it takes time that could be spent in in-person interaction. Besides, in social media adolescents communicate with unfamiliar individuals instead of maintaining and strengthening already existing social connections (Valkenburg & Peter, 2009).

The hypothesis of social skills is based on the research works that demonstrated that in social media and in real life communication circles mostly coincide. This means that individuals interact with the same people. Therefore, those having better communication skills can maintain their psychological well-being through communicating and receiving support in both online and offline interactions (Bruggeman et al., 2019).

In contrast to the hypothesis of social skills, the compensation one rather explains how people with low communication skills or certain personal qualities can improve their psychological well-being. For instance, establishing close supporting contacts in a relatively safe online environment

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contributes to the psychological well-being of introverted individuals, and helps them communicate in offline environment more efficiently (Bruggeman et al., 2019).

In a broader context, the influence of digital technologies on psychological well-being is generally explained through the negative hypothesis. However, A. Przybylski and N. Weinstein suggested a different perspective. According to the authors, both high and low intensity of using digital gadgets entail negative consequences. On the contrary, the medium level may have positive results (Przybylski & Weinstein, 2017).

Integration of social media into everyday life
In the Internet and social media studies, researchers investigate the whole range of formal parameters, including the amount of time spent on social network sites and the number of friends or followers. However, they ignore substantial parameters of social media-related behavior. Several options are currently available for evaluating the extent of social media integration. For example, the intensity of social media use may be measured on the basis of self-reports on the frequency and duration of the use of social network sites (Ellison et al., 2007). Another option may be the assessment of the so-called compulsive social media use which includes the analysis of behavioural criteria for digital gadgets addiction (Elphinston & Noller, 2011). The results of the studies conducted on student samples confirmed that a higher involvement in social media and experiencing negative emotions when deprived of it were more characteristic of girls and were associated with the extent of the manifestation of procrastination (Kornienko & Rudnova, 2018).

Social media are integrated into everyday life not only for messaging, but also for business, education, and self-development. Thus, there is a strong need to investigate the extent of this integration (Jenkins-Guarnieri, Wright, & Johnson, 2013). Social media integration is understood as a behavioural characteristic associated with different activities in social media and as an emotional element of communication on social networking sites, when the impossibility of social media use engenders negative emotions.

The integration of social media in everyday activity is an *important* issue, as it characterizes not only formal parameters of social media, but also the extent of the importance of social media in everyday activities. Moreover, this characteristic may help evaluate the importance of maintaining contact and positive emotions while communicating via social networking sites. Previous studies of formal characteristics of social media, motivation, online risk factors, and psychological well-being enabled us to examine various aspects of internet-related behaviours among adolescents. However, there is an obvious lack of studies that simultaneously investigate multiple parameters (e.g., motives, risks, and psychological well-being), which makes it impossible to comprehensively consider them in associations with users' activity in social media. However, it is the investigation of social and emotional components of social media that makes it possible to proceed from the descriptive characteristics to a substantial psychological analysis. Such a transition may complement the already existing empirical studies and also broaden our theoretical understanding of online activities of adolescents.

In this regard, it becomes necessary to obtain *new* data that may help correlate substantial characteristics of social media with the formal ones, and with the motives, online risk factors, and general life satisfaction.

This exploratory study unites various characteristics describing behavioural and psychological parameters of social media use. The primary objectives of this study are as follows: (a) to define

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various aspects of adolescents' behavior in social media through the examination of formal characteristics of social media, combined with the scales for behavioural and socio-emotional integration of social media; (b) to examine associations of social media integration with the motives for using social network sites and risk factors, which may enable us to discuss the potential danger of the interest in maintaining online communication and the online social environment; and (c) to clarify the association of behavioural and socio-emotional integration of social media with the psychological well-being of adolescents.

Methods

To achieve the objectives of the research, we conducted an online survey. The respondents received a link to the questionnaire and, after familiarizing themselves with the study goals and signing the consent, answered the questions. This stage took place in April–May 2021.

Sample

A total of 409 school students aged 14 to 17 years took part in the study (M = 15.48; SD = 1.07), 228 of whom were girls and 121 of whom were boys. We asked respondents about their most preferred social network sites (SNSs). Thus, 40 % of the participants reported VKontakte as their most preferred SNS platform, 29 % – Instagram, 10 % – YouTube, and the remaining 21 % used other ones. The use of a certain SNS does not exclude the use of other ones. In the view of the possibility of integration of several SNS platforms, respondents' preferences may be explained by the convenience of using instead of the functional profile of a certain SNS platform.

Formal characteristics of using social media

In general, adolescents used four SNS platforms (VKontakte, Instagram, YouTube, and TikTok) and spent more than 2 hours per day on them. Moreover, 60 % of respondents reported that they spent 1–4 hours per day on SNSs. On average, they had up to 100 friends there (M = 97.53); half of the respondents reported 0–50 friends. In our study, 40 % of respondents had partially private accounts, i.e. only for friends or those they knew; 26 % of respondents had totally private accounts, i.e. only for friends; 32.8 % of respondents opted for mixed strategies. Only 1.2 % of respondents had totally public accounts.

Motives for social networking

In our study, 27 % of respondents prioritized the opportunity to maintain contact with their friends, 42 % – to get acquainted with others, 10 % – to game and post some information about themselves, and 33 % – could not distinguish any particular motive.

Risk factors in social networks

Frequent interaction with strangers was reported by 17 % of respondents. Meanwhile, 30–60 % of respondents claimed that they almost never interacted with strangers and never met someone they got acquainted online.

Assessment tools and parameters under study

Characteristics of social media use. To assess formal characteristics of social media, we asked the respondents to answer the following questions:

1. What SNS platforms do you use? (multiple options available)
2. Which SNS platform do you consider the main one? (one option available)
3. The amount of time (hours) spent on the main SNS platform.
4. The number of friends on the main SNS platform.
5. Privacy/publicity of the SNS platform account. The following options were offered: public (for everyone), partially private (for friends of friends or acquaintances), and private (friends-only).

We assessed *the motives for using social media* using the questions set by Bruggeman et al. (2019). We asked the respondents to evaluate the following four motives: communicative (maintaining contact with others), communicative and cognitive (getting antiquated with others), gaming (playing games), and self-presentation ones (publication of thoughts, texts, and pictures). Each motive was rated using a 5-point scale (1 referred to 'strongly disagree' and 5 referred to 'strongly agree').

The examination of *online risk factors in social media* was performed using questions (Staksrud et al., 2013) about the interaction with strangers in social media, face-to-face meeting with online acquaintances, bullying in social media, and general negative social media experience. The respondents rated each question using a 4-point scale (1 referred to 'almost never' and 4 referred to 'very often').

We assessed *subjective psychological well-being* using the Satisfaction with Life Scale by E. Diener. The Scale includes five questions that may be rated within the range from 'strongly disagree' to 'strongly agree'; it helps evaluate cognitive aspects of subjective well-being and a correspondence between general life circumstances and life expectations (Osin & Leont'ev, 2020).

The characteristics of social media integration into adolescents' everyday life were assessed using the Social Media Use Integration Scale. This assessment tool evaluates the extent of social media integration, subjective importance of social media, and emotional attachment to using social media (Jenkins-Guarnieri et al., 2013). Originally, this scale was developed for the study of Facebook use on a sample of young adults aged 17–25 years. The scale consists of 10 questions that the respondents should rate using a 5-point scale (1 referred to 'strongly disagree' and 5 referred to 'strongly agree'). The main parameters are the *behavioural integration* scale related to behavioural activity in social media (daily checking of personal account, reactions to other users' content, etc.), and the *social and emotional integration* scale. The latter parameter is associated with the importance of interaction in social media and the frequency of communication with others.

Results
Associations of the characteristics of social media use, motives, and online risk factors in social media
The number of SNS platforms used by adolescents positively correlated with the number of their friends (r = 0.14; p < 0.01), motives for using social media ((r = 0.12; p < 0.05); (r = 0.12; p < 0.05); (r = 0.14; p < 0.01); (r = 0.15; p < 0.01)), and risk factors ((r = 0.18; p < 0.01); (r = 0.19; p < 0.01); (r = 0.11; p < 0.01); (r = 0.16; p < 0.01)). Time spent on SNS platforms was only related to the risk of bullying (r = 0.13; p < 0.01). The number of friends on SNSs positively correlated with the motive for maintaining contact with others (r = 0.18; p < 0.01), getting acquainted with others (r = 0.18; p < 0.01), and publishing personal content (r = 0.21; p < 0.01). At the same time, we observed a significant negative correlation between the number of friends on SNSs and the gaming motive (r = –0.14; p < 0.01). Privacy/publicity of the SNS platform account negatively correlated with the motive for maintaining contact with others (r = –0.10; p < 0.01), motive for

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getting acquainted with others (r = –0.12; p < 0.01), and gaming motive (r = –0.13; p < 0.01). There was no correlation with the motive for publishing personal information. As for online risk factors, there was a negative correlation between the privacy/publicity of the SNS platform account and interaction with strangers on a social network site (r = –0.17; p < 0.01).

Table 1

Means, standard deviations, and correlations among characteristics of social media use, motives for using SNSs, and risk factors in social media

Indicators	Mean SD	Number of SNSs	Time spent on SNSs	Number of friends	Account privacy/ publicity
Number of SNSs	4.25 (1.51)				
Time spent on SNSs	8.78 (16,96)	0.04			
Number of friends	97.53 (125.72)	0.14**	–0.03		
Account privacy/publicity	1.90 (0.88)	–0.02	–0.02	–0.09	
M: maintaining contact	3.90 (0.91)	0.12*	0.03	0.18**	–0.10*
M: getting acquainted with others	3.26 (1.06)	0.12*	0.10	0.18**	–0.13**
M: gaming	2.69 (1.34)	0.14**	0.10	–0.14**	–0.12*

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Table 1

Means, standard deviations, and correlations among characteristics of social media use, motives for using SNSs, and risk factors in social media

Indicators	Mean SD	Number of SNSs	Time spent on SNSs	Number of friends	Account privacy/ publicity
M: publishing personal content (thoughts, texts, and pictures)	3.06 (1.21)	0.15**	0.06	0.21**	–0.03
R: interaction with strangers	2.69 (0.91)	0.18**	0.08	0.02	–0.17**
R: face-to-face meeting with social media acquaintances	2.07 (1.01)	0.19**	0.07	0.23**	–0.09
R: general negative experience in social media	2.01 (0.97)	0.11*	0.07	0.06	–0.03
R: bullying	1.36 (0.72)	0.16**	0.13**	0.01	–0.05

*Notes: * – p < 0.05; ** – p < 0.01; M – motives for using social media; R – risk factors in social media.*

Associations between the motives for using social media and risk factors

The desire to maintain contacts and get acquainted with others positively correlated with interaction with strangers (r = 0.14; p < 0.01) and face-to-face meeting with social media acquaintances (r = 0.21; p < 0.01). The motive for getting acquainted with others positively correlated with such risks as interaction with strangers (r = 0.20; p < 0.01), face-to-face meeting with social media acquaintances (r = 0.22; p < 0.01), and bullying (r = 0.11; p < 0.05). The motive for gaming was associated with the risk of interaction with strangers (r = 0.13; p < 0.01) and bullying (r = 0.21; p < 0.01). The motive for publishing personal content (thoughts, texts, and pictures) in social media positively correlated with the risk of face-to-face meeting with social media acquaintances (r = 0.18; p < 0.01) and the risk of negative emotional experience (r = 0.10; p < 0.01).

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Table 2

Correlations between motives for using social media and associated risks

Risk factors in social media	Motives for using social media			
	Maintaining contact	Getting acquainted with others	Gaming	Publishing personal content (thoughts, texts, and pictures)
Interaction with strangers	0.14**	0.20**	0.13**	0.06
Face-to-face meeting with social media acquaintances	0.21**	0.22**	0.04	0.18**
General negative experience in social media	–0.01	0.07	0.05	0.10*
Bullying	–0.03	0.11*	0.21**	0.01

*Notes: * – p < 0.05; ** – p < 0.01.*

Social media use with online risk factors

The Social Media Use Integration Scale scores indicated positive correlations with the number of SNSs (r = 0.25:0.37; p < 0.01) and the amount of time spent on SNSs (r = 0.10:0.11; p < 0.05). Moreover, in contrast to the scores of the socio-emotional and general integration scales, the score of behavioural integration was not related to the amount of time spent on social media. Also, the latter positively correlated with the number of friends (r = 0.15:0.19; p < 0.01). Account privacy/publicity negatively correlated with communicative (r = –0.13; p < 0.01) and overall scores for using social media (r = –0.12; p < 0.01).

Among the motives for using social media, the motives for gaming (r = 0.13:0.14; p < 0.01) and maintaining contact (r = 0.15:0.19; p < 0.01) demonstrated the lowest correlations with these scales. There was a somewhat higher correlation with the motive for getting acquainted with others. The motive for publishing personal content (thoughts, texts, and pictures) had the most significant correlation (r = 0.29:0.35; p < 0.01).

Risk factors positively correlated with all indicators of the Social Media Use Integration Scale (r = 0.13:0.30; p < 0.05). However, there was no correlation between the behavioural indicator of social media use and the bullying risk factor.

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Correlations of general life satisfaction and the characteristics of social media use and risk factors

Correlational analysis of the Social Media Use Integration Scale indicators and the life satisfaction score revealed numerous significant correlations. The overall scale score (r = –0.20; p < 0.01), behavioural scale (r = –0.29; p < 0.01), and socio-emotional integration scale (r = –0.27; p < 0.01) negatively correlated with the life satisfaction score.

Life satisfaction had negative correlations with the number of SNSs (r = –0.13; p < 0.05) and positive ones with the number of SNS friends (r = 0.11; p < 0.05). Motives for using social media had no correlations with life satisfaction. We observed negative correlations of life satisfaction with such risk factors as interaction with strangers (r = –0.22; p < 0.01), bullying in social media (r = –0.20; p < 0.01), and general negative emotional experience in social media (r = –0.24; p < 0.01).

We performed a regression analysis of the joint contribution of demographic variables, formal characteristics of social media, motives, social media risks, and the extent of integration of social media into everyday life (see Table 3). This analysis included the overall score of social media integration and the overall score of social media risks.

Table 3
Regression analysis of life satisfaction

Indicators	Standard regression coefficient (beta)	T-test	Significance level (p)
Intercept term	4.12	7.427	0.001
Gender	0.08	1.029	0.304
Age	–0.00	–0.056	0.955
Number of SNSs	–0.02	–0.804	0.422
Time spent on SNSs	0.001	0.241	0.810
Number of SNS friends	0.01	2.799	0.005**
Social media integration	–0.32	–5.250	0.001***
M: maintaining contact	0.08	1.855	0.064
M: getting acquainted with others	0.07	1.943	0.053
M: gaming	0.04	1.258	0.209
M: publishing personal content (thoughts, texts, and pictures)	0.07	2.145	0.033*
Social media risks (overall score)	–0.30	–4.638	0.001***

*Notes: * – p < 0.05; ** – p < 0.01; *** – p < 0.001; M – motives for using social media.*

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Determination coefficient of this model was 15.9 % (R^2 = 0.152; p < 0.05; CI 95 % [0.09:0.22]; the model was significant at F (11 397) = 8.044; p < 0.001. The following factors may be significant predictors for the life satisfaction level: the number of SNS friends, low extent of integration of social media in everyday life, motive for publishing personal content, and low level of social media risks (Table 4). The motives for maintaining contact and getting acquainted with others demonstrated scores close to the significance level.

Discussion

This study aimed to examine the extent of social media integration in adolescents' everyday life in relation to various characteristics of social media use – motives and online risk factors. We also considered the contribution of these characteristics into adolescents' subjective well-being.

Formal characteristics of social networking, motives, and online risk factors

The amount of time spent on SNSs, number of SNS friends, and other formal parameters describe different independent specific characteristics of social media use. The only exception concerned the association of the number of SNS friends with the number of SNSs used by adolescents. This may be explained by the fact that nowadays social media have already become a part of everyday life. Therefore, appearing of new SNSs is just another stage of the development of the Internet and social media (Simion & Dorard, 2020).

Registering on different SNSs, individuals establish contacts with others. Therefore, the general number of virtual friends increases. Based on the information that individuals publish on their social media accounts, SNSs suggest them contacts with unfamiliar ones who may have something in common (e.g., hobbies and interests). However, the use of a large number of SNSs is associated with a clearer manifestation of motives for social media use and higher risks.

Various SNSs are focused on various forms of self-representation. Publishing different materials and interacting with others fulfils different motivations. Some SNSs function as messengers and serve the purposes of maintaining contacts. Others are focused on the publication of personal content (e.g., Instagram or TikTok), and satisfy the need for self-presentation. Such SNSs as Discord represents a gaming communication platform. Our assumption is confirmed by the results of studies of different SNSs and the motives for their use. These research data indicate that users distinguish among SNSs informative and communicative ones. The latter SNSs help users maintain contacts with others (Stockdale & Coyne, 2020).

Privacy preservation was reported as an important aspect by over two thirds of our respondents. Therefore, in 40 % of cases their profiles were partially private and only 1.2 % of adolescents maintained public accounts. In both cases, these results surpass outcomes of a similar EU Kids Online study (Livingstone, Ólafsson, & Staksrud, 2013). Privacy/publicity of accounts is an independent characteristic of behaviour in social media (unrelated to time or quantitative indicators), which is associated with the motives for using SNSs. Obviously, a greater need for the privacy of a personal account may be related to a less clear manifestation of motives associated with interaction with others. However, the intention to preserve privacy is not associated with the intention to publish some personal content on SNSs. It is intrinsic for a behavioural strategy when individuals use social media to express their opinion to a limited audience. Besides, more restricted accounts entail less risks of contacts with strangers.

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Online risks and motives for using social media

Communicative, interactive, and gaming motives for using social media are associated with a higher risk of interaction with strangers and 'devirtualization', i.e. face-to-face meeting of SNS acquaintances. Besides, the risk of bullying may increase when these motives are fulfilled. Internet bullying may be supported by such factors as time spent on SNSs and the desire to get acquainted with others, including other online gamers. Concerning the gaming motive, our data coincide with the results of the study (Staksrud et al., 2013) that discovered that the use of gaming websites could be a predictor of bullying. We should note that the motive for publishing individual content on SNSs is related to the risk of negative emotional experience as a result of others' reactions.

Therefore, communicative motives are associated with risks of getting acquainted with others, interactive ones – with 'devirtualization', and self-representation – with negative emotional experience.

Similar data on the relationship of social media risk factors were obtained in previous studies that revealed that social media itself enhanced different risks (Staksrud et al., 2013). The results also coincided for privacy/publicity of accounts – more privacy means fewer risks. Here, the fundamental value is the number of contacts on SNSs. Surpassing 100 contacts increases the risks of face-to-face meeting of SNS acquaintances. Our study also confirmed this conclusion.

Associations of the characteristics of behavioural, social, and emotional involvement of adolescents in social media

The number of SNS friends may be understood as something that affects the extent of social media integration into adolescents' lives. Moreover, the amount of time spent on SNSs is associated with social and emotional integration. Thus, the amount of time spent on SNSs is associated with the need to communicate via social media, which causes negative emotions in case of deprivation of this mean. This assumption is confirmed by a great number of SNSs used by adolescents with deeper integration of social media in their everyday lives. Privacy preservation on SNSs is associated with lesser involvement of social media in interpersonal communication. E. Nikitina's study revealed significant differences between groups of respondents with low and high levels of online activity (publishing of their pictures, for example). It was emphasized that psychological well-being was directly related to communicative motives for those active on social media (Nikitina, 2021).

Social media integration into everyday life and motives for using social media

Behavioural and socio-emotional integration of social media into adolescents' everyday life is related to a clearer manifestation of different motives for using SNSs. Therefore, we can assume that social motives for getting acquainted and maintaining contact with others and joint activities may be generally fulfilled in social media. Nevertheless, the results obtained from the sample of senior adolescents revealed that the use of SNSs for communication could be associated with a need for psychological support and empathy. On the other hand, it could result in the development of negative characteristics such as anxiety related to SNS addiction (Stockdale & Coyne, 2020). The motive for self-actualization through publishing personal content is also related to a higher integration of social media into adolescents' lives (Nikitina, 2021). Higher extent of social media integration entails various risk factors, such as interaction with strangers,

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face-to-face meeting of SNS acquittances, and negative emotional experience. We can assume that if an adolescent considers social media a part of his/her everyday activity, the risks for such an interpersonal interaction also enhance.

Life satisfaction and social media
The number of SNS friends and the interest in publishing personal content on SNSs may impact on higher life satisfaction. This is generally consistent with the fact that the presence of social contacts contributes to an individual's positive perception of his/her own life (Nikitina, 2021). However, higher extent of social media integration into adolescents' everyday lives and numerous online risks negatively affect their psychological well-being. These data are consistent with the negative hypothesis of the relationship between psychological well-being and social media use. However, the correlation between subjective well-being and the number of SNS friends correspond to the positive hypothesis and the hypothesis of social skills. Despite the general trend of focusing on a negative correlation between psychological well-being and social media use, specific characteristics of motives for using social media and the number of friends may change these association (Clark, Algoe, & Green, 2018; Przybylski & Weinstein, 2017). Still, according to certain overview studies (Schønning, Hjetland, Aarø, & Skogen, 2020), numerous works examining a negative influence of social media on psychological health and well-being cannot be valid for the description of such a cause-and-effect relationship. The reason lies in the methodological specifics of the design of such studies; no longitudinal studies were carried out in this field. Therefore, the results of these works should be cautiously interpreted.

The results obtained in this study can be readily used in developing tools for the prevention of online risks and addictive behaviour in social media, promoting safe Internet use, and developing digital communicative competences among adolescents.

Conclusion
1. Formal characteristics of social media use are general reference points for the description of adolescent users of social media. They are active and have a lot of friends on various SNS platforms. Besides, the growth in the number of SNSs, the amount of time that adolescents spent on SNSs, and numerous SNS friends may be both the factor of a higher extent of integration and the risk factor. In contrast to the formal characteristics, integration of social media into everyday activity may become an important indicator for the evaluation of the extent to which social media is intertwined with our daily routine and how much it contributes to maintaining social and emotional contacts with others.
2. Privacy preservation is an important component of behaviour in social media. Account privacy settings are related to the manifestation of users' motives for communicating with others. However, they are not related to the motive for self-representation to a small circle of friends by means of personal content publishing. Higher privacy can reduce the risks of meeting and interaction with strangers and other related risks.
3. The risks of interaction with strangers and 'devirtualization' are associated with communicative and interactive motives, and with users' objectives as well. For example, gaming motives entail higher social risks. The fulfilment of the motive for self-representation may be related to the emotions caused by other users' reactions to personal content rather than to social risks.

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4. In general, better psychological well-being and life satisfaction are associated with fewer social and emotional online risks, which indicates that less risks result in better psychological well-being. On the other hand, adolescents who are satisfied with their lives don't seek risk-related interaction in social media.

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Author Contributions

A. N. Veraksa developed the methodological concept of the study, carried out the empirical study, and analyzed and interpreted findings.
D. S. Kornienko wrote the literature overview, selected the assessment tools, and prepared the manuscript for publication.
A. V. Chursina collected the data, analyzed empirical findings, and formatted the manuscript.

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The Structural-functional Model of Contemporary Students' Psychological Well-being

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Abstract

Introduction. The article discusses a topical issue of studying the psychological well-being of students as the main resource for societal development in the near future. Psychological well-being ensures effective socialization and vitality of the individual, helps to constructively cope with stress, and successfully solve age-related problems. A deep understanding of the phenomenology and structural and functional organization of contemporary students' psychological well-being is absolutely necessary. **Methods**. The theoretical analysis of the phenomenon of psychological well-being is based on attributive, structural, genetic, and functional types of scientific analysis, as well as scientific synthesis of the identified characteristics. Indicators and predictors of psychological well-being have been empirically studied. The sample was comprised of 300 students of Kostroma State University aged 18–23 years (M = 20.4), 254 of whom were girls and 46 of whom were boys. **Results and Discussion**. The concept of 'psychological well-being' is differentiated from the system of related phenomena; the author's structural-functional model of psychological well-being of contemporary students is theoretically substantiated and empirically verified. A high level of psychological well-being has not found among students. Students with low and average levels of psychological well-being have different subjective criteria for achieving psychological well-being, barriers to its achievement, and resources for achieving well-being. The main indicators of students' psychological well-being are the feeling of happiness and satisfaction with their own lives. The integral indicator of psychological well-being is associated with the characteristics of the students' motivational-value sphere. Subjective indicators of the psychological well-being of students include the assessment of the state of health, academic success, life success, and satisfaction with romantic relationships. The predictors of the psychological well-being are innovative competence, meaningfulness of life, and socio-psychological climate of the study group. The functions of psychological well-being are hedonistic, eudemonistic, resourceful, adaptive, protective, stabilizing, and anticipatory functions. The authors concluded that there exist universal trends in the structural and functional organization of the psychological well-being

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of contemporary students, as well as specific characteristics of the psychological well-being of students with low and average values of the index of well-being.

Keywords

students, psychological well-being, subjective well-being, happiness, life satisfaction, motivational-value sphere, barriers, resources, innovative competence, meaningfulness of life

Highlights

➢ Psychological well-being is an integral characteristic of an individual's inner states that ensure the consistency of mental functions and processes and the achievement of internal balance and subjective integrity.
➢ The main indicators of students' psychological well-being are the feeling of happiness and satisfaction with their own lives.
➢ The integral indicator of psychological well-being is associated with the characteristics of the motivational-value sphere of students.
➢ Predictors of psychological well-being include innovative competence, meaningfulness of life, and socio-psychological climate of the study group.
➢ Psychological well-being performs not only hedonistic, protective, and stabilizing functions, but also eudemonistic, anticipatory, and resource functions that ensure personal growth.

Introduction

The great challenges of our time (political, economic, environmental, and demographic ones, the spread of pandemics, digitalization, etc.) lead to considerable transformations of personal characteristics, social attitudes and values, interpersonal communications, and social roles of students compared to the relatively recent past. Now, we are witnessing a disturbing picture. The results of studies conducted at the global level show that young people are characterized by a high level of auto- and hetero-aggression, anxiety, psycho-emotional depression, and a low level of life meaningfulness (Mey & Yin, 2015; Hernández-Torrano et al., 2020).

This is because a high degree of uncertainty in the future, involvement in fierce stratification competition, an aggressive, information-saturated environment, parallel functioning in real and virtual spaces and, at the same time, the need to solve age-related problems require a high degree of psychological stability and adaptability and resourcefulness from young people. There is no doubt that it is during the period of student life that people face a wide range of multidirectional tasks, the solution of which is often difficult (separation from parents, professional development, moving to another city, finding a partner, and starting a student family). This often becomes a factor affecting the level of psychological well-being of student youth around the world. The problem of psychological well-being has become especially important during the Covid 2019 pandemic (Islam, Barna, Raihan, Khan, & Hossain, 2020; Rogowska, Kuśnierz, & Bokszczanin, 2020).

Contemporary theory and practice require comprehensive studying the risks of successful socialization of students, the structure, functions, dynamics, barriers, and resources of students' psychological well-being as the main human resource for societal development in the future.

Issues of happiness, well-being, and satisfaction with life have been of interest to researchers since ancient times. Within the framework of psychoanalysis, the consideration of psychological well-being was carried out through psychological distress and intrapersonal conflict (Lomas, 2021). In line with positive, humanistic, and existential psychology, addressed to the individual as the subject of his/her own life, the role of well-being in fulfilling individual capabilities and finding the meaning of life was emphasized by a number of researchers (A. Maslow, K. Rogers, V. Frankl, E. Fromm, J. Bugental, A. Lenglet, R. May). N. M. Bradburn developed a model of psychological well-being as overall life satisfaction based on a balance of positive and negative affects (Bradburn, 1969). This phenomenon was later called 'subjective well-being' (Diener, Suh, Lucas, & Smith, 1999; Czapinski, 2013). These models can be referred to *the hedonistic direction*, in which human happiness is understood as the result of experiencing positive emotions and satisfaction with life and the emphasis is placed on studying the emotional and cognitive-evaluative components of well-being. From the standpoint of *the eudemonistic approach*, the main source of psychological well-being is the personal growth, i.e. the emphasis is shifting to the value-meaning and behavioral components of the construct (Richardson, Passmore, Lumber, Thomas, & Hunt, 2021).

By integrating these approaches, C. D. Riff considered *psychological well-being* as a basic subjective construct that reflects an individual's perception and assessment of his/her self-realization in terms of the peak of potential. She verified a six-factor model of the construct, including empirical referents associated with the positive functioning of the individual – 'self-acceptance', 'positive relationships with others', 'autonomy', 'management of the environment', 'life purpose', and 'personal growth'. It was emphasized that life difficulties can also contribute to the achievement of psychological well-being in the case of a deep understanding of life, awareness of individual capabilities, goals, establishing constructive relationships with others, and developing empathy (Ryff, 1996).

The model of predictors of psychological well-being by R. M. Ryan that proved the differentiation and functional self-sufficiency of interrelated phenomena of subjective and psychological well-being is equally popular (Ryan & Deci, 2001).

In Russian psychology, attempts have been made to differentiate the concepts of '*psychological well-being*' (Kulikov, 2000), '*subjective well-being*' (Shamionov, 2015; Veselova, Korzhova, Rudykhina, & Anisimova, 2021), and '*emotional well-being*' (Idobaeva, 2011). As for *the structural organization*, psychological well-being is more often associated with the characteristics of behaviour than with feelings and affects; it describes the process of achieving the goal, and not the result (Zhukovskaya, 2011). It teaches the individual how to achieve positive functioning and a certain degree of implementation of this orientation, subjectively expressed in a sense of happiness, satisfaction with himself/herself and his/her life (Polishchuk, 2016) without severe anxiety, depression, and manifestation of social activity (Sozontov, 2006). The importance of well-being for the subjective world of the individual is also emphasized, since it ensures the consistency of mental functions and processes and a sense of inner balance and integrity (Kulikov, 2000); it is an indicator of psychological health (Voronina, 2005).

O. A. Idobaeva emphasizes the *level organization* of psychological well-being, considering it at the psycho-physiological, individual-psychological, and value-semantic levels. The solution of

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developmental tasks that meet the requirements of a certain age stage is considered as the main condition for the progressive individual development. For example, during periods of adolescence and youth (student years), psychological well-being should be determined by the level of formation of the main newly-emerging requirements – orientation in individual character traits, the ability to make life plans (Idobaeva, 2013), and active search for identity (Letyagina, 2014). In the context of solving developmental problems, the ratio of 'factual' (implementation of the positive functioning components) and 'ideal' (the degree of focus on the implementation of these components) levels of psychological well-being presents a certain interest (Shevelenkova & Fesenko, 2005).

Some studies reflect a *functional approach*. It is emphasized that the main function of psychological well-being is to maintain a dynamic balance between the individual and the outside world (Shamionov, 2014), successful socio-psychological adaptation (Miller, 2014), and constructive overcoming of life and communication difficulties (Samokhvalova, 2019).

At the same time, a meta-analysis of previous studies enabled us to conclude that in today's scientific discourse there is still terminological disorder and non-systematic views; the concept of 'psychological well-being' is not differentiated from the system of related definitions (subjective and emotional well-being, life satisfaction, mental health, and happiness). In addition, there is no clear understanding of the factors, structure, and functions of the phenomenon under study; the age specificity of the student youth psychological well-being has not been revealed. All this calls for creating and verifying the structural and functional model of students' psychological well-being.

The structural-functional model of psychological well-being

The development of a structural-functional model of students' psychological well-being is based on such *methodological approaches* as system-subject, socio-cultural, resource, and context; it is based on the fundamental principles of developmental psychology – determinism, continuity, anticipation, subjectivity, development, cultural conformity, stability and changeability, and variability (Sergienko, 2021). The theoretical understanding of psychological well-being is based on *general scientific methods of cognition and description of the object of study* (Kharlamenkova, 2004) – attributive, structural, genetic, and functional types of scientific analysis and scientific synthesis of the identified characteristics. Based on this, we pose the following research questions:

1. What is the phenomenon of 'psychological well-being' and what are its categorical features? – *attributive analysis*.

2. What are the components of psychological well-being and how are they interrelated? – *structural analysis*.

3. What are the predictors of psychological well-being? – *genetic analysis*.

4. What functions does psychological well-being perform in individual development? – *functional analysis*.

Attribute analysis. The primary task is to differentiate the concept of 'psychological well-being' from the system of related phenomena. A person simultaneously exists in two realities – objective reality, where he/she realizes himself/herself in a social context as a subject of communication, relationships, and activities, and subjective reality which is the product of understanding and experiencing his/her own being. These two realities, entering complex relationships and mutual influences, define the overall index of well-being, which is actualized in three strata (Fig. 1).
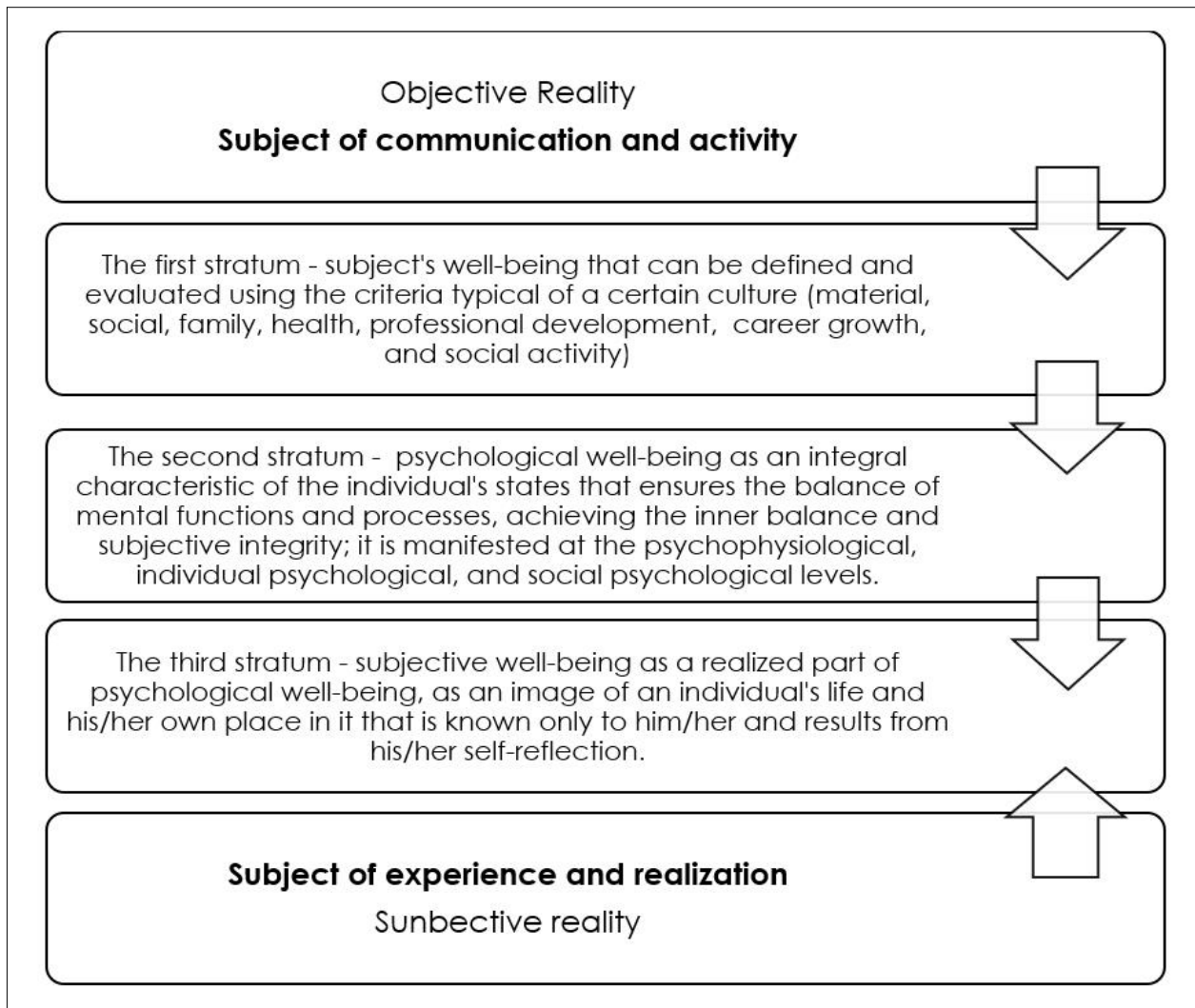
Figure 1. Differentiation of the concept of 'psychological well-being' from the system of related phenomena

As the main markers of the psychological well-being of the subject, we consider constructive coping and vitality, self-acceptance and self-confidence, self-regulation and self-projection, and involvement in close and business relationships.

Structural analysis. "The most reliable strategy for studying the psyche is an approach that makes it possible to study it as a single and integral system, but at the same time as a structured one..." (Lomov, 1984, p. 76). As *structural components* of the psychological well-being of the subject, we identify the following three main (affective, cognitive, and conative) and two adjacent components (reflexive, value-semantic):

– *an affective component*, including an individual's positive self-esteem, self-acceptance, a positive assessment of various aspects of his/her individual being, satisfaction with himself/herself and his/her life, and an optimistic view of the events of the present and the expected future;

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– *a cognitive component*, which includes a system of a person's ideas about himself/herself as an active and developing subject, knowledge about the individual system of mental and social resources and ways of their development, and understanding of the mechanisms of self-regulation and self-design;

– *a conative component*, including an individual system of intrapsychic (motivational, volitional, and emotional) and interpsychic processes of behaviour regulation, adequate ways of responding to various life situations, and effective patterns of behaviour aimed at self-expression and self-development;

– at the junction of the affective and cognitive components, *the reflexive component* of psychological well-being is actualized, providing a conscious attitude of the subject to his/her own life as a process of personal growth and self-realization;

– at the junction of the cognitive and conative components, *the value-meaning component* is actualized, including basic attitudes, meanings, and values that determine life goals, the orientation of the subject, methods of self-actualization, and vectors of development.

Genetic analysis. In the study of psychological well-being, we rely on the methodological provisions of the *systemic approach* that assumes "not only a dichotomy of the social and biological, but their mutually conditioning unity with a different contribution of each component to the development process" (Sergienko, 2006, p. 53). As *predictors* of psychological well-being, we consider the following ones:

– *endogenous (internal)*, associated with the characteristics of ontogeny (heredity, the state of physical, mental, psychological and social health, age and gender characteristics, individual typological and personality characteristics, etc.);

– *exogenous (external)*, associated with the influence of the socio-cultural and environmental context of development (ethno-cultural, social, environmental, technogenic, biogenic, virtual factors, and features of the time and context of ontogenesis).

Functional analysis. Speaking about the functions of psychological well-being, we understand the significant role that this construct plays in the life of the subject. The most important functions are as follows:

– *hedonistic*, providing the subject with a state of psychological comfort, pleasure with a predominance of positive emotions, a sense of happiness, and satisfaction with life;

– *eudemonistic*, ensuring the activity of the individual, constant self-development, and disclosure of his/her potentials and abilities;

– *resource-related*, stimulating the subject to search for and develop a system of mental and social resources that help to effectively overcome life's difficulties and cope with stress;

– *adaptive*, allowing the subject to be included in new social situations, to test social roles, to master new patterns of behaviour without fear of failure, gelotophobia, with self-confidence, with a reasonable attitude to emerging difficulties;

– *protective*, aimed at preventing impairments in individual internal stability, ensuring the preservation of the stability of self-esteem through the elimination from consciousness or the transformation of sources of conflict experiences;

– *stabilizing*, ensuring the consistency of mental functions and processes, the balance between negative and positive experiences of the subject, and a sense of inner balance and harmony;

– *anticipatory*, associated with the presentation, prediction of positive results and consequences of individual actions, anticipation of success, anticipation and propaedeutics of possible difficulties and barriers in solving the tasks.

The presented theoretical structural-functional model of psychological well-being is a very general scientific generalization and needs to be verified. This *aim* served as the basis for our empirical study.

Methods

The study sample was comprised of 300 students of Kostroma State University aged 18–23 years (M = 20.4), 254 of whom were girls and 46 of whom were boys. The study participants represented different areas of training (humanitarian, pedagogical, engineering, and technical). The study was based on the principles of environmental friendliness, anonymity, and confidentiality. Students took part in the study voluntarily.

Methodological tools: to solve the tasks set, we developed a diagnostic toolkit using a Google form. The study of the integral indicator of the psychological well-being of students, its indicators, and functions was carried out using (a) Ryff's Scales of Psychological Well-being (RPWB), modified by N. N. Lepeshinskii, 2007, (b) the Subjective Happiness Scale by S. Lubomirsky, H. Lepper, modified by D. A. Leont'ev, 2013, (c) the Life Satisfaction Scale by E. Diener, R. A. Emmons, R. J. Larsen, S. Griffin, modified by D. A. Leont'ev, E. N. Osin (Osin & Leont'ev, 2020), (d) the Colour Metaphors by I. L. Solomin (modification of the test of colour relations by A. M. Etkind), (e) the Diagnosis of the Motives for Students' Educational Activity by A. A. Rean, V. A. Yakunin modified by N. Ts. Badmaeva, (Yakshova, 2016), and (f) self-assessment scales. The predictors of students' psychological well-being were identified using (a) the Innovation and Adaptability express method (Altkirt) by M. Bobic, E. College, E. Davis, R. Cunningham (Bobic, Davis, & Cunningham, 1999), (b) the Purpose-in-Life Test (PIL) by D. A. Leont'ev, 2000, and (c) the test for Assessment of the Microclimate of the Student Group by V. M. Zavyalova (Fetiskin, Kozlov, & Manuilov, 2002).

Statistical processing of empirical data was carried out using the SPSS Statistics V.19.0 software. Spearman's correlation analysis was carried out to identify the interrelationships of variables; in order to assess the significance of differences, the Mann-Whitney U-test and the multiple functional test φ * – Fisher's angular transformation; to identify predictors of psychological well-being regression analysis was used; students' free statements were processed using ranking and content analysis.

Results and Discussion

Statistical processing of the data array made it possible to partially verify the structural and functional model of psychological well-being on a student sample (Fig. 2).

Diagnostics of the *integral level* of psychological well-being showed that in the sample (n = 300) there are no respondents with a high level of its manifestation. Students have either average (*n* = 141) or low (*n* = 159) levels of psychological well-being. This is a very disturbing fact, indicating the presence of intrapersonal problems, disharmony of the psychological state, and partial disruption of internal balance and subjective integrity.

The results of the analysis showed that important indicators of psychological well-being are the subjective *feeling of happiness*, which characterizes a person's positive emotional experience of his/her own life as a whole, and *life satisfaction* (*p* ≤ 0.005). Students note that well-being for them, first of all, is "a calm and happy state", "the ability to enjoy life", "a good attitude towards life", "a state in which you know that you and your loved ones are doing well", and "awareness and feeling of happiness in life". These indicators characterize the subjective well-being of students

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that is a specific concept in relation to psychological well-being and reflects only its conscious part. Thus, the most striking indicators of the conscious part of students' well-being are *subjective assessment of academic success, assessment of success in life, assessment of health, as well as satisfaction with romantic relationships* ($p \le 0.004$). It is important for students to feel that they are "healthy", "strong", "successful in their studies", "not stupid", "there is every chance to graduate", "they have no problems with teachers", and it is also important to "be attractive", "to feel loved", "to have a friend", and "to feel the support of loved ones". This ensures inner harmony, a sense of self-expression in the main types of activity for this age – educational activities and intimate personal communication. Therefore, through understanding of their own success in studies, satisfaction in close relationships, good health, students come to perceive themselves as happy ones.
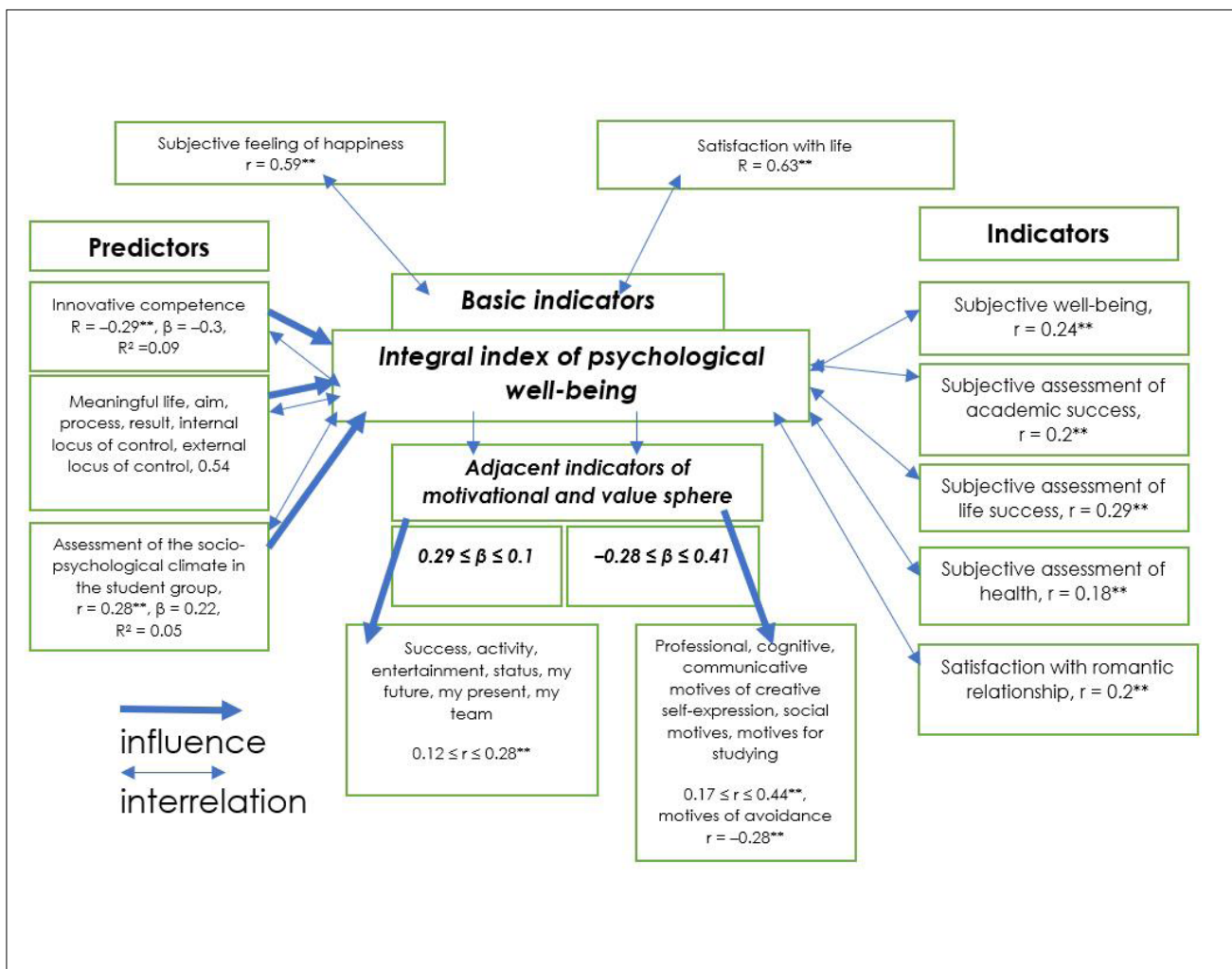

Figure 2. Structural-functional model of students' psychological well-being (based on data from correlation and regression analyses)

*Legend: ** – significance of differences p ≤ 0.010.*

The integral indicator of the psychological well-being of students is also associated with the most important indicators of the *motivational-value sphere of the individual.* Psychological well-being is most closely associated with the *attitude towards self in the present and the idea of self in the future* (r = 0.28; p = 0.02). The higher the indicators of psychological well-being are, the more positive ideas students have about what is happening here and now, at the current moment in time, and about what will happen tomorrow. There is a feeling of stability, controllability of individual life, and an understanding that "everything is going as it should". Also, the integral level of psychological well-being in students correlates with such motivational and meaning categories as *success, status, activity, entertainment, and my team.* In adolescence, it is important to feel that life is filled with events that bring positive emotions and help to "enjoy life", "enjoy every day", "live as you want, without breaking law". Their interests are not fixed on self-attitude and are not limited to educational activities. At the same time, the focus of their attention is the task of raising their status in the group, in society as a whole, achieving recognition and success in certain areas of activity, including educational and professional ones. These data find additional confirmation when considering the links between the psychological well-being of students and the most constructive motives for activity – *professional, educational, cognitive, communicative ones, and motives for creative self-expression.* That is, the higher the indicator of psychological well-being is, the more active the student is; he/she is not afraid of difficulties and is focused on overcoming them (feedback with the *'avoidance motive'* scale r = −0.28; p = 0.01). It should be noted that students with a higher level of psychological well-being more often have *professional* (U = 183.84; p = 0.001) and *educational and cognitive motives* (U = 178.76; p = 0.001). It is important for them to become highly qualified specialists and ensure the success of their future professional activities. At the same time, psychological well-being is associated with finding a job that may "please", "bring income", and "provide self-realization".

It is interesting to note that the indicator of psychological well-being is associated with the student's feeling of belonging to a team of like-minded people, with a reference group, which can be explained by a sense of security, confidence, acceptance that arise in the group, on the one hand, and on the other, the ability to share responsibility for what is happening and the result of activity. These trends, in our opinion, reflect two opposite directions of the modern maturing personality – towards the expansion, development of social experience and towards conformism, deindividualization.

The study also made it possible to identify some predictors of students' *psychological well-being*. Thus, it has been established that the *innovative competence* of the individual that implies a special susceptibility of the subject, openness to new experience and innovation, the ability to see elements of the new in a relatively well-established one, to offer a fundamentally new solution to the problem, predicts *a decrease in psychological well-being* (r = −0.29; p = 0.002; β = −0.3; R^2 = 0.09). Innovative competence is significantly higher among students with a low level of psychological well-being (U = 765; p = 0.03). Perhaps it is dissatisfaction with oneself, life, society, the traditional nature of society that provides openness to innovation, allows students to look for non-standard ways of solving life problems and organizational problems. It is also worth noting that methodology for identifying innovative competence makes an emphasis on individualistic values that may conflict with the collectivist culture of Russian society, which does not allow the subject to find oneself in society, reduces life satisfaction and well-being in general.

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An important predictor of psychological well-being is the *meaningfulness of life – aim, process, result, internal locus control, and external locus control* ($r = 0.72$; $p = 0.004$; $\beta = 0.73$; $R^2 = 0.54$). Psychological well-being is significantly higher among students who are aware of their own goals and get satisfaction when they achieve them. This is consistent with the researchers' view that high levels of meaningfulness predict more constructive behaviour in difficult situations, retention of personal integrity, and higher overall psychological well-being (García-Alandete, 2015).

In addition, a predictor of students' psychological well-being is the *socio-psychological climate of the student group* ($r = 0.28$; $p = 0.006$; $\beta = 0.22$; $R^2 = 0.05$). The degree of favourable climate in the group is associated with *the integral indicator of the psychological well-being of students* ($r = 0.18$; $p = 0.05$) and the *assessment of satisfaction with individual life* ($r = 0.12$; $p = 0.05$). Students in groups with a favourable psychological climate are distinguished by adequacy, flexibility, ability to control external activities, show the ability to capture or create conditions and circumstances suitable for meeting personal needs and achieving goals ($r = 0.23$, $p = 0.05$). The atmosphere of safety, comfort, trust, and mutual understanding contributes to the fact that students have a more positive attitude towards themselves, believe in themselves, realize and accept their positive and negative qualities ($\beta = 0.22$; $p = 0.005$); they strive for self-realization, development of their potentials, are ready for new experience ($\beta = 0.15$; $p = 0.004$); they are ready to build trusting relationships, take care of the well-being of others, empathize, make mutual concessions ($\beta = 0.21$; $p = 0.005$).

The study also obtained additional interpretative-phenomenological data for a deeper understanding of the model of the student's psychological well-being. With the help of content analysis of interview texts, we identified subjective indicators of achieving psychological well-being, barriers to achieving it, and resources for achieving well-being, typical for students with low and average levels of psychological well-being (Table 1).

Table 1

*Indicators, barriers, and resources for achieving the psychological well-being of students (according to the results of content analysis, the criterion φ * – Fisher's angular transformation)*

Indicators	Frequency of mentions (%)		Empirical value φ*
	Students with a low level of psychological well-being ($n = 159$)	Students with an average level of psychological well-being ($n = 141$)	
Subjective indicators of achieving psychological well-being			
Achieving goals	12.6 %	30.5 %	3.84**
I have already achieved…	0.6 %	5.7 %	2.83**
Professional satisfaction	–	3.5 %	3.25**
Internal balance	19.4 %	3.5 %	4.63**
When I deserve it	1.3 %	–	1.97*

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Table 1

Indicators, barriers, and resources for achieving the psychological well-being of students (according to the results of content analysis, the criterion φ * – Fisher's angular transformation)

Indicators	Frequency of mentions (%)		Empirical value φ*
	Students with a low level of psychological well-being (*n* = 159)	Students with an average level of psychological well-being (*n* = 141)	
Gaining confidence	–	2.8 %	2.9**
Achieved separation	1.3 %	4.3 %	1.63*
Barriers for psychological well-being			
Fears	8.2 %	2.1 %	2.5**
Conflicts	–	2.1 %	2.51**
Leaving the comfort zone	5.03 %	–	3.89**
Multitasking	–	1.4 %	2*
Bad habits	1.3 %	–	1.98*
Absence of support and understanding	–	3.6 %	3.3**
Health	2.5 %	–	2.75**
Absence of barriers	2.5 %	20.6 %	5.39***
Resources to achieve psychological well-being			
Goal-setting, purposefulness	11.9 %	21.3 %	2.2*
Self-developent	10.7 %	19.1 %	2.1*
Self-organization	5 %	1.4 %	1.85*
Overcoming laziness	3.1 %	–	3.1**

Note: * – significance of differences $p \le 0.050$, ** – significance of differences $p \le 0.010$, *** – significance of differences $p \le 0.001$.

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Students with a low level of psychological well-being put *indicators* related to achieving internal balance, calmness, confidence (1R), finding harmony with themselves, the world, reducing anxiety, fears for the future (2R), with the achievement of existential fulfilment (3R) and happiness (4R) on the first rating positions. At the same time, gaining financial independence and achieving more specific objectified life goals (getting a profession, separation from parents) fade into the background, compared to students with a higher index of psychological well-being, for whom these goals are either a priority (1–3R), or have already been achieved ("has already achieved well-being").

The same tendencies are manifested in students when describing *barriers to psychological well-being*. Thus, psychologically disadvantaged students believe that they are hindered by their own laziness, unwillingness to leave the comfort zone (1R), bad character, negative personality traits, bad habits (2R), social fears (3R), lack of motivation, interests, goals (4R), "myself", in particular poor health (5R) – i.e. there is a fixation on their negative traits and destructive psycho-emotional states that block the potentials of the subject, prevent self-expression, satisfaction with life and himself/herself. It is interesting that students consider labour, work (1R), study, education (2R), family creation (3R), wealth (4R) *as resources for increasing their psychological well-being*, realizing that the condition for achieving this is self-organization and the fight against laziness. This, to a greater extent, reflects the external, "visible" side of well-being in the social context, but practically does not affect the mental system of resources, which can change the self-attitude and world view of the subject.

Students with an average level of psychological well-being note the absence of barriers, believing that "nothing prevents them" from reaching a higher level of well-being (1R), except for their own laziness (2R), adverse external conditions (3R), lack of finances and time (4R). They also see conflict, lack of social support, and multitasking as obstacles. In this case, the students' position is more realistic; faith in individual strengths, combined with an objective assessment of the life context, becomes the guarantor of constructive overcoming of emerging barriers. As the main resources for overcoming barriers, students consider their own purposefulness, the ability to set adequate goals (1R), the desire for self-development, and the willingness to work for themselves (2R), as well as strong-will (3R) and communicative qualities (4R). There is a shift in emphasis from the importance of socially determined resources towards awareness of individual responsibility, subjectivity, and resourcefulness.

Thus, we can say that the results of the empirical study partially made it possible to verify the theoretical model described in the article in terms of proving the structure, subjective indicators, functions, and factors of students' psychological well-being.

Conclusions

1. Psychological well-being is an integral characteristic of an individual's states that ensure the consistency of mental functions and processes, the achievement of internal balance and subjective integrity. Its main indicators that characterize the conscious part of the psychological well-being of students (subjective well-being) are the feeling of happiness and satisfaction with individual life. Subjective indicators of students' psychological well-being are a high assessment of the state of health, vitality (psychophysiological level), assessment of academic success and success in life, including self-understanding, self-acceptance and self-projection (individual-psychological level), and satisfaction with romantic and interpersonal relationships (socio-psychological level).

2. There are differences in subjective indicators of achieving psychological well-being, barriers to its achievement, and resources for achieving well-being among students with low and medium levels of psychological well-being. This must be taken into account when organizing individual psychological assistance to students in order to increase the index of their psychological well-being.

3. The integral indicator of the student's psychological well-being is associated with the characteristics of the motivational-value sphere. There is a direct relationship between the well-being index and self-perception and attitude towards self in the present and future, social activity and academic success, with the desire of students to have a high status, have fun, work in a team, as well as with the development of professional, educational, creative, communicative and social motives, and with the motivation to overcome life's difficulties.

4. The predictors of psychological well-being are (a) the innovative competence of students, which is manifested in the degree of their activity, creativity, purposefulness, responsibility, sociability, diligence, openness to new experience and inclination to leadership, ability to work in a team and self-efficacy, (b) meaningfulness of life, which is manifested in understanding the meaning, purpose, process of individual development, understanding the desired results, and realization of internal and external locus of control (endo-predictors), and also (c) interpersonal relationships and the socio-psychological climate of the study group (exo-predictors).

5. Psychological well-being performs not only hedonistic, protective, and stabilizing functions that provide students with a state of psychological comfort, security, happiness, harmony, and life satisfaction, but also eudemonistic, anticipatory, adaptive, resource functions that provide self-confidence, activity, personal growth, and coping with life's difficulties.

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A. G. Samokhvalova wrote the abstract, keywords, and highlights, structured the article, contributed to the research design, research methodology, and theoretical description of the model, formulated the conclusions.

E. V. Tikhomirova contributed to the research design, wrote the text of the manuscript, wrote the literature overview, interpreted and discussed findings.

O. N. Vishnevskaya worked with Russian-language sources, collected the empirical data, and compiled the reference list.

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E. V. Asriyan contributed to the theoretical description of the model, coordinated research results with colleagues from Armenia, and edited the manuscript.

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Research article

Students and Teachers on Etiquette Behavior: A Comparative Analysis of Notions

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Abstract
Introduction. Compliance with the rules of etiquette at universities is a prerequisite for productive educational process and beneficial psychological climate. Changes in the system of higher education increase the importance of studying notions of etiquette behavior among educational process participants. The aim of this study is to reveal common and specific features in notions of etiquette behavior of university students and teachers. **Methods**. The sample was comprised of 69 teachers and 141 students from Russian universities. Indicators of etiquette behavior were used for analysis. Data was gathered through the original questionnaire and the Subjective Evaluation of Etiquette Functions Significance questionnaire by O. I. Danilenko. To process the results, descriptive statistics, frequency analysis, Spearman's rank correlation coefficient, and Mann–Whitney U test were used. **Results**. The results correspond with the novelty of this study's aim. Compared to teachers, more students think that students always comply with traditional rules of university etiquette. At the same time, both students and teachers gave high ratings to this indicator of students' etiquette behavior. Compliance with strict dress code is not considered a necessity by the majority of respondents in both groups. At the same time, the desirability of teachers dressing in business style is higher. No significant differences were revealed in attitudes towards the institutionalization of etiquette rules – slightly more than half of the respondents in both groups support including these rules in university charter. All functions of etiquette were rated highly by students and teachers. Similarities were revealed in ranking of etiquette functions subjective significance in the samples. The revealed differences in evaluation of etiquette functions correspond with students' and teachers' age and status characteristics. **Discussion**. The results of the study revealed that there are more similarities than differences in notions of etiquette behavior between the groups of students and teachers. Recognition of the importance of university etiquette was revealed in both groups.

Keywords
etiquette behavior, rules of etiquette, university etiquette, functions of etiquette, etiquette significance, university students, university teachers, status differences, appearance, dress code

Highlights

➤ Students' etiquette behavior is evaluated positively by the majority of educational process participants.
➤ Students rate the frequency of students' compliance with rules of etiquette higher than teachers. Rejecting the necessity of dress code, both students and teachers think that educational process participants should only look tidy and dress in business style.
➤ Both groups do not display a united view on the subject of whether institutionalization of etiquette rules is necessary.
➤ Implementation of the moral principle of respecting an individual and preventing conflicts between people with different social status are the most significant etiquette functions for both students and teachers.

For citation

Introduction

The current socio-cultural situation in Russia has features of transitivity that manifest themselves through constant transformation and uncertainty of values and norms of behavior. Today the manifestations of the anomie phenomenon, identified by E. Durkheim, are found among students (Argunova & Rus', 2019; Grishchenko & Shchelkova, 2019; Pletnev, 2020). An adverse trend of the commercialization of educational institutions is noted in a number of works studying changes in the education system. Teachers are compared to managers, students – to consumers (Galynskaya, 2021; Eagleton, 2016; Krasinskaya, 2016; Senashenko, 2017). At the same time, as noted by E. Durkheim, it is in the commercial sphere that the anomie phenomenon becomes chronic (Durkheim, 1998). Another inevitable prerequisite for anomie is digital inequality. In contrast to older generation, members of Generation Z, who find network space more comprehensible and less separated from reality, tend to isolate themselves as a group, which "makes it difficult for them to learn common norms and values" (Pletnev, 2020, p. 117).

P. Berger describes anomie as a serious threat that can lead to loss of sense of reality and crisis of self-awareness, while social laws serve as a shield against "anomic horror" (Berger, 1967). Such laws and social directions include norms of communicative behavior for employees as a component of organizational culture. Their importance for the effective teamwork in organizations, including educational institutions, is noted by experts in the field of organizational psychology (Chiker, Pochebut, & Volkova, 2019; Cameron & Quinn, 2001; Adeinat & Abdulfatah, 2019).

Rules of etiquette dictate forms of interaction for communicative situation participants, taking into account status differences (Baiburin, 1988; Danilenko, 2014; 2020). Changes in the system of higher education lead to a decrease in traditional definiteness of educational process participants' status-role relationships, while such relationships, without offending personal dignity, remain a condition for effective educational process. Positive correlation was revealed between the students' acceptability level of etiquette rules and their academic performance (Tamban & Lazaro, 2018). Learning etiquette behavior is considered one of the aspects of developing soft skills, required for graduates' future career (Kovchina, Ignatova, Baranovskaya, & Saprygina, 2019; Chevtaeva,

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Nikitina, & Vishnevskaya, 2020; Gasparovich & Kozlova, 2019; Wesley, Jackson, & Lee, 2017). Models for managing etiquette interactions of educational process participants are developed in order to improve the quality of education (Galynskaya, 2021).

The problem of students' and teachers' appearance gained considerable attention in empirical studies (Labunskaya & Bzezyan, 2018; Siyukhova & Kubova, 2017; Gurung & Vespia, 2007). Students' assessment of teacher's work is revealed to largely depend on the latter's appearance. The topic of students' attitude towards etiquette when using mobile devices in business communication is discussed (Towner, Everett, & Klemz, 2019). Unfortunately, other aspects of teachers' etiquette behavior, as well as teachers' attitude towards various aspects of etiquette regulation of behavior remain underexplored.

Sections about university etiquette are included in normative documents of some educational institutions (Regulations on..., 2017; Corporate Code..., 2017, etc.). However, even the most detailed list of rules cannot cover all situations that require etiquette behavior from communication participants. Not being institutionalized, rules of etiquette are 'unwritten rules', adherence to which is determined by individual internal consent to behave accordingly. In present conditions consistency of students' and teachers' notions of the importance of university etiquette, the relevance of certain rules, educational process participants' compliance with these rules is a prerequisite for accepting university etiquette and its effectiveness. It can be assumed that due to differences in status-role position and age notions of educational process participants', etiquette behavior has significant differences between students and teachers.

The *aim* of this study was to reveal common and specific features in notions of etiquette behavior of university students and teachers. The following *hypothesis* is tested: there are significant differences between indicators of notions of etiquette behavior of university students and teachers. Notions of students' compliance with the rules of etiquette, attitudes towards dress code of educational process participants, attitudes towards the institutionalization of university etiquette rules, and evaluation of etiquette functions significance are considered such indicators.

Methods

The sample comprised 210 respondents – 141 students (34 males, 107 females) and 69 teachers (32 males, 37 females) from Russian universities, including federal and regional universities with programs for different fields of study. Mean age – 21 years for students and 44 years for teachers.

To measure indicators characterizing notions of etiquette behavior, we used the original questionnaire and the Subjective Evaluation of Etiquette Functions Significance questionnaire by O. I. Danilenko. The original questionnaire consisted of three items. In the first one the respondents were asked to assess the frequency of students' compliance with five traditional rules of university etiquette in their university. The second item, that served to assess the importance of dress code, required to choose the preferred form of appearance and clothing for students and teachers. The third item presented a question about the necessity of institutionalization of etiquette rules in charter of educational institution; positive answer was interpreted as recognition of the importance of etiquette. The idea of etiquette functions multiplicity and the A. N. Leontiev's concept of meaning and sense was used as a theoretical basis for O. I. Danilenko's questionnaire. Basing on literature analysis, 9 functions of etiquette were identified; these functions were presented in the questionnaire. The respondent was asked to specify his/her attitude towards each function on

a 10-point scale from "For me this is not important at all" to "For me this is very important". The questionnaire allows to calculate significance values for each function and also overall values for all listed functions (Danilenko, 2015). The questionnaire was validated (Li, 2017). Empirical data were gathered either through Google Forms or paper forms.

Results

Table 1 presents the respondents' answers to the first question in the original questionnaire as a percentage. The following answer options were presented: always (4 points), frequently (3 points), occasionally (2 points), and never (1 point). Mann–Whitney U test was used to compare differences between groups.

Table 1
Students' and teachers' assessment of the frequency of compliance with university etiquette rules

Rule	Group	Percentage of respondents who chose the answer (%)				p-value
		Always	Frequently	Occasionally	Never	
a) when entering a room, the student lets the teacher go first	Students	60.3	32.6	6.4	0.7	0.000
	Teachers	30.4	47.8	21.8	0	
b) the student greets the teacher first	Students	51.8	35.5	12	0.7	0.269
	Teachers	42	44.9	13.1	0	
c) the student stands up to greet the teacher	Students	56.8	26.2	14.9	2.1	0.008
	Teachers	42	24.6	21.8	11.6	
d) the student waits for the right moment to ask the teacher a question	Students	54.6	41.8	3.6	0	0.000
	Teachers	36.2	37.7	26.1	0	
e) in electronic communication with the teacher the student adheres to rules of business correspondence	Students	77.3	22	0.7	0	0.000
	Teachers	49.3	36.2	14.5	0	

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As shown in Table 1, the majority of respondents in both groups believed that students always or frequently comply with the listed rules. In students' group, the 'always' option percentage was higher than 50 % for each rule. The 'occasionally' option was chosen rarely, the highest percentage was 14.9 %, for rule 'c' ("the student stands up to greet the teacher"). For two rules (rules 'd' and 'e'), none of the respondents chose the 'never' option. For the rest of the rules, the highest percentage for this option was 2.1 % (rule 'c').

In the sample of teachers, the "always" choice had the highest percentage for only two rules ('c' and 'e'). At the same time, the percentage for this variant does not rise above 49.3 % (rule 'e'). For the three remaining rules the most common answer was 'frequently'. The highest percentage for this option was 47.8 % (rule 'a', "When entering a room, the student lets the teacher go first"). For the 'occasionally' option, the percentage is also higher than for students in relation to all rules. At the same time, in the sample of teachers the 'never' option percentage is higher than 0 % only for one rule out of five (rule 'c', 11.6 %).

Comparison of indicators using the Mann–Whitney U test confirms the results of frequency analysis. Statistically significant differences in students' and teachers' answers were revealed for all rules presented in the questionnaire, except for the rule "The student greets the teacher first", as differences for this rule do not reach the level of statistical significance.

To assess attitudes towards dress code of educational process participants, we included the second item in the questionnaire, which required to choose one of the following options: "a) dress code ought to be dictated by rules of educational institution" (4 points), "b) the student should dress in business style" (3 points), "c) the student should look neat and tidy" (2 points) , "d) I have no strong views on the subject of appearance" (1 point). Then the same choice was presented regarding teacher's appearance. The results of data processing are shown in Table 2.

Table 2
Distribution of answers of educational process participants on the subject of university students' and teachers' appearance

Options		Respondents	
		Students (n = 141)	Teachers (n = 69)
		%	%
a) Dress code ought to be dictated by rules of educational institution	for students	8.5	5.8
	for teachers	5.7	2.9
b) One should dress in business style	for students	15.6	15.9
	for teachers	30.5	37.7

Table 2

Distribution of answers of educational process participants on the subject of university students' and teachers' appearance

Options		Respondents	
		Students (n = 141)	Teachers (n = 69)
		%	%
c) One should look neat and tidy	for students	63.8	60.9
	for teachers	48.9	46.4
d) I have no strong views on the subject of appearance	for students	12.1	17.4
	for teachers	14.9	13

The analysis of students' answers showed that the majority of respondents believed that students should look neat and tidy (63.8 %). This is also the most common answer regarding teachers' appearance, but the percentage is lower (48.9 %). Some respondents are more critical towards teachers' appearance, believing they should dress in business style – 30.5 % for teachers, as opposed to 15.6 % for students. A small percentage of students have no strong views on the subject of students' (12.1 %) and teachers' (14.9 %) appearance, while the desire for strict dress code is the least common option – 8.5 % for students and 5.7 % for teachers.

Teachers prefer students (60.9 %) and teachers (46.4 %) to look neat and tidy, while being critical towards their colleagues, as 37.7 % chose the option "The teacher should dress in business style". The same option regarding students' appearance was chosen only by 15.9 % of respondents, while the answer "I have no strong views on the subject of students' appearance" was the second most common (17.4 %). In relation to both groups of educational process participants, the option "Dress code ought to be dictated by rules of educational institution" was the least popular regarding both students' (5.8 %) and teachers' (2.9 %) appearance.

According to Mann–Whitney U test no significant differences between the groups were revealed regarding attitudes towards dress code values (p > 0.05).

Educational process participants' attitudes towards including etiquette rules in charter of educational institution was chosen as another indicator of etiquette behavior. The corresponding item in the original questionnaire required to answer whether institutionalization of etiquette rules is necessary: a) for students; b) for teachers. Attitudes towards institutionalization of etiquette rules were measured using 3-point scale, where recognizing the need to institutionalize etiquette rules for both students and teachers equals 3 points, only for students or only for teachers – 2 points, neither for students nor for teachers – 1 point. The results are presented in Table 3.

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Table 3

Comparative analysis of educational process participants' attitudes towards the institutionalization of university etiquette rules

Respondents	Percentage of respondents who chose the answer, %			
	for both students and teachers	only for students	only for teachers	neither for students nor for teachers
Students	52.5	0.7	2.8	44
Teachers	52.2	2.9	2.9	42

About half of the respondents in both samples were revealed to support including etiquette rules, regulating interactions between educational process participants, in the university regulations – 52.5 % of students, 52.2 % of teachers. Slightly less than half of the respondents are against it (44 % of students and 42 % of teachers). Only a few respondents in both groups supported institutionalization of etiquette rules only for teachers or only for students. In addition, the distribution of answers in the samples is similar. Comparison of the results using the Mann–Whitney U test also revealed no significant differences between the groups (p > 0.05).

To identify and compare subjective significance of etiquette functions, the Subjective Evaluation of Etiquette Functions Significance questionnaire by O. I. Danilenko was used. Respondents were asked to rate the significance of each of the nine etiquette functions using a 10-point scale.

Since the variable distribution for both samples was not always normal, the median was chosen as a measure to analyze the results. The sum of all points the respondents attributed to each function was also used in the analysis. The results of the analysis are shown in Table 4.

Table 4

Evaluation of etiquette functions subjective significance and their ranks values for university students and teachers

Functions	Students			Teachers		
	Median	Sum	Rank	Median	Sum	Rank
1. To show one's belonging to a particular cultural and social community	8	1044	9	8	510	9
2. Not to think about forms of communication, following generally accepted rules	8	1061	7	8	511	8

Table 4
Evaluation of etiquette functions subjective significance and their ranks values for university students and teachers

Functions	Students			Teachers		
	Median	Sum	Rank	Median	Sum	Rank
3. To make human interaction more convenient and effective (by being able to predict the participants' behavior)	9	1165	4	9	569	3
4. To show one's competence (knowledge of 'good manners')	9	1184	3	8	524	7
5. To prevent conflicts between people with different social status	9	1205	2	9	589	2
6. To preserve cultural traditions	9	1137	6	9	549	5
7. To show respect for those who you interact with	10	1278	1	9	614	1
8. To develop the ability to control oneself by following rules	8	105	8	8	525	6
9. To maintain order in public life	9	1153	5	9	558	4

The analysis revealed that both students and teachers believe all etiquette functions are highly significant – median values for all functions are 8 or higher.

The presented functions were ranked according to their importance. In the sample of students, the function "To show respect for those who you interact with" was the most significant (median – 10, sum – 1278). A number of functions had median value of 9. These functions were ranked according to sum value as follows: the function "To prevent conflicts between people with different social status" was the second most significant (sum – 1205), the function "To show one's competence (knowledge of "good manners")" – third (1184), the function "To make human interaction more convenient and effective (by being able to predict the participants' behavior)" – fourth (1165), the function "To maintain order in public life" – fifth (1153), and the function "To preserve cultural traditions" – sixth (1137). The last three functions with median values of 8 were ranked as follows: the function "Not to think about forms of communication, following generally

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accepted rules" – seventh (1061), the function "To develop the ability to control oneself by following rules" – eighth (1054), and the function "To show one's belonging to a particular cultural and social community" – ninth (1044).

In the sample of teachers, five functions had median values of 9. Ranks were distributed according to sum value. For teachers, the function "To show respect for those who you interact with" was also the most significant (median – 9, sum – 614). The function "To prevent conflicts between people with different social status" was ranked the second (sum – 589), the function "To make human interaction more convenient and effective" – third (569), the function "To maintain order of public life" – fourth (558), the function "To preserve cultural traditions" – fifth (549). Four functions had median values of 8. The function "To develop the ability to control oneself by following rules" had the sixth rank (525), the function "To show one's competence (knowledge of "good manners")" – seventh; (524), the function "Not to think about forms of communication, following generally accepted rules" – eighth (511), and the function "To show one's belonging to a particular cultural and social community" – ninth (510).

As Spearman's rank correlation coefficient showed, there was a significant correlation between rank indicators of the presented etiquette functions ($r_s = 0,80^*$). To identify significance of differences between the results in the samples, Mann–Whitney U test was used. Significant differences were revealed only for the function "To show one's competence (knowledge of "good manners")" ($p \leq 0.05$).

Discussion

Comparative analysis indicates that a significantly larger number of students believe that their peers follow the listed rules always or frequently. The results may be explained by teachers paying more attention to compliance with etiquette rules during interactions with students. However, we should not rule out the possibility that choosing the 'always' option by the majority of students in the sample is related to ingroup bias phenomenon (APA Dictionary of Psychology, n.d.).

The differences between the groups are statistically significant for all rules included in the original questionnaire, except for the rule "The student greets the teacher first". However, we should note that despite these differences, in the group of teachers options 'frequently' or 'always' were the most popular. Therefore, the students' compliance with rules of university etiquette is assessed positively by the majority of respondents in both groups.

Dress code desirability values are low in both samples. At the same time, while rejecting dress code that is dictated by rules, the majority of both students and teachers recognize the necessity to look neat and tidy and dress in business style. In addition, more respondents in both groups tend to think that teachers should dress in business style in comparison to the results regarding students' appearance. The distribution of answers may be determined by teacher's status of an educational institution employee and professional, who has to follow stricter dress code. However, we should emphasize once more that only a part of respondents chose this option, while the majority of students and teachers in the samples do not consider strict dress code necessary. This position coincides with researchers' conclusions about the dual functionality of dress code for university teachers and consequent preference against introducing it as a strict rule (Siyukhova & Kubova, 2017).

Slightly more than half of the respondents in both groups support including of etiquette rules for both students and teachers in the university charter; slightly less than half are against it.

Students and teachers think that etiquette rules can be institutionalized either for all educational process participants or for none of them, thus agreeing they have equal rights in relation to university etiquette.

As the results of comparative analysis show, there are significant similarities between values of the presented etiquette functions significance in both groups. The same functions have first and second ranks. Showing respect for those who they interact with is the most important functions for both samples, indicating importance of ethical principle of respecting human dignity for students and teachers. The 'pragmatic' function of preventing conflicts between people ranks second. We should note that in previous studies these functions were revealed to have higher priority among students (Danilenko, 2015, 2019).

The most significant differences in evaluation of etiquette functions subjective significance by students and teachers is shown in the analysis of the function "To show one's competence (knowledge of 'good manners')". In the sample of students, it ranks third, while in the sample of teachers – seventh. We may assume the differences are determined by age and status of members of the groups. For teachers, compliance with the rules of etiquette is an undoubted competence. Therefore, they consider etiquette a less important tool for showing competence during communication. This is not yet the case for students. The higher significance of etiquette as a way to make communication easier in students' group also serves as evidence. Compliance with the rules of etiquette helps "Not to think about forms of communication, following generally accepted rules"; this function ranks seventh in the group of students and eighth in the group of teachers. At the same time, the subjective significance of etiquette as a tool for preserving cultural traditions is higher for teachers.

As indicated by similarities between values of separate etiquette functions, both students and teachers recognize the importance of etiquette rules as regulations explicating moral imperative of respecting the individual and principles of optimizing communication. Content differences in evaluation of etiquette functions correspond with students' and teachers' age and status characteristics.

Our hypothesis that there are significant differences between indicators of notions of etiquette behavior of university students and teachers was only partially confirmed.

Conclusion

The results of the study revealed there are more similarities than differences in notions of etiquette behavior between the groups of students and teachers. On the whole, students' compliance with rules of university etiquette is rated highly in both samples, although students rate the frequency of their peers' compliance with rules of etiquette higher than teachers. Functions of university etiquette are characterized by versatility, as indicated by high significance of these functions for both students and teachers. Significant similarities were revealed in ranking of functions subjective significance in the samples. Content differences in evaluation of etiquette functions correspond with students' and teachers' age and status characteristics. Recognizing the importance of etiquette regulation of behavior, the majority of respondents expect educational process participants only to dress in a neat and tidy manner. Strict dress code is not considered necessary. Slightly more respondents in both groups support institutionalization of etiquette rules for all educational process participants in comparison to a number of respondents who are against it. Similarities between attitude towards dress code in the samples and the fact that only

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a small number of respondents supported institutionalization of etiquette rules either for students or for teachers indicate the intention to have equal requirements in relation to compliance with university etiquette rules for all educational process participants. This may indicate commitment to mutual respect between students and teachers shown through etiquette behavior.

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Author Contributions

O. I. Danilenko – made the main contribution to the research design, wrote the literature overview, and interpreted findings.

M. A. Perminova – prepared the manuscript, collected the empirical data, analyzed and interpreted findings.

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Research article

Anxiety and Uncertainty in Intercultural Communication: An Experimental Study

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Abstract
Introduction. This article presents the results of an experimental study of the contribution of anxiety and uncertainty to intercultural interaction, considered in the context of W. Gudykunst's anxiety/uncertainty management theory. Despite the correlation studies confirming its basic provisions, only the prerequisites for the desire to interact with representatives of a different culture, which is one of the characteristics of effective intercultural interaction, have been experimentally studied. To date there is no empirical support for the perceived effectiveness of intercultural communication, which is a more representative criterion of the effectiveness of intercultural communication in the anxiety/uncertainty management theory. The experiment was aimed both at testing the hypothesis about the existence of a direct effect of situations of uncertainty and anxiety on the perceived effectiveness of intercultural interaction, and at studying the mediation of this influence by the perceived predictability of intercultural communication and perceived intergroup anxiety. **Methods**. The study used an experimental design of 2 (uncertainty manipulation) × 2 (anxiety manipulation). The dependent variables were the perceived predictability of intercultural communication, intergroup anxiety, and the perceived effectiveness of intercultural interaction in prospective communication with a Colombian partner. In total, 92 participants took part in the experiment, aged 18 to 44 years, 78 % of whom were women. The experiment took place online, on the ZOOM video conferencing platform. **Results**. Hypothesis testing was performed using mediation analysis based on regression. The parallelism of the effects of the situation of uncertainty and anxiety on the perceived effectiveness of intercultural communication has been experimentally demonstrated. These effects are indirect and mediated by perceived predictability and perceived intergroup anxiety. **Discussion**. The results of the study are consistent with the data obtained earlier in the study of W. Gudykunst's anxiety/uncertainty management theory and are its first experimental confirmation. Moreover, we found that anxiety and uncertainty are different ways to ensure the effectiveness of intercultural communication.

Keywords
anxiety, uncertainty, predictability, intercultural interaction, perceived effectiveness, self-efficacy, experiment, mediation analysis, regressions, intercultural communication

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Highlights

➤ We found an indirect effect of the situation of uncertainty on the perceived effectiveness of intercultural communication by reducing the perceived predictability of intercultural communication.
➤ We found an indirect effect of the anxiety situation on the perceived effectiveness of intercultural communication by reducing the perceived intergroup anxiety.
➤ The direct influence of a situation of uncertainty and anxiety on the perceived effectiveness of intercultural communication has not been confirmed.

Introduction

This article investigates the contribution of anxiety and uncertainty to intercultural interaction. This issue is considered in the context of the theory of anxiety/uncertainty management developed by W. Gudykunst (Gudykunst, 1998; Gudykunst & Shapiro, 1996).

The anxiety/uncertainty management theory (hereinafter AUMT) states that in a situation of communication between people of different cultures, their interaction is filled with uncertainty. In intercultural communication, it is more difficult to predict behavior of another person. Consequently, increasing the predictability of the communication partner's behavior and reducing uncertainty represent a key need for intercultural interaction.

Uncertainty is one of the sides of intercultural communication. Another one is anxiety, which may be interpreted as an emotional response to uncertainty. Both of these phenomena interfere with effective intercultural communication, both in the short and long term, for example, worsen adaptation abroad (Hsu & Chen, 2021). Anxiety also negatively affects the acquisition of intercultural competence by foreign students (Cao & Meng, 2020); in the perspective of linguistic communication, it forms the so-called "linguistic anxiety vicious circle" (Lou & Noels, 2020) that critically reduces the ability of a foreign student to develop linguistic skills. Unlike the theory of intergroup anxiety, in the AUMT it is not a consequence of successful interaction, but a determinant that determines the quality of intercultural communication (Stephan, Stephan, & Gudykunst, 1999).

Despite the presence of correlation studies confirming the basic provisions of the AUMT (Gudykunst & Nishida, 2001; Gudykunst & Shapiro, 1996; Hubbert, Gudykunst, & Guerrero, 1999; Nadeem & Koschmann, 2021; Neuliep, 2012; Presbitero & Attar, 2018), there is a lack of experimental evidence regarding its causal connections. In the 2010s a series of experiments was carried out showing the contribution of anxiety and uncertainty to the desire to interact with people of a different culture. It has been shown that people experiencing anxiety are less likely to interact with an unpredictable partner in a different culture than with someone they perceive to be easily predictable (Samochowiec & Florack, 2010). It has been shown that the predictability of the host family increases the involvement in communication with its representatives (Rohmann, Florack, Samochowiec, & Simonett, 2014). It was found that situations that provoke anxiety and uncertainty in a person interacting with a healthcare professional of a different culture lead to a decrease in the desire to communicate with him/her (Logan, Steel, & Hunt, 2016). At the same time, in a study of students studying abroad, similar in design, only the effect of an

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anxiety provoking situation on the desire to communicate with a foreign cultural partner was found (Logan, Steel, & Hunt, 2015). A decrease in the desire to interact with a representative of a different culture in these studies is considered as a result of managing anxiety and uncertainty in intercultural communication. A person avoids communication with a foreign cultural partner in order to reduce the level of anxiety and uncertainty in communication (Gudykunst & Nishida, 2001).

However, the desire to interact with a representative of another culture is only one of the characteristics of effective intercultural interaction. The perceived effectiveness of intercultural communication is another characteristic, which is more presented in anxiety/uncertainty management theory. It is not possible to directly assess the effectiveness of communication by measuring the degree of achievement of mutually shared meanings (Spitzberg & Cupach, 2011). Therefore, within the AUMT researchers mainly measure of the perceived effectiveness of intercultural communication. In a study of the adaptation of foreign students in Russia (Gritsenko et al., 2021), the authors found that the desire to interact with Russian students is only associated with the psychological adaptation of foreigners; the perceived effectiveness of communication is associated with psychological and sociocultural adaptations, as well as with the experience of cultural shock. We may say that the perceived effectiveness of intercultural communication is most likely a more important parameter for predicting the effectiveness of intercultural communication than the desire to interact with a foreign cultural partner.

The perceived effectiveness of intercultural communication may be considered in the context of Bandura's social-cognitive theory (Bandura, 1978) as context-specific self-efficacy. Self-efficacy is defined as an individual's belief in his/her own ability to perform the required tasks. Respectively, in relation to certain types of tasks, we can speak of specific self-efficacy. Modern studies use the term *'self-efficacy in intercultural communication'* (Kabir & Sponseller, 2020; Peterson, Milstein, Chen, & Nakazawa, 2011) or *'intercultural effectiveness'* (Zimmermann, Greischel, & Jonkmann, 2021). According to Peterson et al. (2011) a person with a high degree of self-efficacy in intercultural communication functions more efficiently and confidently in various situations. It is important that self-efficacy largely determines the quality of interaction not only in direct but also in indirect intergroup contact, that is, acts as the observer's self-efficacy (Mazziotta, Mummendey, & Wright, 2011). In the context of this approach, the perceived effectiveness of intercultural interaction is an extremely important parameter that influences the real effectiveness of communication.

Thus, the effect of uncertainty and anxiety on the perceived effectiveness of intercultural communication is theoretically justified but not proven in an experimental study, which would establish cause-effect relationships. In this regard, we formulated the following research hypotheses: *Hypothesis 1:* In the situation of intercultural communication, there is a direct experimental effect of uncertainty (hypothesis 1a) and anxiety (hypothesis 1b) on the perceived effectiveness of intercultural interaction. *Hypothesis 2:* In the situation of intercultural communication, the experimental effect of uncertainty on the perceived effectiveness of intercultural interaction will be mediated by the perceived predictability of intercultural communication. *Hypothesis 3:* In the situation of intercultural communication, the experimental effect of anxiety on the perceived effectiveness of intercultural interaction will be mediated by the perceived intergroup anxiety.

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Methods
Sample and study design
The study used an experimental design of 2 (uncertainty manipulation) × 2 (anxiety manipulation). The dependent variables were the perceived predictability of intercultural communication, intergroup anxiety, and the perceived effectiveness of intercultural interaction in prospective communication with a Colombian partner (Ramona or Dominic). To control the emotional state, we used the Scales of Positive Affect and Negative Affect (Osin, 2012). The Beck Anxiety Scale (Tarabrina, 2001) was used to evenly distribute low and high anxiety participants across all four experimental groups.

In total, 92 participants (78 % women, 22 % men, aged 18 to 44 years) took part in the experiment, 75 % of whom had higher education, 7.6 % – vocational secondary education, and 17.4 % – general secondary education; 74 % of whom considered themselves to be Russians, 17 % – Buryats, and the other ones – of other nationalities. Most of the respondents (65 %) did not undergo training related to the development of intercultural competence, raising awareness about other cultures. However, 74 % of them lived abroad for more than 1 month, 20 % had frequent, and 46 % had very little experience of communicating with partners from abroad.

Measurement techniques
Perceived intergroup anxiety was assessed using a 10-item scale developed from the Intergroup Anxiety Scale by Stephan & Stephan (1985). We formulated the main question, "How do you think, what feelings will you experience while communicating with Ramona/Dominic?" Answering it, the respondents were asked to rate each of 6 statements (for example, "I will be upset" and "I will be anxious") on a 7-point scale from 1 – "Strongly disagree" to 7 – "Strongly agree".

The perceived predictability of intercultural communication was measured using the scale proposed by W. Gudykunst and T. Nishida (Gudykunst & Nishida, 2001) to assess the experience of uncertainty in the situation of intercultural communication. A high level of predictability means a low level of uncertainty and vice versa. The Scale consisted of 4 statements (e.g., "How do you think you can understand Ramona/Dominic?" and "To what extent do you think you can predict Ramona/Dominic's behavior in different situations?"). The respondents were asked to give an answer using a 10-point scale, where 1 refers to "I can't at all", and 10 – "I certainly can".

The perceived effectiveness of intercultural interaction was measured using the scale proposed by Gudykunst & Nishida (2001) for self-assessment of the effectiveness of intended communication with a partner from Colombia. The methodology consisted of 4 statements. Examples: "I think that my communication with Ramona/Dominic will not be very successful" and "Even in a situation of misunderstanding with Ramona/Dominic, I can think of something". The respondents were asked to rate their agreement with the statements on a 7-point scale from 1 – "Strongly disagree" to 7 – "Strongly agree".

The Scales of Positive Affect and Negative Affect (SPANA) questionnaire was developed by E. N. Osin (Osin, 2012) based on the English-language PANAS method and diagnoses a wide range of positive and negative emotional states. It consists of a list of 20 adjectives that describe various feelings and emotions. The respondent was asked to read each adjective and mark next to it to what extent he/she felt herself/himself (e.g., enthusiastic, afraid, confident, restless) using a scale from 1 – "almost or not at all" to 5 – "very much".

In addition to standard socio-demographic measurements (gender, age, education, and nationality), we used the following three questions to control the experience of intercultural

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interaction: (i) *Have you received training related to the development of intercultural competence, raising awareness of other cultures?* (ii) *Have you lived ever abroad (longer than 1 month)?* (iii) *Do you have experience of communicating with partners from abroad?*

Research procedure

Prospective participants in the experiment received an email invitation to take part in an international research project to study intercultural communication. The experiment itself was based on the principle of fictitious feedback about an imaginary partner in intercultural communication (Logan et al., 2015). Uncertainty and anxiety manipulations were drawn from previous experiments (Logan et al., 2015, 2016; Rohmann et al., 2014; Samochowiec & Florack, 2010).

The participants were informed that within the framework of the project they would be offered to interact remotely with their peers from Colombia (with a good command of Russian). Participants would need to discuss a number of issues together (a list will be provided) and solve a number of communication problems. However, before the online meeting with a partner from Colombia, participants would be asked to fill out several questionnaires. Then, using the online survey service in electronic form, all the participants filled out a preliminary block of methods, which included sociodemographic variables and the Beck Anxiety Scale. After processing the results, participants with low and high levels of anxiety were evenly distributed across all four treatment groups.

Then we invited each participant of the experiment to an online meeting with a partner from Colombia, which had to take place online on the ZOOM video conferencing platform. At the beginning, the experimenter reported, *"Based on a preliminary survey, a partner from Colombia was selected for you. This is Ramona/Dominic, the same age as you. In half an hour you will have the opportunity to meet her/him online. And now, let us prepare for intercultural communication."*

Then the first stage of the experiment began (the manipulation of the uncertainty of intercultural communication). The experimenter reported, *"From the link that I will send you in the chat, you will see ten situations describing Ramona/Dominic. In terms of the situation, you should guess how, in your opinion, Ramon/Dominic may behave in this situation. On the other side of the situation, you should guess what kind of behavior Ramon/Dominic may expect from you. Immediately after filling out, the system will automatically calculate the results and I will tell you the number of correct answers".*

Appendix 1 provides an example of a situation describing the behavior of Ramona/Dominic. We asked each participant to choose one of the answer options – to predict the behavior and behavioral expectations of a partner from Colombia. Then, on the basis of preliminary distribution in the experimental group, he/she was presented with the fictitious results of their answers. Under the condition of high uncertainty, we told the participant that he/she gave the correct answer only in 2 situations out of 10. Under the condition of low uncertainty, we told the participant that he/she gave the correct answer in 8 situations out of 10. Moreover, in each case we told the participant that his/her result corresponded to the mean results for all the participants in the experiment.

After the experimental exposure using the online survey service, the participant electronically completed the first block of T1 methods – the perceived predictability of intercultural communication, intergroup anxiety, the perceived effectiveness of intercultural interaction in the alleged communication with a partner from Colombia, and the Scales of Positive Affect and Negative Affect.

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Then the second stage of the experiment began (the manipulation of anxiety in intercultural interaction). The experimenter said, *"Before communicating with Ramona/Dominic, I would like to give you the opportunity to get acquainted with information about her/him. I will introduce you to quotes from the feedback questionnaires of other participants in the experiment. They have already spoken with Ramona/Dominic".* The experimenter then posted fictitious information about a partner from Colombia in the chat, allegedly based on feedback from previous participants (Appendix 2). In a low-anxiety condition, the participant received a description of the Colombian partner as a positive and accommodating peer. In conditions of high anxiety, Dominic/Ramona appeared to be negative and intractable characters. After the experimental exposure using the online survey service, the participant electronically filled out the second block of T2 methods, which completely repeated the block of T1 methods.

Finally, the experimenter spoke about the true purpose of the study and gave an emotional debriefing. As compensation, the participants were offered to attend the MSPPU ethnoclub and have a meeting with a real student from Colombia.

Results

The psychometric characteristics of the methods are presented in Table 1. The Cronbach coefficient speaks in favor of the sufficient reliability of all scales.

Hypothesis testing was carried out using mediation analysis based on regressions using the PROCESS macro add-in (Hayes, 2018) to the IBM SPSS 21.0 program. All the obtained data were previously standardized in accordance with the recommendations of A. Hayes (2018). When testing the models, the controlled variables were gender, age, education, ethnicity, positive affect, negative affect, participation in training related to the development of intercultural competence, experience of living abroad, and experience of communicating with partners from abroad. The experimental conditions were coded into a dummy variable format, where 1 was high anxiety/ uncertainty and 0 was low anxiety/uncertainty.

The first hypothesis of the study was not confirmed. Direct effects of situations of uncertainty ($\beta = -0.10$ (95 % CI [-0.38; 0.18]); SE = 0.14; p = 0.49) and anxiety ($\beta = -0.10$ (95 % CI [-0.13; 0.34]); SE = 0.12; p = 0.40) on the perceived effectiveness of intercultural interaction were not reliable.

The analysis confirmed hypothesis 2. In a situation of uncertainty, the perceived predictability of intercultural communication is significantly reduced ($\beta = -1.27$ (95 % CI [-1.78; -0.75]); SE = 0.26; p ≤ 0.001), which, in its turn, is a significant predictor of perceived effectiveness of intercultural interaction ($\beta = 0.15$ (95 % CI [0.05; 0.26]); SE = 0.05; p ≤ 0.01). To test the significance of the indirect relationship, we used the bootstrap function and calculated 95 % confidence intervals based on 10,000 bootstrapped resamples. Since 0 does not fall within the confidence interval, we can conclude that in the situation of intercultural communication the indirect effect of uncertainty on the perceived effectiveness of intercultural interaction through the perceived predictability of intercultural communication is significant: $\beta = -0.19$ (95 % CI [-0.38; -0.04]); SE = 0.09.

The analysis also confirmed hypothesis 3. In a situation of anxious feedback, the perceived intergroup anxiety increases significantly ($\beta = 0.43$ (95 % CI [0.10; 0.76]); SE = 0.17; p ≤ 0.05), which in its turn acts as a significant predictor of the perceived effectiveness of intercultural interaction ($\beta = -0.35$ (95 % CI [-0.51; -0.20]); SE = 0.08; p ≤ 0.001). As with hypothesis 2, we used the bootstrap function. Since 0 does not fall within the confidence interval, we can conclude that the indirect effect of the anxious situation of intercultural communication on the perceived

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effectiveness of intercultural interaction through perceived intergroup anxiety is significant: β = –0.15 (95 % CI [–0.31; –0.02]); SE = 0.07.

At both stages of the experiment, the positive affect (p ≤ 0.001) was a positive significant predictor of the perceived effectiveness of intercultural interaction; negative affect was a significant predictor of the perceived effectiveness of intercultural interaction at the first stage T1 (negative association, p ≤ 0.05).

Table 1
Descriptive statistics and correlations among study indicators

	M	SD	α Cronbach	1	2	3	4	5	6	7	8	9
1. Intergroup anxiety T1	2,75	0,85	0,79	1								
2. Perceived predictability of intercultural communication T1	6,53	1,40	0,80	–0,23**	1							
3. Perceived effectiveness of intercultural interaction T1	4,23	0,71	0,71	–0,45**	0,48**	1						
4. Positive affect scale T1	3,35	0,63	0,81	–0,30**	0,40**	0,47**	1					
5. Negative affect scale T1	1,22	0,38	0,70	0,32**	–0,20	–0,36**	–0,35**	1				
6. Intergroup anxiety T2	2,69	0,95	0,85	0,59**	–0,27**	–0,39**	–0,34**	0,26*	1			
7. Perceived predictability of intercultural communication T2	6,32	1,71	0,91	–0,17	0,70**	0,26*	0,30**	–0,23*	–0,46**	1		

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Table 1
Descriptive statistics and correlations among study indicators

	M	SD	α Cronbach	1	2	3	4	5	6	7	8	9
8. Perceived predictability of intercultural interaction T2	4,23	0,73	0,69	–0,42**	0,36**	0,52**	0,45**	–0,26**	–0,65**	0,56**	1	
9. Positive affect scale T2	3,38	0,72	0,87	–0,22**	0,40**	0,42**	0,88**	–0,37**	–0,44**	0,47**	0,56**	1
10. Negative affect scale T2	1,21	0,37	0,69	0,32**	–0,17	–0,27**	–0,33**	0,68**	0,51**	–0,39**	–0,42**	–0,47**

Notes: T1 – the first stage of the experiment, T2 – the second stage of the experiment; * – correlations are significant at the level of not less than 0.05; ** – correlations are significant at the level of not less than 0.001.

Discussion

The study did not find a direct effect of the situation of uncertainty and anxiety on the perceived effectiveness of intercultural interaction. A series of experiments with similar designs found direct effects of both predictability/uncertainty and anxiety feedback on the desire to interact with a member of another culture (Logan et al., 2016; Rohmann et al., 2014; Samochowiec & Florack, 2010). At the same time, in one study (Logan et al., 2015), only the contribution of uncertainty was confirmed; the effect of anxiety was not statistically significant. The authors explain its absence by the small sample size. Perhaps this explanation is also relevant for the results of our study. However, it is worth considering the specifics of the experimental situation – the experiment presented in this article was conducted online.

Recent studies show that there are no differences in the results of experimental studies conducted online and offline (Finley & Penningroth, 2015; Huber & Gajos, 2020); the quality of experimental data obtained via the Internet is quite adequate (Arechar, Gächter, & Molleman, 2018). On the other hand, an online laboratory experiment is the creation of a certain simulation of reality (as opposed to field experiments (Parigi, Santana, & Cook, 2017)). At the same time, in online reality, the interaction effects will differ from face-to-face communication. Social anxiety is known to be lower in online communication (Yen et al., 2012); non-verbal communication (Hou, 2017) – one of the leading sources of uncertainty in intercultural communication – plays a lesser

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role in online interaction (Lieberman & Schroeder, 2020). We may assume that for the participants of the experiment, it seemed easier to communicate online than offline. Therefore, the feedback provoking anxiety and uncertainty about the future intercultural partner did not have a direct impact on the assessment of the effectiveness of communication with him/her.

However, disturbing feedback about a prospective intercultural partner has an extremely strong effect on perceived uncertainty and intergroup anxiety. And through these variables it affects the perceived effectiveness of intercultural interaction, which confirms hypotheses 2 and 3. Therefore, it is the subjective perception of uncertainty and anxiety in a situation of intercultural communication that is key to assessing its effectiveness. According to Bandura's social-cognitive theory (Bandura, 1978), self-efficacy determines whether or not coping behavior will be initiated and how persistently a person will resist difficulties and cope with negative experiences. Thus, we may assume that actions that increase the perceived predictability of communication with people of a different culture will be effective, even with their low real predictive effect. Obviously, it is this mechanism that underlies the effectiveness of intercultural training using cultural learning technologies (Black & Mendenhall, 1990).

We should note that the indirect effect of a situation of uncertainty is only discovered through perceived predictability, but not anxiety. Also, the manipulation of the anxiety of the situation affects the effectiveness of communication through perceived intergroup anxiety, but not through perceived predictability. Despite the fact that in W. Gudykunst's model anxiety and uncertainty (Gudykunst & Nishida, 2001) are related to each other, they are different ways of ensuring the effectiveness of intercultural communication. This should also be taken into account when preparing for intercultural interaction. Activities that increase the predictability of intercultural communication will not necessarily stimulate a decrease in intergroup anxiety. And anxiety-provoking actions cannot adequately provide an adequate level of predictability.

Conclusion
The parallelism of the effects of the situation of uncertainty and anxiety on the perceived effectiveness of intercultural communication has been experimentally demonstrated. These effects are indirect and mediated by perceived predictability and perceived intergroup anxiety. The results of the study are consistent with the data obtained earlier in the study of W. Gudykunst's anxiety/uncertainty management theory and are its first experimental confirmation. The findings are of direct practical significance and may be used in developing programs for training specialists in intercultural interaction. The main practical conclusion is that the likely effectiveness of such an activity should be evaluated in terms of the extent to which it reduces anxiety and increases the sense of predictability of intercultural communication.

The limitations of the study are as follows: (a) The size of the sample, limited due to the experimental design, makes it impossible to unambiguously judge the persistence of the effects obtained in this study. (b) We measured attitudes towards an imaginary partner in intercultural communication; in a real communicative situation the effects may be different. (c) The composition of the participants in the experiment (2/3 of women) could lead to distortions, despite the statistical control of this variable.

Thus, the prospects for further research are associated with an increase in the sample size and an increase in its representativeness in relation to the general population. Also, future experiments should be based on a real communicative situation of intercultural interaction.

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Appendix 1. ***An example of a situation describing the behavior of Ramona/Dominic*** (for fictitious feedback, providing manipulation of predictability).

Question 1. Ramona says she cannot solve the problem. You offer her help, but she refuses. Why? Choose one answer.

A. Her pride does not allow her to accept your offer.
B. She says no, but she means yes.
C. She doesn't want to take your time.
D. You should ask three times until she agrees.

Appendix 2. ***Experimental conditions of anxiety***

Low anxiety. I was not embarrassed and felt quite comfortable. I think I have successfully dealt with the task of interacting with Dominic. Dominic was really positive. Dominic is no different from those with whom I have communicated before. Dominic's values and norms were clear and understandable to me. In my opinion, Dominic is no different from me. Dominic was quite compliant; we agreed on everything.

High anxiety. I was embarrassed and very uncomfortable. I think I did a poor job of dealing with Dominic. Dominic was very negative. I've never spoken to someone like Dominic before. Dominic's values and norms remained completely incomprehensible to me. In my opinion, Dominic is very different from me. Dominic was very intractable; everything went awry, without any agreements.

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M. A. Bratkina wrote the Methods and Results sections.

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Research article

Correlations Among Young People's Life Orientations, Social Identity, and Social Activity

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Abstract

Introduction. Life orientations and social identity are important regulators of human social behavior. The study of their specific characteristics in relation to various forms of social activity may help elucidate the role of life orientations and identity in the preference of specific types of activity. This study aims to examine correlations among young people's life orientations, social identity, and social activity. **Methods**. The sample consisted of 500 residents of Russia aged 16 to 35 years (M = 21.6; SD = 5.6), 35.5 % of whom were men and 64.5 % of whom were women. To assess subject-object orientations, we used the Questionnaire of Life Orientations. Identification categories with direct scaling were used to determine the characteristics of social identity. Adherence to various forms of social activity was assessed on the basis of a questionnaire including 12 scales that describe the forms of social activity. **Results**. Young people's adherence to leisure and online social activity was most pronounced. We established the associations of civic, protest, and leisure social activities with the life orientation of a trans-situational mobility type. Activity in the real environment was positively associated with a trans-situational locus of control and mobility but negatively associated with a trans-situational exploration of the world. The categories of social identity explain from 12 % to 36 % of the variations in various types of social activity. **Discussion**. Indicators of life orientations and categories of social identity are most closely related to civic, protest, and leisure activity. Certain categories of social identity play the most significant role in adherence to certain types of social activity. Thus, 'patriots' adhere mostly to a civic form of social activity, 'oppositionists' – to a protest one, 'active ones' – to a leisure one, and 'youth' – to an Internet/network one. Civic and protest forms of activity differ in their associations with activity in real and virtual environments. Leisure and Internet/network forms are associated with activity in both virtual and real environments.

Keywords

personality, social activity, life orientations, social identity, real environment, virtual environment, civic activity, protest activity, network activity, leisure activity

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Highlights

➢ Young people's desire for life changes is associated with adherence to civic, protest, and leisure activities.
➢ Adherence to civic activity is associated with a tendency to manifest it in a real environment. Adherence to protest activity is associated with a tendency to manifest it in a virtual environment.
➢ Various identification categories differ in their potential for explaining the degree of adherence to the types of social activity. The categories of 'patriots', 'young people', 'oppositionists', and 'active ones' are the most significant.

Introduction

The key changes in modern social reality that have occurred over the past decades are characterized by an increase in multidirectional trends. The researchers note that along with globalization, glocalization takes place (Bauman, 2008; Lebedev, 2018, etc.); objective (economic, political, social, etc.) and subjective (psychological) polarization is accompanied by integration (Volovikova et al., 2009; Lebedev, 2018; Yurevich, 2014; Shepherd & Lane, 2019, etc.). At the same time, total informatization and digitalization, in general, set a new dialectic of the relationship between the social and the personal, including the perspective of self-determination (Akopov, 2014; etc.) and self-realization (Nestik & Zhuravlev, 2018; Nikolaeva, Akopov, & Abushik, 2021; Stornaiuolo, 2017; etc.). The challenges and risks of "fluid modernity" actualize the need to search for a "vital strategy for the development of society" (Bauman, 2008), which potential can provide prospects for its sustainable development.

In this context, the issue of correlations among Russian young people's social identity, life orientations, and social activity is of particular importance. Social identity and life orientations represent the two most important lines of socialization – inclusion in the community and the establishment of individual subjectivity. The analysis of these phenomena in the context of social activity may (a) clarify their role in adherence to its various forms and (b) determine to what extent identification with social groups (and which groups) contributes more to the actualization of a particular form of activity.

In the context of social activity, social identity as an individual's commitment to a social community or group is characterized by the presence of an explanatory potential that enables the subject of life to fix not only the 'history' of his/her development, but also his/her orientation in the "fluid modernity", and his/her involvement in its creative transformation. According to numerous studies undertaken by us and a number of other authors (Arendachuk, 2019; Bocharova, 2018; Stradze, 2017; Shamionov, 2018; etc.), the creative transformation of social reality realized in the initiative activity of the subject, which has a socially relevant orientation, is defined as social activity. At the same time, it is essential to clarify the measure of individuals' subjective involvement and their own creativity in the spheres of their social lives, which is determined not only by life circumstances, but also by the subject of life (Leont'ev, 2019).

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The identification matrix of social identity can be represented by parameters reflecting identity according to stable (for example, ethnic, socio-cultural, family, religious identity, etc.) and transitive (for example, Internet/network, virtual, digital identity, COVID-nihilists, etc.) trends of social self-determination. We should note that adherence to certain groups, reflecting different options of social attribution, is defined as an action in the system of goals and motives of the subject of self-identification (Parsons & Shils, 1962; Spears, 2011; Carr, 2021).

The phenomenology of the identification grounds of social activity as a mechanism of social self-determination is extremely multidimensional. Therefore, it is an urgent problem which is considered in a variety of contexts. We should mention a number of studies dealing with cross-cultural parameters of social identification and their role in expanding/limiting the range of spheres of social activity application (Bocharova, 2012; Lebedeva & Tatarko, 2009; Akkuş, Postmes, Stroebe, & Baray, 2020; Ashrafi, Mohseni, & Shiri, 2020; etc.), the interrelation of various types of social identity and its actualization in specific socially relevant activities (Stradze, Kasyanov, Kumykov, & Kirik, 2016; Osborne, Jost, Becker, Badaan, & Sibley, 2019; etc.), socio-dynamic (Arendachuk, 2019; Shamionov et al., 2020; Braun-Lewensohn, 2016; Shamionov, 2020; etc.), gender/age (Arendachuk, 2018; D'yachenko, Kovalenko, Tikhonovskova, & Gribanov, 2019; Selezneva & Zinenko, 2020; Klenova, 2019, etc.), and level parameters (Gal'chenko, 2019; Murashenkova, 2013; etc.) of social identification with fixation of their expression in 'local' or combined forms of social activity, 'transitive' variables of the identification matrix (Internet/network, virtual, digital identity, COVID-nihilists, etc.), and effects of their manifestation in forms of Internet activity (Golubeva, 2020; Sharov, 2019; Korostelina, 2007; Shepherd & Lane, 2019; Stornaiuolo, 2017; Stornaiuolo & Thomas, 2017; Yusof, Kaur, Dalib, Ramli, & Awang-Hashim, 2021; etc.).

Along with the increased interest in the study of the identification grounds of social activity, attempts have been made to describe individuals' life orientations in the context of the transformation of social reality (Grachev, 2008; Zubok & Chuprov, 2020; Hitlin & Salisbury, 2013; Kruczek & Janicka, 2019; etc.). According to E. Yu. Korzhova (2006), life orientations should be understood as general subject-object orientations that characterize the direction of the realization of subjective potential in life situations or life events and reflect the measure of subjective involvement (or engagement) in life events.

The life orientations of an individual or a group play an important role in socially relevant activities, because any impact on the system of social ties and relationships requires a certain decision (Stradze, 2017; Zubok & Chuprov, 2020). Therefore, such an impact incorporates the processes of transformation and mobilization of the subject, and the construction of a certain strategy of activity based on the assimilation of social experience.

Meanwhile, several studies have reported the presence of a situational and trans-situational manifestations of life orientations in the actualization of various forms of social activity. Describing the specifics of the social activity of the Russian population, A. E. Stradze and his colleagues note its "situational reactivity by social interests" and a short-term mobilizing nature, which is explained by the lack of a stable "socio-value basis" (Stradze et al., 2016; Stradze, 2017).

Interesting data are presented in the study by Szafraniec (2019). Thus, the author undertook the study of life orientations and trends of their manifestation in forms of activity in a sample of young people from different countries (Germany, Poland, and Russia). The life orientations of young Russians are mainly characterized as "being to mean something" or, according to the author of the study – "ambitious, active, and successful people" whose activity is mainly realized

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in economic and professional activities. We should note that representatives of Polish youth tend to demonstrate a consumer orientation ("to have" or "having orientation") or, as the researcher notes, to do nothing with their own aspirations, unlike German youth, whose life orientations are defined as "to be and to have". Summarizing the results of the study, Szafraniec (2019) concludes that today there is a considerable reorientation of youth from "us" towards "me", which may be explained by the processes of individualization transferred to the space of socialization by a wave of global influences, and also by distancing of the state from previous forms of guarantees and support.

The results of the study of life orientations conducted by Hitlin & Salisbury (2013) on a sample of American college students indicate a combination of orientations towards 'having' and 'being', which manifest itself in the form of political activity.

Considering the accumulated factual material, we may ascertain a certain 'asymmetry' of research interest, which is mainly observed in the field of social identity and social activity and, to a lesser extent, in the field of life orientations and social activity. Meanwhile, no previous studies have investigated the correlations among life orientations, social identity, and social activity. We believe that filling this gap can significantly expand our knowledge of the phenomenology of social activity and the forms of its manifestation among young people, who determine the prospects for the development of modern society.

This study *aims* to examine the correlations among young people's life orientations, social identity, and social activity.

Hypothesis: There is a specific relationship between the severity of certain types of social activity and life orientations and characteristics of social identity.

H1. Social activity is associated with young people's desire for life orientations towards change and event saturation without an unambiguous orientation towards cognition.

H2. Social activity in the physical environment continues in the Internet environment. However, in these environments the severity of various types of social activity is different.

H3. The combination of identifications with different groups makes a significant contribution to young people's adherence to certain types of social activity.

The *objectives* of this study are: (1) to analyze the relationship between life orientations and types of social activity in real and virtual environments; 2) to study the features of young people's identification with different groups in the context of the implementation of certain types of social activity; and 3) to identify the features of young people's identification with different groups in the context of the implementation of certain types of social activity in real and virtual environments.

Methods

The sample consisted of 500 residents of Russia aged 16 to 35 years (M = 21.6; SD = 5.6), 35.5 % of whom were men and 64.5 % of whom were women. The respondents were distributed as follows: 11.2 % residents in rural areas, 25.7 % residents in towns, 57.9 % residents in cities, and 5.2 % residents in megalopolises. The sample was sufficiently heterogeneous. However, its structure represented different age groups of young people. We should note that various authors consider youthful age within different age brackets. Thus, according to V. N. Quinn (2000), this is the period from 18 to 40 years. G. Craig (2000) attributes youthful age to early adulthood (20–40 years). Conditionally considering youthful age in the range from 16 to 35 years, we should bear in mind that 'youth' is not so much an age concept as a social and historical one.

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The sample was formed by a simple randomized selection.

Table 1
Sample composition (n = 500)

	Men (n = 177)	Women (n = 323)
Age		
Years	20.8 ± 4.1	22.1 ± 6.2
Residence		
Village	10.7	11.8
Town	27.0	25.1
City	55.1	59.1
Megalopolis	7.3	4.0
Education		
General secondary education	1.7	2.8
Full secondary education	75.7	55.9
Vocational secondary education	14.1	22.4
Bachelor's degree	6.2	11.2
Master's degree	2.8	7.8

The research is based on the methodological principles of the system-diachronic approach (Shamionov, 2019), according to which individuals' social activity is considered as a complex construct, as a system with a metasystem level of social reality, characterized by nonlinear dynamics due to the diachrony of its internal and external instances. In accordance with this approach, different forms and types of social activity may be conditioned by different socio-psychological characteristics and external conditions of their implementation. The identification of specifics characteristics of such determination (using correlation and regression analyses) may contribute to the prediction of the direction of activity, as well as its psychological effects based on the principle of feedback.

To determine the characteristics of social identity, we have developed scales based on a pilot study on a sample of 30 full-time students of Saratov University and 3 psychology specialists with experience in social identity research. We asked the students an open question, "Which groups do you refer yourself?" Psychologists assessed the degree of proximity of the categories (the closest ones were combined into a single category). In result of the selection of the main identity categories, we obtained 12 groups (active ones, atheists, ideological ones, young people, informal

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ones, normal ones, oppositionists, patriots, party activists, family, bored ones, and users), which we used for scaling (a 5-point scale). The evaluation of the psychometric characteristics of the scales was carried out using standard procedures. We assessed normal distribution using the Kholmogorov–Smirnov test. Internal consistency was measured with Cronbach's Alpha. We have used Pearson correlation analysis.

Adherence to various forms of social activity was assessed on the basis of a questionnaire including 12 scales that describe the forms of social activity (altruistic, leisure, social/political, Internet/network, civic, social/economic, educational/developmental, spiritual, religious, protest, radical/protest, and subcultural) (R. M. Shamionov, I. V. Arendachuk, E. E. Bocharova, M. V. Grigoryeva et al.) (Shamionov et al., 2020). The list of the forms of social activity was clarified and supplemented with 6 scales (sports/recreation, cultural/mass, family/household, environmental, Internet/searching, and professional). Respondents were asked to rate their activity in real and virtual environments using a 5-point Likert scale (1 referred to 'almost never' and 5 referred to 'constantly'). The psychometric analysis showed that the generalized activity scale is acceptably consistent with the removal of the item (Cronbach's Alpha = 0.82–0.84). We should note that this scale does not exhaust all types of activity that young people participate in. However, it covers the majority of the forms identified by young people in associative experiments (Shamionov et al., 2020).

The subsequent factorization of the data enabled us to identify 'new' variables – types of social activity, including civic, protest, Internet/network, and leisure ones. The average value of the severity of all the forms of social activity corresponded to the integral indicator of social activity (ISA). The new scales also showed an acceptable level of internal consistency (Cronbach's Alpha range = 0.70–0.79).

To assess the respondents' subject-object orientations, we used the Questionnaire of Life Orientations (Korzhova, 2006), which included the following scales: the general indicator of subject-object orientations (subject orientation/object orientation), trans-situational variability (striving for self-change/stability), trans-situational locus of control (internal/external), trans-situational exploration of the world (striving for inner growth, self-improvement/striving for self-fulfillment in the external world), trans-situational mobility (striving for novelty/familiar, inertia), trans-situational creativity (transformation/adaptation). The questionnaire consisted of 21 pairs of self-assessment statements; the respondents were asked to select the statement that best represented them.

The survey of respondents was conducted online using Google forms, without contact with the interviewer. The average time to complete the questionnaire was 30 minutes. The study was anonymous and voluntary.

The primary data of the study were processed using mathematical statistics procedures – descriptive statistics, correlation analysis (r-Pearson), and multiple regression analysis (step method). Statistical processing was carried out using the statistical software package IBM SPSS Statistics + PS IMAGO PRO.

Results

Table 2 presents the data on the average activity indicators, life orientations, and their correlations.

Table 2 shows that leisure and Internet/network activity are the most pronounced among young people. At the same time, the Student t test (t = 0.064, p = 0.222) indicated the similarity of the mean values. The scores of adherence to activity in the virtual and real environments were almost equal. However, there was a significant difference in average values (t = 4.34, p = 0.004).

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Table 2
Descriptive statistics and correlations of the types of activity and life orientations (n = 500)

Activity/ Orientation	M	SD	Civil	Protest	Leisure	Network	Integral	Real	Virtual
Civic	2.39	0.81	1	0.50**	0.48**	0.21**	0.85**	0.17**	–0.06
Protest	1.66	0.81	0.50**	1	0.13**	0.17**	0.60**	–0.10*	0.10*
Leisure	3.47	0.78	0.48**	0.13**	1	0.31**	0.69**	0.35**	0.03
Internet/network	3.48	1.12	0.21**	0.17**	0.31**	1	0.51**	0.13**	0.47**
Integral indicator	2.73	0.61	0.85**	0.60**	0.69**	0.51**	1	0.31**	0.18**
In the real environment	3.76	1.15	0.22**	–0.02	0.41**	0.21**	0.32**	0.11*	0.31**
In the virtual environment	3.46	1.17	0.01	0.11*	0.11*	0.45**	0.20**	1	0.18**
Trans-situational variability	4.09	1.54	0.07	0.04	–0.03	0.03	0.06	0.00	0.03
Trans-situational locus of control	3.15	1.40	0.03	0.01	0.02	–0.05	0.03	0.13**	–0.03
Trans-situational exploration of the world	2.65	1.45	–0.02	0.03	–0.18**	–0.07	–0.07	–0.15**	0.04
Trans-situational mobility	2.96	1.42	0.15**	0.17**	0.16**	0.049	0.24**	0.12**	0.07
S-O orientations (overall index)	9.51	2.40	0.04	0.08	–0.03	–0.06	0.04	0.04	0.03

Note: * *p* < 0.05; ** *p* < 0.01. Column designations: *M* – mean, *SD* – standard deviation.

The correlation analysis identified weak positive associations of civic, protest, and leisure social activities with the life orientation of a trans-situational mobility type. Adherence to leisure activity is associated with a life orientation towards trans-situational exploration of the world (weak negative association). In addition, activity in the real environment is weakly positively associated with a trans-situational locus of control and mobility and weakly negatively associated with a trans-situational exploration of the world.

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We observed moderately positive associations among the integral activity index, trans-situational mobility, and the preference for activity in the real environment.

Table 3

Identity categories as predictors of young people's social activity (n = 500)

Identity categories	β	t	p	ΔR²
Civic activity				
Patriots	0.28	7.11	0.00	0.20
Party activists	0.23	5.56	0.00	0.09
Active ones	0.17	4.48	0.00	0.04
Ideological ones	0.15	3.75	0.00	0.02
Atheists	−0.12	−2.95	0.00	0.01
Informal ones	0.09	2.22	0.03	0.004
$F = 46.90$, $p < 0.001$; $R^2 = 0.36$				
Protest activity				
Oppositionists	0.28	6.55	0.00	0.23
Party activists	0.26	6.23	0.00	0.09
Informal ones	0.14	3.28	0.00	0.02
Ideological ones	0.14	3.63	0.00	0.02
Bored ones	0.08	2.03	0.04	0.004
$F = 55.67$, $p < 0.001$; $R^2 = 0.36$				
Leisure activity				
Active ones	0.34	7.80	0.00	0.24
Family	0.12	2.83	0.01	0.02
Normal ones	0.10	2.59	0.01	0.01
Ideological ones	0.10	2.39	0.02	0.01
Young people	0.10	2.47	0.01	0.01
Patriots	0.10	2.30	0.02	0.004
$F = 34.28$, $p < 0.001$; $R^2 = 0.29$				

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Table 3
Identity categories as predictors of young people's social activity (n = 500)

Identity categories	β	t	p	ΔR^2
Internet/network				
Young people	0.23	5.37	0.00	0.07
Users	0.14	3.21	0.00	0.03
Atheists	0.11	2.44	0.02	0.01
Normal ones	0.10	2.41	0.02	0.01
		$F = 17.33$, $p < 0.001$; $R^2 = 0.12$		

As can be seen from Table 3, such categories of social identity as patriots, party activists, active ones, ideological ones, informal ones (positive), and atheists (negative) are predictors of civic activity. These categories explain about 36 % of the variance for the dependent variable of civic identity (coefficient of determination $R^2 = 0.36$). Protest activity is explained by the categories of social identity that characterize a clear political orientation, including oppositionists, party activists, informal ones, ideological ones, and bored ones. About a third of adherence to leisure activity was explained by identification with active ones, normal ones, ideological ones, family, young people, and patriots. Finally, the Internet activity was the least determined by identity; 12 % of its variations were explained by referring to a group of young people, users, atheists, and normal ones.

Discussion

The analysis of absolute activity scores enabled us to assert the priority of its leisure and Internet/network types. Meanwhile, the protest type of activity is the least acceptable with a decreased dispersion in the scores. The preferred environment (real or virtual) of activity manifestations is at the level of scores that are close but differ according to the Student t test. Therefore, for the majority of respondents, activity in the virtual environment is a continuation of activity in physical reality. However, this may not correspond to all the types of activity.

The analysis of correlations between social activity and life orientations suggests that adherence to civic, protest, and leisure social activities is associated with the life orientation of a trans-situational mobility type. These data indicate that, in general, social activity is associated with young people's desire for life changes in the absence of direct associations with the desire for knowledge, self-knowledge, and subjective control over life situations. At the same time, adherence to leisure activity is associated with the desire for self-realization in the external world and for eventful life (according to E. Y. Korzhova, 2006), which provides individuals with a certain sense of control over their lives. In other words, the realization of leisure activity involves satisfying the need for self-realization in the absence of the desire for life planning.

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The results of the correlation analysis indicate that activity in the real environment is associated with certain life orientations, including the desire for life changes, interaction with new situations, subjective control over life situations, and self-fulfillment in the external world. In other words, an individual's subjective position in relation to life situations is combined with his/her subjective evaluation of external forces as decisive in the life controlling process. The correlations between activity in the Internet environment and life orientations have not been found, which may indicate the diversity of life orientations among individuals who mainly live in virtual space.

We should also note that activities in both real and virtual environments contain a meaningful social orientation. At the same time, activity in the real environment is associated with adherence to civic, leisure, and Internet/network types, and in the virtual environment – with adherence to protest, leisure, and Internet/network types. In other words, young people's civic and protest activities are in exceptional isolation from one another and are mainly implemented in one of the environments. These findings are partly consistent with previous studies (Shamionov et al., 2020; Sharov, 2019; Klenova, 2019) suggesting that the protest activity of young people in Russia is actively brought into virtual space. Meanwhile, civic activity is mainly implemented in the real environment.

The regression analysis suggests that from 12 % to 36 % of the variance of different forms of social activity are explained by the characteristics of young people's social identity. The role of social identity, which is appropriate for a certain group of young people, is most significant for various forms of social activity. Thus, adherents to civic activism are characterized by high scores of identifications with patriots, adherents to protest activity – with oppositionists, adherents to leisure activity – with active ones, and adherents to Internet/network – with youth. We should note that, despite the repeated occurrence of identification categories as predictors of various forms of activity, different categories, when introduced together into the regression equation, form combinations that explain a significant proportion of the variance of the dependent variable – the form of activity. These findings are consistent with previous studies (Spears, 2011) suggesting that social identification creates a certain basis for the implementation of activity in accordance with the attitudes of reference groups. Our findings may indicate that both identification with a specific social group and a combination of identifications represent an important condition for adherence to certain forms of social activity. A small adjustment of identification groups may be associated with a change in dominant activity, which indicates the presence of risks even in civic participation.

Conclusions

1. Personal life orientations and social identity are the most important regulators of human behavior in social space. Meanwhile, the role of different life orientations and identification categories in social activity may be different. There is a shift of the studies towards the factors of social identity, compared to the factors of life (subject) orientations.

2. Young people's life orientations are partially associated with adherence to various types of social activity. We found a very close association with leisure activity characterized by adherence to sports/recreation, cultural/mass, family/household, and leisure activities. Civic and protest activity are associated only with trans-situational mobility, which characterizes a person's desire to interact with new life situations in the absence of direct associations with orientations towards the desire to understand and analyze situations and to accept responsibility.

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3. Activity in real and virtual environments is significantly associated with the general multidirectional activity of young people. However, civic and protest types are differentiated depending on adherence to social activity in a certain environment (civic – in real environment and protest – in virtual environment).

4. Social identity is an important factor in young people's social activity. The cumulative contribution of combinations of social identity to variations of different types of social activity ranges from 12 % to 36 %. The most significant predictors are the categories of 'patriots' (20 % of the variance of adherence to civic activism), 'oppositionists' (23 % of the variance of adherence to protest activity), 'active ones' (24 % of the variance of adherence to leisure activity), and 'young people' (7 % of the variance of adherence to Internet/network activity).

The data obtained in this study can be used in organizing the activities of today's youth aimed at socially oriented activity, as well as activity in socially acceptable forms, taking into account their identification patterns and life orientation.

Limitations

The main limitation of the study is the lack of data on young people's attitudes regarding various identification groups. This could help us assess their emotional appeal. The motivational component of activity remains outside the scope of the study. However, it may help identify the main incentives for specific types of activity. Finally, although our sample included young people living in rural areas, cities, and megacities, it is generally possible to extend our findings to young people of Russian provinces.

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R. M. Shamionov made the main contribution to the theoretical framework and research design, supervised the study, analyzed and interpreted findings, prepared and edited the manuscript.
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E. V. Nevsky collected the empirical data and interpreted findings.

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