

# Psychosocial Adaptation of International Students: Advanced Screening

Marina Melnichuk

Ph.D., senior lecturer in psychology, philosophy  
department Kharkiv National University of Radio  
Electronics, Ukraine E-mail: [m.g.melnichuk@gmail.com](mailto:m.g.melnichuk@gmail.com)

## Citation:

Melnichuk M. (2018) Psychosocial Adaptation of International Students:  
Advanced Screening *International Journal of Psychosocial Rehabilitation. Vol 22 (1) 101-113*

---

**Abstract:** Considering the significance of academic adaptation of international students, it is important to examine problems of psychosocial adjustment taking into account presence/absence of psychotraumatic experience. This empirical study investigated how general mental health state, satisfaction with life, perceived social support, self-esteem and traumatic experience influenced academic adaptation in university. The present research used author's Migrants Psychosocial Maladjustment Scale (MPMS) created as a psychological diagnostic tool that helps estimating the degree of psychosocial maladjustment of temporary migrants. The MPMS results allowed analyzing the sample of international students from the point of view of psychosocial maladjustment. The obtained data proves significant influence of acquired traumatic experience and its consequences in form of different severity of mental disorder on adaptation process. In particular, 83% of the total number of respondents turned out to have different traumatic experience, 13.2% of which were diagnosed with PTSD symptoms of high and average severity. The most common respondents' reactions to traumatic events were sleeping problems, depressive and social stress disorders. Results of the study allow recommending used set of psychodiagnostic tools for psychosocial maladjustment screening of international students.

**Keywords:** psychosocial adjustment, temporary migrants, mental health, psychotrauma, PTSD.

---

## Introduction

**In the XXI century we are facing sharply increased world population mobility. For the last 25 years** number of people forced or voluntarily leaving their homes (temporarily or permanently) for different reasons has increased by 69%. The total number of international migrants for the moment is 257.7 million people (comparing to 152.5 million in 1990), the percentage of migrants in the world population increased from 2.9% to 3.4% (DESA, 2017).

Forced as well as voluntary immigrants are exposed to traumatic emotional experience of immigration where maladjustment is often an outcome. Maladjustment is known as loss of life values, important for professional and personal success; failure to meet demands of society, such as coping with problems and social relationships that usually reflects in emotional instability. Thus, due to drastic change in social environment, lifestyle and activities of temporary migrants (as "visitors" or permanent residence seekers), there is a strong need for their psychosocial adaptation (Fulgini,

2001; Wang and Mallinckrodt, 2006; Roley et al., 2014; Dueweke et al., 2015; Stanley and Sethuramalingam, 2015; LeVine, 2018).

In the present study foreign students' psychosocial adaptation is shown as a process and result of personal involvement in a new social environment, accepting immigration trauma and forming new social attitudes (Melnichuk, 2016). We shouldn't forget that the adaptation process can be complicated by other life traumatic experiences obtained in the course of events of natural, technogenic or social origin (anthropogenic disasters, terrorist acts, domestic violence, etc.), causing various psychological and physiological disorders. Traumatic experience, unfortunately, is quite common in the world. More than one third of the world's population experiences various traumatic events in life and about a quarter has risk of developing or exacerbating mental illness (Longe, 2006; Murray et al., 2008).

Adaptation to high school suggests developing specific adaptive mechanisms that optimize the interaction of students with social environment (Dahlin et al., 2005; Cigularova, 2005; Zhang and Goodson, 2011; Macher et al., 2012; Carr et al., 2013; Appelqvist-Schmidlechner et al., 2016; Bailey and Phillips, 2016). Analysis shows that foreign students as well have special needs, caused by need to adapt to new ethnic culture and new living conditions. Studying psychosocial adaptation of temporary migrants makes it possible to find balance between individual and another ethnic, cultural, legal and social environment and requires development of effective tools for diagnosing and treating social and stress disorders caused by the trauma of migration and previous traumatic experiences.

The present study shows results of psychosocial maladjustment of foreign students' extended screening version taking into account presence/absence of posttraumatic stress disorders (PTSD) symptoms. The obtained results shows the first and the second stages of a three-component Psychological Assistance Tool Model for Foreign Students with PTSD, including PTSD diagnosis, psychosocial maladjustment diagnosis and training program of new adaptive mechanisms helpful in education process (Melnichuk, 2017).

## Methods

Choice of specific psycho-diagnostic tools for the study was based on the level of psychosocial adaptation of respondents, diagnosis of PTSD and personal psychological characteristics which are related to the adaptation process. The specific literature shows us subjective and objective criteria for effective adaptation: the degree of conscious or unconscious satisfaction of himself/herself and different aspect of person's life is a subjective criterion; the performance of his/her activities (some level of effectiveness) is an objective criterion.

We took subjective adaptation as the most important criterion in the study and selected two groups of psycho-diagnostic techniques based on self-reports of respondents. The techniques should match aim and object of study; have clear set of actions and its quantification; have sufficient test's representativeness, reliability, validity and objectivity; have clear and unambiguous instructions to the survey.

The checklist LEC and PCL questionnaire were used to diagnose PTSD among respondents. LEC-5 questionnaire (The Life Events Checklist for DSM-V), developed with the support of the US Government Department of Veterans Affairs was chosen to identify traumatic events that occurred in students' life. The questionnaire provides a list of 16 items – specific traumatic events (plus one more item – Another Traumatic Experience) that can cause PTSD or distress. Traumatic events include: natural disasters, fires, traffic accidents, physical violence, illnesses or injuries, life threatening, participation in armed conflict, etc. The LEC-5 questionnaire includes: a standard self-report (traumatic event identification), an extended self-report (description of the worst event in life), an interview (establishing the severity of the event). The standard LEC self-report (Blake et al., 1995) was used first and then LEC-5 (Weathers et al., 2013).

The PTSD Checklist for DSM-V (PCL-5) was used to screen PTSD and show the quantitative severity of its symptoms. The checklist is recommended to be used together with LEC-5 and it is also developed at the National Center for PTSD (Blevins et al., 2015). The questionnaire consists of 20 statements that reflect mental condition of respondent with traumatic experience. They include such points as: trauma-related obsessive anxious and undesirable feelings, actions,

memories and dreams; loss of interest in familiar activities; self-accusations or accusation of others in a traumatic event or its consequences; irritability, aggressive or risky behavior; sleep troubles, etc.

The PCL-5 questionnaire is based on the previous version of PCL made for DSM-IV (Blake et al., 1995), with psychometric characteristics indicating good retest reliability (correlation coefficient 0.96), convergent and discriminant validity, as well as internal consistency (Cronbach alpha from 0.89 to 0.92). Confirmatory factor analysis shows that the 6-factor model suits the structure of PCL-5 the best, which in turn conforms to the clustering of PTSD symptoms present in DSM-V. PCL-5 can be used for various clinical and scientific purposes, in particular for quantifying the severity of PTSD symptoms according to the new diagnostic criteria revised in DSM-V, establishing a preliminary diagnosis and estimating the prevalence of PTSD (Weathers et al., 2001; Wilkins et al., 2011; Blevins et al., 2015; Eddinger and McDevitt-Murphy, 2017).

Reviewing methods for psychological adaptation treatment showed that international studies mostly use: Satisfaction with Life Scale (Diener et al., 2013), Multidimensional Scale of Perceived Social Support (Zimet et al., 1988), General Health Questionnaire (Goldberg et al., 1997) and Rosenberg Self-Esteem Scale (Rosenberg, 2015). It was clear from the analysis of listed instruments that there were no valid psycho-diagnostic instrument reflecting specificity of psychosocial adaptation and maladjustment of foreign students. It gave a possibility to create a diagnostic method to study temporary migrants' psychosocial adaptation problems, taking into account possible previous traumatic experience as well as trauma of migration (Melnichuk, 2016).

Differentiation of adaptation processes oriented to individual or external environment was repeatedly noted by different scholars. Such dichotomy led to appearance of alloplastic and autoplatic adaptation; assimilation and accommodation; problem-oriented and emotionally-oriented stress management strategies; adaptive processes directed "outside" (individual influences environment) and processes directed "inside" (individual changes himself) (Lazarus and Folkman, 1984; Horowitz, 2011).

Taylor's theory of cognitive adaptation (Taylor, 1983), Lazarus and Folkman's transactional model of adaptation to stress (Lazarus and Folkman, 1984) and Linehan's cognitive-behavioral model of coping behavior (Linehan, 1993) were chosen as a theoretical framework for creation of Migrants Psychosocial Maladjustment Scale (MPMS). Methodological basis for creation of MPMS was diagnostics and treatment of psychosocial distress developed and described by American Psychiatric Association (DSM-5, 2013).

The present psychological diagnostic tool allows you to estimate the degree of psychosocial maladjustment of temporary migrants. The MPMS consists of twenty-five items and a brief screener on a wide range of mental health outcomes. This scale can be used for work with both genders, starting from age 18 (Melnichuk, 2016).

Respondents have to choose their answers on a 5-point Likert scale, ranging from 0 (never) to 4 (always) for statements 2, 3, 6, 8, 9, 11-25. Positive statements (1, 4, 5, 7 and 10) are ranged in reverse order. MPMS can be used in groups or individually; form-filling time is not limited.

The psychometric characteristics of the new psycho-diagnostic tool (Melnichuk, 2016) indicate that the MPMS scale adequately satisfies the basic psychometric requirements for instruments of this kind.

## Results

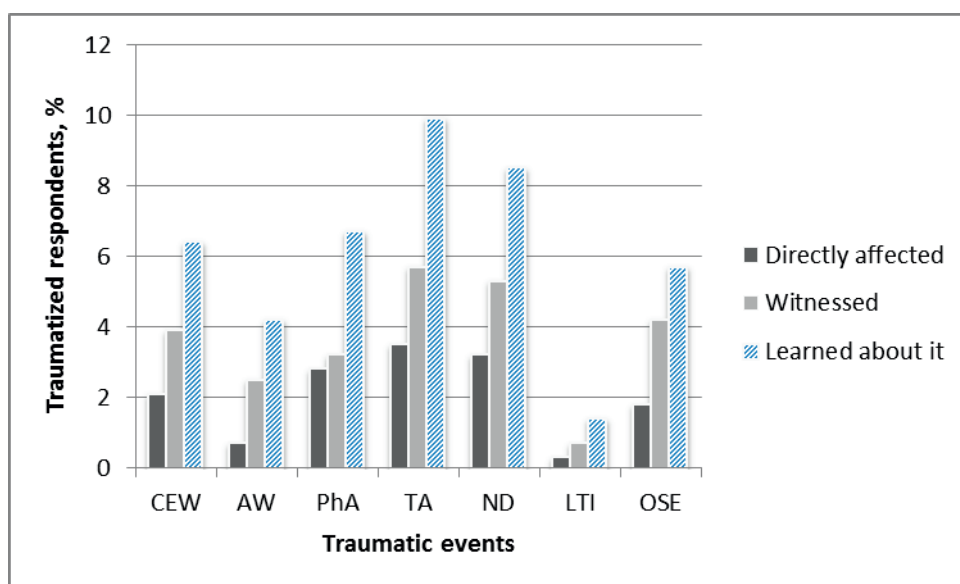
### **PTSD diagnosis and its impact on psychosocial adaptation of foreign students**

Nowadays, Universities of Ukraine welcome students from all over the world. Sometimes these are countries with unfavorable political situation, natural disasters and military conflicts (or high risk of their occurrence). The traumatic experience gained by foreign students back home accompanies and complicates immigration and process of adaptation to new life conditions.

### **Sampling and analysis**

The research base of the study was represented by the first-year foreign students of the University, who study in Ukraine for seven years (279 males, 63 females; average age  $M = 20.8$ ;  $SD = 1.83$ ). The study involved temporary migrants from Afghanistan – 3.6%, Egypt – 2.5%, Iraq – 19.4%, Iran – 12.1%, Cameroon – 17.3%, Libya – 5.1%, Nigeria – 28.1%, Sudan – 9.7%, Tunisia – 2.2%.

The results of foreign students' survey regarding the presence of traumatic experience showed by the LEC questionnaire (see Fig. 1) indicated that the most widespread emergency event present in their lives was a transportation accident (TA). It showed 3.5% of respondents directly affected by TA, 5.7% – witnessed TA and 9.9% of respondents learned about TA (someone from relatives or from the close environment of the respondent suffered from TA). Less common traumatic event was fire or explosion and natural disaster (ND), which showed 3.2% directly affected, 5.3% witnessed and 8.5% respondents learned about it. The following traumatic event was a physical assault (PhA), combat or exposure to a war- zone (CEW), any other very stressful event or experience (OSE), assault with a weapon (AW), and life-threatening illness or injury (LTI), with the following rates: 2.8%, 2.1%, 1.8 %, 0.7%, 0.3% directly affected; 3.2%, 3.9%, 4.2%, 2.5%, 0.7% witnessed; and 6.7%, 6.4%, 5.7%, 4.2%, 1.4% of the respondents learned about it.



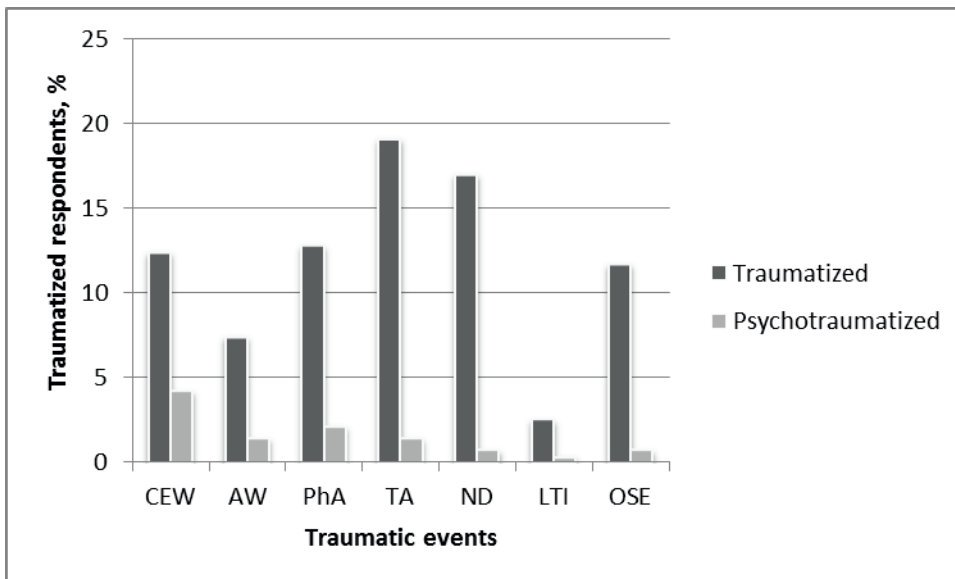
**Fig. 1**  
Present traumatic experience relative to traumatic event participation

The survey done by the PCL questionnaire revealed various signs of psychotrauma within foreign students from Africa and the Middle East. The most common respondents reactions to traumatic events were sleeping problems (psychosomatic insomnia, disturbances of sleep rhythm, etc.), depressive and social stress disorders. In particular, 83% of the total number of respondents turned out to be traumatized, 13.2% of which were diagnosed with PTSD symptoms of high and average severity (see Fig. 2).

The largest number of respondents with PTSD diagnosis was found among students who were involved in military conflicts (4.3%) and suffered from physical assaults (2.1%). The maximum group injured in TA (19.1%) demonstrated a small number of patients with PTSD diagnosis (1.4%). Other traumatic events also led to PTSD in a small number of respondents: 1.4% (AW), 0.7% (ND, OSE) and 0.4% (LTI).

According to the survey results there were two groups of respondents formed. The first one (PTSD presence) included foreign students who had been diagnosed with symptoms of post-traumatic stress disorder of high and average severity; the second one was formed out of students with no PTSD symptoms found (PTSD absence). The samples differed in the following socio-demographic characteristics:

The first group consisted of 36 respondents (32 male, 4 female), average age  $M = 20.7$  years;  $SD = 1.79$ . Distribution of temporary migrants by countries of origin: Afghanistan – 12.9%, Egypt – 3.2%, Iraq – 19.3%, Iran – 6.4%, Cameroon – 16.1%, Libya – 13.0%, Nigeria – 12.9%, Sudan – 9.7%, Tunisia – 6.5%; by religion: Islam – 77.4%, Christianity – 12.9%, local cults – 9.7%; according to academic results (on the ECTS scale): A – 0.0%, B – 0.0%, C – 0.0%, D – 25.8%, E – 45.2%, FX – 19.3%, F – 9.7%; according to the traumatic experience: SEW – 38.7%, AW – 13.0%, OSE – 6.5%, ND – 6.4%, TA – 12.9%, PhA – 19.3%, LTI – 3.2%, non-traumatized – 0.0%; by the degree of participation in the traumatic event: affected – 61.3%, witnessed – 38.7%, learned about it – 0.0%.



**Fig. 2**

Distribution of affected respondents according to acquired traumatic experience

The second group consisted of:

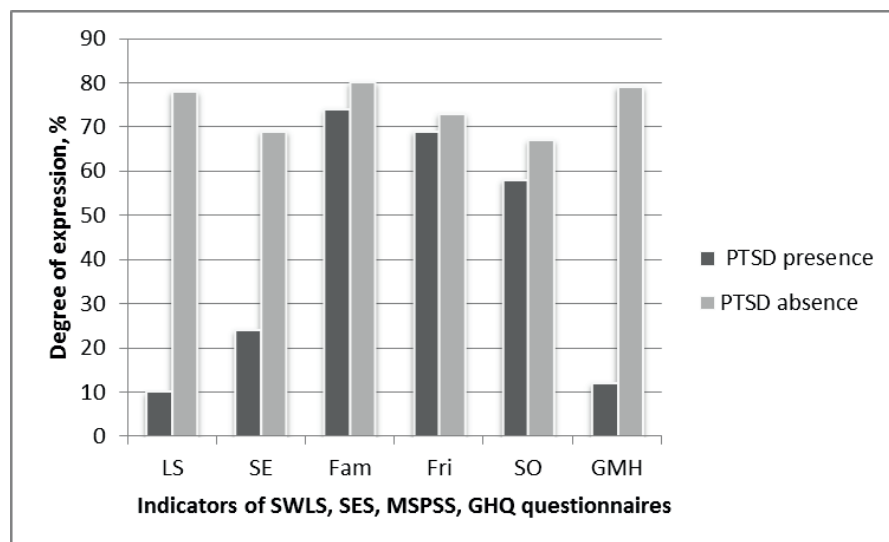
59 respondents (41 male, 18 female), average age  $M = 20.6$  years;  $SD = 1.92$ ; Distribution of foreign students by countries of origin: Egypt – 8.4%, Iran – 18.7%, Cameroon – 25.1%, Nigeria – 47.8%; by religion: Islam – 47.9%, Christianity – 35.4%, local cults – 16.7%; according to academic results (on the ECTS scale): A – 31.2%, B – 37.5%, C – 18.7%, D – 12.6%, E – 0.0%, FX – 0.0%, F – 0.0%; according to the traumatic experience: SEW – 12.5%, AW – 6.2%, OSE – 2.1%, ND – 22.9%, TA – 16.8%, PhA – 14.6%, LTI – 6.2%, non-traumatized – 18.7%; by the degree of participation in the traumatic event: affected – 0.0%, witnessed – 0.0%, learned about it – 81.2%, not involved – 18.8%.

### Structural characteristics of foreign students' psychosocial adaptation

Study of structural characteristics of psychosocial adaptation of foreign "visitors" was carried out on the basis of analysis of changing mean values of the corresponding indicators in two groups of first-year foreign students. Both statistically significant changes and minor changes in indicators were taken into account during data analysis. This allowed showing more coherent picture of psychosocial adaptation of temporary migrants' structure.

The study of structural characteristics of the general state of foreign students' mental health with present/absent symptoms of PTSD was conducted on the following basis of questionnaires: E. Diener (SWLS), M. Rosenberg (SES), G.D. Zimet (MSPSS) and D.P. Goldberg (GHQ). The analysis of the results (Fig. 3) showed that the indicators of Self-Esteem (SE), Life Satisfaction (LS) and General Mental Health (GMH) in the first group (PTSD present) had a high degree of severity, and indicators of social support perception from Family, Friends and Significant Others (Fam, Fri, SO) in groups were almost the same.

The second group (PTSD absent) showed statistically significant higher values of LS, SE and GMH indicators ( $t = -29.44$ ;  $t = -16.25$ ;  $t = -27.92$ ; respectively, with  $p < 0.001$ ) relative to the value in the first group (PTSD present). There were similar variables for social support perception: Fam ( $t = -1.16$ ;  $p < 0.2$ ); Fri ( $t = -0.9$ ;  $p < 0.3$ ) and SO ( $t = -1.88$ ;  $p < 0.06$ ), but no statistical difference of the indicators in the groups.

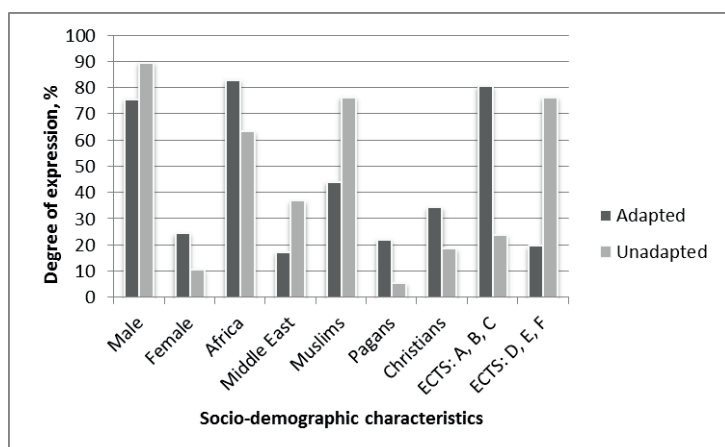


**Fig. 3**  
Structural characteristics of general mental health

The MPMS questionnaire results allowed us to analyze the sample of foreign students from the point of view of psychosocial maladjustment (see Fig. 4, 5). Fisher's angular transformation was used to identify differences in socio-demographic characteristics of adapted/unadapted temporary migrants, make some new, useful conclusions and confirm the well-known statements.

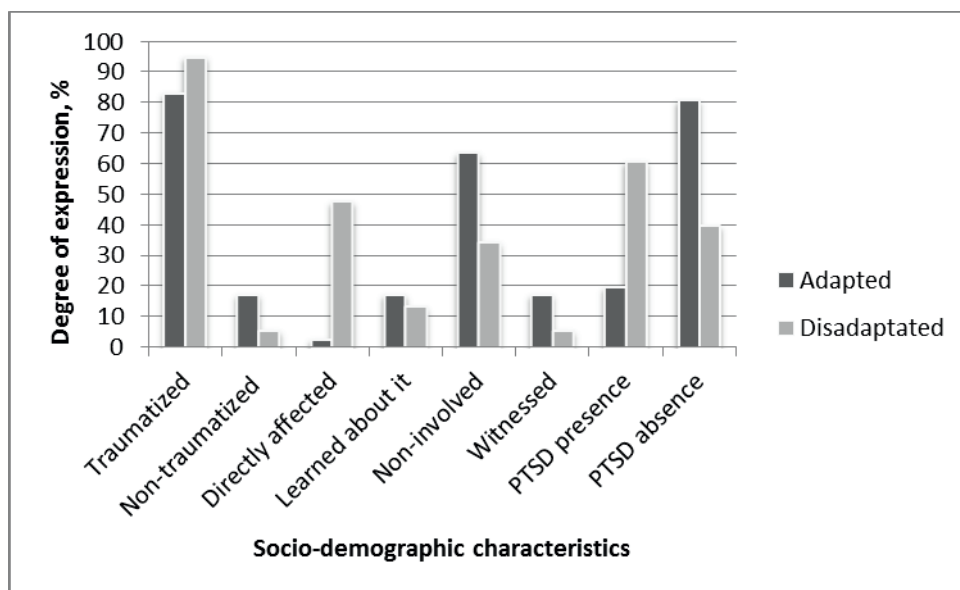
It turned out that the adaptability degree did not depend on the age of the respondents (the average age of respondents in both groups was the same). Gender differences in the groups of adapted and unadapted foreign students could not be considered significant, given that the value of Fisher's angular transformation coefficient fell to the limit of the uncertainty zone ( $\phi^* = 1.66$ ;  $p = 0.048$ ). In other words, gender of respondents had no effect on their adaptability.

There was no difference in places of origin (the Middle East or the State of the African continent) of adapted respondents either ( $\phi^* = 0.01$ ;  $p = 0.022$ ). Thus, the natives of Iraq, Iran and Afghanistan might have almost the same level of maladjustment as their peers from Egypt, Cameroon, Libya, Nigeria, Sudan and Tunisia.



**Fig. 4**  
Socio-demographic characteristics of adapted/unadapted foreign students

The analysis of adaptation abilities among temporary migrants according to religion differences showed a low tendency to maladjustment among Christians ( $\varphi^* = 1.6$ ;  $p = 0.055$ ) and supporters of local cults ( $\varphi^* = 2.25$ ;  $p = 0.012$ ). Muslims, on the contrary, showed the greatest tendency to maladjustment ( $\varphi^* = 3.0$ ;  $p < 0.001$ ). The distribution of respondents according to academic progress confirmed ( $\varphi^* = 5.37$ ;  $p < 0.001$ ) the obvious fact that adapted foreign students should have higher scores on the ECTS scale (A, B, C), and those who were not adapted – lower (D, E, FX, F).



**Fig. 5**  
Socio-demographic characteristics of adapted/unadapted foreign students

Analysis of foreign students' distribution according to traumatic experiences acquired at home revealed that traumatized respondents were more likely to be maladjusted than those who were not traumatized ( $\varphi^* = 1.72$ ;  $p = 0.043$ ).

At the same time, the division of respondents by the degree of participation in traumatic events gave the following results: directly affected respondents had a very little chance of adaptation ( $\varphi^* = 5.36$ ;  $p < 0.001$ ), witnesses of traumatic events

( $\varphi^* = 1.72$ ;  $p = 0.043$ ) and those who had learned about it ( $\varphi^* = 0.49$ ;  $p < 0.1$ ) had even little chances but respondents not involved in traumatic event - quite a large chance of adaptation ( $\varphi^* = 2.63$ ;  $p < 0.001$ ). Respondents with PTSD symptoms showed significantly higher level of maladjustment ( $\varphi^* = 3.85$ ;  $p < 0.001$ ), as opposed to those who had no symptoms of PTSD.

## Discussion

The detailed analysis of the survey results showed that the main problem that temporary migrants were facing in Ukraine was the language barrier. A large number of respondents refer this issue to psychological and traumatic factors that limit their social activity. Another similar traumatic experience for foreign students is adaptation to new living conditions (starting to live in a student's dormitory). For many respondents, communication with roommates is a big problem too – when settling students into a dormitory, no one takes into account cultural national features of future roommates that complicates life for temporary migrants from different countries. Most have difficulties adapting to climate changes. There was also frustration behavior of foreign students due to the lack of familiar living conditions, relatives and friends who stayed back home.

Students also consider the process of studying in the University as a traumatic event. Mostly parents decide for their children which high school to enter and no one is interested in respondents desire to learn a particular profession. One of the main factors influencing the choice of country to study is a possibility to obtain a European standard diploma. It's also important to consider plays with relative political and economic stability, as well as the geographical location (proximity to the EU).

The study showed that all foreign students involved in military conflicts or suffered from physical assaults were diagnosed with high level of PTSD. Those who had been injured in transportation accident also demonstrated PTSD symptoms. Other traumatic events led to PTSD in a small number of students. These results are well-coordinated (Kendal correlation coefficient  $\tau = 0.905$ ;  $p = 0.004$ ) with the indices mentioned in the empirical studies of other scientists (Perkonig et al., 2000; Heptinstall et al., 2004; Smith et al., 2007; Darves-Bornoz et al., 2008; Roberts et al., 2011; Kilpatrick et al., 2013), which confirms the reliability of the data obtained.

The analysis of structural characteristics of the general state of foreign students' mental health with present/absent symptoms of PTSD showed that the indicators of Self-Esteem, Life Satisfaction and General Mental Health had a high degree of severity, and indicators of social support perception in groups were almost the same. The obtained results conform to conclusions given in numerous scientific papers (Aspinwall and Taylor, 1992; Clara et al., 2003; Edwards, 2004; Ratelle et al., 2004; Suldo et al., 2008; Church et al., 2013; Chemtob et al., 2016; etc.).

The MPMS results allowed analyzing the sample of foreign students from the point of view of psychosocial maladjustment. It showed that the adaptability degree did not depend on the age, gender or origin of respondents. The analysis of adaptation abilities among temporary migrants according to religion differences showed tendency to maladjustment among Muslims. As for academic progress, adapted students obviously had higher scores on the ECTS scale, than those who were not adapted.

First-year foreign students with traumatic experiences and PTSD diagnosis have a lack of: adequate perception of social reality, interest to the social surroundings, adaptation (balance) to environment, focus on socially useful activities, culture of consumption, altruism, empathy, responsibility, selflessness and democracy in behavior. Within the framework of psychological distress concept, it must be recognized that foreign students of this group are unable to function properly in society and are prone to new manifestations of mental disorders.

## Conclusion

Analysis of mean values of characteristics of psychosocial adaptation of foreign students in education process let us draw the following conclusions.



Severity degree of the indicators of temporary migrants' adaptability showed rather high level of psychosocial adaptation in the group of respondents with absent PTSD symptoms and low level of adaptation in the group with present PTSD symptoms. That indicates significant impact of acquired traumatic experiences and its consequences on adaptation process in form of mental disorders of different severity degrees.

The most common models of adaptive behavior of foreign students (with present/absent PTSD symptoms) were identified according to study results: unsociability, concentration on oneself (no matter where they are, students do not remove headphones, constantly listening to the music and thus creating a comfort zone); involvement in religious practices; hyperactive socialization (attempt to maintain active relationships with as many friends as possible, spend the majority of time outdoors, etc.).

The group of foreign students with symptoms of PTSD was diagnosed increased level of mental discomfort, emotional instability, predominance of negative emotions, psychological instability and dissatisfaction with their mental health. That indicates lack of proper conditions for successful psychosocial adaptation and mental comfort in real natural and social reality, and confirms the presence of mental illness or mental instability.

Analysis of differences in socio-demographic characteristics of adapted/unadapted temporary migrants suggested that the degree of adaptability did not depend on gender, age, place of origin or religion of respondents.

The present structure of advanced screening including MPMS scale showed effective way to study psychosocial maladjustment of foreign students taking into consideration PTSD symptoms and previous acquired traumatic experience that aggravate adaptation process. This method should be useful to different social services working with temporary migrants.

This study should also stimulate further research of psychosocial maladjustment of foreign students, transferring existing knowledge in order to find out actual problems that may face temporary migrants and provide proper assistance.

## Ethical Approval

All procedures performed in this study were done in accordance with the ethical standards of the author's institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The Human Subjects Committee of Kharkiv National University of Radio Electronics approved the study.

## Informed Consent

Informed consent was obtained from all individual participants included in the study.

---

## References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5)*, 5th ed. Arlington, VA: American Psychiatric Pub.

Amirkhan, J., & Auyeung, B. (2007). Coping with stress across the lifespan: Absolute vs. relative changes in strategy. *Journal of applied developmental psychology*, <https://doi.org/10.1016/j.appdev.2007.04.002>

Amirkhan, J. H., & Marckwordt, M. (2017). Past trauma and current stress and coping: Toward a general model. *Journal of loss and trauma*, *22*(1), 47–60.

Appelqvist-Schmidlechner, K., Wessman, J., Tuulio-Henriksson, J., & Luoma, M. L. (2016). Experiences of otherness among students diagnosed with depression and/or anxiety disorder. *International journal of psychosocial rehabilitation*, *20*(2), 39–54.

Aspinwall, L. G., & Taylor, S. E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of personality and social psychology*, 63(6), 989–1003.

Bailey, T. H., & Phillips, L. J. (2016). The influence of motivation and adaptation on students' subjective well-being, meaning in life and academic performance. *Higher education research & development*, 35(2), 201–216.

Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., et al. (1995). The development of a clinician-administered PTSD scale. *Journal of traumatic stress*, 8(1), 75–90.

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of traumatic stress*, 28(6), 489–498.

Carr, S., Colthurst, K., Coyle, M., & Elliott, D. (2013). Attachment dimensions as predictors of mental health and psychosocial well-being in the transition to university. *European journal of psychology of education*, 28(2), 157–172.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: a theoretically based approach. *Journal of personality and social psychology*, <https://doi.org/10.1037//0022-3514.56.2.267>

Carver, C. S., & Connor-Smith, J. (2010). Personality and coping. *Annual review of psychology*, 61, 679–704.

Chemtob, C. M., Gudiño, O. G., Luthra, R., Yehuda, R., Schmeidler, J., Auslander, B., et al. (2016). Child trauma exposure and posttraumatic stress disorder: identification in community mental health clinics. *Evidence-based practice in child and adolescent mental health*, <https://doi.org/10.1080/23794925.2016.1227949>

Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. *British journal of health psychology*, 11(3), 421–437.

Church, A. T., Katigbak, M. S., Ching, C. M., Zhang, H., Shen, J., Arias, R. M., et al. (2013). Within-individual variability in self-concepts and personality states: Applying density distribution and situation-behavior approaches across cultures. *Journal of research in personality*, <https://doi.org/10.1016/j.jrp.2013.09.002>

Cigularova, D. K. (2005). Psychosocial adjustment of international students. *Colorado State University journal of student affairs*, 14, 17–24.

Clara, I. P., Cox, B. J., Enns, M. W., Murray, L. T., & Torgrudc, L. J. (2003). Confirmatory factor analysis of the multidimensional scale of perceived social support in clinically distressed and student samples. *Journal of personality assessment*, [https://doi.org/10.1207/s15327752jpa8103\\_09](https://doi.org/10.1207/s15327752jpa8103_09)

Cohen, M., Ben-Zur, H., & Rosenfeld, M. J. (2008). Sense of coherence, coping strategies, and test anxiety as predictors of test performance among college students. *International journal of stress management*, 15(3), 289–303.

- Dahlin, M., Joneborg, N., & Runeson, B. (2005). Stress and depression among medical students: A cross-sectional study. *Medical education*, <https://doi.org/10.1111/j.1365-2929.2005.02176.x>
- Darves-Bornoz, J. M., Alonso, J., de Girolamo, G., de Graaf, R., Haro, J. M., Kovess-Masfety, V., et al. (2008). Main traumatic events in Europe: PTSD in the European study of the epidemiology of mental disorders survey. *Journal of traumatic stress*, <https://doi.org/10.1002/jts.20357>
- DESA, U. (2017). Trends in international migrant stock: the 2017 revision. *New York United Nations Department of Economic and Social Affairs*.  
<http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates17.shtml>. Accessed 5 June 2018.
- Diener, E., Inglehart, R., & Tay, L. (2013). Theory and validity of life satisfaction scales. *Social Indicators Research*, <https://doi.org/10.1007/s11205-012-0076-y>
- Dueweke, A. R., Hurtado, G., & Hovey, J. D. (2015). Protective psychosocial resources in the lives of Latina migrant farmworkers. *Journal of rural mental health*, <https://doi.org/10.1037/rmh0000038>
- Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. *Journal of clinical psychology*, <https://doi.org/10.1002/jclp.20295>
- Eddinger, J. R., & McDevitt-Murphy, M. E. (2017). A confirmatory factor analysis of the PTSD checklist 5 in veteran and college student samples. *Psychiatry research*, <https://doi.org/10.1016/j.psychres.2017.05.035>
- Edwards, L. M. (2004). Measuring perceived social support in Mexican American youth: Psychometric properties of the multidimensional scale of perceived social support. *Hispanic journal of behavioral sciences*, 26(2), 187–194.
- Folkman, S. (2013). Ways of coping checklist (WCCL). In M. D. Gellman & J. R. Turner (Ed.), *Encyclopedia of behavioral medicine* (pp. 2041–2042). New York, NY: Springer.
- Fulgini, A. J. (2001). A comparative longitudinal approach to acculturation among children from immigrant families. *Harvard Educational Review*, <https://doi.org/10.17763/haer.71.3.j7046h63234441u3>
- Goldberg, D. P., Gater, R., Sartorius, N., Ustun, T. B., Piccinelli, M., Gureje, O., et al. (1997). The validity of two versions of the GHQ in the WHO study of mental illness in general health care. *Psychological medicine*, 27(1), 191–197.
- Heptinstall, E., Sethna, V., & Taylor, E. (2004). PTSD and depression in refugee children. *European child & adolescent psychiatry*, <https://doi.org/10.1007/s00787-004-0422-y>
- Horowitz, M. J. (2011). *Stress response syndromes: PTSD, grief, adjustment, and dissociative disorders*, 5th ed. Plymouth, UK: Jason Aronson Publishers, Inc.

- Kilpatrick, D. G., Resnick, H. S., Milanak, M. E., Miller, M. W., Keyes, K. M., & Friedman, M. J. (2013). National estimates of exposure to traumatic events and PTSD prevalence using DSM-IV and DSM-V criteria. *Journal of traumatic stress*, <https://doi.org/10.1002/jts.21848>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lazarus, R. S. (2006). Emotions and interpersonal relationships: Toward a person-centered conceptualization of emotions and coping. *Journal of personality*, <https://doi.org/10.1111/j.1467-6494.2005.00368.x>
- LeVine, R. A. (2017). *Culture, behavior, and personality: An introduction to the comparative study of psychosocial adaptation*, 2nd ed. New York, NY: Routledge.
- Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York, NY: Guilford Press.
- Longe, J. L. (2006). *The Gale Encyclopedia of Medicine*, 3rd ed. Farmington Hills, MI: Thomson Gale.
- Macher, D., Paechter, M., Papousek, I. & Ruggeri, K. (2012). Statistics anxiety, trait anxiety, learning behavior, and academic performance. *European journal of psychology of education*, 27(4), 483–498.
- Melnichuk, M. G. (2016). Migrants Psychosocial Maladjustment Scale (MPMS): Pilot Study. *Penza psychological newsletter*, <https://doi.org/10.17689/psy-2016.1.2>
- Melnichuk, M. (2017). Psychological Assistance Tool Model for Foreign Students with PTSD. *International journal of psychosocial rehabilitation*, 21(1), 116–122.
- Murray, R. M., Kendler, K. S., McGuffin, P., Wessely, S., & Castle, D. J. (2008). *Essential psychiatry 4th ed.* Cambridge, UK: University Press.
- Patry, D. A., Blanchard, C. M., & Mask, L. (2007). Measuring university students' regulatory leisure coping styles: Planned breathers or avoidance? *Leisure Sciences*, <https://doi.org/10.1080/01490400701257963>
- Perkonig, A., Kessler, R. C., Storz, S., & Wittchen, H. U. (2000). Traumatic events and post-traumatic stress disorder in the community: prevalence, risk factors and comorbidity. *Acta psychiatrica scandinavica*, 101(1), 46–59.
- Prati, G., & Pietrantonio, L. (2009). Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis. *Journal of loss and trauma*, <https://doi.org/10.1080/15325020902724271>
- Ratelle, C. F., Vallerand, R. J., Chantal, Y., & Provencher, P. (2004). Cognitive adaptation and mental health: A motivational analysis. *European journal of social psychology*, <https://doi.org/10.1002/ejsp.208>
- Roberts, A. L., Gilman, S. E., Breslau, J., Breslau, N., & Koenen, K. C. (2011). Race/ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-

traumatic stress disorder in the United States. *Psychological medicine*, <https://doi.org/10.1017/S0033291710000401>

Roley, M. E., Kawakami, R., Baker, J., Hurtado, G., Chin, A., & Hovey, J. D. (2014). Family cohesion moderates the relationship between acculturative stress and depression in Japanese adolescent temporary residents. *Journal of immigrant and minority health*, <https://doi.org/10.1007/s10903-013-9959-5>

Rosenberg, M. (2015). *Society and the adolescent self-image*. Princeton university press, <https://doi.org/10.1515/9781400876136>

Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: a review and critique of category systems for classifying ways of coping. *Psychological bulletin*, *129*(2), 216–269.

Smith, P., Yule, W., Perrin, S., Tranah, T., Dalgleish, T., & Clark, D. M. (2007). Cognitive-behavioral therapy for PTSD in children and adolescents: a preliminary randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, <https://doi.org/10.1097/chi.0b013e318067e288>

Stanley, S., & Sethuramalingam, V. (2015). Empathy in Psychosocial Intervention: a theoretical overview. *International journal of psychosocial rehabilitation*, *20*(1), 51–61.

Suldo, S. M., Shaunessy, E., & Hardesty, R. (2008). Relationships among stress, coping, and mental health in high-achieving high school students. *Psychology in the schools*, <https://doi.org/10.1002/pits.20300>

Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American psychologist*, <https://doi.org/10.1037//0003-066x.38.11.1161>

Wang, C. C. D., & Mallinckrodt, B. (2006). Acculturation, attachment, and psychosocial adjustment of Chinese/Taiwanese international students. *Journal of counseling psychology*, *53*(4), 422–433.

Weathers, F. W., Keane, T. M., & Davidson, J. R. (2001). Clinician-Administered PTSD Scale: A review of the first ten years of research. *Depression and anxiety*, <https://doi.org/10.1002/da.1029>

Weathers, F. W., Blake, D. D., Schnurr, P. P., Kaloupek, D. G., Marx, B. P., & Keane, T. M. (2013). The life events checklist for DSM-5 (LEC-5). *Instrument available from the National Center for PTSD*. [https://www.ptsd.va.gov/professional/assessment/te-measures/life\\_events\\_checklist.asp](https://www.ptsd.va.gov/professional/assessment/te-measures/life_events_checklist.asp). Accessed 05 June 2018.

Wilkins, K. C., Lang, A. J., & Norman, S. B. (2011). Synthesis of the psychometric properties of the PTSD checklist (PCL) military, civilian, and specific versions. *Depression and anxiety*, <https://doi.org/10.1002/da.20837>

Zhang, J., & Goodson, P. (2011). Predictors of international students' psychosocial adjustment to life in the United States: A systematic review. *International journal of intercultural relations*, *35*(2), 139–162.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, [https://doi.org/10.1207/s15327752jpa5201\\_2](https://doi.org/10.1207/s15327752jpa5201_2)