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ARTÍCULO DE INVESTIGACIÓN

**El impacto de la alexitimia en la estabilidad emocional de los
adolescentes /DOI: 10.5281/zenodo.7812207**

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Resumen

Se estima que durante la pandemia de COVID-19 se produjo un aumento del número total de depresiones, trastornos psicossomáticos, comportamientos autodestructivos, estrés y agotamiento laboral entre la población. En la investigación participaron 91 personas, entre ellas 65 mujeres jóvenes y 26 hombres jóvenes de edades comprendidas entre los 18 y los 24 años. Entre ellos estudiantes universitarios, jóvenes trabajadores y empleados. Se utilizó el sitio web Psychological Tests Online. Las pruebas son gratuitas y anónimas. Hemos sometido todo el conjunto de datos a un análisis cuantitativo y cualitativo, utilizando métodos estadísticos para el análisis de datos: estadística descriptiva, prueba U de Mann-Whitney (para muestras no vinculadas) y prueba H de Kruskal-Wallis. Se detectó un tipo de personalidad no alexitímico en el 57,1% de los encuestados, es decir, en la mayoría de la muestra. El 26,4% de la muestra total de la investigación se encontraba en el "grupo de riesgo" de alexitimia, y se identificó que el 16,5% de los jóvenes tenía un tipo de personalidad alexitímico. La estabilidad emocional de los encuestados de los grupos "normal" y "de riesgo" difería significativamente en las escalas de "autoestima", "satisfacción", "ansiedad", "hipocondría" y "sentimiento de culpa". En consecuencia, los niveles de autoestima y satisfacción son más altos entre los jóvenes de ambos sexos con un tipo de personalidad no alexitímico que entre los del grupo de riesgo. Mientras tanto, los jóvenes de ambos sexos con un tipo de personalidad no alexitímico presentan niveles más bajos de ansiedad, hipocondría y sentimiento de culpa.

Palabras clave: Alexitimia, Ansiedad, Depresión, Esfera emocional, Reflexión emocional, Factores psicológicos, Estrés.

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Abstract

The impact of alexithymia on the emotional stability in adolescents

During the COVID-19 pandemic, it is generally accepted that there has been a striking increase in the total number of depression, psychosomatic disorders, self-destructive behaviour, stress and occupational burnout among people. The research involved 91 people, including 65 young females and 26 young males aged 18 to 24. They included college and university students, young workers and employees. The Psychological Tests Online website was used for this purpose. Testing is free and anonymous. We have subjected the entire data set to quantitative and qualitative analysis, using statistical methods for data analysis: descriptive statistics, Mann-Whitney U-test (for non-linked samples) and Kruskal-Wallis H-test. Non-alexithymic personality type was detected in 57,1% of the respondents, i.e. the majority of the sample. 26,4% of the total research sample were in the 'at-risk group' for alexithymia, and 16,5% of young people were identified as having an alexithymic personality type. The emotional stability of respondents in the 'normal' and 'at-risk' groups differed significantly on the scales of 'self-esteem', 'satisfaction', 'anxiety', 'hypochondria', and 'sense of guilt'. Consequently, self-esteem and satisfaction levels are higher among young males and females with non-alexithymic personality type than among young males and females who are at risk group. Meanwhile, young males and females with non-alexithymic personality type have lower levels of anxiety, hypochondria and sense of guilt.

Key words: Alexithymia, Anxiety, Depression, Emotional sphere, Emotional reflection, Psychological factors, Stress.

Introduction

Interest in the problem of alexithymia is due to its increase among healthy people. Analysis of scientific sources demonstrates the prevalence of the phenomenon among student youth (Garanyan & Kholmogorova, 2003). It is thought that alexithymia is harmful to young people's development because of the complexity of understanding and describing emotional experiences - whether it is his/her own or other people's - as well as reduced or absent emotional reflection and self-regulation (Esin et al., 2014).

Meanwhile, the rapidly changing rhythm of life and standard of living place high demands on the individual in general, and adolescent in particular. A modern person faces a wide range of emotional stressors. There are specifically human psychological factors in society that facilitate the total growth of negative emotions experienced in the form of angst, fear and aggression, complicating their psychological processing.

During the COVID-19 pandemic, it is generally accepted that there has been a striking increase in the total number of depression, psychosomatic disorders, self-destructive behaviour, stress and occupational burnout among people (Brel, 2018).

Although alexithymia has been previously thought to be a central personality factor in psychosomatic disorders (Eliseev, 2003; Shpakovskaya & Kopytov, 2014), this construct is now contemplated in relation to a wide range of other phenomena. For example, alexithymia has been linked to depression (Potapova et al., 2016; Golenkov et al., 2021); anxiety and fear (Nartova-Bochaver & Potapova, 2012); sense of guilt and self-deprecation (Kholmogorova & Garanyan, 1999); reduced self-control (Zaichenko, 1996; Garanyan & Kholmogorova, 2003); dissatisfaction with close friendships and intimate relationships (Glazkova, 2018); post-traumatic stress disorder (Sifneos, 1996; Chukhrova et al., 2009); addictive behaviours (Zaitsev & Selivanova, 2017).

As a psychological characteristic, alexithymia is defined by the following cognitive and affective characteristics:

- 1) having difficulty defining and describing one's own feelings;
- 2) having difficulty in distinction of feelings and body sensations;
- 3) reduced symbolic ability, as evidenced by lack of imagination and other imaginative aspects;
- 4) being more one-pointed in external events rather than inner experiences (Zaichenko, 1996).

According to a number of studies, individuals with alexithymia are distinguished by a number of features. In the emotional sphere, they are unable to recognize and describe one's own emotional state and emotional states of others, having difficulty in distinction of feelings and body sensations and bodily discomfort. People with alexithymia find it difficult to assess the modality of experience, they find it hard to understand whether they are upset, anxious or irritated, and they may experience affective disorders in stressful situations (Golenkov et al., 2021). In the cognitive sphere, they have lack of imagination, limited ability to fantasize, lack of creativity, weak function of symbolization and categorization in thinking, predominance of visual thinking over abstract logical thinking, specific mechanistic type of thinking (Chukhrova et al., 2009; Iskusnykh & Popova, 2016).

Alexithymics have poor speech, devoid of metaphors. Individuals with alexithymia are characterized by high personal anxiety, infantilism, primitiveness of their life situation, underdeveloped reflective function, non-sensibility to their physical and mental condition and inability to actively intervene in life (Kholmogorova & Garanyan, 1999),

and low level of satisfaction with life (Kostina & Kubekova, 2019). The personality profile of an alexithymic is dominated by features aimed at realization of social role rather than personal development (Trukhan & Kutas, 2010).

In view of the above, research has been conducted to investigate the impact of alexithymia on the emotional stability of adolescents during the COVID-19 pandemic.

Materials and methods

The research involved 91 people, including 65 young females and 26 young males aged 18 to 24. The average age of the interviewees was 20. They included college and university students, young workers and employees. The sample was randomly selected.

The study was carried out with the help of online tests. The Psychological Tests Online website was used for this purpose. The website presents professional tests that are widely used in psychodiagnostic practice and in socio-psychological research. The methods are intended only for specialists, and do not contain decryption. Testing is free and anonymous for users, no registration is required.

A motivated appeal to people aged 18 to 25 was published on the social network 'Vkontakte', inviting them to participate in the research, covering the research objectives. The research was anonymized. After receiving the results, the respondent sent a link to the results of his/her survey under the code. We made a unified protocol of the received data. The final sample list included those respondents whose results were reported using two approaches. After the data had been processed and analysed, individual online consultations based on the results of the psychological research were offered to those who wished to do so.

To identify alexithymia, the Toronto Alexithymia Scale (TAS-26) has been used, which consists of 26 statements, and the respondent has to indicate the degree of his/her agreement with them - a total of five answers ranging from strongly agree to strongly disagree (PsyTests.org, n.d.). The test takes 4–5 minutes to complete online. The Eysenck Personality Profiler by H. Eysenck and G. Wilson (2000) was used.

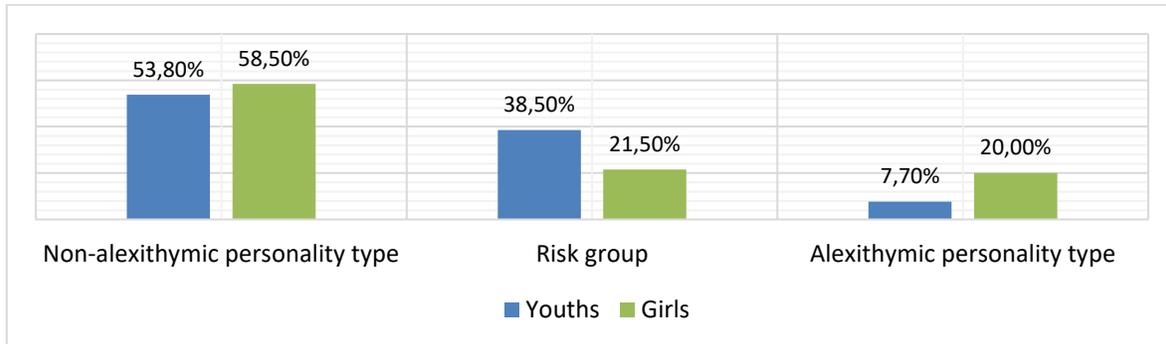
We have subjected the entire data set to quantitative and qualitative analysis, using statistical methods for data analysis: descriptive statistics, Mann-Whitney U-test (for nonlinked samples) and Kruskal-Wallis H-test.

Results

Non-alexithymic personality type was detected in 57,1% of the respondents, i.e. the majority of the sample. 26,4% of the total research sample were in the 'at-risk group' for alexithymia, and 16,5% of young people were identified as having an alexithymic personality type.

The gender-specific development of alexithymia is shown in Figure 1.

Figure 1
Peculiarities of the intensity of alexithymia in young males and females



Source: Authors development

The Mann-Whitney U test shows that the significant differences in the values of alexithymia between young males and females were not confirmed ($p > 0,05$).

The results of the young males and females' emotional stability study are clearly illustrated in Figure 2.

Almost a quarter of respondents (24,2%) have healthy self-esteem and are confident in themselves and their abilities. Such young males and females are convinced that they are solely useful to others, and therefore they are needed, and they definitely like other people. However, almost two-thirds of respondents (61,5%) who have scored low on this scale, are low in self-esteem. Of these, 13,2% have an extremely low score of less than nine out of a possible 20, and they can be seen as people with an 'inferiority complex' in this case.

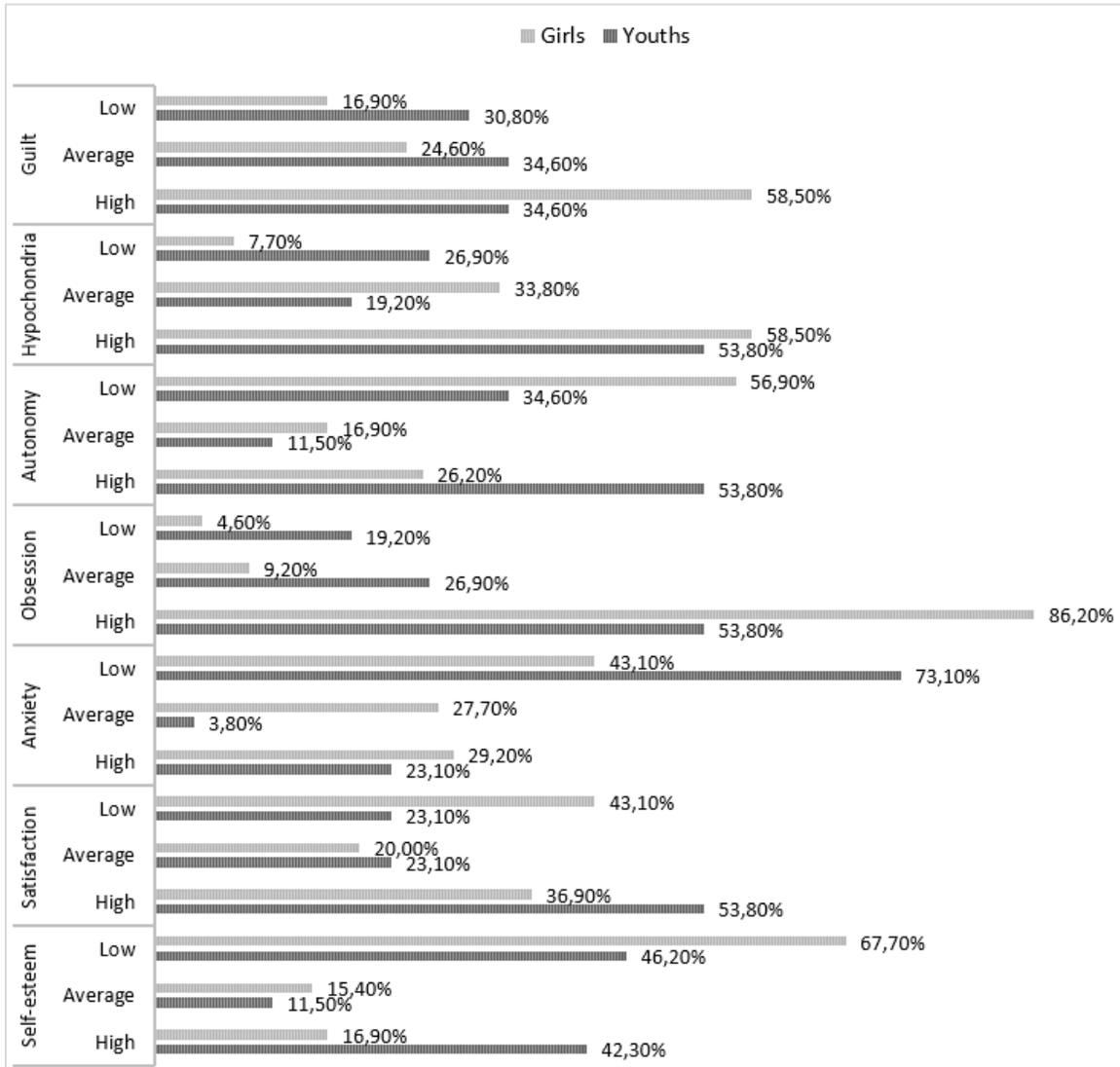
The proportion of low values on the 'satisfaction' scale is more than a third of those surveyed (37,3%). They are characterized by self-distrust, lack of confidence in their actions, and an overly categorical, being too negative of the environmental conditions.

More than half of the respondents (51,6%) were young people, mostly well-balanced, without unfounded fears or anxiety. However, 27,5% of respondents were found to have high scores on this scale. Such people are prone to unfounded anxiety about events that have not yet happened or may not even happen.

Respondents have a predominantly hypochondriacal concern of their health: the proportion of high emotional stability values on the Hypochondria-Sense of Health scale is more than half the respondents (57,1%) and about a third (29,7%) with an average level. Only 13,2% have little concern for their health.

Figure 2

Research results on the emotional stability of young males and females during the COVID-19 pandemic (%)



Source: Authors development

As revealed in the research process, the increased attention young people pay to their health can be explained by several main reasons. First, attention to one's own health, the ability to ensure individual prevention of health disorders, and a conscious orientation towards health in various forms of life are indicators of the general culture of a modern man. Second, the survey was conducted during the COVID-19 pandemic, taking its toll on the increased attention to one's health. Third, there has been an increased emphasis on healthy lifestyles in recent years.

It should also be noted that more than half of the respondents (51,6%) had high values on the 'sense of guilt-absence of guilt' scale. A large proportion of young people experience a sense of guilt which is a reactive, automatic emotion to the punishments they have suffered in the past during their life.

Sense of guilt is a negative attitude in which an individual feels that the actions he/she committed, and, in some cases an individual himself, cause trouble for others, have various manifestations and are not always directly related to 'guilt' or 'guiltiness'. It is believed that if a sense of guilt occurs frequently and is sustained by others, it becomes a habitual trained behaviour and part of the mode of life. Sense of guilt can cause insecurity, anxiety, dissatisfaction with others and life in general.

Significance in the differences in emotional stability between young males and females was confirmed on the scales of 'self-esteem' ($p \leq 0,01$), 'anxiety' ($p \leq 0,01$), obsession ($p \leq 0,01$), 'autonomy' ($p \leq 0,01$) and 'guilt' ($p \leq 0,01$). The resulting data suggest that there are gender differences in the level of emotional stability of adolescent personality. Young males, compared to females, have higher levels of healthy self-esteem (20,2 and 16,3 points respectively), autonomy (20,7 and 18,1 respectively) and lower levels of anxiety (10,8 and 14,7 respectively), obsession (12,0 and 14,6 respectively) and guilt (8,8 and 11,9 respectively).

To identify differences in measures of emotional stability in adolescent personality, all respondents were divided into three groups according to their level of alexithymia:

1) 'normal' group (0 to 62 points) is 52 people (57,1%) of which 14 (53,9%) are young males and 38 young females (58,5%);

2) 'at-risk' group (63 to 73 points) is 24 people (26,4%), of which 10 (38,5%) are young males and 14 young females (21,5%);

3) 'alexithymia' group (74 points or more) is 15 people (16,5%) of which 2 (7,7%) are young males and 13 young females (20,0%).

The statistical significance of the differences in alexithymia between our allocated groups was confirmed at the $p \leq 0,001$ level ($H_{emi} = 71,4$; $\alpha = 0,000$) using Kruskal-Wallis H-test.

Differences in emotional stability between young males and females with different levels of alexithymic personality traits are presented in Table 1.

Table 1

Empirical values of Kruskal-Wallis H-test and the significance ratios for differences in the emotional stability scales

Indicators of emotional stability	Nemi	α	p
Self-esteem	22,76	0,000	< 0,01
Satisfaction/Depression	47,97	0,000	< 0,01
Anxiety/Calmness	23,16	0,000	< 0,01

Obsession/Promiscuity	5,60	0,061	> 0,05
Autonomy/Dependency	8,95	0,011	= 0,01
Hypochondria/Feeling healthy	28,01	0,000	< 0,01
Feelings of guilt/Lack of guilt	16,96	0,000	< 0,01

NB: Hemi is the empirical value of Kruskal-Wallis H-test

A - is the asymptotic coefficient of significance (double-sided)

Source: Authors development

The statistical significance of differences in all the emotional stability scales between the groups we identified was confirmed at a high level, except for the 'obsession' scale. The different levels of emotional stability of young males and females with different degrees of alexithymia were confirmed.

A pairwise comparison of the group average indicators of emotional stability for young males and females with different levels of alexithymia showed that there were statistically significant differences between the groups (Tables 2, 3, 4).

Table 2

Empirical Mann-Whitney U values and significance ratios for differences in the emotional stability scales of the 'normal' and 'at-risk' groups

Indicators of emotional stability	Group "norm"	Group "risk"	Uemp	α	ρ
	Xav N	Xav R			
Self-esteem	20,3	15,5	358,50	0,000	< 0,01
Satisfaction/Depression	24,8	18,9	180,00	0,000	< 0,01
Anxiety/Calmness	10,9	17,0	264,00	0,000	< 0,01
Obsession/Promiscuity	13,0	14,6	477,50	0,100	> 0,05
Autonomy/Dependency	20,1	18,5	477,50	0,100	> 0,05
Hypochondria/Feeling healthy	6,7	9,8	358,50	0,000	< 0,01
Feelings of guilt/Lack of guilt	9,0	13,0	330,00	0,000	< 0,01

NB: Uemp – empirical value of the criterion U Manna-Whitney

α – asymptotic significance factor (2-tailed)

Xav N – group averages "norm"

Xav R – group averages "risk"

Source: Authors development

The emotional stability of respondents in the 'normal' and 'at-risk' groups differed significantly on the scales of 'self-esteem', 'satisfaction', 'anxiety', 'hypochondria', and 'sense of guilt'. Consequently, self-esteem and satisfaction levels are higher among young males and females with non-alexithymic personality type than among young males and females who are at risk group. Meanwhile, young males and females with non-alexithymic personality type have lower levels of anxiety, hypochondria and sense of guilt.

Significant differences were found at a high level of significance between the 'normal' group and the alexithymic group in terms of emotional stability (Table 3).

Table 3

Empirical Mann-Whitney U values and significance ratios for differences in the emotional stability scales of the 'normal' and 'alexithymia' groups

Indicators of emotional stability	Group "norm"	Group "alexithymia"	Uemp	α	ρ
	Xav N	Xav A			
Self-esteem	20,3	10,8	106,00	0,000	< 0,01
Satisfaction/Depression	24,8	11,9	160,50	0,000	< 0,01
Anxiety/Calmness	10,9	17,5	152,50	0,000	< 0,01
Obsession/Promiscuity	13,0	15,7	248,50	0,000	< 0,01
Autonomy/Dependency	20,1	15,0	208,50	0,000	< 0,01
Hypochondria/Feeling healthy	6,7	13,8	56,50	0,000	< 0,01
Feelings of guilt/Lack of guilt	9,0	15,0	179,00	0,000	< 0,01

NB: Uemp – empirical value of the criterion U Manna-Whitney

α – asymptotic significance factor (2-tailed)

Xav N – group averages "norm"

Xav A – group averages "alexithymia"

Source: Authors development

Significant differences were found on all scales of the Personality Profiler.

It should be noted that there were fewer statistically significant differences between the risk group and the alexithymic group than between the other groups (Table 4).

Table 4
Empirical Mann-Whitney U values and significance ratios for differences in the emotional stability scales of the 'risk' and 'alexithymia' groups

Indicators of emotional stability	Group "risk"	Group "alexithymia"	Uemp	α	ρ
	Xav R	Xav A			
Self-esteem	15,5	10,8	108,00	0,042	< 0,05
Satisfaction/Depression	18,9	11,9	66,00	0,000	< 0,01
Anxiety/Calmness	17,0	17,5	169,00	0,751	>0,05
Obsession/Promiscuity	14,6	15,7	172,50	0,832	> 0,05
Autonomy/Dependency	18,5	15,0	123,50	0,100	> 0,05
Hypochondria/Feeling healthy	9,8	13,8	111,50	0,050	= 0,05
Feelings of guilt/Lack of guilt	13,0	15,0	157,00	0,500	> 0,05

NB: Uemp – empirical value of the criterion U Manna-Whitney

α – asymptotic significance factor (2-tailed)

Xav R – group averages "risk"

Xav A – group averages "alexithymia"

Source: Authors development

The personal profile of respondents in the 'at-risk' and 'alexithymia' groups differed significantly on the scales of 'self-esteem', 'satisfaction' and 'hypochondria'. Consequently, self-esteem and satisfaction levels are higher in young males and females at risk compared to those of the alexithymic type, while those of the alexithymic type have significantly higher levels of hypochondria.

Discussion

More than a quarter of respondents showed a reduced capacity or difficulty in expressing their emotional state. Severe alexithymia was detected in 16,5% of respondents. A rather large part of the sample is characterized by the presence of alexithymic features, which, as modern research demonstrates, leads to a sense of insecurity and aimlessness in their own lives and limits their ability to adapt (Iskusnykh, 2015; Kostina & Kubekova, 2019). Under the influence of alexithymia, personal,

axiological and emotional self-regulatory mechanisms remain underdeveloped, which can negatively affect the shaping of young people's lives in the complex conditions of today's dynamically developing world (Trukhan & Samak, 2018). An analysis of the results of the research showed that approximately the same results were obtained in a study by A.Yu. Iskusnykh: the following was found among 160 adolescents: normal is 45,6%; at-risk is 37,5%; with alexithymia is 16,9% (Iskusnykh & Popova, 2016). The research by L.A. Kostina and A.S. Kubekova (2019) identified 23,0% of 1,238 young people as having an alexithymic personality type.

It has been revealed that the alexithymic personality type is quite common among today's young people. Our research suggests that alexithymia is a factor in young people's emotional imbalance, manifesting itself in low self-esteem, insecurity, a tendency to constant remorse, a sense of helplessness and submissiveness. In difficult life situations, including those related to the COVID-19 pandemic, these young people constitute a major risk group for the development of mental disorders associated with compulsive ideas and anxiety, and close attention to their health.

According to this research, young people with non-alexithymic personality types, who are emotionally resilient enabling to perform successfully even in stressful situations, make up just over half of all young males and females aged 18 to 24.

Conclusion

Thus, the analysis of the data has revealed that there are differences in the components of emotional stability in adolescents, depending on the level of alexithymia. They manifest themselves in the degree of emotional stability: young people with a non-alexithymic personality type are characterized by indicators of a stable and balanced personality; young people at risk group for alexithymia are characterized by indicators of a less stable and balanced personality; young people with an alexithymic personality type have indicators of an unstable and unbalanced personality.

The study found that the alexithymic personality type of young people causes their emotional imbalance, which manifests itself in an inferiority complex, insecurity, unmotivated anxiety and hypochondria. The higher is the level of alexithymia, the higher are the indicators of excessive concern for one's health, a desire to be the centre of attention of loved ones and the demand for special treatment due to a fictitious ailment. It was concluded that in difficult life situations, including those caused by the COVID-19 pandemic, alexithymic people were at risk of developing mental and psychosomatic disorders that required the provision of psychological assistance in a timely manner.

Bibliographic references

- Brel, E. Yu. (2018). "Alexithymia in the structure of a "practically healthy" personality". **Siberian Journal of Psychology**, 67, 89-101. <https://doi.org/10.17223/17267080/67/7>

- Chukhrova, M. G., Leutin, V. P., Pilipenko, G. N., & Kabanov, Yu. N. (2009). "Neuropsychological analysis of the phenomenon of alexithymia in athletes". **World of Science, Culture, Education**, 3 (15), 208-215.
- Eliseev, Yu. Yu. (2003). **Psychosomatic illnesses. Complete guide**. Moscow: ACT, pp. 311.
- Esin, R. G., Gorobets, E. A., Galiullin, K. R., & Esin, O. R. (2014). "Alexithymia - The main areas of study". **Journal of Neurology and Psychiatry**, 114 (12), 148-151. <http://dx.doi.org/10.17116/jnevro2014114121148-151>
- Eysenck, H., & Wilson, G. (2000). Test "Emotional stability". PsyTests.org. Available: <https://psytests.org/eyeswilson/B.html>
- Garanyan, N. G., & Kholmogorova, A. B. (2003). "The concept of alexithymia". **Social and Psychiatric Journal**, 13 (1), 128-145.
- Glazkova, Yu. V. (2018). "The severity of alexithymic manifestations in adolescents". **Psychology and Psychotechnics**, 4, 1-6. <https://doi.org/10.7256/2454-0722.2018.4.27511>
- Golenkov, A. V., Madyanov, I. V., Shmeleva, S. V., Petrova, G. D., Kamynina, N. N., & Logachov, N. V. (2021). "The relationship between body mass index and mental disorders in the adult population". **Health Care of the Russian Federation**, 64 (6), 336-342.
- Iskusnykh, A. Yu. (2015). "Alexithymia. Causes and risks of the disorder". **Personality, Family and Society: Issues of Pedagogy and Psychology**, 6 (52), 59-68.
- Iskusnykh, A. Yu., & Popova, L. I. (2016). "Alexithymia in students. Prevalence, causes and consequences". **Personality, Family and Society: Issues of Pedagogy and Psychology**, 9 (66), 61-65.
- Kholmogorova, A. B., & Garanyan, N. G. (1999). "Emotional disorders and modern culture on the example of somatoform, depressive and anxiety disorders". **Moscow Journal of Psychotherapy**, 7 (2), 61-90.
- Kostina, L. A., & Kubekova, A. S. (2019). "Alexithymia as a risk factor for socio-psychological maladaptation of medical students". **Psychology. Historical and Critical Reviews and Modern Research**, 8 (4A), 56-62.
- Nartova-Bochaver, S. K., & Potapova, A. V. (2012). "The level of alexithymia as an indicator of psychological stability of students of technical and humanitarian universities". **Psychological Science and Education**, 17 (3), 10-17.
- Potapova, N. A., Grekhov, R. A., Suleimanova, G. P., & Adamovich, E. I. (2016). "Problems of studying the phenomenon of alexithymia in psychology". **Vestnik VolGU. Series 11. Natural Sciences**, 2 (16), 65-73. <https://doi.org/10.15688/jvolsu11.2016.2.8>

- PsyTests.org (n.d.). Toronto alexithymic scale TAS-26. Available: <https://psytests.org/tags/alexithymia.html>
- Shpakovskaya, O. G., & Kopytov, A. V. (2014). "The role of alexithymia in the formation of psychosomatic disorders and dependent forms of behavior". **Medical Journal**, 4, 31-38.
- Sifneos, P. E. (1996). "Alexithymia: Past and present". **American Journal of Psychiatry**, 153 (7), 137-142. <https://doi.org/10.1176/ajp.153.7.137>
- Trukhan, E. A., & Kutas, O. E. (2010). "The relationship of alexithymia with professional burnout among social workers". **Philosophy and Social Sciences: Scientific Journal**, 3, 59-64.
- Trukhan, E. A., & Samak, M. N. (2018). Coping strategies and defense mechanisms in personalities of the alexithymic type. In: Alishev, B. S., Prokhorov, A. O., Chernov, A. V. (Eds.) **Psychology of human states: Actual theoretical and applied problems: materials of the III International scientific conference**, Kazan, Russia, November 8-10, 2018 (pp. 499-503). Kazan: Kazan (Volga Region) Federal University.
- Zaichenko, A. A. (1996). Alexithymia: No words - Only feelings. In: **Scientific and theoretical support for professional training of students of a pedagogical university**, Issue. 8 (p. 39). Saratov: Publishing house SGPI.
- Zaitsev, D. V., & Selivanova, Yu. V. (2017). "Psychosocial aspects of the relationship between alexithymia and addictions in youth". **Izvestiya Saratovskogo universiteta. Novaya seriya. Seriya: Filosofiya. Psikhologiya. Pedagogika**, 17 (1), 62-66. <https://doi.org/10.18500/1819-7671-2017-17-1-62-66>