








## Research Article

# The Study of the Relationship between Students' Self-Esteem and Socio-Psychological Factors

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### Background

In this study, an analysis was conducted aimed at studying socio-psychological factors (parental support, values, academic performance, income, number of friends, happiness, loneliness, suicidal thoughts, fearfulness, and anxiety) that affect students' self-esteem.

### Objective

The purpose of this study was to identify students' problems and explore the relationship between perseverance, courage, organization, and self-esteem.

### Methods

The gender composition of the study was 76 males (38%) and 124 females (62%). Three diagnostic methods were employed: Rosenberg Self-esteem Scale; Carver-White Questionnaire Behavioral Inhibition System (BIS)/ Behavioral Activation System (BAS); and Hexaco PI-R60 Questionnaire.

### Results

The study found a correlation between self-esteem and perseverance ( $r = 0.34$ ). In addition, a correlation was found between self-esteem and extraversion ( $r = 0.61$ ). Of particular interest is the correlation between self-esteem, perseverance, and organization. The data revealed the existence of problems, such as loneliness experienced in 23.5%, occasional suicidal thoughts in 23.2%, and constant fear and worry about the future in 63.1% of the students.

### Conclusion

The study showed that students mostly have a moderate level of self-esteem (74.5%), characterized by patience. Those with high self-esteem exhibit boldness (11.5%), while those with low self-esteem show signs of anxiety (14%). The average level of self-esteem among students highlights an acute issue of self-esteem that needs to be addressed.

## 1. INTRODUCTION

Self-esteem is at the center of the "self-concept" and influences all areas of a person's life. "Self-concept" is the collection of beliefs about oneself.<sup>1</sup> High self-esteem is associated with the emotional stability of students.<sup>2</sup> Self-esteem is one of the key categories in psychology, reflecting a person's

general idea of their importance. Within the framework of this study, self-esteem is considered a key psychological characteristic that affects emotional well-being and the success of social adaptation, depending on external factors and personal characteristics.

Major self-esteem studies examine the advantages and disadvantages of high and low self-esteem. Little attention

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is paid to the socio-psychological factors of self-esteem and the influence of perseverance, courage, and organization on students' self-esteem. This forms the basis of the relevance of this study.

The main purpose of this study is to identify and provide new empirical data on the relationship of self-esteem with personality traits (perseverance, extraversion, courage, and organization) and socio-psychological factors (family relationships, income, number of friends, values, happiness, academic performance, loneliness, anxiety, and suicidal thoughts) in students of Kazakhstan. However, cross-cultural differences in personality traits, as well as the influence of family relationships, can manifest themselves differently across diverse cultures, including Kazakhstan. This expands the understanding of how self-esteem is formed and affects personal characteristics in different cultural contexts. The present study is important for identifying the features of self-esteem formation in a given cultural environment and expands the existing literature on the topic of self-esteem.

The objective of this research is to define the problems faced by students and to examine the relationship between self-esteem and persistence, as well as other variables. This article identifies the social and psychological factors of self-esteem, which have been addressed in the works of O. M. Anisimova, O. N. Molchanova, R. Burns, G. Schiraldi, J. Crocker, R. Baumeister, R. Kelsey, A. Ellis, T. Chamorro-Premuzic, and others. The main goal of the study is to examine the connection between self-esteem and persistence, courage, patience, and organization since these factors determine success in various areas of life and overall quality of life. Fear has a negative impact on an individual, as it restricts and prevents them from acting actively and realizing their potential, while anxiety prevents concentration and effective action by keeping the individual in a constant state of tension. Therefore, it is necessary to examine to what extent students are affected by fear of the future. Interest in these constructs is related to the fact that they determine success or failure in various areas of life, as well as the quality of life. In addition, the study aims to examine the correlation between self-esteem and student values, extraversion, happiness, feelings of loneliness, and suicidal thoughts, as well as the influence of factors, such as family relationships, academic performance, income, and the number of friends on self-esteem. Studying self-esteem in relation to personality traits is an attempt to comprehensively understand the individual and, based on this understanding, to improve the prediction of their behavior, provide support, and make corrections.

The following hypotheses have been put forward in the framework of the study: (1) Self-esteem is positively associated with perseverance and extraversion. (2) Self-esteem is influenced by family relationships, income, academic performance, number of friends, and loneliness. (3) There is a relationship between courage, organization, patience, and self-esteem. (4) Anxiety and fearfulness are negatively related to students' self-esteem. Theoretical and experimental research on student self-esteem reveals pathways for developing young people's self-awareness and increasing their activity in all areas of public life. Self-esteem is an integrator of behavior and personality activities, determining personal growth and the realization of potential. Establishing higher standards for oneself and improving self-regulation is associated with high self-esteem, underscoring the significance of studying self-esteem.<sup>3</sup>

Research has shown that about 50% of our personality and sense of self-worth are inherited, while the rest are related

to the environment.<sup>4,5</sup> Individuals with high self-esteem are characterized by a well-groomed appearance, good physical shape, straight posture, high emotional intelligence, selectiveness, responsibility, quick decision-making, and a thirst for risk. Those with low self-esteem tend to lack self-care, have excess weight, be withdrawn, fear failure, experience anxiety, engage in harmful habits, have a hunched posture, and feel dissatisfied.

When self-esteem is conditional and based on academic achievement, it will constantly fluctuate depending on educational performance, which can negatively impact students' self-regulation and emotionally exhaust them.<sup>6</sup> While conditional self-esteem can motivate individuals to achieve high results, in this case, self-regulation prioritizes maintaining and defending self-esteem. In the event of failure, a person should evaluate their skills and abilities, rather than judging themselves. It is important not to generalize, but to consider specific actions and evaluate personal experiences. Self-condemnation leads to viewing one's actions as mistakes and oneself as fundamentally flawed, based on shame and generalization.

Individuals with experience in different areas and diverse interests are more resilient in stressful situations.<sup>7</sup> High self-esteem is considered a buffer against the development of anxiety.<sup>8</sup> Anxious individuals are more likely to suppress their emotions.<sup>9</sup> Low self-esteem is associated with suicidal thoughts and depression.<sup>10</sup> People with higher self-esteem have a highly developed sense of self-worth.<sup>11</sup>

## 1.1. LITERATURE REVIEW

The results of this study are closely related to theoretical approaches that explain the mechanisms of self-esteem development and its connection to socio-psychological factors. According to the self-determination theory,<sup>12</sup> the satisfaction of the needs for competence, relatedness, and autonomy forms the basis for stable self-esteem. Autonomously motivated individuals experience a desire to act, while controlled motivation depends on external regulation and control. This may explain the observed relationship between self-esteem and persistence, where students with higher self-esteem demonstrate greater confidence in their actions and ability to achieve goals.

The social identity theory<sup>13</sup> can also be mentioned in this context, as our sense of belonging and status within a group can significantly influence our attitudes and behaviors. Group membership fundamentally shapes our identity. In the study, students with high self-esteem exhibited greater courage and a willingness to take risks, which can be explained by confidence in their social and academic achievements.

Leary's sociometer theory<sup>14</sup> further supports the importance of social factors in shaping self-esteem. Self-esteem, as an indicator of social significance, is closely tied to the feeling of acceptance within a group. In this study, the theory is confirmed by the results showing that parental support and the presence of social connections have a significant impact on students' self-esteem levels. The study also found that low self-esteem correlates with feelings of loneliness and the presence of suicidal thoughts, highlighting the importance of social ties for maintaining psychological well-being.

The contingencies of the self-worth model,<sup>15</sup> which divides self-esteem into personally important domains, asserts that the domain most developed in an individual will dictate their self-esteem level. This aligns with the

study's findings, where academic success was associated with higher levels of self-esteem. This conclusion can be interpreted through the lens of Shavelson's theory,<sup>1</sup> which separates self-esteem into academic and non-academic components, showing that academic success strengthens self-esteem, whereas failure can weaken it.<sup>16</sup>

Emotional stability is significantly influenced by self-acceptance. The intensity of anxious states reduces following the cessation of emotionally attacking oneself.<sup>17</sup> Self-aggression is at the core of destructive, negative emotions. Low confidence protects a person from danger; anxiety signals in dangerous situations and depression helps them recognize guilt, face the truth, and make changes in life. Self-improvement requires taking responsibility.

Successful people share the trait of treating their insecurity with success. Doubts lead to ambitions and focus attention on goals rather than themselves, helping them reach a new level and thereby increasing self-confidence. High self-esteem hinders ambition, reduces efforts, and threatens potential improvement.

The specificity of self-esteem lies in the fact that it is based on a person's values, which determine the choice and the building of mechanisms for self-regulation and self-control. Loneliness, or rather a lack of social relationships, increases the risk of developing heart disease and stroke.<sup>18</sup> The feeling of loneliness reduces the protection against stress and illnesses. Negative effects are particularly felt with forced loneliness, which is unnatural for humans, as social beings. It is important for people to feel part of a community, and loneliness intensifies negative emotions and weakens immunity.

High self-esteem is a predictor of happiness; with self-respect, a person experiences more positive emotions and feels happier, which is absent in a person with low self-esteem.<sup>3</sup> It all starts with self-love. It is a valuable resource, as a person looks into the future with optimism, remains open to new experiences, does not doubt themselves, acts actively, and takes risks.

Extroverts have a higher level of self-esteem compared to introverts.<sup>19</sup> High confidence is a risk factor, as it diminishes the sensation of fear. Consequently, real threats are ignored, as a person seeks experiments and intense sensations.<sup>20</sup> Molchanova<sup>21</sup> regarded family, peer relationships, life experience, and success in activities as factors influencing self-esteem, while Schiraldi<sup>22</sup> highlighted health, hormonal balance, appearance, and relationships. These data have been partially confirmed, and new factors are gradually being uncovered. At present, the focus of research is on identifying factors that can help maintain balance without harming self-esteem.

## 1.2. PROBLEM STATEMENT

The purpose of this study is to gain a deeper understanding and explore students' self-esteem. This paper identifies the socio-psychological factors of self-esteem. Understanding these factors is crucial to comprehend the influences on self-esteem, which serves as a resource for maintaining stable self-esteem. Stability in self-esteem is essential for self-actualization and a positive life trajectory, particularly during the college age. Due to socio-psychological factors, it is possible to correct self-esteem.

The primary objective of the study is to examine the relationship between self-esteem and key attributes such as perseverance, courage, patience, and organization. Success in various life domains and overall quality of life hinges on

these attributes. Fear exerts a negative impact on personality by inhibiting active engagement and self-realization. Similarly, anxiety hampers concentration, preventing individuals from acting with composure and perpetuating a constant state of tension. That is why it is necessary to check the extent to which students are exposed to anxiety about the future. The interest in these constructs is because success or failure in different spheres of life, as well as the quality of life, depends on it. In addition, the study examines whether there is a relationship between self-esteem with indicators, such as student's values, extraversion, happiness, feelings of loneliness, and suicidal thoughts, as well as whether factors, such as family relationships, academic performance, income, and number of friends affect self-esteem. The study of self-esteem to personality traits is an attempt to holistically understand the individual and, on this basis, improve prediction of their behavior, support, and correction.

## 2. MATERIALS AND RESEARCH METHODS

### 2.1. SAMPLE

The study involved 200 students (year 1 – 4) and Master's degree students from three cities in Kazakhstan (Almaty, Astana, Taldykorgan). Respondents were randomly selected from a total of six universities, namely, Al-Farabi Kazakh National University, S.D. Asfendiyarov Kazakh National Medical University, S. Demirel University, I. Zhansugurov Zhetysay University, Taldykorgan, Nazarbayev University, L.N. Gumilyov Eurasian National University. The average age of the respondents is from 18 to 23 years. The sample comprised 76 men (38%) and 124 women (62%).

### 2.2. RESEARCH DESIGN

Psychodiagnostics were carried out using the following methods: Rosenberg's self-esteem scale, Carver-White questionnaire (BIS/BAS), and Hexaco PI-R60 questionnaire. These scales were selected based on their proven reliability and validity in international studies. The use of these methods allowed for the collection of reliable data on key aspects of self-esteem, persistence, courage, and organization. The main scales demonstrated a high level of reliability (e.g., Cronbach's  $\alpha = 0.79$  for the Carver-White BIS/BAS), confirming their suitability for use in this study.

- *Self-esteem*: We measured self-esteem using the Russian translation of Rosenberg's self-esteem scale (Rosenberg and Zolotarev). This scale showed good reliability in this sample (Cronbach's  $\alpha = 0.65$ ). Participants were asked to rate their agreement with 10 items on a scale from 1 (strongly agree) to 4 (strongly disagree). Examples of questions include "I have a positive attitude towards myself" and "Sometimes I definitely feel useless" (reverse rating). We calculated a summary score by summing the participants' responses to the 10 items. The Shapiro-Wilk criterion showed that the Rosenberg data were normally distributed.
- *Persistence*: The Carver-White questionnaire (BIS/BAS) allows for determining a person's sensitivity to external stimuli (striving for success or avoiding failure). We assessed persistence using the drive subscale in the Russian translation of the Carver-White questionnaire (Carver, White, and Yakutenko). This questionnaire was chosen to test the relationship between persistence and

self-esteem. This scale showed reliability in this sample (Cronbach's  $\alpha = 0.79$ ). In the Carver–White questionnaire, we compared persistence with the Rosenberg scale.

- **Personality:** We assessed extraversion, anxiety, courage, patience, organization, flexibility, inquisitiveness, creativity, and non-conformity using the Hexaco PI-R60 questionnaire designed to diagnose the six dispositional personality traits, each of which is divided into four subordinate factors (Lee, Ashton, Yegorova, and Parshikova). This scale showed reliability in this sample (Cronbach's  $\alpha = 0.94$ ). The questionnaire was created for enabling deeper understanding of the characteristics of the student's age and determination of socio-psychological factors of self-esteem.
- **Family relationships:** We asked participants about family relationships using a special questionnaire in the Google Forms format. Response options included "I feel support from my parents," "I don't share with my parents," "I am not understood," "high expectations are placed on me," and "my opinion is not considered."
- **Values:** In response to the question "What is most valuable to you?" participants were offered the following response options: "money," "family," "education and career," "freedom," "friends," "health," "and love."
- **Loneliness:** In response to the question "Do you feel lonely?" participants were offered two response options: "yes" and "no."
- **Suicidal thoughts:** We asked participants "Do you ever have thoughts of suicide?" The pre-defined response options were: "sometimes, but I wouldn't do it," "yes, I would do it," and "no."
- **Income:** In response to the question "What is your income level?" participants were offered three response options: "high," "average," or "low."
- **Happiness:** In response to the question "Do you consider yourself a happy person?" participants were offered three response options "yes," "no," or "sometimes."
- **Number of friends:** In response to the question "Do you have many friends?" participants were offered three response options "yes," "no," or "2 – 3 closest friends."
- **Academic performance:** In response to the question "How well do you study?" participants were offered three response options "excellent," "good," and "satisfactory." We compared the data from these questions as categories with the Rosenberg self-esteem scale.

### 2.3. SURVEY

To collect data, a questionnaire and three diagnostic methods were used: Rosenberg's self-esteem scale, Carver–White questionnaire (BIS/BAS), and Hexaco PI-R60 questionnaire. The Google Form was sent to the respondents through email and WhatsApp.

### 2.4. STATISTICAL PROCESSING

When analyzing the numerical values that are divided into several categories of a certain categorical variable, the Shapiro–Wilk test was first used to assess data normality, and the Levene test was utilized for evaluating the equality of variances. To examine the significance of differences between groups, the analysis of variance (ANOVA) method was used in the case of a normal distribution, and the Kruskal–Wallis test was employed to comparison of non-normally distributed data. To find the relationship

between two numerical variables, Pearson's correlation coefficient was used in the case of normally distributed data, and Spearman's correlation for data with non-normal distribution.

Statistical data was processed using R-Studio (Posit, PBC; USA). To compare the Rosenberg self-esteem scale with the Hexaco-Pi-R 60 test (anxiety, courage, patience, anxiety, organization), the Kolmogorov–Smirnov criterion and the Shapiro–Wilk test were used. Since none of the variables were normally distributed, non-parametric methods were applied. The Kruskal–Wallis  $H$ -test was applied. To detect differences within groups, the Tamhein T2 criterion was used. Statistical data was processed using the IBM Statistical Package for the Social Sciences statistics (version 19).

### 2.5. LIMITATIONS

Limitations of this study should be acknowledged. The sample used was small, consisting of only 200 students. In addition, the lack of personal contact with the students is also a significant limitation of this study.

### 2.6. ETHICAL ISSUES

The study was conducted in strict accordance with the ethical principles adopted in this field of scientific research. The principles of confidentiality, anonymity, and voluntary participation of the subjects were observed in the study. This research was approved by the local ethics committee of the Al-Farabi Kazakh National University (protocol no. 479 dated 18/02/2024).

## 3. RESULTS

The percentage of students with high, medium, and low self-esteem showed the following results: out of the 200 subjects, 23 students had high self-esteem (14 males and 9 females), 149 respondents had medium self-esteem (49 males and 100 females), and 28 students had low self-esteem (8 males and 20 females). Despite the fact that 76 male and 124 female subjects took part in the study, there is no difference in self-esteem ( $p=0.15$ ) (Figure 1).

It was important for us to check whether there is a correlation between self-esteem with indicators, such as family relations, values, feelings of loneliness, suicidal thoughts, income, happiness, number of friends, academic performance, anxiety, and organization. A special questionnaire for students was compared with the Rosenberg scale.

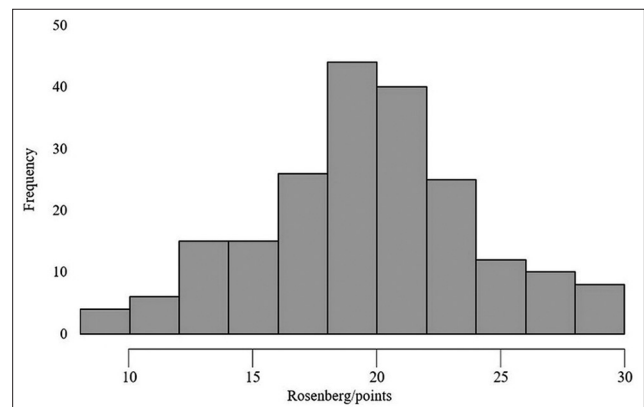


Figure 1. Indicators of self-esteem



Socio-psychological factors of self-esteem (personality values, academic performance, income, happiness, feeling of loneliness, suicidal thoughts, and number of friends) were tested with the Shapiro–Wilk criterion for normality and with the Levene's test for equality of variance (when comparing the special questionnaire, namely, family relationships with Rosenberg's test). The significance of differences between groups was tested using the ANOVA method for data with normal distribution and the Kruskal–Wallis test for non-normally distributed data. When comparing categorical data such as suicidal ideation (from Rosenberg's test), the ANOVA method was used.

The empirical study yielded the following results. The majority of students received parental support (86.6%); 5.9% of the students perceived that their parents had high expectations of them; 5.4% of the students never shared feelings with their parents; and 1.7% thought that their opinion was not considered.

The results of the statistical analysis showed that the differences between self-esteem and family relationships are statistically significant ( $F = 3.36$ ,  $p=0.020$ ,  $df = 3$ , 95% CI: 0.00442814688088428 – 1). Levene's test showed unequal variance. Family relationships play a crucial role in the formation of self-esteem. A sense of belonging to the family, recognition of one's uniqueness, complete acceptance, parental support, and communication support the healthy self-esteem of individuals.

According to the results, the differences between students' self-esteem and values are statistically significant ( $F = 3.92$ ,  $p=0.001$ ,  $df = 6$ , 95% CI: 0.0294758546037594 – 1). The prioritization of values is most likely related to the aftermath of the COVID-19 pandemic, after which many people have revised their values. In this sample, 49% of the students value family; 14.5% health; 13.3% freedom; 9.5% learning, career, and money; 3.7% love; and 0.4% friends. Spiritual values favorably influence a person and help to cope with stress more easily.

The differences between loneliness and self-esteem are statistically significant ( $F = 32.16$ ,  $p<0.001$ ,  $df = 1$ , 95% CI: 0.0738399751799492 – 1). The differences between suicidal thoughts and self-esteem are statistically significant ( $F = 22.73$ ,  $p<0.001$ ,  $df = 2$ , 95% CI: 0.108983625261905 – 1).

Suicidal thoughts are more frequent in people with low self-esteem. The study revealed a not-so-good rate among students. As much as 23.2% of students sometimes think about suicide and 1.3% of respondents would commit suicide. It can be assumed that these results are the consequences of COVID-19, after which many students withdrew themselves.

The differences between self-esteem and income level are statistically significant ( $F = 8.51$ ,  $p<0.001$ ,  $df = 2$ , 95% CI: 0.0281465596340247 – 1). Income is proportional to the level of self-esteem of an individual.

Statistical differences between self-esteem and happiness were found ( $F = 15.73$ ,  $p<0.001$ ,  $df = 2$ , 95% CI: 0.0677050700889343 – 1). Almost 80% of the students consider themselves happy (79.7%), 16.6% experience happiness sometimes, and 3.7% do not experience happiness.

Statistical differences were also found between self-esteem with the number of friends ( $F = 7.35$ ,  $p<0.001$ ,  $df = 2$ , 95% CI: 0.0193000236197908 – 1).

More than half of respondents (55.6%) have many friends, 34% have only 2 – 3 most loyal friends, and 10.4% believe they have no friends.

The differences between academic performance and self-esteem are statistically significant ( $F = 9.02$ ,  $p=0.0001$ ,  $df = 2$ , 95% CI: 0.0284534518533919 – 1). The higher the academic performance in university, the higher the self-esteem.

We tested the association between self-esteem and persistence. Results of a correlation analysis show that self-esteem was positively correlated with persistence ( $r = 0.34$ ,  $p=3.198e-07$ ; Persistence -  $M = 11.9$ , standard deviation [sd] = 2.34681437025646). We compared the Rosenberg self-esteem scale with the Carver–White questionnaire (persistence).

The Hexaco-Pi-R 60 questionnaire was compared with Rosenberg's self-esteem scale (extraversion).

Regarding the relationship between extraversion and self-esteem, the differences between groups were statistically significant ( $r=0.61$ ,  $p=2.2e-16$ ; Extraversion -  $M = 3.277$ ,  $sd = 0.675315671579897$ ).

The main purpose of the experimental study is to test the relationship of self-esteem with courage, patience, anxiety, fearfulness, and organization. To compare the Rosenberg self-esteem scale with the Hexaco-Pi-R 60 test (fearfulness, boldness, patience, anxiety, and organization), the Kolmogorov–Smirnov and the Shapiro–Wilk criteria were used (Table 1). None of the variables were normally distributed (Shapiro–Wilk test,  $p<0.01$ ); therefore, we conducted non-parametric analyses using the Kruskal–Wallis  $H$ -test (Table 2). Statistically significant differences were found in the indicators of fearfulness, anxiety, courage, patience, and organization.

Next, we performed posterior analysis to detect differences within groups using the Tamhein T2 test. Statistically significant differences are flagged with asterisks (Tables 3-5). In this study, statistically significant

**Table 1. Criterion of normality**

	Kolmogorov–Smirnov <sup>a</sup>			Shapiro–Wilk		
	Statistics	df	Significance	Statistics	df	Significance
Fearfulness	0.119	200	0.000	0.968	200	0.000
Anxiety	0.152	200	0.000	0.957	200	0.000
Boldness	0.088	200	0.001	0.977	200	0.002
Flexibility	0.169	200	0.000	0.966	200	0.000
Patience	0.156	200	0.000	0.956	200	0.000
Organization	0.115	200	0.000	0.960	200	0.000
Inquisitiveness	0.143	200	0.000	0.936	200	0.000
Creativity	0.119	200	0.000	0.968	200	0.000
Irregularity	0.132	200	0.000	0.969	200	0.000

Note: <sup>a</sup>Correction of the significance of Lilliefors.

**Table 2. Comparison of indicators between high, average, and low levels of self-esteem**

Indicator	High level of self-esteem Me (Q1 – Q3)	Average level of self-esteem Me (Q1 – Q3)	Low level of self-esteem Me (Q1 – Q3)	p
Fearfulness	2.3 (1.2 – 2.6)	3 (2.3 – 3.7)	3.3 (2.3 – 3.9)	0.001*
Anxiety	3 (2.5 – 4.0)	3 (2.6 – 4.0)	4 (3 – 5.0)	0.011*
Boldness	3.7 (3.3 – 4.3)	3 (2.7 – 3.7)	2.7 (2.1 – 3.3)	<0.001*
Flexibility	2.3 (2.0 – 2.9)	2.3 (2 – 3)	2.3 (2 – 3.2)	0.869
Patience	2.5 (1.6 – 3)	3 (2.5 – 3.5)	2.8 (1.5 – 3.9)	0.011*
Organization	4 (3.1 – 4.5)	3.5 (3.0 – 4.0)	3.3 (2.5 – 3.9)	0.046*
Inquisitiveness	3.8 (3.5 – 4.9)	3.5 (3.0 – 4.0)	3.5 (3.1 – 4.0)	0.261
Creativity	3.7 (2.8 – 3.9)	3.3 (3.0 – 4.0)	3 (2 – 3.7)	0.073
Irregularity	3.7 (3.1 – 4.3)	3.3 (3.0 – 4.0)	3.7 (3.3 – 4.0)	0.157

Notes: \*Statistically significant; Me (Q1 – Q3): Median (Interquartile range); applicable criterion: Kruskal–Wallis *H*-criterion.

**Table 3. Comparison of indicators between high and average levels of self-esteem**

Indicator	High level of self-esteem Me (Q1 – Q3)	Average level of self-esteem Me (Q1 – Q3)	p
Fearfulness	2.3 (1.2 – 2.6)	3 (2.3 – 3.7)	0.004*
Anxiety	3 (2.5 – 4.0)	3 (2.6 – 4.0)	0.991
Boldness	3.7 (3.3 – 4.3)	3 (2.7 – 3.7)	0.001*
Patience	2.5 (1.6 – 3)	3 (2.5 – 3.5)	0.053
Organization	4 (3.1 – 4.5)	3.5 (3.0 – 4.0)	0.071

Notes: \*Statistically significant; Me (Q1 – Q3): Median (Interquartile range).

**Table 4. Comparison of indicators between high and low levels of self-esteem**

Indicator	High level of self-esteem Me (Q1 – Q3)	Low level of self-esteem Me (Q1 – Q3)	p
Fearfulness	2.3 (1.2 – 2.6)	3.3 (2.3 – 3.9)	0.004*
Anxiety	3 (2.5 – 4.0)	4 (3.0 – 5.0)	0.064
Boldness	3.7 (3.3 – 4.3)	2.7 (2.1 – 3.3)	<0.001*
Patience	2.5 (1.6 – 3)	2.8 (1.5 – 3.9)	0.876
Organization	4 (3.1 – 4.5)	3.3 (2.5 – 3.9)	0.042*

Notes: \*Statistically significant; Me (Q1 – Q3): Median (Interquartile range).

**Table 5. Comparison of indicators between average and low levels of self-esteem**

Indicator	Average level of self-esteem Me (Q1 – Q3)	Low level of self-esteem Me (Q1 – Q3)	p
Fearfulness	3 (2.3 – 3.7)	3.3 (2.3 – 3.9)	0.699
Anxiety	3 (2.6 – 4.0)	4 (3.0 – 5.0)	0.009*
Boldness	3 (2.7 – 3.7)	2.7 (2.1 – 3.3)	0.344
Patience	3 (2.5 – 3.5)	2.8 (1.5 – 3.9)	0.483
Organization	3.5 (3.0 – 4.0)	3.3 (2.5 – 3.9)	0.802

Notes: \*Statistically significant; Me (Q1 – Q3): Median (Interquartile range).

differences in self-esteem with courage were found ( $p=0.001$ ); Courage -  $M = 3.086$ ,  $sd = 0.868143053769968$ ). People with high self-esteem differ in courage and organization compared to others.

Statistically significant differences in self-esteem with the organization were found during the study ( $p=0.046$ ; Organization -  $M = 3.4075$ ,  $sd = 0.928441580738509$ ). Organization helps a person feel more confident and in control of the situation.

People with high self-esteem turned out to be the most impatient, possibly why such people have a strong need to take risks. Statistically significant differences in self-esteem with patience were found ( $p=0.011$ ; Patience -  $M = 2.97$ ,  $sd = 1.05220515033522$ ). People with average self-esteem turned out to be the most patient. With impatience and boldness playing a key role, risk taking enables a person to achieve quick results, which help elevate a person's self-esteem instantly.

As the great Albert Einstein said, "The mind that opens to a new idea never returns to its original size." By obtaining new positive experiences, a person raises the bar and strives to achieve new results. People with average self-esteem are the most patient, possibly why they take a very long and persistent path to their results, with perseverance and discipline playing a key role in achieving success.

The features of the nervous system and temperament have a genotypic nature, so they practically do not change over the course of life. However, achieving success is possible for persons of any sort of temperament, but the pathways vary. There are two pathways:

- (1) The fast path to success is based on boldness and risk. This path is primarily taken by people with high self-esteem, who react quickly, act immediately and without hesitation, and take on a great deal of responsibility
- (2) The slow, but sure path to success is based on patience and perseverance. The organization plays an important role, helping to focus on the goal and plan every step, making life easier. The main enemy of unrealized potential is the fear of failure and the fear of making a mistake. Most of the time, this fear is imagined, and the reason for this is low awareness and an inability to be in the moment. In reality, making mistakes is the people are educated and exposed to new experiences.

In Table 2, statistically significant differences in self-esteem with fearfulness are shown ( $p=0.001$ ). 63.1% of students constantly experience fear and worry about their future (of these, 41.1% are sometimes scared of their future, 11.4% are usually afraid of their future, and 10.6% of respondents are constantly in fear of their future). Only 36.9% of students are not afraid of their future, which is most likely related to financial well-being and parental support. According to the data, the most fearless people have

high self-esteem, while those with low self-esteem are most susceptible to fear.

People with low self-esteem turned out to be the most anxious, while people with high and medium self-esteem had the same level of anxiety. Statistically significant differences in self-esteem with anxiety were found ( $p=0.011$ ; Anxiety -  $M = 3.35$ ,  $sd = 0.961573250240401$ ). Moderate levels of anxiety are necessary for motivation to act. If the level of anxiety is high, a person cannot gather their thoughts and begin to act, and a low level of anxiety is not sufficient for healthy motivation. Perhaps this is why people with high and medium self-esteem showed a moderate level of anxiety in the study, which likely provides motivation for action. People with low self-esteem have a high level of anxiety; they are full of negative emotions and cannot gather their thoughts, and therefore remain inactive. Anxiety serves as a motivator for active actions, prompting a person to changes in life.

#### 4. DISCUSSION

This study identified the following socio-psychological factors that influence students' self-esteem: family relationships, personal values, income level, number of friends, academic performance, happiness, sense of loneliness, suicidal thoughts, and extraversion.

The factors influencing the formation of self-esteem are ranked in the following order: (1) biological factors (heredity, aptitude), (2) social factors (environment), and (3) psychological factors (reflection, self-determination).

The results of the study showed a correlation between self-esteem and indicators such as perseverance, organization, anxiety, fear, boldness, and patience. These results will help us understand how success can be achieved quickly through boldness and perseverance and what needs to be developed to feel self-assurance. It also demonstrates that fear is the main reason for inaction and consequently unrealized potential. According to the study, a significant 63.1% of students constantly experience fear and worry about their future.

Almost a quarter of the students (23.5%) sometimes consider suicide. Given this fact, it is necessary to focus on instilling the right values in students so that they develop a strong motivation to live fully, enjoy life, and realize their potential, primarily by relying on themselves and understanding their worth.

Our research has revealed the main problems of student age and showed the overall picture of Kazakhstani students today. Despite strong support from parents, a fairly high percentage of students feel lonely and sometimes think about suicide, regardless of their levels of self-esteem. This may not be consistent with studies where psychological problems are associated with low self-esteem.<sup>23</sup> Perhaps this is due to a national peculiarity. The main percentage of Kazakhstani students has a moderate level of self-esteem, indicating that this problem is not currently being addressed. For comparison, American students have a very high level of self-esteem.<sup>3,24-26</sup> As American society pays great attention to increasing students' self-esteem, more than half of students live in constant fear of their future. A person bound by fear will not be able to fully realize their potential and live a full life. They will remain in their comfort zone and avoid taking risks. In our study, a correlation was found between self-esteem and perseverance ( $r = 0.34$ ). Persistence was not heavily considered in relation to

self-esteem, despite the fact that perseverance plays a crucial role in achieving success. The main goal of this article was to explore the relationship between perseverance and self-esteem, as well as courage. In addition, a correlation was found between self-esteem and extraversion ( $r = 0.61$ ), confirming the study by Tice and Gailliot<sup>27</sup> that people with strong social connections have higher self-esteem than others. In addition, a study by Cheng and Furnham<sup>19</sup> found that extroverts have higher self-esteem than introverts. People with low self-esteem are more anxious, while people with high or moderate self-esteem share the same level of anxiety. However, despite the anxiety that exists in everyone, people with high self-esteem are the most courageous, fearless, and organized compared to others. Planning, organizing one's life, and brave actions help raise self-esteem. People with moderate self-esteem were found to be the most patient, while those with high self-esteem were found to be the most impatient. The data obtained scientifically justified the importance of courage, organization, perseverance, and extraversion in achieving success. While other studies focus on maintaining psychological well-being, this study focuses on achieving success. In addition, factors influencing self-esteem were identified. During difficult periods in life when self-esteem is low, improvement in these factors (family relationships, personal values, income level, number of friends, academic performance, happiness, loneliness, suicidal thoughts, and extraversion) will help to maintain self-esteem. This study confirmed that self-esteem is closely related to anxiety,<sup>28,29</sup> and the study by Baumeister *et al.*<sup>3</sup> reported that high self-esteem is a predictor of happiness and that a person with high self-esteem is more persevering. There are very few studies on the relationship between self-esteem, perseverance, courage, and organization. In this regard, this article addressed the under-researched issues of self-esteem.

The study revealed that students' self-esteem is influenced by several key factors. High self-esteem is associated with family support, social connections, high-income level, academic achievement, and a sense of happiness. Students with high self-esteem demonstrate greater persistence, courage, and organization. Low self-esteem, in contrast, is linked to feelings of loneliness, lack of support, and suicidal thoughts. Students with low self-esteem are more anxious, indecisive, and fearful. Students with moderate self-esteem are characterized by patience. Thus, the study's results can serve as a foundation for developing programs aimed at boosting self-esteem and for further cross-cultural research on self-esteem.

#### 5. CONCLUSION

As a result of the conducted this research revealed the students have an average level of self-esteem, which requires further research and the attention of psychologists in counseling the students. One of the key problems identified during the study is the high level of fear and anxiety among students. This may be due to both social factors and individual psychological characteristics. It was also found that students with low self-esteem feel more anxious, underscoring the need to work on improving their self-acceptance. The key findings of this research are as follows:

- (1) Self-esteem has a moderate association with persistence ( $r = 0.34$ ) and a strong association with extraversion ( $r = 0.61$ ). This indicates that people with higher self-esteem tend to be more extroverted and persistent

- (2) The study showed the presence of various problems among students, such as loneliness, suicidal thoughts, and fear of the future. These findings point to the need for a deeper understanding of the factors affecting students' psychological well-being
- (3) The study uncovered statistically significant correlations of self-esteem with happiness, the number of friends, income level, student values, academic performance, and parental support. These results may indicate the importance of self-esteem in shaping students' psychological well-being and social connections
- (4) Students with different levels of self-esteem vary in personality characteristics. For example, students with low self-esteem are more prone to anxiety, while students with high self-esteem are more courageous
- (5) It is possible that these variables are interrelated; for example, low self-esteem can lead to increased anxiety and loneliness, which in turn affects the level of happiness and social connections. This can act as a mutual interaction in which one aspect amplifies the others.

The results of our study showed that 63.1% of students experience constant fear about their future and 23.5% face loneliness. Moreover, 23.2% of students sometimes contemplate about suicide, which is a worrying signal calling for urgent and targeted interventions. This may be related to the aftermath of COVID-19, socio-economic instability, and the traditional expectation of success from family. The results of the study can serve as a basis for developing specific programs relevant to this context, aimed at enhancing students' self-esteem, psychological resilience, and personal effectiveness. The research demonstrated that students' self-esteem is closely related to personality traits such as persistence, courage, organization, and patience. These traits, in turn, determine students' success in academic and social life.

The present study offers significant novelty by adding valuable insights to the field of cross-cultural analysis of self-esteem, as it examines the relationship between self-esteem and various socio-psychological factors and personality traits among Kazakhstani students. To date, the study of self-esteem in the Asian context, including Kazakhstan, remains under-represented. Therefore, the primary focus of this research is to explore the relationship of self-esteem with persistence, courage, organization, and socio-psychological factors in Kazakhstani students, providing a new perspective on these aspects in the context of a different culture. An important conclusion of this study is the need to increase awareness about psychological health among students.

In general, the study offers a better understanding of the factors affecting students' self-esteem and provides a basis for the development of programs and intensive

work to improve students' psychological health. Reliance on spiritual values, courage, perseverance, patience, and organization can improve students' mental health and increase self-esteem.

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#### CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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#### ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The research was conducted ethically in accordance with the World Medical Association Declaration of Helsinki. The research was approved by the local ethics committee of Al-Farabi Kazakh National University (protocol no. 479 dated 18/02/2024). All participants gave written informed consent to participate in the research.

#### CONSENT FOR PUBLICATION

Not applicable.

#### DATA AVAILABILITY STATEMENT

All data generated or analyzed during this study are included in this published article.

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