

How do Psychosocial Problems affect Subjective Wellbeing and Mental Health of Ukrainian Youth? Alternative Ways of Coping

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Abstract

Nowadays, there is an urgent need to identify common traumatic-psychosocial tendencies among youth, who is exposed to a wide range of stressful events, situations that negatively affecting their academic efficiency, psychological wellbeing and mental health.

For the first time, a comprehensive study was conducted concerning anxiety, wellbeing, psychosomatic-sociocultural problems among Ukrainian youth compared to other population stratum (n=419, aged 16-65). Four standardized psychological questionnaires were used. Mathematical-statistical analysis (with uniformity criterion of Liven dispersions) showed that Bank employees, Scientists-physicists, Reikists, as well as athletes (as representatives of students) had less anxiety, better health, with a predominance in using Avoiding, Compromising behavior styles. Senior school pupils and other student groups evidenced much higher anxiety, lower wellbeing, mainly used the Avoiding, Competing, Compromising behaviors. In choosing the value orientations, all participants were based on four paramount universal-human values (Love, Health, Happy family life, Good and faithful friends). However, even such a positive personal projection did not guarantee complete protection against possible health deterioration due to the impact of negative psychosocial factors, as shown by the identified indicators of psychosomatics in non-wellbeing groups. Youth participants evidenced high anxiety in academic life, insecurity of their professional future, significant levels of stress, overload and difficulties related to social-financial issues. As a preventive measure, corrective work for students was started and is still ongoing (developmental programs and recreational techniques for body self-regeneratory).

Keywords: ancient-oriental “mind-body” techniques; anxiety; health promotion; mental health; subjective wellbeing.

Introduction

Varied psycho-emotional, mental and psychosocial challenges represent a severe risk for the youth, students worldwide: staying under chronic pressing stress provoke total decrease regarding the life perception, striving for achievements and orientation to the future. Previous research revealed their deteriorated mental-physical health, prevalence of anxiety, depression, decline in academic performance and increased negative addictions, namely: 1) Norwegian students with heavy stress problems had a risk of lower academic self-efficacy and delayed study progress, compared with those who reported few or moderate negative symptoms of mental health (Grøtan et al., 2019) 2) higher level of perceived academic stress correlated with worse mental wellbeing in college students in US, irrespective of age, gender, ethnicity, or year of study (Barbayannis et al., 2022) 3) Pakistan students experiencing the psycho-emotional and social problems, such as financial difficulties, academic pressures and problems in everyday life, were at greater risk to develop psychopathology with different symptoms (Bano & Iqbal, 2018) 4) Arab students possessed higher scores of depression, anxiety if their parents were illiterate or poorly educated (ul Haq et al., 2018) 5) depression prevalence and severity significantly increased with age in Indian college students, slightly higher among males than females (Naushad et al., 2014) 6) in Iranian students depression is common regardless of gender (in unmarried students higher than in married) both because of changes in social-family life and in way of learning which differ significantly from school (Sarokhani et al., 2013) 7) major depressive episodes among Japanese university students (particularly high among male freshmen) were similar to those among the common population in Japan, but lower than those in Western countries (Uehara et al., 2010) 8) Eritrean students experienced moderate to high levels of academic and environmental stress, but psychological, social and physiological stressors were much more influential (Yikealo et al., 2018) 9) globally, about one in three medical students have prevailing anxiety rate, which is substantially higher than the general population (Quek et al., 2019) 10)

emotional disorders (anxiety, anger, sadness, loneliness, insecurity) prevailed among foreign students, which had a strong negative impact on wellbeing (Altinyelken, 2018; Pérez & Bertone, 2019) 11) high social distress of students concerning own future life and employment increased markedly around the world, even more than dissatisfaction with studies during education (Ibrahim et al., 2013). Unfortunately, students often neglect sleep regime during university adaptation, which provoke huge psychological stress (Mokros et al., 2017). Sleep disturbances and depression have a bidirectional interinfluence: just as sleep disorders can predispose to depression, depression may worsen sleep (Dinis & Bragança, 2018). If summarize, there are various academic, everyday factors that are a major international concern, namely: students' worry about being able to meet good learning performance or career goals, the amount of time they spend studying, dissatisfaction with their faculty/university facilities, as well as unhealthy diet, insufficient sleep, and pervasive increase in substance use (Pascoe et al., 2020; Sharp & Theiler, 2018; Whatnall et al., 2019).

As to Ukrainian students, it was established not only the fact of their emotional distress and deterioration in life perception in general, but also an evident predominance of a disdainful attitude towards own health over a tendency to take care of it: their lifestyle is often incompatible with self-care (Ivanchenko et al., 2018; Kozub & Kuznetsov, 2018; Kuznetsov & Shapovalova, 2016; Kuznetsov & Zotova, 2017). There were identified 3 main causes of students' emotional distress: 1) occurrence of conditions that coincide and do not coincide with the aim of educational activity, for example, “concentration on the task” and “positive mood” do not coincide with “tension”, “immobilization”, “indifference”, “sense of meaninglessness”; 2) manifestation of varied “student fears” as a form of foreboding the failure during implementation of learning actions, tests; 3) deformation of students' emotional viewpoint towards learning, expressed in changing their

attitudes to the perception-experience of certain emotions in specific situations of educational activity; a deformation like that leads to the following problems: a) inadequate acceptance of the educational task, non-optimal motivational inclusion in the process of its implementation; b) inefficient structuring of learning actions; c) deformation of the locus-control of own educational activity, in which the use of personal psycho-energetic resources is significantly reduced. Therefore, it is no coincidence that it is at student age that the formation of classical psychosomatic diseases, called in medicine and psychology “Holy Seven”, takes place:

1. hypertension,
2. stomach ulcer,
3. bronchial asthma,
4. diabetes mellitus,
5. neurodermatitis,
6. rheumatoid arthritis,
7. ulcerative colitis (Klevets, 2012).

All highlighted above and other evidences point to the urgent need for preventive interventions for reducing combined symptoms of stress-anxiety-depression and preventing risk of mental health problems (January et al., 2018; Winzer et al., 2018). As for Ukrainian students, so far utterly little is known about both their ability to cope with psycho-emotional stress, social-educational problems, and the extent to which they receive appropriate timely assistance. Therefore, the problem of identifying psychological tools that will help students overcome difficult situations without psychological health decrease and will contribute to the development of effective way of revealing their «creative life-orientation» (as an activator of their own inner potential) becomes extremely urgent (Ivanchenko, 2017). At that, a comprehensive study of anxiety, wellbeing, psychosomatic-sociocultural problems among Ukrainian youth in comparison with other population segments has not yet been conducted in Ukrainian and world research. Our study is dedicated to fill just this gap in scientific evidence.

Overall research Objective

To study the state of psychological wellbeing and mental health in Ukrainian youth, compare it with other population stratum and define ways, means of coping with psycho-emotional, psycho-social problems.

Research Hypothesis

The up-to-date Ukrainian youth goes through great stress overload of various nature, critically affecting their health, intrinsic welfare and socio-behavioral conflict resolution: participants with higher levels of anxiety-stress have worse subjective wellbeing.

Research Aims

- examine the participants’ psycho-emotional state and establish whether there is a relationship between levels of anxiety and wellbeing;
- identify groups with lower levels of anxiety, stress and better indicators of wellbeing;

- determine value orientations, types of behavior and their role in reducing anxiety and improving wellbeing;
- conduct a comparative analysis of results received for participants of different specializations;
- identify and propose simple acting measures to improve subjective wellbeing and overcome stress.

Material and Methods

Ethics Procedure

All study procedures with the participation of human participants were fulfilled in accordance with the ethical standards of National Scientific Centre for Medical and Biotechnical Research of National Academy of Sciences of Ukraine and performed in accordance with the ethical standards of the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. This research project was approved at the Research Ethics Committee of Kharkiv Institute “Interregional Academy of Personnel Management”, protocol number BE-9/1-3 on January 13th, 2023. The study was conducted in accordance with the directives of the Experts on Ethics of Kharkiv Institute “Interregional Academy of Personnel Management”, approval letter number C-06/15 on February 3rd, 2023.

Administrations of all selected institutions, organizations have granted permission to send to the participants, in online format, a cover letter with an invitation to join the study. Participants, all of whom were adults, provided written consent to voluntarily anonymous participation.

Participants

There were chosen the most characteristic (in terms of the occupation) participant representatives, recruited from educational, scientific, social institutions of Kharkiv (n=419, aged 16-65). The overall sample of participants was deliberately intentionally heterogeneous, differentiated by type of social employment (school pupils, students, workers, researchers) and age (16-65 years old) in order to have a broader view of psycho-emotional characteristics, psychosocial issues and value-behavioral indicators of up-to-date Ukrainians and to obtain a multifaceted detailed comparative description of youth groups with other diversified categories. All participant groups, were combined into the following 5 groups by specialization, 3 of which had subgroups, in sum 10 ones (Table 1):

1. *Senior school pupils* (abbreviated, SSP) of Kharkiv Secondary School No. 49;
2. *Students*: a) studying at Kharkiv V. N. Karazin National University to obtain the specialties of *psychologist* (P), *sociologist* (S), *economist* (E), *lawyer* (L); b) studying at Kharkiv Academy of Physical Culture to become future *athletes* (A);
3. *Research institute employees* of O. Ya. Usikov Institute for Radiophysics and Electronics of the National Academy of Sciences of Ukraine: a) *Administrative-technical staff* (ATS), b) *Scientists-physicists* (SR);
4. *Bank employees* of “Vostok Bank”: heads, managers, cashiers, and technical staff (BE);
5. *Reikists*, this group included participants who have

studied the Reiki technique or taught this technique to others: a) *students* (S), b) *employees* (E). [Reiki group was additionally involved in the study, solely for comparison with other participants. But Reiki-technique (like one of many ancient-oriental techniques for body self-stabilization, such as Yoga, meditation, Falun Dafa, Qigong, etc.) was not chosen occasionally: Reiki does not require special training, purposefully affects the psychosomatic parameters of the human body, easy to apply, and broadly practiced worldwide, including Ukraine.].

Initially, there was only one, unified, student group but during investigation it seemed appropriate to analyze the obtained parameters depending on the studying orientations, too. Thus, they were divided according their future profession-speciality although with some quantitative disproportion: the specialty of a «psychologist» was in high request even previously, and now in wartime it is especially in demand, so, wanting to test themselves in psychological research and having full permission of the faculty head, many students were willing to adhere to the investigation; while the profession of «economist» gained temporary unpopularity among students, therefore, there was a small enrollment, besides, the faculty administration approved only a partial (not mass) recruiting for the survey. Bank employees were involved in the study as characterizing one of service-stratum personnel of social institutions, while Research institute employees were selected as representatives of intellectual-scientific work.

The inclusion criteria:

1. studying at a school, college, university,
2. working in the bank sector,
3. working in scientific institutions,
4. 16-65 years old,
5. written consent to participate in the study.

The inclusion criteria:

- 1) presence of chronic physical illness, mental disorder,
- 2) unemployment,
- 3) alcoholism, drug addiction,
- 4) consequences of medical-behavioral intervention during past year.

These criteria fully characterize participants in terms of specific indicators that should be taken into account in the study in order to form homogeneous groups and increase the chances of obtaining the most reliable results.

Instruments and Procedure

Due to the crisis military situation in Ukraine, the survey was conducted remotely by the method of self-completion of questionnaires that after filling in the participants sent back online to the researchers for analysis.

Four psychological tools were applied. Their choice is consistent with our hypothesis and aims because exactly these tools provide a complete concrete set of necessary parameters

that totally characterize a person who is considered as a unity. Just when used together, these instruments give a total detailed picture of the psycho-emotional state and interpersonal-social behavior: they detect psychosomatic issues (the data are expressed in levels of anxiety – poise-peace, isolation-alienation – sociability, uncertainty-concern – confidence), reveal intrinsic value-life attitudes and identify styles of interaction in conflict.

The chosen self-administered questionnaires are trustworthy, valid, long-time tested, repeatedly used in psychology in English, Ukrainian, Russian languages, namely.

1. State-Trait Anxiety Inventory (STAI), designed by C.D.Spielberger in 1966, in 1967 Y.L.Hanin fulfilled its Russian-language standardized adaptation (Karelin, 2007a; Spielberger et al., 1983). It is aimed to assess anxiety level through 40 items. We considered enough to use only STAI Form Y-1, since its statements (20 items) relate both to a present and events, stored in memory. Using a 4-point Likert scale, participants rated how each judgment corresponded to their own state, thus evaluated the intensity of personal sensations, feelings.
2. Scale of Subjective Wellbeing (SSWB), developed by Anne Perrudet-Badoux in 1988, in 1992 M.V.Sokolova fulfilled Russian-language standardized adaptation (Fetiskin et al., 2002, p. 323-325; Perrudet-Badoux et al., 1988; Sokolova, 1996). Using a 7-point Likert scale, this psycho-diagnostic instrument measures the levels of emotional comfort, experiences, moods (i.e., subjective wellbeing). For each of 17 statements, participants had to indicate how much they agree/disagree with it that revealed their sensations, feelings, life perception. The indicators obtained were interpreted according to 10 Stans (“Stan” is a standard estimated value of the total sum of the “raw scores”).
3. Value Survey questionnaire, designed by M.Rokeach in 1973, in 1992 D.A.Leontiev adapted its standardized Russian version (Karelin, 2007b; Rokeach, 1973). Only terminal values were taken: they allow to fully determine the main orientation of a person, indicate what is especially important, significant for him, what guides him in life, what areas of life prevail for him (professional, educational, family, hobby-recreational or social life). Participants had to rank 18 terminal values, arrange them in descending order: the most important-significant one, which acted as a guide in his life, received rank 1, etc.
4. Thomas–Kilmann Conflict Mode Instrument (Conflict Instrument), introduced by K.Thomas and R.Kilmann in 1976, in 1992 O.P.Eliseev adapted its standardized Russian version (Eliseev, 2010; Thomas & Kilmann, 1976). It evaluates the typical behavioral response in conflict situations, allows you to study which of the 5 styles of conflict resolution a person adheres to. Participants received a list of 30 pairs of statements, chose in each pair the statement that best characterized own position. The number of scores determined a personal tendency to manifest one of behavioral styles.

All the results obtained by 4 aforementioned Instruments were interpreted according to the appropriate for each questionnaire Keys Table. Regarding the STAI and SSWB, the scores received for each participant were summarized, labeled as “raw scores”, and then converted to Anxiety scores (for STAI) and Wellbeing stans (for SSWB) based on the corresponding scale of each questionnaire. After filling in all the questionnaires, additionally, by the method of interview-conversation-observation, in skype format there was collected a supplemental clarifying information about the causes and factors that impeded the construction of productive social relations in everyday life, during studying or work which provoked negative psycho-emotional manifestations. Presently, the Alpha Cronbach’s value for STAI and SSWB questionnaires are 0.722 and 0.831, respectively.

The One-Way ANOVA analysis of variance was used to process the empirical results. There was tested a hypothesis that the mean values corresponding to different gradations of the factor (i.e., belonging to one or another participant group) differ. We consider that applying the ANOVA in this study is quite sufficient, and the use of more complex data processing methods will make sense only with a larger sample size and statistics, which is planned for our future studies.

Results

Our primary aims were to assess the participants’ psycho-emotional state in terms of the anxiety, subjective wellbeing, value orientations and behavioral styles (Table 1, Table 2, Table 3).

Table 1: Summary participants’ results received by means of the STAI and SSWB

Participants (n=419)			Instruments			
Quantity	Age (years old)	Professional specification/activity: studying or work	STAI “Raw points” (Anxiety score) in points	STAI AV of “raw score” (Anxiety score) in points	SSWB “Raw points” (stan) in points	SSWB AV of “raw score” (stan) in points
Participants who did not practice Reiki (total n=339)						
29	15-16	Schoolchildren	1357	47 (high)	1971	68 (Stan 6)
240		Students among whom				
108	17-28	P	4284	40 (moderate)	6008	56 (Stan 5)
47	17-20	S	1581	47 (high)	2185	64 (Stan 6)
11	17-24	E	540	49 (high)	654	59 (Stan 5)
29	17-28	L	1286	44 (moderate)	1772	61 (Stan 5)
45	17-28	A	1771	39 (moderate)	2547	56 (Stan 5)
60		Research institute employees among whom				
30	31-63	ATS	1349	45 (high)	1755	58 (Stan 5)
30	24-65	SR	1123	37 (moderate)	1418	47 (Stan 4)
10	47 (Stan 4)	Bank employees	350	35 (moderate)	435	43 (Stan 3)
Participants who practiced Reiki for themselves or taught others this technique (total n=80):						
80		Reikiists among whom:	2384	30 (low)	2782	35 (Stan 1)
19	19-23	S	513	27 (low)	532	28 (Stan 1)
61	27-52	E	1871	30 (low)	2250	36 (Stan 2)

Note: AV – Average-arithmetic Value; SSWB – Scale of Subjective Wellbeing; STAI – State-Trait Anxiety Inventory.

Table 2: Descriptive statistics for all participants (average scores and standard deviations), received by means of questionnaires: Conflict Inventory, STAI and SSWB

Participants (n=419)	Instruments						
	Conflict Mode Inventory (types of conflict behavior)					STAI	SSWB
	1	2	3	4	5		
SSP	6.29±2.26	5.67±1.28	5.43±1.47	6.81±1.66	5.81±2.16	47.67±9.91	6.33±1.88
P	5.49±3.32	5.79±1.79	6.52±1.99	6.37±1.68	5.77±2.37	44.32±11.66	5.49±1.97
S	6.0±2.95	5.7±1.43	5.62±1.84	6.89±2.13	5.72±2.46	45.94±8.85	5.55±1.75
E	4.36±2.38	5.82±1.6	6.45±2.21	6.27±1.95	7.09±2.3	48.55±9.46	5.0±0.63
L	6.31±3.27	5.45±1.9	5.59±1.9	7.45±1.74	5.14±2.45	44.24±9.19	5.28±1.81
A	5.58±3.88	5.82±1.74	5.84±1.89	5.98±1.89	6.71±2.95	39.07±11.18	4.53±1.84
ATS	2.07±1.95	5.83±1.64	6.7±1.62	8.4±1.81	7.03±2.17	44.57±10.75	4.9±1.45
SR	4.13±2.61	5.53±1.43	6.6±2.18	7.73±1.8	6.0±2.82	38.93±9.89	3.47±1.22
Bank employees	6.0±4.08	4.6±1.96	7.1±1.85	6.3±1.34	6.0±2.79	36.1±10.14	2.9±1.37
Reikists	3.73±1.96	5.2±1.87	6.86±1.85	7.74±2.04	6.46±1.88	32.89±8.93	2.0±1.09

Note: Conflict behavior style: 1 – Competing; 2 – Collaborating; 3 – Compromising; 4 – Avoiding; 5 – Accommodating.

Table 3: Criteria for the homogeneity of variances in the compared groups

Indicators (according the instruments used in the study)	Levene Statistic	df 1	df 2	Sig.
Competing	6.913	9	401	.000
Collaborating	1.489	9	401	.150
Compromising	.907	9	401	.519
Avoiding	1.070	9	401	.384
Accommodating	1.565	9	401	.124
Subjective Wellbeing	5.216	9	401	.000
Situational Anxiety	1.240	9	401	.269

For analyzing the indicators of *Collaborating* (one of the behaviors in conflict) and Subjective wellbeing, ANOVA does not guarantee obtaining the correct results, since significant differences were found between the deviations ($p < 0.001$). Therefore, to test the null hypothesis for these indicators, the nonparametric ANOVA analogue (Kruskal-Wallis test) was used, with the help of which it became possible to prove the differences between the samples: for *Collaborating* – $H = 61.56$ ($p < 0.0001$), and for Subjective wellbeing – $H = 180.99$ ($p < 0.000001$).

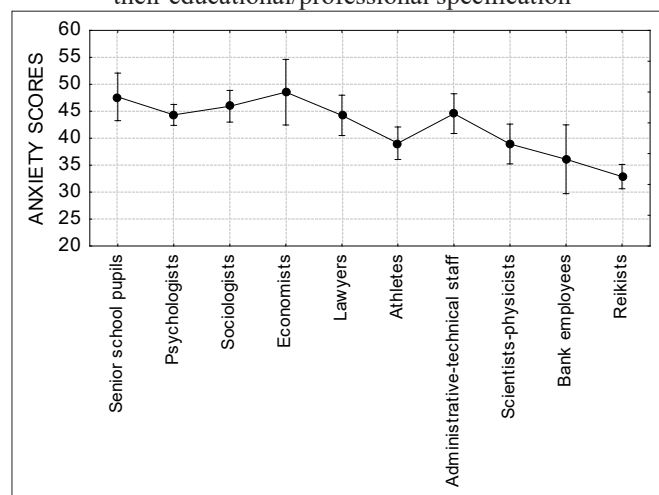
Data Analyses

During the analysis of the results, the participants of all 5 student groups, for brevity, will be named according to their future specialization, i.e. psychology students – as “psychologists”, etc.

The results obtained by means of each of 4 tools indicate the following.

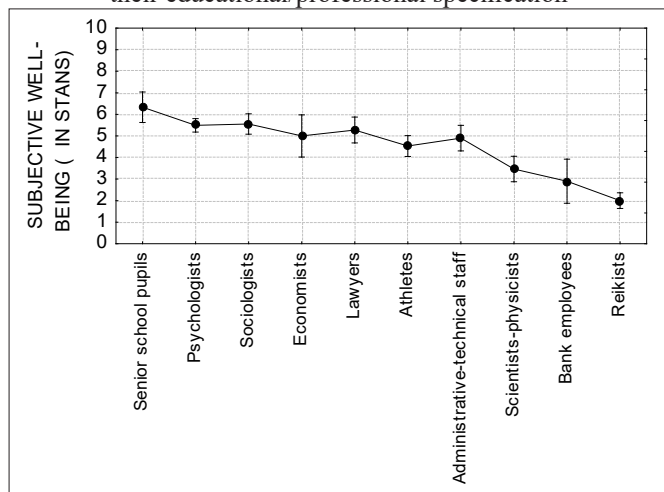
STAI questionnaire: The higher the STAI scores, the more anxiety the participants experienced (Figure 1). Participants’ situational anxiety turned out to be highly dependent on the level of the independent variable ($F = 10.87$, $p < 0.000001$).

Figure 1: The STAI results of the participants according to their educational/professional specification



SSWB questionnaire: Unlike the STAI questionnaire, the relationship between scores and psycho-emotional state according to SSWB has an inverse relationship, in accordance with the content and instructions of this tool, viz: the lower the SSWB scores, the better subjective wellbeing (Figure 2).

Figure 2: The SSWB results of the participants according to their educational/professional specification



The indicator of the F-ratio is not given here, because instead of ANOVA the Kruskal-Wallis criterion was used (due to the heterogeneity of the dispersions as to this indicator). A posteriori identification of contrasting groups revealed (at a very high level of significance) the advantage of Reikists over almost all other participants' groups (except Bank employees). The latter feel much better than Senior school pupils and all student groups. Another relatively prosperous group is athletes. In total, as to subjective wellbeing, twenty pairs of contrasting combinations were identified that differ at a statistically significant level. Consequently, subjective wellbeing extremely depends on the factor of the participants' belonging to one or another group.

For the next two tools – *Value Survey* and *Conflict Instrument* – we considered more appropriate to use a descriptive way of presenting-analyzing the results, without resorting to the construction of tables and graphs in order to avoid the schematic overloading of the text and cumbersome multi-level data presentation; besides, these results in any case should require a verbal explanation.

Value Survey questionnaire: For each group of participants, the average ranks of every value were determined. At that, the highest ranks were assigned only to 5 of them which were chosen not from a complete list of 18 values, but from a shortened one consisting of 10 values, since none of 419 participants included any of the remaining 8 values in the list of 5 most preferred ones. These 10 values, listed below in descending order of choice priority, were selected by the majority of participants: *Love* (90% participants identified this value as extremely important, except Senior school pupils), *Health* (80% gave it the highest ranking, except economists, Bank employees), *Good and faithful friends* (80%, although psychologists and Reikists did not add it even to 5 most preferred values), *Happy family life* (70%, except Senior school pupils, psychologists, sociologists), *Financially assured life* (was important only for 40%: Senior school pupils, economists, lawyers, athletes), *Life wisdom* (for 30%: Senior school pupils, Reikists, Administrative and technical

staff), *Freedom* (for 20%: Senior school pupils, sociologists), *Development* (for 20%: Senior school pupils, psychologists), *Interesting work* (for 20%: Bank employees, Reikists), *Self-confidence* (for 20%: psychologists, Reikists).

By analogy with the above logic, 10 most denied values were identified (beginning with the most rejected one): *Happiness of others*, *Public recognition*, *Creativity*, *Pleasures*, *Beauty of nature and art*, *Productive life*, *Knowledge*, *Happy family life*, *Life wisdom*, *Good and faithful friends*.

At that, several strange illogical facts were revealed, namely. Value Creativity was rejected by 80% participants, except Reikists and sociologists. Lawyers, athletes, all Research institute employees, Bank employees and Reikists unitedly denied *Pleasures*. Psychologists and lawyers were not at all interested in *Productive life*. Demonstrating group unanimity as some unified generalized feature, all sociologists neglected *Life wisdom*, Bank employees disregarded *Knowledge* and *Good and faithful friends* was completely indifferent to Reikists.

Conflict Instrument: All subsequent clarifications and inferences on the results of this tool also included the data obtained by interview-conversation method and authors' opinion and their scientific reasoning, namely.

As to *Collaborating*, participants of all groups showed approximately the same results, 95% of which ranged from 5.43 to 5.76 points. The magnitude of the F-ratio was statistically insignificant. The fact of wide using the *Collaborating* can be explained by the mentality of Ukrainians, specificity of traditions in children upbringing, which are based on inserting in the youth minds the value of moderate cooperation, i.e. such cooperation that takes into account own interests also, and not only the person's values.

Concerning *Avoiding*, there were found quite significant differences between groups ($F = 7.29, p < 0.0000001$). During a posteriori multiple comparison, nine contrasting pairs of participants' groups were identified, for which statistically significant differences were revealed. The most pronounced contrast was between groups of athletes and Administrative-technical staff ($HSD = -2.42, p < 0.0001$), psychologists and Administrative-technical staff ($HSD = -2.03, p < 0.0001$), athletes and Reikists ($HSD = -1.76, p < 0.0001$), psychologists and Reikists ($HSD = -1.37, p < 0.0001$). *Avoiding* strategy turned out to be the most characteristic for the entire sample of participants, since traditionally parents most often focus their children's attention on avoiding a possible conflict, consider an avoidance to be the most effective communication tactic and algorithm of interaction between people. However, the severity of this behavior type varies significantly depending on belonging to a particular participant group (i.e. depending on the value of the independent variable).

An average degree of participants' readiness for *Competing* was revealed in most groups. The lower and upper boundaries

of the 95% confidence interval are equal to 4.64 and 5.25 points, respectively. However, when performing posteriori multiple comparisons with the use of the Tukey's true significance criterion (HSD), two pairs of contrasting groups were identified, the differences between which in Competing indicators were statistically significant. In the first pair, Senior school pupils were much more prone to *Competing* than Administrative-technical staff (HSD = 4.21, $p < 0.0001$). In our opinion, this is because the competing in early/older adolescence is a mode of testing personal «I», asserting own forces and opportunities for self-growing, which a teenager understands as the only possible way of upholding own dignity and freedom; while Administrative-technical staff refuses unproductive *Competing*, because such behavior does not make part of their communicative-professional strategy, on which the success of the Scientists-physicists may depend. In the second pair, Senior school pupils evidently outperform Reikists (HSD = 2.56, $p < 0.01$), since, we believe, the last are not at all inclined to manifest unnecessary unproductive rivalry or competition.

Concerning willingness for *Compromising*, there were statistically significant differences between the groups ($F = 3.284$, $p < 0.0007$). Two contrasting groups were identified – Senior school pupils and Bank employees, the differences between which turned out to be significant (HSD = -1.25, $p < 0.02$).

Regarding the frequency of *Accommodating use*, statistically significant differences were found between the groups: 95% participants' results ranged between 5.87 and 6.34 points ($F = 2.17$, $p < 0.02$). Overall, *Accommodating* strategy was moderate for all participants. Pairs of groups, the contrast between which would be statistically significant, were not identified.

Generalized analysis regarding all 5 main groups showed that young participants mostly resorted to *Avoiding*, less to *Accommodating* or *Compromising*, while majority of Bank employees, Reikists and Scientists-physicists chose *Avoiding*, *Compromising* or *Accommodating*; all styles listed here in descending order, i.e. according to how often they were chosen by the participant groups (Table 2). It was these behavior styles that turned out to be the most chosen in all 10 groups. These their propensities, from our point of view, indicate the following, viz.

Six groups and subgroups were prone to *Avoiding*:

1. Administrative-technical staff (due to the firm intention to avoid conflict in every possible way as a vain unproductive means of resolving professional issues);
2. Scientists-physicists (due to the clear conviction that any conflict does not contribute to a fruitful scientific discussion and negatively affects the efficiency of scientific activity);
3. Reikists (since primarily they are projected on the activation of positive thinking and intrinsic positivity that allow to harmonize both spiritual and psycho-bio-physiological spheres; the evading any conflict is part of their intrinsic world and personal philosophy, which, in

turn, go back to the ancient-eastern foundations of Reiki doctrine);

4. lawyers (who perceive potential conflicts as events that may have certain legal consequences);
5. sociologists (as a possible intention-targeting on an evasion of the social tensions, disputes, frictions to which they are very sensitive due to their profession);
6. Senior school pupils (contemporary youth, accustomed to computer technology and often living in the virtual world, tends to a common to them psychological attitude that means their position to avoid the conflict escalation - this trend is enough characteristic for those who stay long enough in Internet space).

Compromising chose two groups: Bank employees (their orientation to results-profit when working with clients requires necessary flexibility and coming to a consensus), psychologists (understanding quite well the nature of psychological defenses, nevertheless they are able to perceive, accept conflicts from a mutually beneficial point of view, viz, as a potential means of relation renewal).

Accommodating chose two student groups: economists (since uncertainty about the future in the current situation in Ukraine creates an implicit setting for adapting to various conditions), athletes (due to the ambiguity of the socio-economic and military-political situation in Ukraine, the development of sports is difficult, so they are forced to adapt to current circumstances).

Ultimately, 7 contrasting groups were identified. Each of them included Reikists, who every time showed an advantage in terms of the lowest anxiety compared to other participant groups. Only when compared with Bank employees and Scientists-physicists, the Reikists' advantage did not reach the level of statistical significance. A variance analysis of emotional indicators revealed very significant differences in the average values in the participant groups, at that Reikists showed the best results, both in anxiety and subjective wellbeing.

Discussion

The predominance of one of polar states (wellbeing-anxiety) determines general state of human health. But it is worth noting, only the totality of both psychosomatic parameters and internal value attitudes with preferable behavioral style in conflict provide an integral, complete vision of a personality. Just that is why, following the overall research objective and aims, a study of the participants' value-behavioral sphere was fulfilled, along with the psycho-emotional assessment.

We revealed that, compared with other groups, there were just the young participants (except athletes) who unexpectedly performed worse in terms of anxiety and subjective wellbeing, despite the fact that young people a priori should feel a healthy vitality and be focused on success, at least it has to be expected. As the conversation-interview method showed, the most likely reasons for such a state of the youth can be both academic, as well as the desire to acquire high recognition among peers that

encourages them to take risky actions or use means that destroy health (alcohol, smoking, drugs, unsafe sex, etc.). Along with this, they had various symptoms of stress-depressive conditions (insomnia, depression, headache, overeating, loss of appetite, anxiety, nervousness, even aggressiveness that, by the way, manifest themselves already at the end of school education, significantly intensifying in student life). Stress instigates an occurrence of worsened memory, concentration decline, decreased mood, cognitive deterioration, declined interest, and reduction of internal energy. Together, it leads to the consolidation of the state of inadequacy, confusion and hopelessness, to an increase in labor costs and a decrease in the results achieved. Young people are a sensitive vulnerable social stratum, they react more sharply, more intensely to psychosocial stressors, traumatic events and show a wide range of distress. That is why, as it has been established, during hostilities children, adolescents experience much more hardship, since they immediately absorb the horrors of war, unable to cope with the state of fear-grief-despair, to overcome emotional-psychosocial tension which in the aggregate negatively affects mental health (Armitage, 2022; Bürgin, 2022; Khrystenko & Ovsyannikova, 2022). Our present results confirmed the same trend in children's reactions to any critical-difficult-military situation, namely the tendency to be over-receptive and sensitive to stressful experiences.

As the analysis of value orientations showed, for the entire Ukrainian sample the most important were the values focused on personal wellbeing, goodness, individual autonomy and self-development, but the values reflecting environmental and abstract concepts were considered the least significant. Particularly, all participants were based on four paramount universal-human values (*Love, Health, Happy family life, Good and faithful friends*). However, even such a positive internal projection did not guarantee full protection against a possible deterioration in health due to the impact of negative psychosocial factors, as evidenced by the identified indicators of psychosomatics in the disadvantaged groups. Apropos, the list of preferred and rejected values contains the same nominations: *Good and faithful friends, Happy family life, Life wisdom*. Some groups often chose them (nominating among the first values), while the others almost completely rejected (putting them at the very end of the value list). It testifies to the ambivalent nature, counteracting status of these values and means that their choosing-excluding may depend on the participants' socio-professional position and age. Moreover, participants of all groups without exception have completely rejected the values *Happiness of others, Beauty of nature and art*. This fact cannot but disturb, since evidently reflects the negative trends in the development of moral-ethical and aesthetic principles of human consciousness in contemporary life, namely: the people's alienation from each other, decrease in readiness for mutual assistance, obfuscation of social values, prevalence of individualistic ones, and reduction of direct human contact with the environment, which is now being replaced by the world of gadgets, artificial technologies and digital virtuality. Finally, *Public recognition* value was rejected by everyone except Bank employees. The neglect like that

by nearly all sample testifies the insignificance of "feedback" as an external social assessment.

With regard to behavioral styles, all participant groups turned out, in some way, to be prone to *Collaborating*. However, the youth groups more often used *Competing, Avoiding* behaviors, while *Avoiding, Compromising* were more acceptable for Bank employees, all Research institute employees and Reikists. In our opinion, *Collaborating* and *Compromising* can be considered the most non-antagonistic, non-violent, peace-loving and parity ones that are based on the humanistic-progressive approach. The remaining 3 styles are characterized by pronounced ambivalence, with contradictory elements in the nature of these concepts, namely: *Competing* is based on assertive persistence and lack of flexibility; *Accommodating* is an acquiescent, compliant style, acknowledges a conflict with the aim to terminate any tension; for *Avoiding*, it is inherent a passivity, withdrawal from troubles, desire not to intervene directly in the conflict. At that, no behavioral style can be unequivocally useful, admissible for any life situation.

Summing up the results for all 10 groups of participants, we considered more revealing, concise to single out 3 the most non-prosperous groups characterized by poor psychosomatic indicators (Senior school pupils, sociologists, economists) and 3 the most prosperous ones with favorable indicators in psychosomatics (Reikists, Bank employees, Scientists-physicists). There were identified commonalities within aforementioned groups and between these group unities, viz. Both group unities were projected on the choice of humanistic-personal values, listed respectively to the unity groups (for non-prosperous unity these values are *Financially assured life, Health, Love*; for prosperous unity – *Health, Happy family life, Health*), rejecting abstract-generalized values (non-prosperous – *Happiness of others, Happiness of others, Beauty of nature and art*; prosperous – *Public recognition, Creativity, Pleasures*). Both unities mainly used *Avoiding* behavior, less *Accommodating* and *Compromising*. If delineate and define in a statistical sense, it indicates that the prosperous unity is characterized by more constructive vital attitudes, more complete self-realization in various life spheres and better psycho-emotional wellbeing, while the non-prosperous unity experiences certain difficulties to realize themselves fully and enjoy higher levels of health.

Thus, our findings are consistent with our review of the literature and recent results (Ooi et al., 2022), confirming that various psychosocial and educational stressors of modern life (mainly academic overload, uncertainty about future employment) negatively affected the psychosomatic health of Ukrainian youth compared to other population stratum. Anxiety and stress usually limit a person's ability to analyze, slow down cognitive-thought processes, and block the internal defensive reaction. In a stress-traumatic situation, a person tries to adopt an avoidant style of behavior, as if moving away from excessive tension, stress, danger. Our results also evidenced the *Avoiding* style prevalence. The applied interview-conversation method made it possible to detail the

overriding psychosocial problems of the youth groups: family-financial difficulties (uncomfortable family relationships, lack of money for education or relax, entertainment), low prospects for the future (economic, social, political problems in Ukraine at the time of research), asocial stress-defensive means (some types of addictive behavior: smoking, Internet addiction, alcohol), personal emotionally traumatic events (illness, death of relatives or friends), educational overstrain (training overload, excessive responsibility for learning outcomes), decreased self-confidence (fear of failure which affects self-esteem), psychosomatic problems (recurrent headache, heartache), sleep disturbance (insomnia, inability to fall asleep immediately), time and money deficit for recreation. Senior school pupils and students complained of a rather bad or low mood, boredom (often occurring in the evening, sometimes during the day, less often in the morning), unwillingness to do anything, indifference or irritation towards others. This means that students are exposed to depressive states, the so-called sub-depression or latent depression, are also prone to the formation of inflated self-esteem which contributes to the emergence of neuroticism and increases the likelihood of psychosomatic disorders. Particularly, economists had the highest anxiety level, even worse than Senior school pupils (due to the temporary decline in the prestige of economist-specialty, the upcoming difficulties in finding employment, which just were the paramount reasons for the small sample quantity); sociologists showed the lowest wellbeing level (possibly because of the decreased demand for sociologists in labor market). Whereas athletes, Bank employees, Scientists-physicists, and Reikists revealed the lowest anxiety (since they seem to be quite fully implemented in the professional-personal sphere). Factually, Reikists demonstrated the best overall results. As we believe, it is due to their own ability to stabilize the psycho-emotional, somatic-physiological state: it is just this ability that is developed while using ancient-eastern self-regenerating body techniques.

Currently, in addition to the monstrous consequences of the global COVID-pandemic, the critical stressful tension for Ukrainians was now exacerbated by a state of shock and mental-emotional-physical suffering (that they experience for over a year) because of perfidious war initiated by russia-vandal in Ukraine. Precisely in these cases, the techniques like meditation, Yoga, Falun Dafa, Qigong, Feng Shui can provide significant assistance: they have long been practiced by ancient-Eastern peoples as efficient operative means of restoring healthy mind-body status (Aliyev, 2001; Ivanchenko, 2020; Ivanchenko & Medoro, 2014; Ivanchenko & Zaika, 2017; Lazurenko, 2011; Medoro, 2012; Swami, 1978). The use of ancient Eastern techniques involves the stabilization of the biofield (or energy field) by adjusting the human psyche to favorable, positive moments (such as perception of restful soothing music or works of art) in order to create intrinsic mental-emotional positivity and prevent negative effects. For example, the expediency of Reiki technique using has been confirmed in clinic settings by recent comprehensive studies and reviews, when it was applied as one of the possible adjuncts to traditional medical care (Dyer et al., 2022; Gantt

& Orina, 2020; Singg, 2015). Reiki normalizes the psyche, positively affects biophysiological processes, which, in its turn, contributes to the leveling of negative somatic symptoms, and besides it is enjoyable since Reiki session is accompanied by pleasant relaxing melodies. Worth special highlighting, hearing a pleasurable music provides positive impact on human psychoneuroimmunological response regardless the person's age, ethnic and educational background; while the impact from listening techno-sharp music provokes an effect, similar to the biological reaction to psychological stress (Rebecchini, 2021). As is known, our sensations, thoughts, feelings, emotions, mood and internal attitudes allow us to «press the reset button» of the human mind (Ghosh et al., 2021) and directly affect the psychophysiological processes, somatic health and life expectancy.

For this reason, in accordance with the latter research aim, and taking into account the identified decline in psychosomatic health in young participants, we applied to them in practice several simple effective means to improve subjective wellbeing and reduce anxiety, stress. We guess that the aforementioned ancient Eastern techniques can serve as an effective, low-cost and easily applicable means of normalizing the psychophysiological functions, which are as beneficial as sports (Lin, & Liu, 2023; Stoduto et al., 2023; Yuan et al., 2022), and often even more resultative. That is why we began to use various relaxing-developing programs, namely, game-trainings of thinking and imagination for increasing the intellectual-mnemonic ability to deal with different problem situations, and some techniques of psychosomatic self-regeneration of the body – meditation, Reiki, Yoga (Ivanchenko & Zaika, 2017). These preventive activities, initiated immediately after the study completion and conducted once-twice a week, presently continue but carried out remotely (online in Zoom), due to the current critical military-political and economic situation in Ukraine. Such prophylactic-corrective measures are today of paramount importance in connection with the ongoing war that russia-vandal is still waging on the Ukrainian territory.

Conclusions

As suggested in our hypothesis, Senior school pupils and university students (except athletes) did prove to be less stress-resistant, more anxious, with lower wellbeing level and worse responding to psychosocial problems.

A generalized analysis of all participants' readiness to accept this or that behavior in a conflict situation showed that only *Avoiding*, *Compromising*, *Accommodating* turned out to be the most frequently chosen ones, which characterizes typical attitudes of Ukrainian citizens today.

The life values of up-to-date students and Senior school pupils are generally consistent with those of other participant groups. A summarized inference as to value choosing in each participant group indicates the following:

1. for Senior school pupils, the most chosen value is *Financially assured life*, and the least important is *Happiness of others*;

2. for psychologists and sociologists – respectively, *Health and Happiness of Others*;
3. for economists – *Love and Beauty of nature and art*;
4. for lawyers – *Health and Beauty of nature and art*;
5. for athletes – *Love and Public recognition*;
6. for all research institute staff – *Health and Pleasure*;
7. for Bank employees – *Happy family life and Creativity*; and
8. for Reikists – *Health and Public recognition*.

Importantly and even more than interestingly, that three universal values (*Love, Health and Happy family life*) prevailed in the minds of all Ukrainian participants. Senior school pupils represented the only exception, for whom financially assured life meant the most: it can be explained by their natural, logically justified concern regarding own future employment, independence and financial wealth. However, the tendency to projecting on high life values did not fully protect against an increase in anxiety and a deterioration in subjective wellbeing, as shown by the identified indicators of psychosomatics in non-wellbeing groups. This indicates a discrepancy between the chosen value orientations and the revealed psychological reaction, which is associated with political and economic instability, the stressful pressure of the COVID pandemic, and uncertainty in the implementation of life plans, prospects. Apropos, active people usually strive for different goals, thus are a priori anxious. Naturally it may worsen subjective wellbeing and mental health. It is just to active category of population stratum that Senior school pupils and students belong. However, this supposition (reasoning) requires further additional research.

Future Research

We consider our study as preliminary, setting guidelines for further more detailed studies. They can be carried out on the basis of our results both by us and other researchers, namely:

- conduct a comparative analysis of the results presented in this article with mental, psycho-emotional state of the same participants' groups, after completing war-hostilities in Ukraine;
- compare value orientations of Ukrainian youth with other ethnic groups;
- estimate the effectiveness of the prevention programs and means applied in this research (which have been aimed at strengthening the students' psycho-emotional wellbeing, cognitive resistance, body self-regeneration and overall positive attitude).

Limitations

The study can be expanded to a larger student sample and compared with other populations and ethnics to obtain more meaningful findings.

Conflict of Interests

None.

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