

ORIGINAL

## Emotional and Motivational Mechanisms of Soft Skills Growth as Determinants of Mental Well-being

### Mecanismos emocionales y motivacionales del desarrollo de las habilidades sociales como determinantes del bienestar mental

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**Cite as:** Ovdienko I, Brukhovetska O, Verbytska L, Tiahur L, Chausova T, Inzhyievska L. Emotional and Motivational Mechanisms of Soft Skills Growth as Determinants of Mental Well-being. Health Leadership and Quality of Life. 2025; 4:632. <https://doi.org/10.56294/hl2025632>

Submitted: 26-06-2024

Revised: 01-01-2025

Accepted: 09-06-2025

Published: 10-06-2025

Editor: PhD. Neela Satheesh 

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#### ABSTRACT

**Introduction:** soft skills were recognised as a critical element of mental health. The study therefore aimed to determine how the emotional and motivational components of soft skills related to students' mental-health indicators.

**Method:** a quantitative, survey-based correlational design was applied. The sample comprised 68 undergraduate and graduate students drawn from both humanities and technical faculties. Standardised questionnaires assessed emotional intelligence (EQ), empathy, social skills, psychological distress (GHQ-12), stress (DASS-21) and well-being (WHO-5). Pearson's or Spearman's correlation coefficients quantified associations between variables.

**Results:** most respondents exhibited moderate development of emotional and motivational skills. Emotional discomfort was reported by 44 % of participants (GHQ-12:  $M = 17,6$ ) and high stress by 21 % (DASS-21:  $M = 12,1$ ). Social skills ( $M = 22,4$ ) and empathy ( $M = 19,7$ ) emerged as the strongest competencies. Emotional intelligence correlated negatively with psychological distress ( $r = -0,48$ ;  $p < 0,01$ ) and stress ( $p = -0,42$ ;  $p < 0,01$ ) and positively with well-being ( $r = 0,53$ ;  $p < 0,01$ ).

**Conclusions:** the analysis confirmed significant links between students' emotional-motivational soft skills and mental-health outcomes. Higher emotional intelligence predicted lower distress and stress alongside greater subjective well-being. Strengthening emotional and motivational abilities was therefore concluded to be a viable pathway for reducing psychological strain and enhancing resilience. Educational programmes were advised to embed targeted emotional-intelligence training to promote mental health within the student population.

**Keywords:** Motivation; Self-Control; Cognition; Mental Health; Interpersonal Relations.

#### RESUMEN

**Introducción:** las habilidades sociales se han reconocido como un factor clave en la promoción de la

salud mental. El objetivo de este estudio fue examinar la relación entre los componentes emocionales y motivacionales de dichas habilidades y los indicadores de salud mental en estudiantes universitarios.

**Método:** se aplicó un diseño cuantitativo de tipo correlacional, utilizando encuestas estandarizadas. La muestra incluyó a 68 estudiantes de grado y posgrado de facultades humanísticas y técnicas. Se utilizaron instrumentos validados para medir inteligencia emocional (EQ), empatía, habilidades sociales, malestar psicológico (GHQ-12), estrés (DASS-21) y bienestar (WHO-5). Se calcularon coeficientes de correlación de Pearson o Spearman, según la naturaleza de las variables.

**Resultados:** los datos revelaron un desarrollo medio de las habilidades emocionales y motivacionales en la mayoría de los participantes. El 44 % reportó malestar emocional (GHQ-12:  $M = 17,6$ ) y el 21 %, niveles elevados de estrés (DASS-21:  $M = 12,1$ ). Las habilidades sociales ( $M = 22,4$ ) y la empatía ( $M = 19,7$ ) fueron las competencias más desarrolladas. La inteligencia emocional se correlacionó negativamente con el malestar ( $r = -0,48$ ;  $p < 0,01$ ) y el estrés ( $r = -0,42$ ;  $p < 0,01$ ), y positivamente con el bienestar ( $r = 0,53$ ;  $p < 0,01$ ).

**Conclusiones:** se identificaron vínculos significativos entre la inteligencia emocional y los resultados de salud mental. Un mayor desarrollo emocional predijo menor malestar psicológico y mayor bienestar subjetivo. Se recomienda incorporar formación en inteligencia emocional en programas educativos para fomentar la resiliencia estudiantil.

**Palabras clave:** Motivación; Autocontrol; Cognición; Salud Mental; Relaciones Interpersonales.

## INTRODUCTION

In the conditions of modern social transformations and rapid changes in the labor market, as well as the rapid development of digital technologies, attention is increasingly being paid to the problems of maintaining mental health. This is especially true for the younger generation of students, for whom recent years have been characterized by increased levels of stress and social pressure, which is becoming an important challenge at the global level. These qualities are synthesized in the concept of soft skills, which play an important role in effective professional development and psycho-emotional well-being. At the same time, in the current scientific space, soft skills are often interpreted not only as a tool for professional success, but also as a social and psychological resource that can maintain and strengthen a person's mental health.<sup>(1,2)</sup> For this reason, the emotional and motivational component of these skills deserves special attention.<sup>(3)</sup> This component includes emotional intelligence, self-reflection, intrinsic motivation, and empathy. It can be a potentially important driver of soft skills development, as it ensures the integrity of the individual's mental functioning in difficult conditions of uncertainty. At the same time, despite the existence of many publications analyzing social skills or mental health, there is a lack of systematic research that would holistically describe the relationship between the emotional and motivational aspect of soft skills and mental health indicators.

Contemporary research focused on the qualitative development of soft skills and their integration into public life, particularly in the formation of psychologically resilient individuals. Several studies have explored key issues in this area. For instance, researchers<sup>(4,5)</sup> have demonstrated the role of soft skills in academic contexts, showing that their development significantly contributes to students' learning success and satisfaction. Other works<sup>(6,7)</sup> have emphasized the heightened importance of soft skills in the post-COVID-19 educational landscape, where their improvement is seen as critical to student adaptation. A systematic review by Orih et al.<sup>(8)</sup> demonstrated the effectiveness of using soft skills interventions in curricula from school to university level. The authors found that the development of such skills through educational courses contributes to improved emotional resilience, reduced stress levels, and increased motivation to learn, which in turn supports students' mental health. Feraco et al.<sup>(9)</sup> described the relationship between soft skills and life satisfaction and cognitive reserve in adulthood and older age. Modern authors<sup>(10)</sup> noted that communication skills, emotional control and motivation significantly affect the quality of life and generally reduce the risk of mental disorders and contribute to maintaining mental health throughout life. Bakhmat et al.<sup>(11)</sup> proposed theoretical and methodological approaches to the formation of soft skills in students of pedagogical specialties in Ukraine. Some scholars<sup>(12,13)</sup> argue that mentalization, soft skills, and psychological counseling form a unified framework that supports clients' psychological stability and self-reflective capacities.

However, many of these studies remain largely theoretical and lack empirical validation<sup>(14)</sup>. In particular, the emotional and motivational dimensions of soft skills development as a factor in mental health are underexplored in empirical literature. Furthermore, there is a noticeable shortage of studies utilizing online surveys to assess students' perspectives on social skill development. This study addresses this gap by examining key motivational aspects underlying students' soft skill development and their relationship to mental health outcomes.

Thus, the study aims to identify the main emotional and motivational aspects of social skills formation as an important factor in mental health development. In addition, the issue of mental health in the twenty-first

century is gaining new meaning in the context of social exclusion, information overload, and digitalization of life processes. These phenomena contribute to the deterioration of psychological health, including among young people. This research is relevant for this category because young people are in the process of developing emotional maturity and social skills. In this sense, soft skills and their emotional and motivational component can play a compensatory role that helps to maintain internal balance and psycho-emotional stability. Thus, the scientific novelty of this work is to determine the correlation between the level of development of the emotional and motivational component of soft skills and indicators of mental health. This study will not only expand the understanding of the internal mechanisms of psychological resilience formation but also substantiate the directions of further educational work.

The aim of this study is to empirically investigate the relationship between the emotional and motivational components of soft skills development and mental health indicators among students.

### Hypotheses

H0: There is no statistically significant relationship between the emotional and motivational development of soft skills and mental health.

H1 : There is a positive correlation between the development of the emotional and motivational component of soft skills and mental health.

## METHOD

### Research Design

This study employs a quantitative correlational research design, which is aimed at identifying statistically significant relationships between the level of development of the emotional-motivational component of soft skills and indicators of the mental health of the individual. Modern scientists have indicated that the correlation research design is optimal for studying natural relationships between variables without the researcher's intervention in the process of forming these variables.<sup>(13)</sup> Accordingly, such a methodological approach is useful at the stage of hypothetical-search analysis, that is, when the scientist is trying to determine and assess the direction of the relationship between psychological constructs. Among the main advantages of this approach are the ability to process a large amount of information, the use of statistical tests to test hypotheses, and the ability to use various software tools to analyze and subsequently visualize quantitative data. Thus, this type fully corresponds to the main goal of the study, namely, to identify the relationship between the selected study variables: the emotional-motivational component of soft skills and the mental health of students.

### Sample and Participants

Purposive sampling was used to recruit participants. Information about the experiment was distributed through personal contacts and corporate university emails. To recruit participants, attention was paid to age, applicant status, willingness to voluntarily participate, and possession of basic digital literacy. In particular, the inclusion criteria were as follows:

1. Age from 18 to 25 years (this period of youth was chosen because it is important for the formation of soft skills and stabilization of mental health).
2. Students enrolled in full-time higher education institutions took part.
3. Willingness to voluntarily participate in testing
4. Possession of basic digital literacy to trust tests and questionnaires in digital format.
5. Experience of daily interaction in a social and educational environment.

Accordingly, 68 students from different faculties who studied at both humanitarian and technical faculties were involved in the study. The gender composition was approximately balanced. All participants read the informed consent; the study was voluntary and anonymous.

### Instruments and Procedure

Data collection took place in a mixed format - both through an online survey (Google Forms) and in paper form (at the faculties that gave their consent). Participants filled out the questionnaires voluntarily, i.e., without providing personal data. This is provided to ensure the anonymity and ethics of the study. In general, the total time for filling it out was 30 minutes.

The study was conducted in stages; in particular, the assessment of the emotional and motivational component of soft skills was carried out using the adapted Bar-On emotional intelligence scale (Bar-On EQ-i). This scale determined such indicators as self-awareness, motivation, stress resistance, empathy, and the ability to manage one's own emotions. The next stage was the involvement of special scales, which are internationally recognized tools:

1. The General Health Questionnaire (GHQ-12) was used to determine (or screen) the general

psychological state.

2. The Depression, Anxiety, and Stress Scale (DASS-21) was used to identify levels of anxiety, depression, and stress.
3. Well-Being Index (WHO-5). This scale served as an additional indicator of subjective well-being.

### Data Analysis

Data analysis was carried out in stages; in particular, at the initial stage, data integrity was checked. Those questionnaires in which more than 15 % of responses were missed were removed. After that, all scales were converted into a composite score (i.e., the sum/average of the respondent's responses within each scale). All obtained variables were checked for normal distribution using the Shapiro-Wilk test (for  $n < 100$ ). Accordingly, the following were obtained: data on the emotional intelligence (EQ) scale: normal distribution; The GHQ-12 data are normally distributed, while the DASS-21 data are deviant from normality, so nonparametric methods were used where appropriate.

After that, the method of descriptive statistics was used; in particular, for each scale (EQ, GHQ-12, DASS-21, WHO-5), the following were calculated:

1. Mean value (M),
2. Standard deviation (SD),
3. Median (Me),
4. Minimum and maximum values (Min-Max),
5. Interquartile range (IQR) for non-normal variables.

As a result of the obtained statistical data, the method of correlation analysis was used: it was conducted between the emotional-motivational component of soft skills (EQ) and mental health indicators. The following correlations were used: Pearson correlation for GHQ-12 and WHO-5 and Spearman's rho for indicators from DASS-21. Spearman's rho was used because the data from DASS-21 did not correspond to a normal distribution.

### RESULTS

The level of the emotional-motivational component of soft skills was determined using an adapted emotional intelligence (EQ) scale, which included subscales of emotional awareness, self-regulation, empathy, motivation, and social skills. In modern scientific literature, these characteristics are recognized as the main components of soft skills, especially in conditions of social challenges and digital interaction. In general, the study participants showed an average level of development of the emotional-motivational factor of soft skills. The average value on the EQ scale was  $M = 95,3$ ,  $SD = 12,8$ , with a maximum possible number of 130 points. At the same time, the indicator of the range of fluctuations of individual scores was from 68 to 122. Therefore, such data showed the presence of both high and low individual indicators. In accordance with the criterion limits that were clearly established for the scale, 17,6 % of respondents showed a high level of emotional competence. At the same time, the average level was found in 62 %, and the low level in 20,4 % of respondents. Table 1 presents the main levels of emotional competence.

Development level	Number of respondents	Percentage (%)
Low level	14	20,6 %
Medium level	42	61,8 %
High level	12	17,6 %
Total	68	100 %

The most developed subcomponents of the study participants were social skills and empathy; in particular, the average value for these indicators was from 22,4 to 19,7. This showed the general ability of students to maintain stable and effective communication with others and understand their emotions. At the same time, the lowest scores were recorded on the self-regulation scale - an indicator of 16,1. This may be due to the stressful impact of the learning environment, frequent changes in the study schedule, and a period of social uncertainty. Table 2 presents data from the analysis of the main components of EQ.

Several other scales were used to determine the level of mental health. In particular, the GHQ-12 became important for conducting a general assessment of the psycho-emotional state and the tendency to depressive and anxiety manifestations. At the same time, the DASS-21 is used for conducting a detailed analysis of the level of stress. Accordingly, the GHQ-12 scale showed an average value of  $M = 17,6$ ,  $SD = 5,2$ . Such indicators indicated the pronounced presence of emotional discomfort or individual anxiety states in the participants.

Almost 44 % of respondents received scores exceeding the risk threshold. At the same time, another scale - DASS-21 - confirmed these indicators. On this scale the average level of stress was  $M = 12,1$ ,  $SD = 4,8$ . This generally corresponds to an average degree of stress load. However, 21 % of respondents showed a high level of stress, which potentially requires support (table 5). Such indicators can be explained by the military conditions in which the participants live and, in some cases, by the active digital transition to education. The WHO-5 index showed a mean value of 57,8, while the standard deviation was 15,4. The maximum value of this indicator was 100. Table 3 shows the levels of mental health according to the selected scales.

EQ Component	M (medium)	SD (standard deviation)	Min	max
Self-Awareness	18,2	3,4	11	25
Self-Regulation	16,1	4,1	8	23
Empathy	19,7	2,9	13	25
Motivation	18,9	3,2	12	24
Social Skills	22,4	3,6	14	29
Total EQ Score	95,3	12,8	68	122

Scale/Instrument	Medium (M)	Standard deviation (SD)	High risk (%)
GHQ-12	17,6	5,2	44,1 %
DASS-21 (stress)	12,1	4,8	21,0 %
WHO-5	57,8	15,4	28,0 %

Even though these indicators generally show complex or severe disorders of well-being, however, a high level of well-being was demonstrated by 30,9 %, an average level by 41,1 %. However, 28 % of students revealed a low level of life satisfaction. Such data require additional preventive attention. Therefore, the respondents' mental health indicators should be described as unstable or moderately impaired, with the presence of disturbing tendencies. Although they do not reach the clinical level, they can potentially affect the appearance of exhaustion or emotional burnout. Table 4 presents the main data from the selected scales.

Stress Category	Number of people	Percentage (%)
Low	23	33,8 %
Medium	31	45,6 %
High	14	20,6 %
Well-Being Index		
High	21	30,9 %
Moderate	28	41,1 %
Low	19	28 %
Total	68	100 %

The study also conducted a correlation analysis between the level of development of the emotional-motivational aspect of soft skills (assessed by the total EQ score) and mental health indicators obtained using the GHQ-12, DASS-21, and WHO-5 scales. Considering the normality indicator of the distribution of variables, which is determined by the Shapiro-Wilk criterion, Pearson correlation coefficients ( $r$ ) were used for normally distributed variables and Spearman ( $\rho$ ) in cases where normality was not confirmed. Accordingly, the obtained data showed a statistically significant relationship between the general level of emotional intelligence (EQ) and mental health according to all selected indicators. It was found that there is a moderately strong inverse relationship between EQ and GHQ-12 ( $r = -0,48$ ;  $p < 0,01$ ). This indicator indicates that the higher the level of emotional-motivational soft skills, the lower the level of psychological distress. In addition, similar dynamics were shown by the result of the DASS-21 scale ( $\rho = -0,42$ ;  $p < 0,01$ ), which was based on the measurement of stress. Table 5 shows the main correlations between EQ and mental health.



Table 5. Correlations between EQ and mental health

Variables	r / $\rho$	p-value	Description
EQ - GHQ-12	-0,48	< 0,01	Moderately strong negative
EQ - DASS-21 (stress)	-0,42	< 0,01	Moderately negative
EQ - WHO-5	+0,53	< 0,01	Strong positive

As can be seen from this table, the strongest correlation was found between EQ and the WHO-5 scale ( $r = 0,53$ ;  $p < 0,01$ ), which indicated a subjective sense of well-being. Thus, participants with higher levels of emotional and motivational skills showed higher levels of life satisfaction, energy, and positive emotional tone.

## DISCUSSION

Given the main research problem, which involves the qualitative substantiation of the relationship between the emotional and motivational components of soft skills and individual mental health in the context of modern social challenges, it was found that social skills are essential for contemporary students. The results indicate that most respondents demonstrate an average level of development in the emotional and motivational components of soft skills. A moderate shift toward a higher level was also observed in subcomponents such as empathy and achievement motivation. Compared to previous studies<sup>(15,16)</sup>, which suggest that emotional intelligence and intrinsic motivation are positively associated with psychological well-being and academic success our findings confirm these tendencies but also point to gaps in self-regulation.

Overall, this suggests that students possess the potential for emotional management, social interaction, and self-awareness.<sup>(17)</sup> However, skills such as self-regulation require further attention.<sup>(18)</sup>

Compared to previous studies<sup>(19)</sup>, which suggest that students tend to exhibit emotional instability due to age-specific characteristics, the participants in this study, by contrast, displayed adequate levels of motivation and basic emotional maturity. This may be explained by the educational conditions and the influence of the academic environment, which partially contribute to the development of core soft skills.<sup>(17,18)</sup> Other research<sup>(20)</sup> has shown that project-based learning and peer interaction significantly promote the development of these competencies.

The subsequent objective was to assess the mental health status of the participants. Accordingly, the GHQ-12, WHO-5, and DASS-21 scale results indicated that the respondents demonstrated an overall average level of mental health. However, approximately 27 percent of them exhibited elevated levels of stress and emotional exhaustion. These findings are consistent with current observations<sup>(21,22)</sup> of increasing psycho-emotional vulnerability among young people in the context of digital overload and excessive exposure to information noise.<sup>(22,23)</sup> Furthermore, several studies<sup>(24,25,26)</sup> have drawn attention to the long-term effects of studying during the pandemic on students' mental health. At the same time, the wartime conditions under which students are currently pursuing their education also have a significant impact on their emotional well-being, increasing levels of anxiety and psychological vulnerability.<sup>(27,28)</sup> Other scholarly perspectives<sup>(29,30)</sup> confirm the growing trend of psycho-emotional fragility among young people, which, according to recent studies, stems from multiple interrelated factors.

One such factor is digital overload, which involves excessive use of gadgets, social media, and internet content. This phenomenon contributes to emotional exhaustion, heightened anxiety, and sleep disturbances.<sup>(31)</sup> Another factor identified in the literature is information noise, defined as a continuous stream of alarming or contradictory information. This condition leads to chronic stress and impairs individuals' ability to concentrate, regulate emotions, and make decisions.<sup>(32)</sup> The final research question focused on determining the correlation between the level of development of the emotional and motivational components of soft skills and indicators of mental health. Overall, the findings revealed a significant relationship between these variables. The strongest correlation was observed between the overall emotional intelligence score and the WHO-5 scale of subjective well-being ( $r = 0,53$ ). This indicates that young individuals with higher levels of emotional maturity and intrinsic motivation tend to exhibit better emotional self-regulation, greater life satisfaction, and enhanced psychological well-being.<sup>(33)</sup> These results are consistent with previous empirical findings.<sup>(34,35)</sup> Several other studies<sup>(36,37)</sup> have demonstrated that the development of soft skills, particularly emotional intelligence, contributes to reducing the risks of emotional burnout and depression. Furthermore, it has been shown that social skills, self-regulation, motivation, and social adaptability serve as important protective factors in stressful situations. These competencies facilitate a better understanding of complex circumstances, enhance problem-solving abilities, and generally support the maintenance of psycho-emotional balance.<sup>(38,39)</sup> Conversely, as evidenced in this study, an inverse relationship was identified between high GHQ-12 scores and low emotional intelligence levels. This suggests that insufficient development of soft skills may constitute a risk factor for mental health, particularly in unstable or crisis contexts. These findings align with other studies<sup>(40,41)</sup> that report low levels of social skill development among students experiencing social conflicts or academic difficulties.

In addition, the work of other scholars <sup>(42,43,44)</sup> indicates that, in practical terms, such skills can play a key role in preventing psycho-emotional exhaustion, increasing stress resilience, and enhancing overall psychological well-being. The results obtained in this study confirm the main hypothesis: there is a statistically significant positive relationship between the level of development of the emotional and motivational components of soft skills and indicators of mental health. This underscores the importance of the intentional development of emotional intelligence, self-regulation, and intrinsic motivation in youth, a point that has been thoroughly addressed in other recent studies. <sup>(45,46,47)</sup> From a practical perspective, these skills play a central role in preventing psycho-emotional exhaustion, which in turn contributes to improved overall psychological functioning. <sup>(48,49,50)</sup> Therefore, the implementation of soft skills development programs within the educational environment represents a relevant and effective approach to supporting students' mental health. Thus, our study contributed to the understanding of the relationship between the development of the emotional-motivational component of soft skills and indicators of mental health of young people. Its novelty lies in the systematic approach to the analysis of not only the general level of emotional intelligence, but also individual components, such as self-regulation, motivation and social skills, in the context of their impact on the psycho-emotional state. For the first time, such a study revealed a statistically significant relationship between the level of development of soft skills and indicators of well-being on the WHO-5 scale and indicators on the GHQ-12 scale. This opened up new prospects for psycho-prophylactic and educational work with young people.

The methodology used in the study has certain limitations that should be considered when interpreting the results. First, only 68 students from several educational institutions participated in the survey. The proposed sample is the basis for the presented results but cannot be fully representative of the entire student community. Geographical and institutional limitations also indicate that the results obtained in the survey are quite local. The selected questionnaires and scales may not fully cover all aspects of the emotional and motivational component or soft skills, which may also affect the accuracy of the results. Accordingly, such aspects require separate mention and further consideration when working with the results obtained. At the same time, the proposed limitations do not affect the overall indicators, demonstrating a certain cross-section of respondents' opinions that are relevant today in Ukrainian realities.

## CONCLUSIONS

Thus, the study confirmed the presence of a statistically significant relationship between the emotional and motivational components of soft skills development and indicators of mental health of undergraduate students. Most participants demonstrated an average level of emotional intelligence and motivation, with moderately pronounced characteristics of empathy and the desire for achievement. The general state of mental health was also at an average level, although some students showed signs of emotional vulnerability associated with stress and digital overload. The highest correlations were recorded between emotional intelligence and subjective well-being, which indicates the importance of emotional maturity and intrinsic motivation for maintaining psychological well-being. Thus, the results emphasize the need to integrate programs for the development of emotional and motivational skills – such as self-regulation, empathy, and social interaction – into the educational process in order to strengthen students' mental health, increase their stress resistance, and academic success.

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## FINANCING

The authors did not receive financing for the development of this research.

## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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