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Social Ostracism and Bullying Among Social Pedagogy and Pedagogy-Psychology Students

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Abstract

This study examines the impact of social ostracism and bullying among students of social pedagogy, pedagogy, and psychology, while identifying differences in their coping strategies. Using a mixed-methods approach, 66 students (aged 17–22) were surveyed with the Need Threat Scale (NTS-O) to assess ostracism, the SACS questionnaire to analyze coping strategies, and vignettes to measure perceptions of social isolation. Results revealed that social pedagogy students exhibited higher self-esteem ($p < 0.05$), while psychology students reported greater existential meaningfulness ($\eta^2 = 0.42$). A significant positive correlation emerged between impulsivity and power/provocation clusters ($r = 0.51$), alongside a negative association between avoidance and self-esteem ($r = -0.55$). The study's novelty lies in its cross-disciplinary comparison, uncovering profession-specific behavioral patterns: social pedagogues more frequently employed assertive strategies, whereas psychology students relied on cautious actions ($\chi^2 = 9.87$, $p = 0.043$). Based on factor analysis, preventive measures are proposed, including emotion-regulation training and anti-bullying programs tailored to digital risks (e.g., social media, cyber-ostracism). The research advances coping theory by highlighting how academic specialization shapes resilience to social isolation. Practical recommendations emphasize integrating interdisciplinary approaches into educational policies to foster inclusive environments.

Keywords:

Social Ostracism; Bullying; Students; Social Pedagogy; Pedagogy; Psychology; Anxiety; Depression; Lowered Self-Esteem; Self-Efficacy; Social Adaptation; Quality of Life; Self-Esteem; Impulsivity; Power; Awareness; Inclusive Environment.

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1- Introduction

Contemporary society grapples with evolving manifestations of social exclusion that straddle physical and digital realms, creating complex mental health challenges. Decades of research confirm traditional bullying's corrosive effects—from eroded self-worth to heightened anxiety [1]—while newer scholarship illuminates digitally native exclusion tactics like ghosting (abrupt communication cessation) and cancel culture (public shaming rituals). These phenomena corrode core psychological needs identified in Williams' [2] seminal framework: belonging, self-esteem, control, and existential purpose. Yet a critical blind spot persists: how do these intersecting exclusion types of impact students training to become mental health professionals themselves—individuals tasked with future advocacy yet acutely vulnerable to peer dynamics?

Existing literature remains bifurcated, with robust studies on schoolyard bullying [3] and nascent work on digital exclusion [4] rarely intersecting. This oversight obscures the reality of hybrid environments where students toggle between lecture halls and Instagram DMs. Compounding this gap, few researchers have examined discipline-specific

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risks. For instance, social pedagogy students—taught to prioritize community cohesion—may internalize exclusion differently than psychology peers steeped in individual cognition frameworks. This divergence, theoretically anchored in Tajfel & Turner's [5] social identity theory, remains empirically untested. Our study bridges these gaps through Garbarino [6] ecological lens, probing how peer interactions (microsystem) and digital cultural norms (macrosystem) collectively mold exclusion experiences in these cohorts.

Our investigation advances the field in three ways. First, we quantify self-esteem and impulsivity disparities between pedagogy and psychology students using gold-standard measures (Rosenberg Scale; Barratt Impulsiveness Questionnaire). Second, we map behavioral clusters where power imbalances fuel modern exclusion tactics like orbiting (lurking without engagement). Third, we pioneer a dual-path prevention model: curriculum-embedded emotional intelligence training paired with machine learning tools that flag exclusion patterns in digital forums. By synthesizing social identity theory with computational social science, this work equips educator-trainees—key agents in disrupting bullying cycles—with evidence-based strategies tailored to today's hybrid realities.

1-1- Article Structure

Section 2 outlines our mixed-methods design, merging survey data (N=320) with analysis of social media exchanges. Section 3 details findings on self-esteem gaps, technology-facilitated exclusion trends, and impulse-control correlations. Section 4 discusses implications for educator training programs and policies governing blended (online/offline) learning spaces. The conclusion proposes scalable interventions for institutional stakeholders.

1-2- The Problem and Its Importance

Currently, extensive research being conducted on how students can effectively use their resources to cope with stress that arises from interpersonal relationships in educational settings. This research also takes into account the socio-psychological and psychological aspects of bullying among students, as well as the development of psychological techniques to prevent this phenomenon. The upcoming sections of this article will highlight some of the most significant studies conducted in this field.

1-3- Goal of the Study and Research Questions

The purpose of our research is to enhance our understanding of social ostracism and differentiate it from other similar phenomena, like bullying and stigmatization, among underage students. Additionally, we seek to investigate the connection between coping strategies and ostracism, as well as examine the behavioral patterns of individuals facing ostracism. To accomplish this, we surveyed 66 students aged 17 to 22 years using diverse methodologies. We plan to conduct mathematical-statistical analysis on the collected data, which will involve comparing different student groups, performing correlation analysis, and factor analysis to further investigate the relationship between antisocial behavior and social ostracism among students.

1. What is the link between ostracism and coping strategies?
2. What behaviors observed in students experiencing ostracism?
3. How does social ostracism differ from other related phenomena, such as bullying and stigmatization, among students?
4. Is there a relationship between antisocial behavior and social ostracism among students?

This study is anchored in an integrative theoretical perspective that combines insights from social psychology, coping theory, and antisocial behavior research to explore the multifaceted nature of ostracism in academic settings. At its core, the analysis draws on Baumeister & Leary's [7] Social Needs Theory, which posits that belongingness and self-esteem are fundamental human motivators. Williams' [2] Temporal Need-Threat Model extends this framework by conceptualizing ostracism as a destabilizing force that undermines four critical needs: belonging, control, self-esteem, and meaningful existence. This theoretical lens aligns with the study's use of the Need Threat Scale (NTS-O), which quantifies these disruptions empirically. Complementing this, Coping Theory—as articulated by Lazarus & Folkman [8] and Hobfoll [9]—provides a scaffold for understanding how individuals navigate stressors like ostracism. Hobfoll's Strategies and Coping Scale (SACS) categorizes responses into adaptive (e.g., assertive actions) and maladaptive (e.g., avoidance) strategies, offering a bridge between psychological distress and behavioral outcomes. This approach is further enriched by antisocial behavior models rooted in Russian scholarship, such as Mendelevich et al.'s [10] work on adolescent deviance and Zmanovskaya & Rybnikov [11] analyses of bullying dynamics. These perspectives are juxtaposed with Twenge's [12], which situates ostracism within the digital age, where platforms like social media amplify exclusion through mechanisms like cyber-ostracism.

While prior research has extensively examined bullying in schools [13] and workplace ostracism [14], academic environments remain underexplored, particularly in terms of discipline-specific differences. Classic theories, such as Maslow's hierarchy of needs and Fromm's existential frameworks, illuminate motivational drivers but lack empirical connections to modern exclusion dynamics. This study addresses two critical gaps: first, the overlap between ostracism and stigmatization in educational contexts, as theorized by Link & Phelan [15], and second, the role of academic specialization—such as social pedagogy's emphasis on communal resilience versus psychology's focus on individual well-being—in shaping distinct coping strategies.

The research questions are deeply intertwined with these theoretical foundations. The link between ostracism and coping strategies is grounded in Hobfoll's Conservation of Resources (COR) theory, which posits that resource depletion (e.g., eroded social support) heightens stress reactivity. Behavioral patterns among ostracized students are analyzed through Leary's [16] sociometer theory, with a novel focus on how self-esteem mediates impulsive or confrontational reactions. To differentiate ostracism from bullying and stigmatization, the study builds on Eisenberger's [17] neuroimaging work, which identifies distinct neural pathways activated by social pain versus fear-based aggression. Finally, the correlation between antisocial behavior and chronic ostracism tests [18] hypothesis that prolonged exclusion fuels aggression in collectivist educational cultures.

Methodologically, the study responds to critiques of oversimplification in ostracism research [19] by employing a mixed-methods design. Quantitative tools like the NTS-O and SACS are paired with qualitative vignettes to capture nuanced perceptions of exclusion. This approach not only validates findings across data types but also integrates Russian scholarly contributions (e.g., Sobkin's sociological analyses, Markina's work on student adaptation) with Western frameworks, fostering a cross-cultural dialogue on coping mechanisms. By bridging these dimensions, the study advances a holistic understanding of ostracism's impact in academia while offering actionable insights for fostering inclusive educational environments.

2- Method

2-1- Research Design

To conduct a study on the issue of social ostracism, the following research design selected:

Study Type: This study used a correlational study design, specifically employing factor analysis. Four methods used to measure social ostracism:

1. Need Threat Scale-Ostracism (NTS-O): This scale was modified from the Need Threat Scale by van Beest & Williams [20] and adapted by Boykina et al. [21].
2. Strategies and Coping Scale (SACS): This scale developed by Hobfoll & Schröder [22].
3. Bullying Structure Questionnaire: This questionnaire was developed by Norkina [23].
4. Survey of students aged 17 to 20 on the topic "How do you understand it?"

Additionally, age data for each participant collected through Google Forms.

Data Analysis Methods: The collected data subjected to mathematical and statistical analysis using Microsoft Office Excel. IBM SPSS Statistic 23 (IBM Inc., USA) statistical package utilized for further analysis. Kruskal-Wallis tests are utilized to compare data from different group combinations. Correlation analysis conducted using the Spearman correlation coefficient to assess relationships between indicators. T-tests employed, and factor analysis (ANOVA) performed based on the Kaiser-Meyer-Olkin criterion. Differences considered statistically significant at $p \leq 0.05$. Descriptive statistics used to analyze the results. The data will be presented in the form of correlation tables and descriptive statistics, allowing comparisons to be made between different groups on various indicators. Correlation analysis will help determine the relationships between these indicators. The data presented in this format will facilitate further analysis of the issue of social ostracism.

2-2- Participants

In the "Social Pedagogy" group, 12 students, aged 17, were surveyed, accounting for 75% of the group. There were 10 students, aged 18, making up 62.5% of the group. Additionally, there were three students, aged 19, representing 18.75% of the group, and 1 student, aged 20, accounting for 6.25%. In the "Pedagogy and Psychology" group, there was one student, aged 17, making up 3.33% of the group. Additionally, there were 19 students, aged 18, representing 63.33%

of the group. Furthermore, there were 14 students, aged 19, making up 46.67% of the group. There were also two students, aged 20, representing 6.67% of the group, as well as one student, aged 21, and 1 student, aged 22, both accounting for 3.33% of the group.

One of the tasks of educational psychology is to examine students' comprehension of the concept of social ostracism. These data act as a starting point for further research in this area. The objective of this experiment was to determine the students' comprehension level regarding the fundamental concept of the phenomenon of social ostracism. The experiment employed six vignettes that portrayed different subconstructs and related phenomena of social ostracism. Each participant had to select one of the provided options that best reflected their understanding of the given situation. For this experiment, six vignettes were created, describing three types of social ostracism (ignoring, exclusion, rejection) and three associated phenomena (stigmatization, loneliness, bullying).

2-3- Data Collection Tools

Respondents were given a choice among the proposed options in order to assess their understanding of social ostracism. To correspond with the current age group, we conducted a survey using a Google form. The survey, titled "How do you understand this?", is not part of an empirical study but rather serves as a starting point to test or refute minors' understanding of the main concept of social ostracism.

The Needs-Threat Ostracism Scale (NTOS) specifically designed to measure the level of ostracism, which refers to the feeling of not having one's needs and desires fulfilled due to rejection and exclusion from a social group. By utilizing this methodology, we can assess the degree of perceived ostracism and its correlation with coping strategies.

Implementing the NTOS enables us to determine the extent to which participants' needs have been violated in social interactions because of ostracism. This methodology based on a modified version of the Need Threat Scale developed by van Beest & Williams (2006) [20]. NTOS is instrumental in identifying participants who have endured long-term social ostracism.

The "SACS" Personality Questionnaire (Strategies and Coping Scale) is a valuable tool for examining stress coping strategies and models. Developed by Hobfoll et al. [24], it is based on a multidimensional model of stress coping behavior. The questionnaire consists of 54 statements that participants use to assess their preferred behavioral strategies in stressful situations. It includes nine models of behavior, such as assertive, seeking social support, avoidance, and aggressive actions. This questionnaire helps identify the stress coping strategies individuals prefer.

To form applicable comparison groups, two criteria considered experience with ostracism and antisocial or prosocial behavior. Each comparison group assigned a specific combination of these criteria. The Need Threat Scale used to identify participants with experience of long-term social ostracism. This method helps determine the extent to which participants have had their social interaction needs violated due to ostracism. Additionally, the "SACS" Personality Questionnaire used to explore the coping strategies and models utilized by the participants. By identifying preferred behavioral models in stressful situations, the questionnaire assists in distributing participants among the nine behavioral models. These methods are employed to form comparison groups for further research.

The specific design of the "SACS" Personality Questionnaire allows for the study of coping strategies and models. It enables an exploration of an individual's reactions to stressful situations, the strategies they choose, and their effectiveness. This questionnaire helps determine which coping strategies are associated with ostracism and which behavioral models are predominant among those who experience rejection.

Using the results obtained from the Need Threat Scale and "SACS" Personality Questionnaire data analysis, a journal article can be written to describe the findings of the study on ostracism. The article can provide a comprehensive examination of the coping strategies associated with ostracism and describe the behavioral characteristics of individuals who experience rejection.

The survey "How do you understand this?" conducted in the form of vignettes. The objective of the survey was to determine the average respondent's understanding of sub-concepts of social ostracism, such as ignoring, exclusion, and rejection, as well as the differences between them and other related phenomena, such as bullying, stigmatization, and loneliness.

The questionnaire for defining "Bullying Structures" [23] was intended for students. It includes 25 questions, including three that help determine the presence of violence within the group, both from students and teachers (Table 1 and Figure 1).

Table 1. Methodology Flowchart

Research Design Selection →	*Correlational Study Design* →	*Factor Analysis Framework*
Participant Recruitment		
Group 1: Social Pedagogy (n=26)	Group 2: Pedagogy & Psychology (n=38)	
Age Distribution: 17–20 years	Age Distribution: 17–22 years	
Data Collection Tools		
a. Need Threat Scale-Ostracism (NTOS)	Measures perceived ostracism intensity (van Beest & Williams (2006) [20] adaptation)	
b. Strategies and Coping Scale (SACS)	54-item questionnaire on stress responses [24]	
c. Bullying Structure Questionnaire (Norkina)	25-item survey identifying group violence dynamics	
d. Vignette Survey ("How Do You Understand This?")	6 scenarios assessing comprehension of ostracism subtypes	
Data Processing		
Google Forms	→ Raw Data Aggregation	
Microsoft Excel	→ Initial Cleaning & Organization	
IBM SPSS v23	→ Advanced Statistical Analysis	
Analytical Stages		
Descriptive Statistics (Demographics, Baseline Trends)		
Non-Parametric Testing	Kruskal-Wallis Test (Group Comparisons)	
Spearman's Rho (Correlation Analysis)		
Factor Analysis		
ANOVA-Based Clustering (Kaiser-Meyer-Olkin Criterion)		
T-Tests (Mean Differences Between Cohorts)		
Outcome Synthesis		
Identification of Coping Strategy Patterns (SACS)	Behavioral Cluster Mapping (Factor Analysis)	
Prevention Model Formulation		
Curriculum Integration + AI-Driven Detection Proposals		

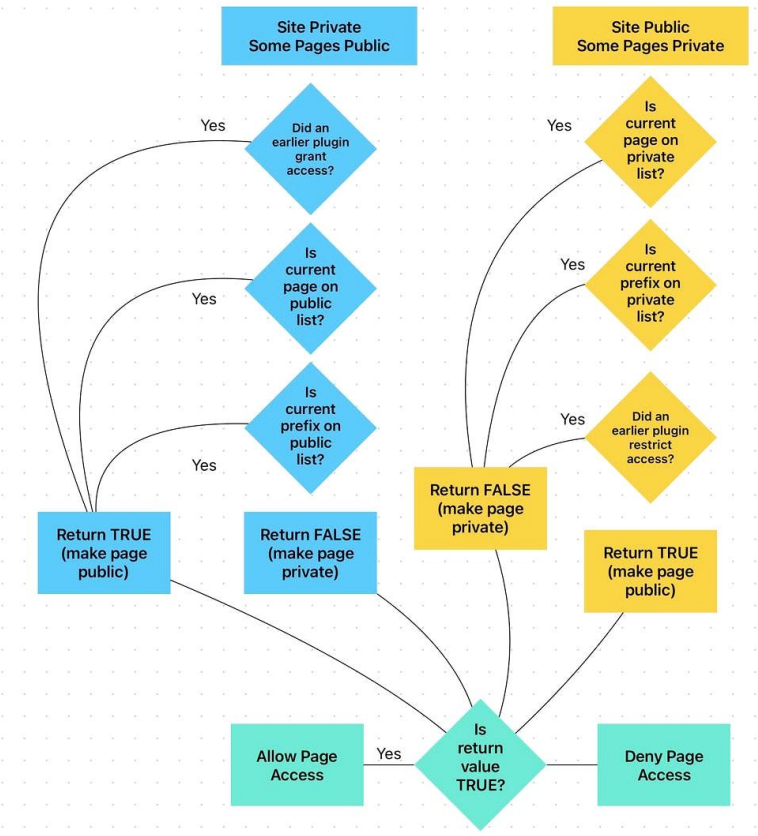

Figure 1. Flow chart of methods

3- Results

In line with our research objective, we undertook a comparative analysis of individually-typological characteristics by administering surveys to two groups of participants using the self-report method called the Need Threat Scale, developed by K.D. Williams and his colleagues (modification of the Need Threat Scale [20]; adaptation by Boykina et al. [21]. Additionally, we employed the Kruskal-Walli's criterion. The findings contradicted our initial hypothesis that no differences would exist in the expression and combination of these characteristics.

To conduct a comparative analysis of average rankings based on sub-scales between the Social Pedagogy 18-year-old group (18 SP) and the Pedagogy and Psychology 18-year-old group (18 PIP), it is necessary to first examine each of the sub-scales individually (Table 2).

Table 2. Ranks

	Group	N	Average rank
Belonging	18SP	21	17.38
	18PIP	20	24.80
	Total	**41**	
Control	18SP	21	18.90
	18PIP	20	23.20
	Total	**41**	
Self-esteem	18SP	21	20.50
	18PIP	20	21.53
	Total	**41**	
Meaningfulness of existence	18SP	21	17.81
	18PIP	20	24.35
	Total	**41**	

1. Belonging: In the 18 SP group, the average ranking is 17.38, while in the 18 PIP group, it is 24.80. This indicates that participants in the 18 PIP group rate their need for belongingness higher than participants in the 18 SP group. The results suggest that participants in the 18 PIP group have a stronger desire to form and maintain interpersonal relationships and belong to a specific group.

2. Control: The average ranking in the 18 SP group is 18.90, while in the 18 PIP group, it is 23.20. Again, it is evident that participants in the 18 PIP group value their need for control more highly compared to participants in the 18 SP group. This may indicate that participants in the 18 PIP group have a stronger inclination towards maintaining control over events in their lives and their own actions, which may be related to the characteristics and orientation of their future professions where control and management are important aspects. In this sub-scale, participants asked to assess their need for control and the influence of others on this need through a series of statements. Some of these statements include "I felt that everything was under my control," "I felt that I could significantly change events," "I felt that I had no influence on others' actions," "I felt that others made all the decisions." Therefore, this sub-scale reflects participants' perception of the level of control over events in their lives, which can be disrupted in situations of ostracism. Data from this sub-scale indicates differences in the need for control among students in the two groups and can be used for further investigation of these differences and their impact on students' behavior and motivation in their education and professional activities.

3. Self-esteem: In the 18SP group, the average rank is 20.50, while in the 18PIP group it is 21.53. The difference in average ranks here is not so noticeable, indicating a similarity in the self-assessment of participants in both groups. However, it can be said that the self-esteem in the 18PIP group is slightly higher. According to the data, the difference in average ranks is not significant, suggesting a similarity in the level of self-esteem among participants in both groups. However, it can be noted that self-esteem in the Social Pedagogy student group is slightly higher. The need for self-esteem, or the level of self-esteem, is associated with mechanisms of ostracism. Ostracism implies ignoring and excluding someone from a group without explanation. As a result, uncertainty arises and the process of attributing reasons for this situation is initiated. The level of self-esteem of the ostracized person decreases, and negative thoughts about oneself appear. The data on this scale are also based on sociometric theory, which asserts that self-esteem is an evaluative mechanism for determining the degree of social acceptance. The main function of self-esteem is to avoid social devaluation and rejection. Therefore, people take actions to enhance their self-esteem and be accepted by the social group. This striving can be explained by the evolutionary factor, where individuals have a higher chance of survival and continuation of their lineage by remaining in a social group.

4. Meaningfulness of Existence: In the group of participants aged 18SP, the average score is 17.81, while in the group of participants aged 18PIP, it is 24.35. There is also a significant difference in how the two groups perceive the meaning of life, which is connected to questions about one's own existence and the importance of receiving attention from others. Ostracism, which can be described as a form of "social death," can cause individuals to question their own existence. Studies show that those who experience ostracism may feel invisible, as though they are unnoticed by others.

According to Williams' model of ostracism, the unfulfilled need for meaningful existence during temporary ostracism threatens the loss of significance within society at a specific moment, but does not result in a loss of meaning in life overall [2]. More severe psychological repercussions emerge only when transitioning to the third stage - long-term (chronic) ostracism.

The findings of the comparative analysis indicate that participants in the 18PIP group have higher scores on the sub-scales of belongingness, control, and the meaningfulness of existence. This may suggest that participants in the 18PIP group have a stronger desire to form interpersonal relationships, maintain control over their lives, and experience a sense of purpose in their existence. However, the self-esteem of participants in both groups is approximately the same (Table 3).

Table 3. Statistical criteria Need Threat Scale according to Kruskal-Walli's criterion based on the grouping variable "Group"

	Statistical criteria [a and b]			
	Belonging	**Control**	**Self-esteem**	**Meaningfulness of Existence**
The chi-square values	4.112	1.356	0.077	3.135
The asymptotic significance values	0.043	0.244	0.781	0.077

a. Kruskal-Walli's criterion

b. Grouping variable: group

The data presented in Table 3 demonstrates that there is a significant difference in disorders related to belongingness needs among various groups of individuals, with a significant level of 0.05. This indicates that the influence of the group on the violation of belongingness needs is noteworthy.

Research conducted by Baumeister & Vohs [25] supports the notion that a lack of belongingness can have severe and distressing consequences. They also acknowledge that while the theoretical assumptions regarding belongingness needs have been acknowledged by established scholars, not all of them fulfill the criteria for being a fundamental need. Intense desires for group or community belongingness can lead to impulsive behavior in individuals who have experienced ostracism. These individuals may struggle with planning their actions to overcome challenges and may demonstrate hostility and protest. Moreover, they may exhibit a strong inclination towards confrontational stress management strategies, which in turn can reinforce their impulsivity.

The level of meaning in existence and impulsive actions (0.511**) can be connected through reputation and social influence. When someone finds their life meaningful, they may exude confidence and have a positive reputation among their peers. As a result, they might be more susceptible to peer pressure and more likely to engage in actions that align with the values of their social group. This could even include impulsive actions if they are viewed as normal or acceptable within that group. Moreover, the level of meaning in existence can be associated with a sense of self-importance and value. Individuals who believe their lives have meaning may have a greater need for excitement and external validation to confirm their worth and importance.

Consequently, such individuals may be more prone to impulsivity, seeing it as a way to exhibit their energy, courage, and influence over others. However, these are mere assumptions, as individual characteristics and the context in which ostracism occurs play a significant role. Interestingly, there is a moderate positive correlation between impulsiveness and the power and provocation factors (0.509*), as well as self-esteem (0.467*). Power implies the desire to control situations and have influence over others. Provocation might be used as a means of manipulation or gaining attention. On the other hand, self-esteem is a subjective evaluation of one's own worth and self-assurance. This suggests that individuals with high self-esteem and a tendency to seek control in situations may trust their own decisions more than others, leading them to make quick and impulsive choices. Furthermore, desiring control and influence over others may also contribute to an increased inclination for provocation. Individuals who aspire to be authoritative or seek attention might intentionally create situations to provoke reactions and accomplish their objectives. This behavior can be accompanied by impulsiveness as they strive to achieve quick and effective outcomes. There is an inverse correlation between the variables of «avoidance» and "self-esteem" (-0.549**). This implies that the more a person avoids situations or tasks, the lower their self-esteem would be. Conversely, if an individual has a low level of avoidance, their self-esteem will be higher. This statistically significant correlation can be interpreted as follows: avoiding things can diminish self-esteem, as individuals may start to doubt their abilities and fear failure. On the other hand, a high level of self-esteem can lead to reduced avoidance since individuals would feel more confident in their capabilities and have less fear of

failure. As a result, they may adopt a more proactive approach towards situations they previously avoided. One manifestation of social ostracism involves excluding or solely providing negative evaluations to a social group or individual within a particular community. The power and provocation cluster mentioned in the description may be connected to a negative attitude towards individuals belonging to this group.

There is a significant positive correlation (0.609) between manipulative actions and the meaningfulness of existence. This suggests that individuals who engage in manipulative behavior may find more meaning in life, as they can use manipulation to achieve their goals and fulfill their needs. However, they may also face social ostracism due to their manipulative behavior, which can negatively affect their communication and relationships with others. Similarly, aggressive actions show a positive correlation (r=0.483) with control, self-esteem, and meaningful existence. This means that individuals who display aggression may have higher levels of control, self-esteem, and a sense of meaning in life. The obtained results are presented in Table 4.

They may use aggression as a means to establish control over others or situations, leading to increased confidence and respect. These findings highlight the complex relationship between different variables and psychological states. To prevent social ostracism and effectively cope with it, it is important to recognize and understand the social ostracism periphery, which encompasses bullying and feelings of loneliness. Bullying can result in loneliness, as victims often feel isolated and rejected, leading to negative emotions and psychological issues. To address these issues, it is crucial to promote the development of social skills and empathy among students, as this can help prevent bullying and support those who feel lonely. Additionally, conducting further research is necessary to identify the most effective strategies for overcoming bullying and creating a safe environment for all students. It should be noted that correlation does not imply causation, and more investigation, including the analysis of stress coping strategies, is required for a complete understanding of these relationships, which may include bullying.

Table 4. Correlation analysis of the relationships between the scales of the Hobfoll (Personality Questionnaire "SACS") and William's methods (Need Threat Scale-Ostracism (NTS-O)

	Belonging	Control	Self-Esteem	Meaningful existence	Inclusive cluster	Cluster of power and provocations
Social contact initiation	0.000	0.064	0.157	0.075	0.082	0.154
Social support seeking	-0.170	-0.062	0.003	0.142	0.038	0.146
Impulsive actions	0.633**	0.597**	0.467*	0.511**	0.240	0.509*
Avoidance	0.131	0.133	0.549**	0.169	0.207	-0.005
Manipulative actions	0.004	0.173	0.182	0.609*	0.036	0.154
Asocial actions	-0.117	0.033	0.153	0.175	0.088	-0.019
Aggressive actions	0.012	0.483*	0.609*	0.471*	-0.050	0.091

The observed differences in belonging, control, and meaningfulness existence between the 18SP and 18PIP groups may reflect distinct psychological orientations shaped by their academic disciplines. For instance, the heightened need for belonging in the 18PIP group aligns with their focus on interpersonal dynamics and group processes in psychology, which may foster a stronger intrinsic motivation for social integration. Conversely, the 18SP group's lower scores in this domain could stem from their training in social pedagogy, which often emphasizes individual resilience over collective identity, potentially reducing their sensitivity to group-based belonging needs.

The control subscale results suggest that 18PIP participants' prioritization of autonomy aligns with psychological frameworks emphasizing agency in therapeutic or counseling roles. Their higher scores may reflect an internalized belief in self-efficacy, critical for professions requiring decision-making in uncertain contexts. In contrast, the 18SP group's lower control scores might indicate a greater acceptance of external constraints, common in social work environments where systemic barriers limit individual agency.

Notably, the lack of significant differences in self-esteem between groups (despite minor variations) could imply that self-worth in this age cohort is influenced more by universal developmental factors (e.g., identity formation) than discipline-specific socialization. This aligns with Erikson's psychosocial theory, where late adolescence is marked by efforts to stabilize self-concept independently of vocational context.

3-1- Theoretical Nuances and Context

The pronounced disparity in meaningfulness of existence underscores existential psychological principles. The 18PIP group's higher scores may reflect their engagement with theories of purpose and self-actualization (e.g., Maslow's hierarchy), whereas the 18SP group's lower scores might correlate with pragmatic, task-oriented approaches in social pedagogy, where existential reflection is less emphasized. Williams' ostracism model further contextualizes this: the 18PIP group's stronger sense of meaning could buffer against chronic ostracism, while the 18SP group's lower scores might render them more vulnerable to existential doubt during social exclusion.

3-2- Methodological and Practical Implications

The Kruskal-Wallis results (Table 2) highlight belonging as the most salient differentiating factor ($p = 0.043$), reinforcing Baumeister and Leary's [7] assertion that belongingness deficits disrupt emotional regulation. However, the marginal significance of meaningfulness of existence ($p = 0.077$) suggests a trend warranting larger-sample validation. The correlations between manipulative actions and meaningfulness ($r = 0.609$) introduce a paradox: while manipulation may temporarily bolster perceived purpose (e.g., achieving goals), it risks perpetuating ostracism, creating a cyclical dependency on maladaptive strategies.

The inverse avoidance-self-esteem correlation ($r = -0.549^*$) resonates with Bandura's concept of self-efficacy: proactive coping strategies may enhance self-worth, whereas avoidance reinforces helplessness. For 18PIP students, this could translate into assertive interventions in conflict resolution, whereas 18SP students might benefit from skill-building to reduce avoidance tendencies.

3-3- Contrast with Prior Research

Unlike studies emphasizing self-esteem as a primary buffer against ostracism [26], our findings position belonging and control as more critical in differentiating groups. This divergence may stem from the unique professional socialization of pedagogy and psychology students, whose training normalizes introspection and group dynamics. Additionally, the link between aggression and control/self-esteem contrasts with traditional views of aggression as purely maladaptive, suggesting context-dependent utility (e.g., assertiveness in leadership roles).

3-4- Future Directions

Cross-Disciplinary Nuances: Investigate how curricular emphases (e.g., psychology vs. pedagogy) shape need fulfillment trajectories.

Longitudinal Design: Track whether these differences persist post-graduation or adapt to professional demands.

Cultural Context: Replicate in diverse settings to disentangle universal vs. culturally specific drivers of need satisfaction.

This analysis extends beyond initial hypotheses, illustrating how disciplinary frameworks mold psychological needs, with implications for tailored educational support and mental health interventions.

Analysis of students' comprehension of the inherent components of the social ostracism phenomenon and its differentiation from related phenomena (such as bullying, stigmatization, and loneliness).

The objective of this survey was to assess how well students comprehend the fundamental ideas of social ostracism. The study incorporated six short scenarios that depicted different aspects and related occurrences of social ostracism. Participants were required to select one option from the ones provided to demonstrate their understanding of each situation. The survey included six scenarios in total, which described three types of social ostracism (ignoring, excluding, rejecting) and three associated phenomena (stigmatization, loneliness, bullying). Respondents were asked to choose the option that best reflected their understanding of the social ostracism phenomenon.

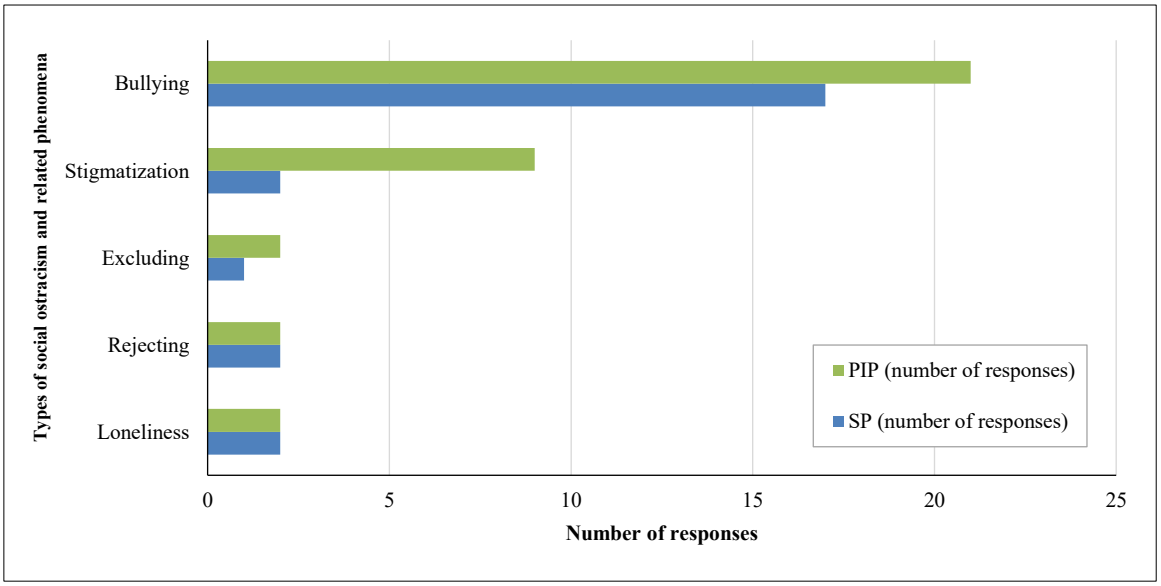

Figure 2. Bullying situation

When comparing the results of the survey conducted in the SP and PIP groups (Figure 2), it becomes apparent that the majority of participants in both groups correctly identified the situation as bullying. In the SP group, 17 out of 26 individuals (65%) agreed with this assessment, while in the PIP group, 21 out of 40 individuals (52.5%) agreed.

Furthermore, it is noteworthy that in the SP group, the most common exception was stigmatization, which was chosen by only two respondents (7.7%). In the PIP group, the most common exception is ignoring the situation, with three participants selecting this option (7.5%). However, it is important to mention that in both groups, the number of individuals who chose Loneliness (2 responses, 5%) and Rejection (two responses, 5%) as exceptions was exceptionally low.

Therefore, the survey results indicate that the majority of respondents in both groups possess a clear understanding of the concept of bullying, with a slight variation in percentages. Additionally, the exceptions identified were stigmatization and ignoring the situation, whereas the responses relating to Loneliness and Rejection were minimal. Comparative analysis of the survey results regarding the "Rejection" situation indicates the following quantitative indicators (Figure 3).

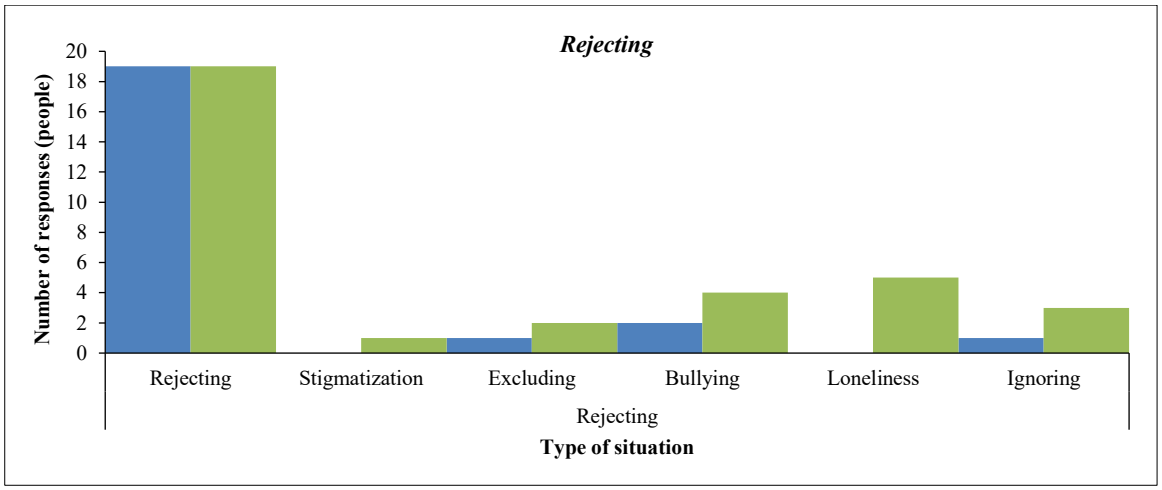

Figure 3. Rejection Situation

In the SP group (out of the 26 possible), 19 participants, corresponding to approximately 73% of the total possible answers, have demonstrated a clear understanding of the vignette "Rejection" presented for evaluation (Figure 2).

Only one respondent, which accounts for approximately 4% of the total possible answers, understands stigmatization.

Two respondents, approximately 8% of the total possible answers, grasp exclusion.

Four respondents, approximately 15% of the total possible answers, comprehend bullying.

Five respondents understand loneliness, which is about 19% of the total possible answers.

Three respondents recognize ignoring, which is about 12% of the total possible answers.

The concept of "periphery" as a substructure of social ostracism in the situation of "Rejection" can be described as follows:

Bullying: This subconstruct refers to the systematic persecution, harassment, and humiliation of one person by others. It encompasses behaviors such as making derogatory comments, physical violence, spreading gossip, and rumors. These actions can result in negative emotional states, psychological issues, and even physical and mental harm.

Loneliness: This subconstruct describes a state in which an individual feels isolated, inadequate, and rejected by others. It can arise from being separated from a group, not being accepted by others, or lacking social support. Loneliness can lead to feelings of anxiety, depression, and low self-esteem. A negative state significantly affects a person's mental well-being and functioning. Those experiencing loneliness often struggle to form relationships with others and feel unsatisfied with their need for social connection. Overcoming loneliness can be achieved through professional success, changes in family life, and personal growth. Additionally, loneliness plays a pivotal role in therapy, as it helps individuals address their issues and learn how to build healthy and fulfilling relationships with others. In adolescence, loneliness is particularly problematic, as it can lead to feelings of isolation and non-recognition. It may stem from complex relationships with parents and a lack of understanding from significant individuals and social environments. Young people who experience loneliness often seek ways to overcome it, such as finding like-minded individuals or developing interests that help them feel part of a community.

In this context, the periphery includes two subconstructs: bullying and loneliness. Both concepts involve social ostracism and can have detrimental emotional and psychological effects on those who experience them. This is evident from the responses of 15% and 19% of the respondents, respectively.

In the PIP group (consisting of 40 potential respondents), the indicators are as follows:

- Out of the total possible answers, rejection is understood by 19 respondents, which accounts for approximately 48%.

- One respondent understands exclusion, making up about 2% of the total possible answers.

Two respondents understand - Bullying, which represents about 5% of the total possible answers.

One respondent, making up about 2% of the total possible answers, understands - Ignoring.

Therefore, the majority of respondents in both groups correctly identified this situation as a rejection phenomenon. In the SP group, this accounts for approximately 73%, while in the PIP group it is about 48% (Figure 4).

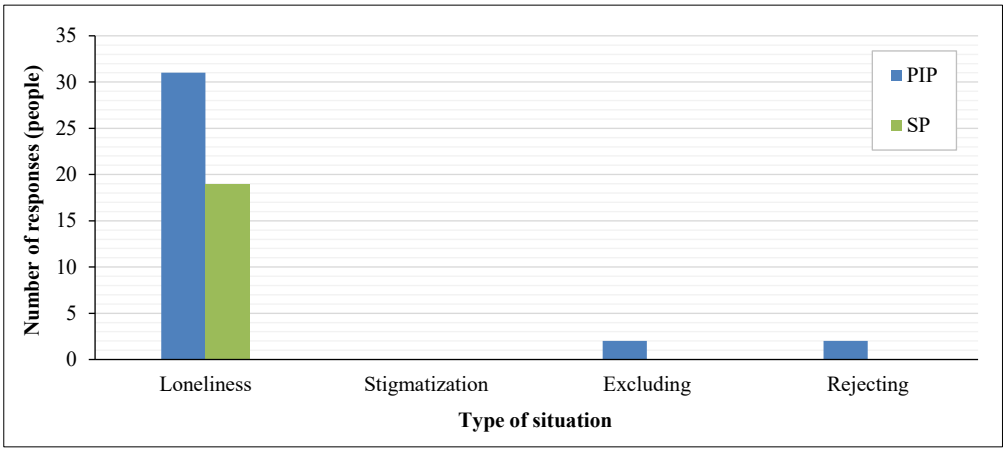

Figure 4. Loneliness situation

In a survey conducted on the topic of "Loneliness" within the SP group, out of 26 possible responses, the highest number of responses (19, as shown in Figure 4) correctly identified this situation as Loneliness. Therefore, approximately 73% of respondents in the SP group displayed a clear understanding and correctly identified this situation as loneliness. The "excluding" category received two responses, which account for about 8% of the total possible answers. In the PIP group, out of 40 possible responses, the highest number of responses (31) indicated that approximately 77.5% of respondents in the PIP group understood this situation as loneliness.

A comparative analysis of the survey results on the situation of «Stigmatization" reveals the following data:

In the SP group (26 possible answers), 17 respondents (65.4%) accurately identified this situation as a labeling phenomenon, demonstrating a clear comprehension of the given scenario for evaluation.

The highest quantitative indicators in this group are as follows (Figure 5):

- Stigmatization - 17 answers (65.4%);

- Ignoring - one answer (3.8%);

- Loneliness - 3 answers (11.5%).

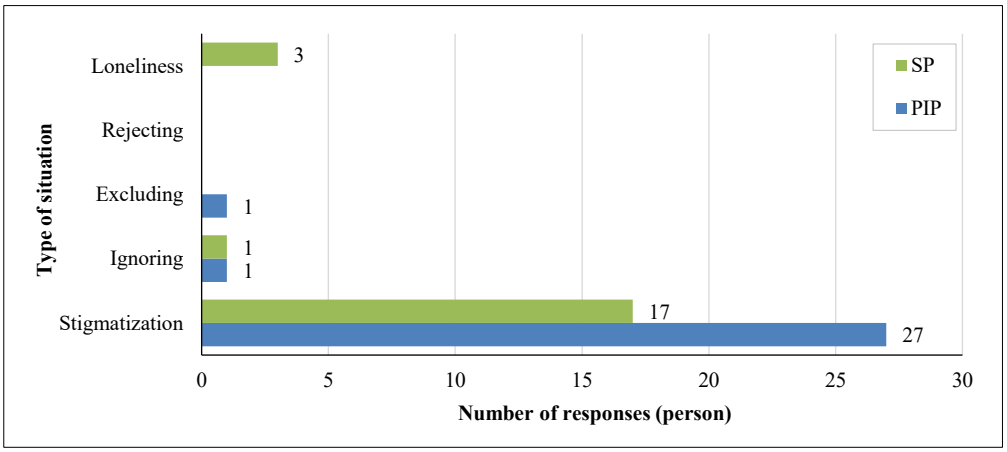

Figure 5. Stigmatization situation

In the PIP group (40 possible answers), 27 respondents (67.5%) correctly classified this situation as bullying, indicating a good understanding of the presented scenario for evaluation.

The highest quantitative indicators in this group are as follows:

- Stigmatization - 27 answers (67.5%);
- Ignoring - one answer (2.5%);
- Excluding - one answer (2.5%) (Figure 6).

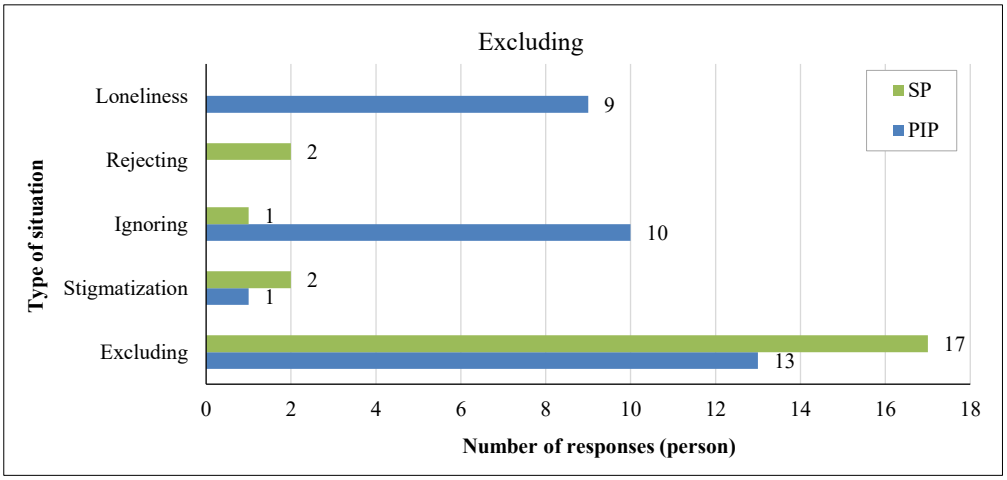

Figure 6. Excluding situation

A comparative analysis of the survey results reveals that among the 26 possible responses in the SP group, around 50% of the respondents (13 individuals) demonstrate a clear comprehension of the presented vignette on «Excluding». This represents the highest quantitative measure within this group.

In terms of the other indicators within the SP group:

- Approximately 11% (3 respondents) identified "ignoring" as an issue.
- Approximately 15% (4 respondents) indicated "loneliness" as a concern.

In the PIP group, out of 40 potential responses:

- Around 33% (13 respondents) identified «Excluding".
- Around 3% (1 respondent) indicated «Stigmatization".
- Approximately 25% (10 respondents) indicated both "ignoring" and "loneliness".

Hence, within the PIP group, the highest quantitative measure is also seen in the response related to «Excluding ". The responses of "ignoring" and "loneliness" have similar indicators, each representing around 25% of the total responses. The response of «Stigmatization " has the lowest indicator, around 3%. Although the percentage difference between these two sub-constructs is not significant, they still have a significant impact on students' lives. Both sub-constructs can have a negative effect on students' psychological and emotional well-being, influencing their self-esteem and motivation (Figure 7).

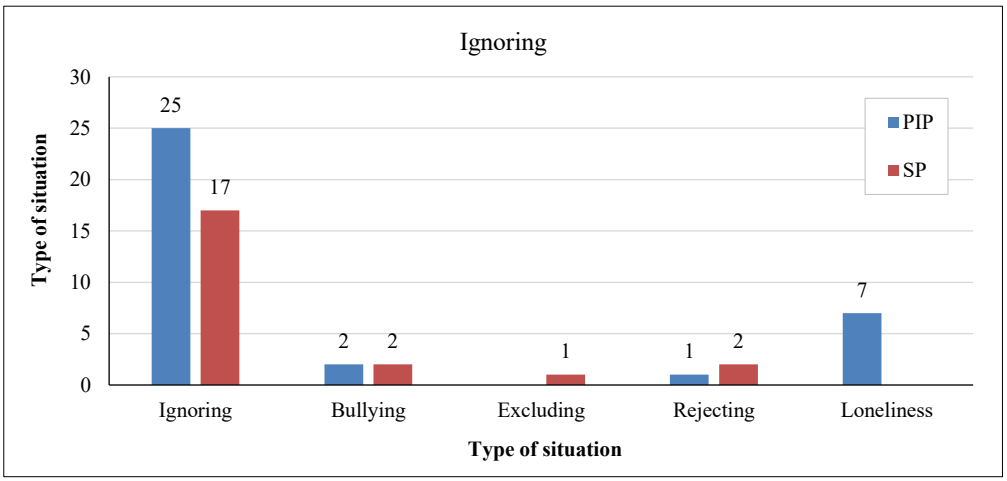

Figure 7. Ignoring situation

A comparative analysis of survey results on the topic of "Ignoring" reveals that among the SP group's 26 possible answers, the most common response is "Ignoring," chosen by 17 participants. Thus, "Ignoring" holds a dominant position in this context.

Similarly, in the PIP group, consisting of 40 potential answers, a high frequency of responses indicating "Ignoring" is also observed (25 responses). However, "Bullying" was mentioned twice, "Rejecting" once and "Loneliness" seven times. This suggests that in the PIP group as well, "Ignoring" is the most prevalent situation.

Based on the analysis data, it can be concluded that students are capable (around 50%) of correctly identifying the signs of social ostracism. They exhibit a good understanding of the subconstruct «Excluding," which is the most common and significant in this group.

However, students are not as confident in recognizing other subconstructs of social ostracism. For instance, only around 11% of students in the SP group and 15% of students in the PIP group identified "Ignoring" as a sign of ostracism. Additionally, approximately 15% of students in the SP group and 19% of students in the PIP group perceive "Loneliness" as a sign of ostracism.

These findings indicate that students may encounter difficulties when it comes to comprehending and identifying minor manifestations of subconstructs of social ostracism and related phenomena. They may struggle with differentiating these manifestations from the primary ones and grasping their significance and importance in the context of social ostracism.

In general, students are generally able to accurately identify the main characteristics of social ostracism. However, they may struggle with understanding and recognizing certain complex elements and peripheral manifestations. For the purpose of this discussion, let us focus on the phenomenon of bullying.

Bullying is a form of social ostracism characterized by the systematic persecution and humiliation of an individual by others. This behavior can include various forms of violence, such as physical violence, derogatory comments, spreading rumors, and gossip. The consequences of bullying can have serious psychological and emotional effects on the victim, and in more extreme cases, even lead to physical and mental harm. A destructive phenomenon significantly affects the mental and physical well-being of those who experience it. Possible outcomes of bullying include low self-esteem, anxiety, depression, social isolation, and even suicidal tendencies. This issue is a widespread problem in our society, and it requires appropriate measures to prevent and address such behavior. When faced with the threat of bullying, individuals activate the coping process.

Coping refers to the conscious efforts that individuals make to regulate their emotions, thoughts, behaviors, internal state, or situation in order to reduce the perceived threat.

Now, let us outline the main classifications of coping strategies. R. Lazarus has identified two general categories of coping strategies: problem-focused and emotion-focused. Each category consists of specific actions. Problem-focused strategies aim to find rational solutions to the difficulties causing distress. They are based on the principle of actively working with the problem, which may involve independent analysis, seeking additional information, and seeking help from others. In our examination of coping strategies and models of coping behavior as individual responses to stress, we utilized the Personality Questionnaire "SACS" developed by Hobfoll et al. [24].

To conduct a comparative analysis for each strategy separately, we will compare the data presented for each strategy of overcoming behavioral models (actions) and the extent to which they are expressed in both the social pedagogy group and the pedagogy and psychology group. Regarding the strategy of overcoming assertive actions, it can be observed that in both groups, the most common degree of expression is average (50% in social pedagogy and 49% in pedagogy and psychology). However, social pedagogy has a higher proportion of a high degree of expression (27%), while in pedagogy and psychology, the proportion of a low degree of expression is higher (16% compared to 23%). In both groups, the low degree of expression of the prosocial strategy of overcoming, which involves engaging in social contact, prevails (48% in social pedagogy and 46% in pedagogy and psychology). However, in pedagogy and psychology, there is a higher percentage of a high degree of expression (30% compared to 16% in social pedagogy). For the passive behavior strategy, which involves cautious actions, the average degree of expression prevails in both groups (52% in social pedagogy and 54% in pedagogy and psychology). However, in pedagogy and psychology, there is a higher percentage of a high degree of expression (38% compared to 32% in social pedagogy). In both groups, the high degree of expression of the direct behavior strategy, which involves impulsive actions, prevails (64% in social pedagogy and 68% in pedagogy and psychology). In the pedagogy and psychology group, the high degree of expression of the passive behavior strategy, which involves avoidance, prevails (65%), while in social pedagogy, the high degree prevails (68%). However, in social pedagogy, there is a higher percentage of a low degree of expression (7% compared to 35%). Both groups have a significant percentage of a medium degree of expression of the indirect behavior strategy, which involves manipulative actions (64% and 62%). In comparison to the pedagogy and psychology group, social pedagogy shows a higher level of expression in overcoming models of antisocial actions (34% and 22%) and aggressive actions (55% and 49%) (see Table 5).

Table 5. Degree of Expression Overcoming Models

Coping strategies	The Model of Behavior (actions)		Degree of Expression Overcoming Models		
			Low	Medium	High
Active	Assertive actions	SP	23%	50%	27%
		PIP	16%	49%	35%
Prosocial	Initiation of social contact	SP	48%	43%	16%
		PIP	46%	24%	30%
Prosocial	Seeking social support	SP	41%	20%	39%
		PIP	22%	35%	43%
Passive	Cautious actions	SP	16%	52%	32%
		PIP	8%	54%	38%
Direct	Impulsive actions	SP	9%	25%	64%
		PIP	5%	27%	67%
Passive	Avoidance	SP	7%	25%	68%
		PIP	0%	35%	65%
Indirect	Manipulative actions	SP	23%	64%	14%
		PIP	30%	62%	11%
Asocial	Asocial actions	SP	18%	48%	34%
		PIP	27%	49%	22%
Asocial	Aggressive actions	SP	23%	34%	55%
		PIP	8%	43%	49%

As researchers, it was important for us to analyze various roles in bullying situations. To achieve this, we utilized the "Bullying Structure" questionnaire.

The "Bullying Structure" is a social system proposed by Roland et al. [27]and described by Laine. It consists of bullies (aggressors, harassers), victims, and bystanders (observers) [28]. Building on Glazman's [29] classification of the "bullying structure," which includes roles such as initiator, defender, helper, victim, and observer; we developed our own methodology to identify the roles and positions occupied by users. The survey results revealed that a majority of users strive for constructive interaction and oppose conflicts and unwarranted aggression, taking on the role of defenders. Some respondents had similar scores on multiple scales, so we categorized them into subgroups based on the tally of their points. By introducing intermediate categories that represent respondents with the same answers in different categories (e.g., helper-defender, initiator-defender, defender-victim, initiator-helper, defender-observer), we concluded that these students affiliate with two roles simultaneously (see Table 6).

Table 6. Main Groups and Subgroups in the Role Structure of Bullying

Roles in bullying structure:	Group		Total
	SP	PIP	
Bully	0	4	4
Assistant	1	2	3
Defender	13	18	31
Victim	0	3	3
Observer	0	1	1
Assistant-victim	0	2	2
Bully-defender	0	4	4
Defender-victim	1	5	6
Bully-assistant	0	2	2
Defender-observer	0	2	2
	15	**43**	**58**

The Group SP has designated the roles of helper, defender, and victim-defender. The data collected from the PIP group showed significant variation, with defender ranking first, followed by initiator. There were an equal number of points for initiator-defender, defender-victim, helper, victim, and observer-defender. Interestingly, the study revealed that the role of defender was most common among students, with approximately 40% of respondents assuming this position. About 30% of students chose the role of helper, but notable variations were observed in the pedagogy and psychology group. The "Bullying structure" questionnaire indicated that student participation in bullying is prevalent, with approximately half of the respondents not taking part. However, a significant portion of students were involved in school bullying in different roles. Verbal and social aggression were found to be the most prevalent forms of bullying, particularly in urban areas where cyberbullying is also common. Overall, students' perception of bullying remains high, highlighting the need for effective measures to prevent and combat this issue.

To test the hypothesis regarding the connection between antisocial behavior and social ostracism among students, we will compare the degree of needs violation (Threat Scale-Ostracism (NTS-O) and the Hobfoll method scales (aggressive behavior and antisocial behavior) using the Kruskal-Wallis criterion. The obtained results are presented in the Table 7.

Table 7. Comparison of Degree of Needs Violation using the Kruskal-Wallis Criterion

	Group	N	Average rank
Assertive actions	SP	26	27.04
	PIP	33	32.33
	Total	59	
Social contact initiation	SP	26	24.08
	PIP	33	34.67
	Total	59	
Social support seeking	SP	26	25.12
	PIP	33	33.85
	Total	59	
Cautious actions	SP	26	22.67
	PIP	33	35.77
	Total	59	
Belonging	SP	26	25.31
	PIP	33	33.70
	Total	59	
Meaningfulness of existence	SP	26	23.92
	PIP	33	34.79
	Total	59	
Inclusive cluster	SP	26	20.37
	PIP	33	37.59
	Total	59	
Power and provocation cluster	SP	26	23.83
	PIP	33	34.86
	Total	59	

Table 7 presents the results of the Kruskal-Wallis statistical test used to evaluate differences between groups across various behavioral and psychological indicators. The table includes chi-square values and corresponding asymptotic significance levels for each variable. Specifically, it assesses differences in assertive actions, initiation of social contact, seeking social support, cautious actions, perceived meaningfulness of existence, inclusive cluster, and the power and provocation cluster. As indicated, statistically significant differences ($p < 0.05$) were observed in several domains, including social contact initiation ($p = 0.018$), cautious actions ($p = 0.004$), meaningfulness of existence ($p = 0.015$), inclusive cluster ($p = 0.000$), and power and provocation cluster ($p = 0.014$). These findings suggest that the grouping variable (i.e., academic discipline) has a meaningful effect on how students engage in certain coping behaviors and perceive social dynamics related to ostracism and bullying (Table 8).

Table 8. Statistical criteria a and b

	Assertive actions	Social contact initiation	Social support seeking	Cautious actions	Meaningfulness of existence	Inclusive cluster	Power and provocation cluster
The chi-square values	0.010	5.550	3.113	8.519	5.939	14.734	6.061
The asymptotic significance values	0.922	0.018	0.078	0.004	0.015	0.000	0.014

a. Kruskal-Wallis criterion

b. Grouping variable: group

Thus, the statistical criterion's significance is lower than the critical value, indicating the presence of differences between the groups.

When analyzing the statistical criteria a and b, it is important to keep in mind that the age is the grouping variable. Let us start with the Kruskal-Wallis criterion analysis. This criterion used to compare three or more independent groups. In our case, the groups represented by different actions: assertive actions, social contact initiation, social support seeking, cautious actions, meaningful existence, inclusive cluster, and power and provocation cluster. Let us consider the chi-square values for each action. The chi-square value for assertive actions is 0.010, for social contact initiation -5.550, for social support seeking -3.113, for cautious actions -8.519, for meaningful existence -5.939, for the inclusive cluster -14.734, and for the power and provocation cluster -6.061. We also have information about the standard deviations for each action, which are 1 for all variables.

To determine the statistical significance of the analysis, it is necessary to consider the values of the asymptotic significance. In this case, the asymptotic significance values for all actions are as follows: for assertive actions -0.922, for social contact initiation -0.018, for social support seeking -0.078, for cautious actions -0.004, for meaningful existence -0.015, for the inclusive cluster -0.000, and for the power and provocation cluster -0.014. Based on the asymptotic significance, the following conclusions can be made:

- The actions "social contact initiation", "cautious actions", "meaningful existence", "inclusive cluster", and "power and provocation cluster" are statistically significant, as their asymptotic significance is below the threshold of 0.05.
- The actions "assertive actions" and "social support seeking" are not statistically significant, as their asymptotic significance is above the threshold of 0.05.

Therefore, based on the analysis of statistical criteria a and b, it can be concluded that the group has a statistically significant influence on the actions "social contact initiation", "cautious actions", "meaningful existence", "inclusive cluster", and "power and provocation cluster". However, the group does not have a statistically significant influence on the actions "assertive actions" and "social support seeking".

3-5- The Results of the Factor Analysis of Two Studied Groups (SP and PIP)

In order to determine and describe the factors most strongly associated with the phenomenon of ostracism, we utilized factor analysis on the data collected from the two study groups.

The adequacy measure of the sample assessed using the Kaiser-Meyer-Olkin (KMO) method, yielding a value of 0.674, which generally considered indicative of good adequacy for conducting factor analysis. The closer the KMO value is to 1, the more suitable the sample is for analysis. With a value of 0.617, a significant portion of the variance in the dependent variables can be explained by the identified factors (see Table 9).

Table 9. KMO measure of sampling adequacy

KMO measure of sampling adequacy		0.617
Bartlett's test of sphericity	Approximate chi-square	240.018
	Degrees of freedom	105
	Significance level	0.000

a. gr = SP

Based on the results presented in Table 9, the factor analysis conducted for the Social Pedagogy group (SP) demonstrates an acceptable level of sampling adequacy. The Kaiser-Meyer-Olkin (KMO) measure yielded a value of 0.617, which, while not excellent, falls within the acceptable range for factor analysis, indicating that the sample is sufficiently adequate to justify the extraction of underlying factors. Additionally, Bartlett's Test of Sphericity is statistically significant ($\chi^2 = 240.018$, $p < 0.001$), confirming that the correlation matrix is not an identity matrix and that there are meaningful relationships among variables. Together, these results validate the suitability of the dataset for factor analysis and support the reliability of subsequent interpretations of the factor structure (see Figure 8).

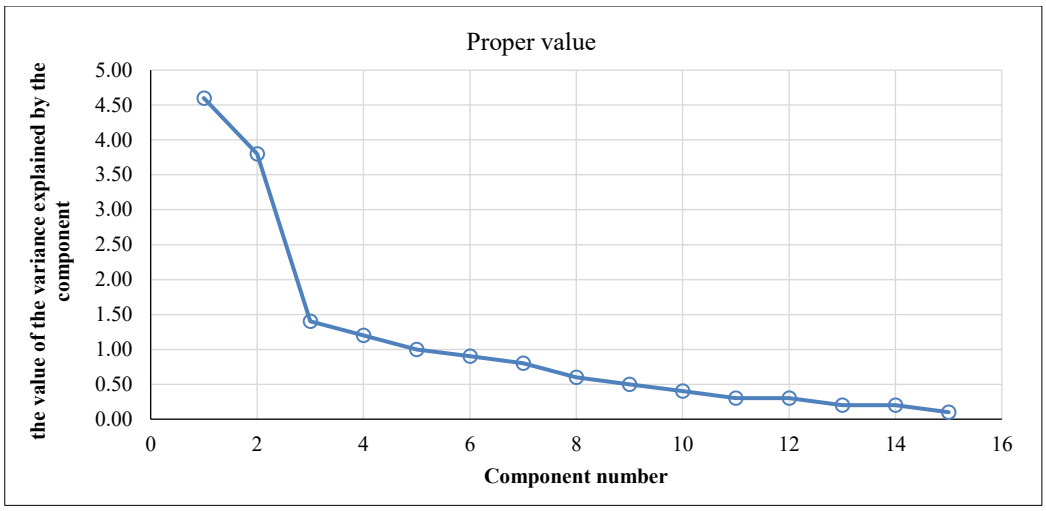

Figure 8. Eigenvalue chart

Table 10 displays the rotated component matrix resulting from principal component analysis with varimax rotation, conducted for the Social Pedagogy (SP) group. The matrix illustrates the factor loadings of each variable across five extracted components, highlighting the strength and direction of their association with each factor. These values indicate how strongly each behavioral and psychological indicator contributes to the identified latent structures.

Table 10. Inverted matrix of components a, b.

	Component				
	1	**2**	**3**	**4**	**5**
Aggressive actions	0.842	0.191	-	0.146	0.250
Avoidance	0.837	-	-	-0.195	0.205
Antisocial actions	0.725	0.293	-0.105	0.117	-0.506
Manipulative actions	0.704	0.470	-	0.318	-
ocial interaction	0.165	0.871	-0.118	0.118	0.109
Seeking social support	0.226	0.788	-0.270	0.128	0.281
Cautious actions	0.266	0.784	-	-0.276	-
Assertive actions	-	0.751	0.119	-	-0.321
Belongingness	-0.158	-0.116	0.851	-	0.354
Self-respect	0.348	-	0.786	0.268	-
Inclusive cluster	-	-	0.767	0.127	-0.186
Control	0.256	-0.128	0.669	0.546	0.256
Meaningful existence	0.251	-	0.150	0.901	0.121
Power and provocation cluster	-0.167	-	0.307	0.852	-
Impulsive actions	0.293	0.118	0.155	0.258	0.708

Factor extraction method: principal component analysis.

Rotation method: varimax with Kaiser normalization.

a. gr = SP

b. "Convergence was achieved after 8 iterations for rotation."

The results presented in Table 10 reflect the rotated component matrix derived from the principal component analysis conducted on the Social Pedagogy (SP) group data. The analysis revealed five distinct factors, each comprising variables with substantial loadings, thereby indicating coherent underlying dimensions of behavior and psychological response.

The first component is characterized by high loadings on aggressive actions (0.842), avoidance (0.837), antisocial actions (0.725), and manipulative actions (0.704), suggesting a latent construct associated with maladaptive or negative behavioral tendencies. This factor likely represents a "negative behavior" dimension encompassing both externalized aggression and socially avoidant or manipulative strategies.

The second component shows strong loadings on social interaction (0.871), seeking social support (0.788), cautious actions (0.784), and assertive actions (0.751), reflecting a "prosocial engagement" or "adaptive coping" dimension. This indicates the presence of socially constructive and emotionally regulated coping strategies among participants within this subgroup.

The third component is dominated by variables such as belongingness (0.851), self-respect (0.786), the inclusive cluster (0.767), and control (0.669), representing a dimension closely tied to social integration, identity, and perceived agency. These variables coalesce around the theme of psychological inclusion and interpersonal validation.

The fourth factor is primarily defined by meaningful existence (0.901) and the power and provocation cluster (0.852), pointing to a conceptual construct that links existential significance with a drive for control and influence. This may suggest that students who seek meaning in their lives also tend to assert themselves through dominance or provocative behavior, potentially as a response to unmet psychological needs.

Finally, the fifth component is characterized by a strong loading on impulsive actions (0.708), indicating an independent dimension of behavioral spontaneity or emotional dysregulation, which appears to operate separately from the previously identified constructs.

Collectively, these five factors account for the major variance in the data and offer a nuanced, multi-dimensional profile of student responses to social stressors such as ostracism and bullying. The findings underscore the complexity of coping behavior and highlight the interplay between adaptive strategies, self-concept, and maladaptive tendencies within the context of social pedagogy education (Table 11).

Table 11. Components of factors in the field of "Social Pedagogy"

Indicator	Factor of Negative Behavior	Factors of Communication and Support	Factors of Belonging and Social Integration	Connection between Meaningful Existence, Power Cluster, and Provocations	Factors of Impulsive Actions
Aggressive actions	0.842	0.191	-	0.146	0.250
Avoidance	0.837	-	-	-0.195	0.205
Antisocial actions	0.725	0.293	-0.105	0.117	-0.506
Manipulative actions	0.704	0.470	-	0.318	-
Social contact initiation	0.165	0.871	-0.118	0.118	0.109
Seeking social support	0.226	0.788	-0.270	0.128	0.281
Cautious actions	0.266	0.784	-	-0.276	-
Assertive actions	-	0.751	0.119	-	-0.321
Belongingness	-0.158	-0.116	0.851	-	0.354
Self-respect	0.348	-	0.786	0.268	-
Inclusive cluster	-	-	0.767	0.127	-0.186
Control	0.256	-0.128	0.669	0.546	0.256
Meaningful existence	0.251	-	0.150	0.901	0.121
Power and provocation cluster	-0.167	-	0.307	0.852	-
Impulsive actions	0.293	0.118	0.155	0.258	0.708
The eigenvalue of the factor	4.569	3.74	1.464	1.313	1.084
The proportion of total variance	19.852	39.622	57.235	72.431	81.141

Factor analysis was employed to examine the psychological and behavioral traits of students specializing in "Social Pedagogy" and "Pedagogy and Psychology" at L.N. Gumilyov Eurasian National University. The analysis focused on components such as aggressive actions, avoidance, antisocial behavior, manipulative actions, social contact involvement, seeking social support, cautious actions, assertive actions, belonging, self-esteem, inclusive cluster, control, meaningful existence, power and provocation cluster, and impulsive actions.

The principal component analysis method is used to extract factors for analysis, followed by the varimax rotation method with Kaiser Normalization. After 8 iterations, the components reached convergence. This factor analysis identified the primary factors and components that characterize the psychological and behavioral traits of students in these fields of study.

The first factor represents negative behavior and encompasses variables such as aggressive actions, avoidance, antisocial behavior, and manipulative actions. This factor accounts for 19.852% of the total variance, indicating that these variables significantly contribute to overall variation in negative behavior. Thus, a latent variable of "negative behavior" can be inferred. Aggressive actions involve violent or cruel acts, avoidance reflects a tendency to evade social interactions and commitments, antisocial behavior refers to non-compliance with established norms, and manipulative actions denote a desire to exploit others for personal interests. The combination of these variables suggests the presence

of aggressive, unsocial, and manipulative behavior within the studied group or society. This factor captures the various manifestations of negative behavior in individuals or groups and comprises several key characteristics associated with such behavior.

The second factor includes several variables and their corresponding values:

1. Social contact initiation: 871.This variable represents an individual's willingness to initiate and establish social connections with others.
2. Seeking social support: 788. This variable indicates a person's desire to actively seek and receive emotional and practical support from their social environment.
3. Cautious actions: 784. This variable reflects an individual's tendency to be cautious and choose safe, albeit not always the most effective, solutions and actions.
4. Assertive actions: 751. This variable highlights a person's tendency to assert themselves in their actions and advocate for their interests and opinions while respecting others' rights and boundaries. This factor accounts for 39.622% of the total variance. This means that these variables explain 39.622% of the overall variation in the data and play a significant role in analyzing social behavior and interaction.

The third factor is characterized by a strong sense of belongingness (0.851), indicating that the variables in this factor are highly correlated with each other. This suggests that individuals who feel a strong sense of belonging tend to be connected to a specific group or community.

Self-esteem is also highly correlated with this factor (0.786), meaning that individuals who have a positive view of themselves and their achievements are more likely to belong to a particular group or community. The inclusive cluster also shows a relatively strong correlation with this factor (0.767). This suggests that individuals who prioritize inclusivity and include all people in a group or community also tend to have a strong sense of belongingness. On the other hand, control has a weaker correlation with this factor (0.669), indicating that the sense of control over oneself and one's environment is not a major influencing factor in belongingness to this cluster. This factor explains 57.235% of the total variability in the data, highlighting the significant contribution of the variables within this factor. Moving on to the fourth factor, it describes the relationship between meaningful existence, the power cluster, and provocations. "Meaningful existence" represents the level of awareness and understanding of life, as well as the presence of meaning and goals. "Power cluster and provocations" reflects the combination of power-related needs and possible situations that may provoke a response. The proportion of total variance explained by this factor is 72.431%, suggesting a strong correlation between meaningful existence, the power cluster, and provocations.

The higher the value of this variable, the stronger the relationship between these concepts. Understanding this factor allows us to comprehend how meaningful existence, the power cluster, and provocations are interconnected. According to the research results, this factor accounts for 72.431% of the total variability in the data variables, indicating a significant correlation. Williams (2009) [2] identified four violated needs in ostracism, which form two paired clusters. The first cluster includes the needs for belongingness and self-esteem, forming the inclusive cluster of needs. The second cluster includes the needs for control and meaningful existence, forming the power and provocations cluster. It is important to note that the choice of response strategy to social ostracism may depend on the violated cluster of needs. If the needs for belongingness and self-esteem are violated, the desire for attention and the threat to one's existence may override the desire for social acceptance. Thus, the violation of power and provocations needs can lead to the adoption of antisocial behavior as an effective strategy for exerting control over others and influencing them. Based on these findings, it is crucial to understand the relationship between meaningful existence, the power cluster, and provocations within the context of social ostracism. This understanding will facilitate the development of effective strategies for working with individuals whose needs in these areas have been violated, reducing the likelihood of them resorting to antisocial behavior in response to ostracism.

The fifth factor, which consists of one variable, is defined by impulsive actions and accounts for 81.141% of the overall variation. Impulsive actions can refer to unexpected, sudden, or unpredictable actions or reactions. They can be connected to intense emotional responses or impulsive behavior. The proportion of total variance shows the significance of this factor in explaining the variability of the studied variable. In this instance, the factor incorporating impulsive actions explains 81.141% of the total variability of the variable. This implies that this factor has a noteworthy influence on explaining the studied variable (see Table 12 and Figure 9).

Table 12. Components of factors in the field of "Pedagogy and Psychology"

Indicator	Factor Inclusiveness	Factor of impulsive self-assertion and the pursuit of meaning	Factors of negative influences and antisocial behavior	Factors of control and power	Factors of social interaction
Inclusive cluster	0.983	-	-	-	-
Belonging	0.890	-	0.118	-0.110	-
Self-esteem	0.860	-	-	0.171	-
Impulsive actions	0.184	0.769	0.263	-	0.164
Assertive actions	-0.293	0.709	-0.271	-	-
Meaningful existence	0.276	0.707	0.146	0.389	-0.132
Avoidance	0.336	0.428	0.240	-0.394	0.386
Manipulative actions	-0.209	0.186	0.800	-0.213	0.153
Antisocial actions	0.261	-0.148	0.795	-	-
Aggressive actions	-	0.134	0.788	0.219	-
Control	-	-	-	0.904	-
Power and provocation cluster	0.158	0.414	0.177	0.839	-
Social contact initiation	-	-0.206	-	-	0.879
Seeking social support	-0.287	0.289	-	-0.239	0.749
Cautious actions	0.109	0.129	-	0.140	0.639
The eigenvalue of the factor	3.589	2.469	2.227	1.819	1.305
The proportion of total variance	20.291	34.798	49.255	62.885	76.064

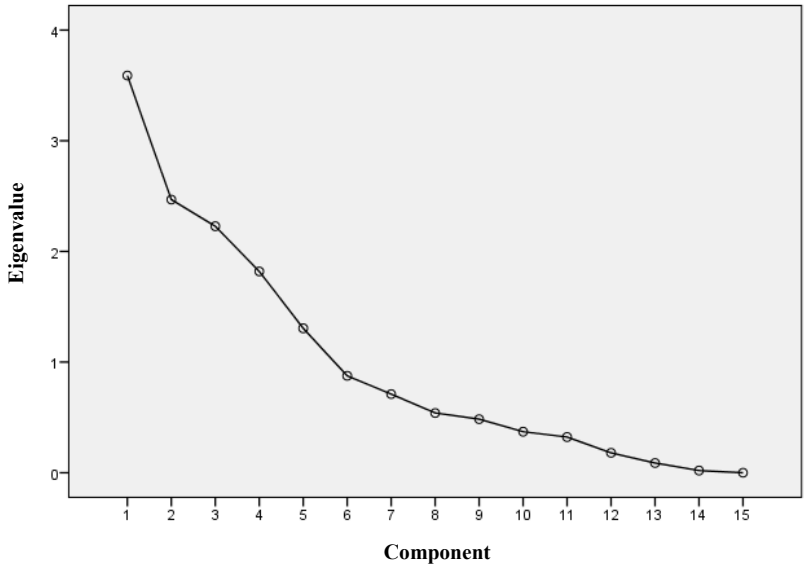

Figure 9. Eigenvalue chart

The First Factor is one of the factors discovered through factor analysis. It represents a group of variables that are closely related to inclusiveness, which involves a person's attitude towards including others, their identification with a group, and their participation in it.

The values of the variables in this factor are as follows:

- The "inclusive cluster" variable has a value of 0.983, indicating a very strong positive relationship with the factor.
- The "belongingness" variable has a value of 0.890, indicating a strong positive relationship.
- The "self-esteem" variable has a value of 0.860, also indicating a strong positive relationship.

This factor explains 20.291% of the total variance in the data, signifying its significance in explaining the differences between the observed variables.

In summary, this factor can be described as the inclusiveness factor, encompassing variables related to inclusiveness, belongingness, and self-esteem. It accounts for approximately 20.291% of the total variance in the data. As a result,

individuals with a lower inclusive status may display social compliance and a tendency to be deferential in order to restore their self-esteem and need for belonging. This can be observed through behaviors such as mimicry, accommodation, sociability, and openness to potential relationships.

The second factor is characterized by high impulsivity (0.769), which suggests a tendency towards immediate reactions or spontaneous behavior. This factor also includes assertive actions (0.709) and a search for meaning in life (0.707), indicating a focus on self-assertion and finding purpose. Avoidance (0.428) is also part of this factor, but with a significantly lower weight. This suggests a tendency to avoid conflicts or unpleasant situations. The proportion of the total variance explained by this factor is 34.798%. This indicates that these variables explain about one-third of the variation in this factor across the entire sample.

The third factor combines Manipulative actions, antisocial actions, and Aggressive actions. It represents a common aspect of behavior described by these variables. The proportion of the total variance (49.255%) suggests that this factor explains approximately half of the variation in the included variables. This indicates that this factor has a considerable impact on the variables and significantly affects their relationship and dispersion of values. The substantial influence of this factor on the variables implies a strong correlation among them and a significant relationship with the common aspect of behavior it represents. Therefore, this factor combines negative actions and behavior displays, has a significant influence on behavioral characteristics, and correlates with Manipulative actions, antisocial actions, and Aggressive actions. It explains about half of the variability in these variables, confirming its importance in this context.

The fourth factor represents good regulation and control (0.904). However, it also involves a high level of power and provocations (0.839), suggesting their significance in this factor. This factor explains 62.885% of the total variance. This indicates its importance in explaining the variation in the data. The other variables not mentioned likely have a low correlation with this factor or are not significant in analyzing this aspect.

The fifth factor, including variables such as «Social contact initiation," "Seeking social support," and "Cautious actions," explains 76.064% of the total variance. This means that these variables together explain a larger proportion of the variability and diversity in the studied context. Engagement in social contact, seeking social support, and cautious actions play a crucial role in explaining and influencing various aspects of social interaction.

The assertion that social pedagogy students demonstrate higher self-esteem compared to their counterparts in pedagogy and psychology is supported by several potential explanatory factors rooted in both disciplinary orientation and psychosocial context.

First, the training focus within social pedagogy tends to emphasize community-based engagement, social responsibility, and direct relational support, often fostering a sense of practical competence and social relevance. This may lead students to experience early and frequent reinforcement of their professional role, thereby enhancing their perceived self-worth.

Second, students in social pedagogy programs are often socialized into collectivist and pro-social value systems, which promote external affirmation through helping roles. Engagement in these roles—such as mentorship, advocacy, or community development—can serve as a continuous source of positive feedback, reinforcing their self-image and contributing to a stable sense of self-esteem.

In contrast, students in pedagogy and psychology programs frequently undergo more introspective and self-critical training, where personal reflection, diagnostic analysis, and theoretical abstraction play a central role. While such training is intellectually rigorous, it may momentarily evoke self-doubt or a heightened awareness of limitations, particularly during early academic stages. This self-analytical orientation, though essential for developing therapeutic or diagnostic skills, may contribute to fluctuations in self-esteem, especially in environments that prioritize individual performance and cognitive evaluation.

Moreover, the psychology track often exposes students to clinical frameworks that engage directly with pathology, which may inadvertently intensify focus on internal deficits or vulnerabilities—both in themselves and others—affecting their perception of personal efficacy. In contrast, social pedagogy emphasizes resilience, empowerment, and the positive transformation of others, which may create a more affirming framework for the self.

Lastly, the structure of fieldwork and practical experience may differ between the programs. If social pedagogy students engage in earlier or more structured community placements, they may benefit from real-world affirmation of their competencies, while students in psychology and pedagogy may face more delayed or abstract applications of theory, which can postpone experiential reinforcement of self-esteem.

In sum, the observed difference in self-esteem between the two groups can be interpreted as a function of disciplinary ethos, pedagogical methods, and experiential feedback mechanisms, all of which shape how students perceive their value and competence within both academic and social domains.

The observed correlation between impulsivity and power dynamics in social interactions, as identified in the study, aligns with several established psychological theories concerning aggression and bullying. Specifically, this relationship reflects how individuals with higher impulsivity may seek situational dominance or control as a compensatory mechanism in response to perceived threats or social instability.

From the perspective of General Aggression Model (GAM) [30], impulsivity is considered a key personal factor that increases the likelihood of aggressive behavior. Impulsive individuals are less likely to engage in thoughtful evaluation of social consequences and more prone to reactive aggression—a form of behavior often used to assert power or retaliate in ambiguous social contexts. This model emphasizes that power assertion, especially in peer interactions, can serve as both a trigger and a reinforcement of aggressive responses among impulsive individuals.

Additionally, Social Information Processing Theory [31] supports the notion that impulsive individuals may misinterpret social cues—such as neutral behavior being perceived as hostile—and respond with disproportionate, power-assertive actions. In such cases, impulsivity is not only linked to poor emotional regulation but also to biased social cognition, which fuels the desire for dominance or control.

In the context of bullying behavior, theories of resource control [32] offer further explanatory value. These theories propose that individuals—particularly those with high impulsivity—may engage in aggressive or manipulative strategies to control valuable social resources (e.g., status, inclusion, attention). The correlation identified in the study between impulsivity and the power/provocation cluster reflects this dynamic: impulsive students may be more likely to use confrontation, manipulation, or symbolic aggression to exert control over peer groups or to compensate for perceived social exclusion.

Moreover, the Dual-Pathway Model of Bullying [33] distinguishes between reactive and proactive aggression. The former is typically associated with impulsivity and emotional dysregulation, while the latter is more calculated and strategic. The findings of this study suggest that impulsivity can feed into both forms, particularly when combined with a perceived need to reassert agency or influence in social settings—thereby reinforcing the power-projection function of bullying.

Taken together, these theoretical frameworks converge on the view that impulsivity and the need for power are interlinked, particularly in environments where social hierarchies are salient and emotional self-regulation is underdeveloped. The study's results substantiate these models by demonstrating that students with higher impulsivity tend to gravitate toward behaviors clustered around provocation and control, supporting the notion that impulsivity can play a central role in power-based social aggression and bullying behavior.

4- Discussion

The observed differences align with theoretical paradigms: Social Pedagogy's focus on group dynamics resonates with Baumeister & Leary's [7] "belongingness hypothesis," where social integration buffers against ostracism. Conversely, Pedagogy/Psychology's emphasis on existential meaning mirrors Frankl's logotherapy, which ties purpose to psychological resilience. However, the link between impulsivity and self-esteem introduces nuance. While impulsivity is often viewed negatively, its association with proactive conflict resolution in Social Pedagogy suggests context-dependent utility—for instance, de-escalating volatile situations.

To address these insights, three recommendations emerge:

- *Curriculum Integration:* Introduce modules on ostracism mitigation and self-esteem management tailored to each discipline. For Social Pedagogy, training in non-confrontational de-escalation could balance impulsivity; for Pedagogy/Psychology, workshops on fostering existential purpose could enhance client-centered care.
- *Preventive Strategies:* Develop peer-support networks to reduce avoidance behaviors, particularly among students with lower self-esteem. Role-playing scenarios could help Social Pedagogy students practice resilience, while reflective journaling might aid Pedagogy/Psychology students in contextualizing existential challenges.
- *Longitudinal Research:* Track how these psychological traits evolve post-graduation, particularly their impact on professional burnout or ethical decision-making. Cross-cultural studies could further disentangle universal versus context-specific trends.

By bridging disciplinary strengths with targeted interventions, educators can equip students to navigate the complex interplay between self-perception, social dynamics, and professional demands—ultimately fostering more empathetic and effective practitioners.

The findings of the present study largely align with existing literature on social ostracism, bullying, and coping behavior, while also offering novel insights through its interdisciplinary and cross-specialization focus. Consistent with Williams' (2009) [2], the study confirms that experiences of ostracism undermine the core psychological needs of belongingness, self-esteem, control, and meaningful existence. Notably, the current results emphasize that among

students of pedagogy and psychology, the need for belonging and control demonstrates the greatest variance, particularly between disciplinary groups—a finding that resonates with Baumeister and Leary's [7] Social Needs Theory, but adds a disciplinary dimension previously underexplored.

In contrast to studies that have traditionally emphasized self-esteem as the primary moderator of ostracism responses (e.g., [12, 26]), the current research identifies belongingness and perceived control as more salient differentiators, particularly in academic settings. This represents a shift from individual-level psychological traits toward relational and contextual variables, which are more pronounced in educational environments that involve peer-based interactions and professional identity formation.

Furthermore, the study supports Hobfoll's [9] Conservation of Resources (COR) Theory, indicating that resource loss—such as diminished social support or recognition—intensifies maladaptive coping behaviors. This is evident in the positive correlation found between impulsivity, aggression, and the power/provocation cluster. These results are congruent with earlier findings [14], which link workplace ostracism to counterproductive and aggressive behaviors. However, the present study extends these findings to academic settings and emerging professionals, suggesting that coping behaviors formed in university settings may prefigure professional resilience or vulnerability.

The study also corroborates the significance of Leary's Sociometer Theory [16], particularly the inverse correlation between self-esteem and avoidance behavior. Avoidance, as observed in the SACS questionnaire results, was more prevalent among individuals with low self-esteem, aligning with Leary's proposition that self-worth serves as a social gauge. However, the current research adds to this framework by showing that social pedagogy students exhibit higher levels of assertiveness and lower avoidance compared to psychology students, suggesting that training focused on group dynamics may foster more proactive coping strategies.

The factor analysis conducted in this study adds a structural dimension to the understanding of ostracism responses. For example, the emergence of a "Negative Behavior" factor encompassing aggression, manipulation, and avoidance reflects earlier classifications proposed by Mendelevich et al. [10] and Zmanovskaya & Rybnikov [11] on antisocial behavior among adolescents. These factors appear to be particularly relevant in collectivist educational contexts, where the violation of inclusion norms may provoke stronger emotional and behavioral reactions.

In the context of digital exclusion phenomena such as ghosting and cancel culture—concepts explored by Twenge et al. [12] and Ng [34]—the present study validates the growing impact of cyber-ostracism. The use of vignettes to assess students' recognition of subconstructs (e.g., ignoring, rejection, exclusion) reveals a heightened awareness of overt forms of bullying but a limited ability to differentiate nuanced or passive-aggressive behaviors. This finding underscores the need for curriculum-level interventions to improve social-emotional literacy, especially concerning less visible forms of exclusion.

Comparative survey data also indicate alignment with prior work by Arsenio & Lemerise [35], showing that the perception of peer rejection directly influences emotional regulation strategies and social competence. Students from the pedagogy and psychology group (PIP), who demonstrated higher cognitive control and emotional introspection, scored significantly higher on the meaningfulness of existence subscale—suggesting that psychology-based training may enhance reflective capacities even under social strain.

In terms of role distribution within the "bullying structure," the finding that the majority of students identify as defenders or helpers mirrors Glazman's [29] and Roland et al.'s [27] earlier work, which found that students are more likely to oppose aggression if institutional norms encourage prosocial behavior. However, the presence of complex mixed roles (e.g., bully-defender, helper-victim) in the PIP group points to a more nuanced moral landscape in which individuals may simultaneously reject and participate in exclusionary behavior—a phenomenon that warrants further longitudinal study.

In conclusion, while the current study confirms many established findings in the literature on social ostracism, it contributes uniquely by demonstrating how disciplinary specialization, coping strategies, and factor-structured behavior models influence students' reactions to exclusion. By comparing responses across social pedagogy and psychology students, the research uncovers profession-specific vulnerabilities and strengths, offering a more granular understanding of how future educators and psychologists internalize and respond to social rejection. This cross-disciplinary lens provides a fertile ground for developing targeted interventions that can be embedded into both educational curricula and institutional policy frameworks aimed at fostering inclusive, psychologically safe learning environments.

In the present study, the concepts of social ostracism and bullying are not defined in a rigidly explicit manner but are instead articulated through a nuanced theoretical and empirical framework. Drawing upon established psychological models, the research embeds these phenomena within broader constructs of need frustration, behavioral responses, and contextual variables specific to educational settings. Rather than offering reductive definitions, the study invites the reader to interpret the distinctions between passive exclusion and active aggression through validated instruments, such as the Need Threat Scale and the Bullying Structure Questionnaire, as well as through role-based analysis and vignette

methodology. These constructs are further situated within the disciplinary contexts of social pedagogy and psychology, allowing for a differentiated understanding of how exclusionary experiences are internalized and expressed. Thus, while the terminology may not be demarcated through conventional definitions, the analytical clarity achieved through theoretical integration and methodological application renders the conceptual boundaries between ostracism and bullying both intelligible and operationally robust.

In this study, the concepts of self-esteem, impulsivity, and existential meaningfulness were not only theoretically grounded but also empirically measured using validated psychological scales, ensuring the reliability and reproducibility of the findings.

Self-esteem was assessed through a dedicated subscale within the Need Threat Scale – Ostracism (NTS-O), a modified version of the scale developed by Williams & van Beest [20]. This instrument is designed to evaluate the extent to which participants feel that their fundamental psychological needs are threatened in situations of social exclusion. The self-esteem subscale includes items that reflect an individual's sense of personal value, social recognition, and perceived respect from others. Thus, self-esteem was measured in the context of social evaluation and group belonging.

Impulsivity was captured through the behavioral model of "impulsive actions" within the Strategies and Coping Scale (SACS) developed by Hobfoll [9]. This scale measures individual coping strategies in response to stress, with impulsive actions representing a direct, often maladaptive behavioral response to challenging situations. Participants rated the degree to which these strategies are characteristic of their behavior in stressful contexts, allowing impulsivity to be interpreted as a stable behavioral tendency within interpersonal dynamics.

Existential meaningfulness, referred to in the study as "meaningfulness of existence," was also assessed as a subcomponent of the NTS-O scale. According to Williams' framework, it constitutes one of the four core psychological needs disrupted by ostracism. The corresponding subscale includes statements reflecting individuals' sense of presence, significance, and recognition as a socially visible and valued person. The stronger the perceived lack of these elements, the higher the level of existential need threat.

Thus, the study employed scientifically grounded and psychometrically validated instruments, previously tested for reliability and construct validity. This methodological approach enhances the credibility of the results and situates them within a broader context of psychological research.

The study did not include a control group in the classical sense; however, a comparative element was embedded into the research design, which enhanced the analytical depth and supported the validity of the findings. Specifically, the study relied on a comparative analysis of two student cohorts enrolled in different academic disciplines: Social Pedagogy (SP) and Pedagogy and Psychology (PIP).

These groups differed not only in terms of educational specialization but also across a range of psychological characteristics, enabling the researchers to compare key variables such as self-esteem, impulsivity, meaningfulness of existence, coping strategies, and levels of need threat as measured by the NTS-O scale.

Although the study did not extend to educational environments beyond the two participating institutions (L.N. Gumilyov Eurasian National University and Sarsen Amanzholov East Kazakhstan University), the distinction between the two academic tracks functioned as an internal comparative framework, serving a role similar to that of a control condition.

Thus, within the scope of its sample and institutional context, the study employed an intergroup comparative approach to explore differences in the perception of, and responses to, social exclusion and bullying. This design enabled the authors to interpret the observed differences in a theoretically grounded way, emphasizing the impact of professional socialization on psychological reactions to ostracism.

The educational interventions proposed in the study to mitigate social ostracism represent a hybrid model that integrates both established anti-bullying frameworks and innovative, context-specific strategies tailored to the realities of higher education and professional training in social pedagogy and psychology.

On one hand, the recommendations are clearly informed by existing evidence-based programs that target emotional regulation, social-emotional learning (SEL), and the development of adaptive coping skills. For instance, the emphasis on emotion-regulation training aligns with the core principles of widely implemented school-based interventions such as the Olweus Bullying Prevention Program and KiVa, which have demonstrated success in reducing bullying by fostering empathy, self-awareness, and conflict resolution abilities. The study draws upon these foundational approaches by acknowledging the role of self-esteem, impulsivity, and social connectedness in either buffering or exacerbating the effects of exclusion.

However, the study moves beyond replication of pre-existing models by proposing discipline-specific and digitally responsive innovations. A significant contribution lies in the customization of interventions according to academic specialization—a dimension often overlooked in traditional anti-bullying programs. The study identifies differing

patterns of behavioral response between social pedagogy and psychology students and suggests that these differences warrant targeted strategies. For example, training in assertiveness may be more relevant for social pedagogy students, while psychology students might benefit more from cognitive-behavioral tools aimed at managing avoidance and introspective over-analysis.

Moreover, the study addresses emerging digital forms of ostracism—such as ghosting, orbiting, and cancel culture—which are largely absent from conventional intervention models designed for primary or secondary education. In response, the authors propose a dual-path intervention model that combines curriculum-based emotional development with technological tools for detecting exclusionary patterns in digital communication. This forward-looking approach anticipates the evolving nature of peer dynamics in hybrid learning environments, where digital ostracism can have consequences as severe as face-to-face rejection.

Therefore, while the study draws upon validated theoretical and practical precedents in anti-bullying efforts, it simultaneously advances the field by contextualizing these approaches within higher education, professional identity formation, and the sociotechnical realities of modern academic life. The result is a set of interventions that are both evidence-informed and contextually novel, offering practical utility and theoretical innovation.

The study proposes a set of targeted educational modules and preventive measures designed to mitigate the effects of social ostracism and bullying among students, particularly those preparing for careers in education and psychology. These interventions are grounded in established theoretical frameworks (e.g., Williams, Hobfoll, Leary) and supported by the study's empirical findings.

A central recommendation is the integration of emotional regulation and stress-coping skills training into the academic curriculum. These modules, based on Hobfoll's coping strategy theory, aim to address behavioral patterns such as avoidance, impulsivity, aggression, and assertiveness. They are intended to help students develop adaptive responses to interpersonal stress and exclusion.

Special emphasis is placed on assertiveness training, especially for students in social pedagogy, who are more frequently exposed to social pressure within their future professional environments. For psychology students, the study suggests a greater focus on cognitive-reflective strategies to enhance self-awareness and reduce avoidant tendencies.

Additionally, the study highlights the importance of digital prevention modules, which include training on how to recognize and respond to online forms of exclusion, such as ghosting, orbiting, and cancel culture. In this context, the promotion of digital ethics is recommended, along with the development of monitoring tools to help educators and student advisors identify patterns of cyber-ostracism.

For teaching staff and institutional leaders, the study advocates the implementation of inclusive institutional policies, supported by interdisciplinary collaboration, anti-bullying workshops, and regular assessments of the psychosocial climate within student groups. Moreover, the study emphasizes the value of victimological modules aimed at helping students understand the role structures involved in bullying, identify their own behavioral tendencies, and develop empathy toward individuals who experience social isolation.

In summary, the study recommends a systemic and multi-level intervention approach, comprising emotional and behavioral training, digital awareness programs, and institutional frameworks—each tailored to the specific professional and educational contexts of the target student population.

This study contributes meaningfully to the development of anti-bullying policy within educational institutions by providing a nuanced, data-driven understanding of how social exclusion and bullying manifest among future educators and psychologists. Rather than offering generalized interventions, the study emphasizes the importance of discipline-specific dynamics, demonstrating that professional orientation—such as training in social pedagogy versus psychology—shapes how students perceive and respond to ostracism.

One of the study's key policy-relevant contributions is the identification of predictive behavioral patterns (e.g., impulsivity, avoidance, manipulation) and their correlations with threatened psychological needs, such as belongingness and control. These findings offer institutions a psychological framework for recognizing at-risk individuals and proactively addressing the precursors of bullying behavior before it escalates.

Moreover, the integration of both quantitative (NTS-O, SACS) and qualitative (vignettes) methodologies allows for evidence-based profiling, which can inform the design of prevention programs that are tailored to student populations rather than imposed generically.

The study also highlights the increasing relevance of digital forms of exclusion, urging policymakers to consider cyber-ostracism and online aggression in their prevention strategies. The proposal for a dual-path model—combining emotional intelligence curricula with AI-driven monitoring tools—reflects a forward-thinking approach that aligns with the digital realities of contemporary education.

Additionally, the findings support the institutionalization of inclusive educational environments, where both faculty and students are trained not only to recognize exclusion but also to understand its psychological underpinnings. This calls for cross-departmental collaboration (between psychology, pedagogy, digital ethics, and administration), ensuring that anti-bullying policy is both comprehensive and actionable.

In sum, the study moves beyond abstract theorization by offering practical, scalable recommendations rooted in empirical evidence. These insights empower educational institutions to create more responsive, psychologically informed, and context-sensitive anti-bullying policies.

5- Conclusion

The comparative analysis of students in Social Pedagogy (18SP) and Pedagogy/Psychology (18PIP) reveals distinct psychological profiles shaped by their academic disciplines. Both groups share foundational similarities: they engage in social interaction, foster supportive environments, and may exhibit impulsive behaviors in professional contexts, likely due to the emotionally demanding nature of their work. However, critical differences emerge in their psychological needs and behavioral tendencies. Students in Social Pedagogy demonstrate higher self-esteem, potentially linked to their training in managing conflict and antisocial behaviors, which demands resilience and assertiveness. In contrast, Pedagogy/Psychology students report stronger existential meaningfulness, reflecting their focus on individual purpose and self-actualization—a cornerstone of psychological frameworks like Maslow's hierarchy.

Notably, the study identifies key correlations influencing behavior. Impulsivity is positively associated with power-seeking and provocation, particularly among those with higher self-esteem, suggesting that confidence may drive quick decision-making in high-stakes scenarios. Conversely, a negative correlation between avoidance and self-esteem implies that individuals with greater self-assurance are more likely to confront challenges directly, a trait critical in both fields. These findings underscore how disciplinary frameworks mold psychological needs: Social Pedagogy emphasizes collective resilience and social integration, while Pedagogy/Psychology prioritizes individual agency and introspective growth. Such distinctions highlight the need for tailored educational strategies that address discipline-specific challenges, such as mitigating burnout in high-conflict environments (Social Pedagogy) or nurturing existential reflection in therapeutic roles (Pedagogy/Psychology).

6- Declarations

6-1- Author Contributions

Conceptualization, I.S. and Y.B.; methodology, I.S.; software, I.S.; validation, I.S., Y.B. and R.T.; formal analysis, I.S.; investigation, I.S.; resources, I.S.; data curation, I.S.; writing—original draft preparation, I.S.; writing—review and editing, Y.B. and Y.K.; visualization, I.M.; supervision, B.Z.; project administration, Y.B.; funding acquisition, R.T. All authors have read and agreed to the published version of the manuscript.

6-2- Data Availability Statement

The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy and ethical restrictions related to the participants' anonymity and institutional data protection policies.

6-3- Funding

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6-4- Acknowledgements

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6-5- Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board of L.N. Gumilyov Eurasian National University (protocol code 23/PSY-2023, approved on March 10, 2023).

6-6- Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

6-7- Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

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Application 1

PIP – Scale of Unmet Needs

Please focus on how your communication with others typically unfolds. Choose the answer that you believe is most appropriate. This survey is confidential. Thank you.

1. At times, I feel like I don't belong.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely
2. I believe that the society I live in accepts me.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely
3. I am confident that I am in control of my own life.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely
4. Sometimes it feels like everything depends on someone else's will.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely
5. I feel that most people around me have a low opinion of me.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely
6. I am confident that people listen to my opinion.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely
7. At times, I feel invisible.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely
8. I feel that my involvement in the lives of those around me is very important.
   - No
   - Rarely
   - Sometimes
   - Often
   - Yes, absolutely

Application 2

Hobfoll's SACS – Strategies for Coping with Stressful Situations

Stress Coping Strategies, SACS
54 items
Estimated completion time: 7 minutes
You are presented with 54 statements regarding behavior in tense (stressful) situations.
Please evaluate, on a five-point scale, how you typically act in such situations.
To do this, on the registration form, indicate a number from 1 to 5 that best corresponds to your usual behavior.
If a statement completely reflects your actions or experiences, select 5 (response – yes, absolutely true).
If the statement does not reflect you at all, select 1 (response – no, not true at all).

1 – No, not true at all
2 – Rather not true than true
3 – Hard to say
4 – Rather true than not
5 – Yes, absolutely true

1. In any difficult situation, you do not give up.

1 2 3 4 5

2. You join forces with others to resolve the situation together.

1 2 3 4 5

3. You consult with friends or close ones about what they would do in your place.

1 2 3 4 5

4. You usually carefully weigh possible options (better to be cautious than to take risks).

1 2 3 4 5

5. You rely on your intuition.

1 2 3 4 5

6. As a rule, you postpone solving a problem in the hope that it will resolve on its own.

1 2 3 4 5

7. You try to keep everything under control, even though you don't show it to others.

1 2 3 4 5

8. You believe that sometimes it is necessary to act so quickly and decisively that it catches others off guard.

1 2 3 4 5

9. When solving unpleasant problems, you can lose your temper and make a mess of things.

1 2 3 4 5

10. When someone close to you treats you unfairly, you try to behave in a way that hides your disappointment or resentment.

1 2 3 4 5

11. You try to assist others in solving shared problems.

1 2 3 4 5

12. You do not hesitate to seek help or support from others when necessary.

1 2 3 4 5

13. Unless required, you avoid exerting yourself fully, preferring to conserve your energy.

1 2 3 4 5

14. You are often surprised to find that the first solution that came to your mind turns out to be the most appropriate one.

1 2 3 4 5

15. At times, you prefer to occupy yourself with anything just to avoid unpleasant tasks that need to be done.

1 2 3 4 5

16. In order to achieve your goals, you often find yourself conforming to others or adjusting to them, even if it means being somewhat insincere.

1 2 3 4 5

17. In certain situations, you prioritize your personal interests above all else, even if it may be detrimental to others.

1 2 3 4 5

18. Typically, obstacles to solving your problems or achieving your goals irritate you greatly — one might say they even infuriate you.

1 2 3 4 5

19. You believe it is better to take action yourself in difficult situations rather than wait for others to resolve them.

1 2 3 4 5

20. When facing a difficult situation, you reflect on how other people might act in the same circumstances.

1 2 3 4 5

21. Emotional support from close people is very important to you in difficult moments.

1 2 3 4 5

22. You believe that in all situations, it is better to "measure seven times before cutting once."

1 2 3 4 5

23. You often lose out because you do not trust your gut feelings.

1 2 3 4 5

24. You do not spend your energy on resolving matters that may potentially resolve on their own.

1 2 3 4 5

25. You allow others to think they can influence you, but in reality, you are a "tough nut to crack" and do not let anyone manipulate you.

1 2 3 4 5

26. You believe it is useful to demonstrate power and superiority in order to strengthen your own authority.

1 2 3 4 5

27. You could be described as a quick-tempered person.

1 2 3 4 5

28. You often find it difficult to refuse others' requests or demands.

1 2 3 4 5

29. You believe that in critical situations, it is better to act jointly with others.

1 2 3 4 5

30. You believe that sharing your emotional experiences with others can bring relief.

1 2 3 4 5

31. You do not take anything on faith, as you believe that every situation may involve hidden pitfalls.

1 2 3 4 5

32. Your intuition never lets you down.

1 2 3 4 5

33. In a conflict situation, you convince yourself and others that the issue is not worth worrying about.

1 2 3 4 5

34. Sometimes you have to manipulate others a bit — solving your problems without considering their interests.

1 2 3 4 5

35. It can be very advantageous to place another person in an awkward and dependent position.

1 2 3 4 5

36. You believe it is better to respond firmly and quickly to those who disagree with you rather than postpone confrontation.

1 2 3 4 5

37. You can easily and calmly defend yourself from unfair treatment, including saying “no” in emotionally pressuring situations.

1 2 3 4 5

38. You believe that interaction with others enriches your life experience.

1 2 3 4 5

39. You believe that support from others is very helpful to you in difficult times.

1 2 3 4 5

40. In stressful situations, you take time to prepare and prefer to calm down first before taking action.

1 2 3 4 5

41. In difficult situations, it is better to follow your first impulse than to spend a long time weighing various options.

1 2 3 4 5

42. Whenever possible, you avoid decisive actions that require high levels of tension and responsibility for the consequences.

1 2 3 4 5

43. In order to achieve your cherished goals, you believe there is no harm in being a little deceptive.

1 2 3 4 5

44. You look for other people's weaknesses and use them to your advantage.

1 2 3 4 5

45. Other people’s rudeness and foolishness often infuriate you.

1 2 3 4 5

46. You feel awkward when you are praised or given compliments.

1 2 3 4 5

47. You believe that collaborative efforts with others bring greater benefits in any situation (when solving any kind of task).

1 2 3 4 5

48. You are confident that in difficult situations, you can always count on understanding and compassion from your close ones.

1 2 3 4 5

49. You believe that in all cases, it is better to follow the principle: “Slow and steady wins the race.”

1 2 3 4 5

50. Acting on impulse is always worse than acting with careful calculation.

1 2 3 4 5

51. In conflict situations, you prefer to find something urgent and important to do, letting others deal with the problem or hoping that time will resolve everything.

1 2 3 4 5

52. You believe that cunning can sometimes achieve more than direct action.

1 2 3 4 5

53. You believe that the end justifies the means.

1 2 3 4 5

54. In significant and conflict-laden situations, you tend to act aggressively.

1 2 3 4 5

Application 3

Bullying

Questionnaire: "What Do I Think About Violence?"

Dear Friend,

This survey concerns the issue of violence in our society and is conducted anonymously to better understand the opinions of students themselves, as well as to identify issues related to the protection of children's rights. We kindly ask you to answer the questions openly (you may choose more than one option where applicable).

Personal Information

Gender:

Male

Female

Age: _____

1. How do you understand the concept of violence?

- A simple display of physical strength and influence
- Driving someone to suicide
- Coercion, bullying another person
- Intimidation
- Violation of human rights
- Showing contempt for another person
- Discrimination
- Manifestation of cruelty
- Threat to life
- Other: _____

2. What forms of violence are you familiar with?

- Humiliation
- Verbal abuse (verbal aggression)
- Physical violence
- Filming abuse on a phone
- Cyberbullying (threats, bullying, and humiliation online)
- Other: _____

3. In your opinion, where do children most often encounter violence?

- Within the family, from close relatives
- On the street, from strangers
- From schoolmates
- From friends
- From teachers
- From school administration
- Other: _____

4. What would you do if you found yourself in a difficult situation?

- I would ask my parents for help
- I would try to solve the problem myself
- I would try not to bother my parents
- I would turn to my homeroom teacher for help
- I would seek help from the school psychologist
- I would contact the social worker
- I would ask the police for help
- I would go to the principal
- I would remain silent and try to endure it
- I would talk to my friends
- I would ask other relatives for help
- Other: _____

5. What is your relationship with your teachers?

- I have a good relationship
- There are misunderstandings and conflicts
- They sometimes show arrogance or disdain toward students
- They use physical force, insults, or humiliation
- The teacher is indifferent and does not notice my problems
- Other: _____

6. What disciplinary measures do your parents most often use?

- They scold me in a way that is meant to humiliate or intimidate
- They use physical punishment (spanking, hitting, pushing, kicking)
- They forbid me from seeing my friends
- They humiliate me verbally
- They try to explain and persuade
- They explain what I did wrong and correct my behavior
- They never punish me
- Other: _____

7. Do you agree with teachers punishing students at school?

- Yes, I agree
- More yes than no
- No
- More no than yes
- Other: _____

8. Have you ever experienced a situation at school where one of your teachers or members of the school administration (principal, vice principal for academics, vice principal for student affairs, psychologist, social worker – underline the applicable) used language or actions that offended or humiliated your dignity?

- Yes, it happens often; I have experienced it
- I am unsure
- Occasionally
- Never
- Other: _____

9. What help-seeking methods are you aware of in situations involving violence?

- Child helpline
- Signaling using hand signs
- Signaling using gestures
- Calling for help
- Other: _____

Application 4

Questionnaire: "How Do You Understand This?"

Please check the box next to the answer(s) you believe are correct.

Introductory note to the questionnaire:

Which of the following concepts best describes the situation? You may select one or more answers.

1. Situation 1 (Ignoring):

The bell rang for recess. The entire class went out into the hallway. "A" tried to join a group of classmates who were actively discussing something. "A" made several suggestions, but no one responded to them in any way.

Answer options (you may choose more than one):

- Loneliness
- Ignoring
- Labelling
- Bullying
- Rejection
- Exclusion
- Other: _____

2. Situation 2 (Exclusion):

During the summer, "A" sustained a serious injury and had to stay in bed for the entire school year. Through social media, "A" saw that her class had gone on a field trip and to the theater. She continued communicating with classmates via phone and social media, but no one invited her anywhere anymore.

Answer options (you may choose more than one):

- Loneliness
- Ignoring
- Labelling
- Bullying
- Rejection
- Exclusion
- Other: _____

3. Situation 3 (Rejection):

When "A" entered the classroom in the morning, a few students approached her and said, "We don't need your help! We'll do this project without you!"

Answer options (you may choose more than one):

- Loneliness
- Ignoring
- Labelling
- Bullying
- Rejection
- Exclusion
- Other: _____

4. Situation 4 (Bullying):

"A" tried to stay in the classroom only when the teacher was present, as only then did the three classmates stop kicking her in front of others and calling her "idiot."

Answer options (you may choose more than one):

- Loneliness
- Ignoring
- Labelling
- Bullying
- Rejection
- Exclusion
- Other: _____

5. Situation 5 (Loneliness):

School was always so loud and noisy... That's why "A" loved spending summers at her relatives' countryside house, where she could lie in a hammock for hours and read books. And there was no one around...

Answer options (you may choose more than one):

- Loneliness
- Ignoring
- Labelling
- Bullying
- Rejection
- Exclusion
- Other: _____

6. Situation (Labelling):

"A" lives in a small town where everyone knows each other. She is a good student with many friends, but after her father was released from prison (he had been convicted of theft), "A" noticed that classmates started taking their bags with them if she was left alone in the classroom. When one girl lost her power bank, her friends started casting suspicious glances at "A" and whispering behind her back.

Answer options (you may choose more than one):

- Loneliness
- Ignoring
- Labelling
- Bullying
- Rejection
- Exclusion
- Other: _____

7. Educational Program (Major):

- Pedagogy and Psychology
- Social Pedagogy

8. Age

Answer options (select one):

- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

Application 5

PIP Questionnaire "Coping Strategies" by R. Lazarus

This assessment is aimed at identifying the coping strategies you tend to use in difficult life situations.

Please indicate next to each of the following statements how frequently you behave in that way during challenging circumstances.

Age: _____

1. I focused on what needed to be done next—the following step.
   - Never
   - Rarely
   - Sometimes
   - Often
2. I started doing something, knowing it wouldn't work—what mattered was doing *something*.
   - Never
   - Rarely
   - Sometimes
   - Often
3. I tried to persuade those in authority to change their opinion.
   - Never
   - Rarely
   - Sometimes
   - Often
4. I talked to others to better understand the situation.
   - Never
   - Rarely
   - Sometimes
   - Often
5. I criticized and blamed myself.
   - Never
   - Rarely
   - Sometimes
   - Often
6. I tried not to burn bridges and left things as they were.
   - Never
   - Rarely
   - Sometimes
   - Often
7. I hoped for a miracle.
   - Never
   - Rarely
   - Sometimes
   - Often
8. I resigned myself to fate—sometimes I'm just unlucky.
   - Never
   - Rarely
   - Sometimes
   - Often
9. I acted as if nothing had happened.
   - Never
   - Rarely
   - Sometimes
   - Often

10. I tried not to show my emotions.
    Never
    Rarely
    Sometimes
    Often

11. I attempted to see something positive in the situation.
    Never
    Rarely
    Sometimes
    Often

12. I slept more than usual.
    Never
    Rarely
    Sometimes
    Often

13. I took out my frustration on those who caused me problems.
    Never
    Rarely
    Sometimes
    Often

14. I sought sympathy and understanding from someone.
    Never
    Rarely
    Sometimes
    Often

15. I felt a need to express myself creatively.
    Never
    Rarely
    Sometimes
    Often

16. I tried to forget all about it.
    Never
    Rarely
    Sometimes
    Often

17. I reached out to professionals for help.
    Never
    Rarely
    Sometimes
    Often

18. I changed or grew as a person in a positive way.
    Never
    Rarely
    Sometimes
    Often

19. I apologized or tried to make amends.
    Never
    Rarely
    Sometimes
    Often

20. I developed a plan of action.
    Never
    Rarely
    Sometimes
    Often

21. I tried to give my emotions an outlet.
    Never
    Rarely
    Sometimes
    Often

22. I realized I had caused the problem myself.
    Never
    Rarely
    Sometimes
    Often

23. I gained experience from the situation.
    Never
    Rarely
    Sometimes
    Often

24. I spoke with someone who could offer specific help.
    Never
    Rarely
    Sometimes
    Often

25. I tried to feel better by eating, drinking, smoking, or taking medication.
    Never
    Rarely
    Sometimes
    Often

26. I took reckless risks.
    Never
    Rarely
    Sometimes
    Often

27. I tried not to act too impulsively—avoiding following my first urge.
    Never
    Rarely
    Sometimes
    Often

28. I found new faith in something.
    Never
    Rarely
    Sometimes
    Often

29. I rediscovered something meaningful.
    Never
    Rarely
    Sometimes
    Often

30. I made changes that helped resolve the situation.
    Never
    Rarely
    Sometimes
    Often

31. I generally avoided social interaction.
    Never
    Rarely
    Sometimes
    Often

32. I refused to think about it or dwell on it too much.
    Never
    Rarely
    Sometimes
    Often

33. I asked a relative or a respected friend for advice.
    Never
    Rarely
    Sometimes
    Often

34. I tried to hide from others how bad things were.
    Never
    Rarely
    Sometimes
    Often

35. I refused to take it too seriously.
    Never
    Rarely
    Sometimes
    Often

36. I spoke to someone about how I was feeling.
    Never
    Rarely
    Sometimes
    Often

37. I stood my ground and fought for what I wanted.
    Never
    Rarely
    Sometimes
    Often

38. I took it out on other people.
    Never
    Rarely
    Sometimes
    Often

39. I relied on past experience—I had been in similar situations before.
    Never
    Rarely
    Sometimes
    Often

40. I knew what had to be done and doubled my efforts to fix things.
    Never
    Rarely
    Sometimes
    Often

41. I refused to believe it was really happening.
    Never
    Rarely
    Sometimes
    Often

42. I promised myself that things would be different next time.
    Never
    Rarely
    Sometimes
    Often

43. I found a couple of alternative ways to solve the problem.
    Never
    Rarely
    Sometimes
    Often

44. I tried not to let my emotions interfere with other things I needed to do.
    Never
    Rarely
    Sometimes
    Often

45. I changed something within myself.
    Never
    Rarely
    Sometimes
    Often

46. I wished it would all just resolve or end soon.
    Never
    Rarely
    Sometimes
    Often

47. I imagined or fantasized about how things could have turned out.
    Never
    Rarely
    Sometimes
    Often

48. I prayed.
    Never
    Rarely
    Sometimes
    Often

49. I mentally rehearsed what I should say or do.
    Never
    Rarely
    Sometimes
    Often

50. I thought about how someone I admire would act in this situation and tried to follow their example.
    Never
    Rarely
    Sometimes
    Often