



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

Investigating Social and Psychological Adaptation Among International Students: A Study of Factors Influencing Wellbeing

Uluslararası Öğrenciler Arasında Sosyal ve Psikolojik Uyumun Araştırılması: İyi Oluşu Etkileyen Faktörler Üzerine Bir Çalışma

Gloria Manyeruke¹, Ebru Tansel²

Abstract:

The challenges experienced by international students have drawn increasing attention as the body of international students continues to increase globally. The current study investigated the academic, sociocultural and psychological adaptation and well-being of international university students in North Cyprus. The sample of 524 university students was selected using convenience sampling. The sample comprised of local Turkish Cypriot students, and international students both from Türkiye and other countries. SPSS version 23 was used to analyze the data, specifically, the Kruskal Wallis, Mann Whitney U and hierarchical regression analysis were employed. The study revealed that academic adaptation and proficiency in the language of instruction were significant predictors of psychopathology. This emphasizes the value international university students place on academic attainment as their primary goal for migration. Psychopathology and academic adaptation have a dual-causal relationship with each other. The results suggest that ethnicity is linked to mental health outcomes. Students from Türkiye reported higher psychopathology scores than international students from other countries. The research outlined several factors that predict better adaptation. Integrative acculturation orientation and higher perceived financial status predicted sociocultural adaption. However, high home culture orientation was predictive of poor psychological adaptation. The finding suggests that efforts towards cultural integration are essential for well-being. The student who explores the local culture while staying secure in their ethnic identity and culture will experience less pathology.

Keywords: Acculturation, adaptation, international students, psychopathology, cultural distance.

¹Assist. Prof. Dr. Near East University, Faculty of Arts and Science, Psychology Department, Lefkoşa, TRN Cyprus, e-mail: Gloria.manyeruke@neu.edu.tr Orcid Id: 0000-0001-6226-3779

²Prof. Dr. Cyprus Science University, Department of Economics, Administrative and Social Sciences, Psychology Department Girne-TRN Cyprus, e-mail: dr.ebrutansel@gmail.com Orcid: 0000-0002-6106-5911

Address of Correspondence/Yazışma Adresi: Gloria Manyeruke, Near East University, Faculty of Arts and Science, Psychology Department, Lefkoşa-Kıbrıs, Mersin 10 – Turkey, E-mail: Gloria.manyeruke@neu.edu.tr

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Öz:

Uluslararası öğrencilerin sayısı küresel olarak arttıkça, uluslararası öğrencilerin yaşadığı zorluklar da giderek daha fazla ilgi çekmektedir. Bu çalışma, Kuzey Kıbrıs'taki uluslararası üniversite öğrencilerinin akademik, sosyokültürel ve psikolojik uyumlarını ve iyi oluşunu araştırmaktadır. Kolayda örnekleme yöntemi kullanılarak 524 üniversite öğrencisinden oluşan örneklem seçilmiştir. Örneklem Kıbrıslı Türk yerel öğrencilerden ve Türkiye ve diğer ülkelerden gelen uluslararası öğrencilerden oluşmuştur. Verilerin analizinde SPSS 23 kullanılmıştır, Kruskal Wallis, Mann Whitney U ve hiyerarşik regresyon analizi yapılmıştır. Çalışma, akademik uyum ve eğitim dilindeki yeterliliğin psikopatolojinin önemli yordayıcıları olduğunu ortaya çıkardı. Bu, uluslararası üniversite öğrencilerinin göç için birincil hedef olarak akademik başarıya verdikleri değeri vurgulamaktadır. Psikopatoloji ve akademik uyum birbiriyle ikili nedensel bir ilişkiye sahiptir. Sonuçlar etnik kökenin zihinsel sağlık sonuçlarıyla bağlantılı olduğunu göstermektedir. Türkiye'den gelen öğrenciler diğer ülkelerden gelen uluslararası öğrencilere göre daha yüksek psikopatoloji puanları bildirdiler. Araştırma, daha iyi adaptasyonu öngören çeşitli faktörleri ortaya koymuştur. Bütünleştirici kültürleşme yönelimi ve daha yüksek algılanan mali durum, sosyokültürel uyumu arttırmaktadır. Yüksek ev kültürü yönelimi, zayıf psikolojik uyumun yordayıcısıdır. Bulgular, kültürel entegrasyona dönük çabaların iyilik hali için gerekli olduğunu göstermektedir. Etnik kültürü ve kimliği içinde güvende kalarak yerel kültürü keşfeden öğrenci daha az patolojiyle karşılaşacaktır.

Anahtar Kelimeler: Kültürleşme, uyum, uluslararası öğrenciler, psikopatoloji, kültürel mesafe.

Introduction

Tertiary education has become an integral part of survival in modern-day society however, it poses its own challenges to the developing individual. University students are believed to experience greater levels of stress, anxiety, and psychological distress than the rest of the general population and other occupational groups (Stallman, 2010). Among the subdivisions of university students, international students have been identified as one of the most vulnerable groups to mental health problems (Chen et al., 2020). On entering tertiary education students must adjust to the academic requirements of higher education as well as the added responsibility of living away from family. For international students, cross-cultural adjustment stress is also added to their potential stressors (Yusoff & Chelliah, 2010). Challenges for this group of students include adjusting to the host environment, acculturative stress, lack of belonging, depression, and stress (Brunsting et al., 2018). These psychosocial challenges are associated with poor academic integration, poor academic achievement, and even suicidal ideation (Brunsting et al., 2018).

It is estimated that by 2030 the international student body will amount to 6.9 million (Choudaha & Van Rest, 2018). International students are important in improving relationships between countries, reducing prejudice, hostility, discrimination, and intergroup conflicts (Kornienko et al., 2017). This necessitates research to help these students adapt to tertiary education. Sociocultural, psychological, and academic adaptation are the three dimensions of adaptation relevant to international students. Sociocultural adaptation is the ability to effectively deal with daily life in the host culture while psychological adaptation encompasses a clear sense of individual and cultural identity, subjective satisfaction with the host culture as well as good psychological health (Berry, 1997). Academic adaptation on the other hand is concerned with adjusting to the academic institution (Souza et al., 2021). Central to academic adaptation is how the individual interacts with and incorporates the

experience of being inserted into a new academic environment and vocational transitions.

Acculturation refers to the process of adopting the cultural values and practices that are distinct from the individual or the group's home culture. Adapting to the prevailing culture of society involves social, psychological, and cultural change. The acculturation process can either be positive or negative. Positive acculturation increases the chances of survival, opportunities as well as psychological health as the individual interacts with a culture and people foreign to them. Negative consequences can be attributed to the challenges inherent to change and adapting to new society and cultural expectations (Berry et al., 1987). A successful temporary stay in an alien culture is often understood as a question of adjustment.

Qualitative research has revealed that international students often experience social isolation, academic difficulties and cultural adjustment challenges (Wu et al., 2015). The academic challenges they face are associated with communicating with staff, lecturers and other students or even isolation from other groups. International students have to learn to think and behave in ways considered appropriate by the resident population. Hussain and Shen (2019) identified 3 challenges that delimit international students' academic adaptation which include proficiency in the local language, academic, and socio-cultural challenges. International students experience various problems which range from culture shock, loneliness, homesickness, problems comprehending lectures, food and lodging problems, and challenges interacting with the local population and understanding host nation society norms (Hussain & Shen, 2019). Despite this multitude of challenges, the majority of international students successfully graduate from university.

The current research aims to compare academic adaptation and psychological well-being between local and international university students. Few studies compare local and international student samples when exploring adaptation (Volkova & Kolesov, 2022) while most focus

on international students (Bethel et al., 2020; Sheng et al., 2022). The first hypothesis states that local students have better academic adaptation and psychological well-being than international students. The second hypothesis assumes that among international students, the students from Türkiye have less cultural distance from the local culture therefore, they experience better academic, sociocultural, and psychological adaptation as well as psychological well-being. The third hypothesis assumes that cultural distance predicts adaptation and psychopathology.

Methods

The current research is quantitative research that utilizes a comparative research model to investigate the difference in psychological, sociocultural and academic adjustment between international students from Türkiye and international students from other countries. Comparative research is employed to analyze phenomena and assess similarities and distinctions (Drobnič, 2014). A comparison is also carried out between local students and the two groups of international students.

Participants and sampling

The data for this study was collected from a sample of international and local students. The participants were divided into 3 categories. The first group was international students from Türkiye, the second group was comprised of international students from other countries while the third group, a sample of local students was used as the control group on the measures of psychological health and academic adaptation. The researcher employed convenience sampling to determine the sample for this study. 384 is the optimal sample size for an infinite population size, for a confidence level of 95% and 5% error (Pathak, 2013). To increase the reliability of results a sample of 524 students was used. The average age of the sample was 21.76, with a minimum age of 16 and a maximum of 42 years. 322 (59.2%) were Muslims, 165 (30.3%) were Christian and other religions 10.1% (n=55).

Measures

The socio-demographic variables included age, marital status, gender, perceived financial status, average expenditure a month, source of income, first language, English proficiency, Turkish proficiency, access to leisure activities, native country, religion and grade point average (GPA). In the study, acculturation measures, Academic Adjustment Scale and Symptom Checklist-90 places were applied. Turkish versions of all scales were provided for the Turkish students.

The acculturation measures include 4 scales designed by Demes and Geeraert (2014). The scales include the Brief Sociocultural Adaptation scale, Brief Psychological adaptation scale, Brief Perceived Cultural Distance Scale and the Brief Acculturation orientation scale. Demes and Geeraert (2014) translated the acculturation measure in Turkish language.

The Brief Sociocultural Adaptation scale (BSAS)

The BSAS is a 12-item scale measured on a seven-point Likert-type scale. The scale seeks to identify the main dimension of adjustments immigrants face. The scale has a reliability of 0.85 Cronbach's alpha. The reliability score of the Turkish translation was 0.84 (Demes & Geeraert, 2014).

The Brief Psychological Adaptation Scale (BPAS)

The BPAS has 8 items that were designed to measure challenges in adaptation such as the anxiety of interacting with the indigenous population and missing friends and family. The scale uses a seven-point Likert scale. The BPAS has a reliability of 0.72 (Demes & Geeraert, 2014). It has a reliability coefficient of 0.84 (Demes & Geeraert, 2014).

The Brief Perceived Cultural Distance Scale (BPCDS)

The BPCDS was designed to compare difference between the home country and host country of the participants on the aspect of food, language and climate among others. The scale has 12 items measured on a seven-point Likert scale. The reliability coefficient of the BPCDS is 0.79. The Turkish version had a reliability coefficient of 0.87 (Demes & Geeraert, 2014).

The Brief Acculturation Orientation Scale (BAOS)

The BAOS has 8 items measured on a seven-point Likert scale. It measures acculturation orientation towards the host as well as the home country independently. The reliability scores of home factors are 0.79 and 0.80 for host factors. The Turkish versions have reliability coefficients of 0.86 for home orientation and the BAOS host orientation of 0.89 (Demes & Geeraert, 2014).

Academic Adjustment Scale (AAS)

It is a nine-item scale measured measuring responses on a Likert-type scale. The scale has 3 subscales: academic lifestyle, academic achievement, and academic motivation. The academic adjustment scale is reliable at above 0.70 alpha Cronbach coefficient which is constant after the test-retest revealing the stability of the factors being measured. This scale was designed by Anderson et al. (2016).

The scale was translated to Turkish and the reliability-validity study was made by the authors. A Turkish version of this scale was provided through a forward and backward translation of the scale. The reliability of the Turkish translation of the SSAAS was investigated using measures of internal consistency and a score of 0.603 Cronbach Alpha was attained. The internal consistency scores for each subscale were found to be 0.289 Cronbach Alpha for lifestyle, 0.615 Cronbach Alpha for achievement, and 0.453 Cronbach Alpha for motivation. Item analysis was carried out by correlating each item to the total and all items were significantly correlated to the total ($p=0.000$). 27% sub-upper group consistency revealed that there were significant differences were found between the two groups ($p=0.025$). Structural validity of the Turkish translation of the SSAAS was carried out and all subscales were found to be significantly correlated to each other ($p=0.000$).

Symptom checklist 90- revised (SCL-90-R)

The SCL-90 is a measure of psychopathology designed by Derogatis in the 1970s (Derogatis & Unger, 2010). The measure is a self-report inventory containing 90 items. The items represent ten subscales measuring psychiatric namely, obsessive-compulsive, phobic anxiety, anxiety, somatization, hostility, depression, paranoid ideation, psychoticism, interpersonal sensitivity and general symptoms. A Likert-type scale is used to measure distress. The scores on the scale range from 0 representing not at all to 4 meaning quite a bit. Buckelew et al. (1988) reported that the scale had good internal consistency. The Cronbach's Alpha coefficient α ranges between 0.77 and 0.90. The repeated measures reliability of the SCL-90

ranged between 0.80 to 0.90 at weekly intervals. A Turkish version of the Symptom Checklist was employed to measure psychological health among Turkish-speaking students. The translation was carried out by Dag (1991) and it has a reliability of 0.97 Cronbach alpha.

Procedure

The study commenced after receiving ethics approval from the Near East University ethics committee (application number: DÜ/SB/2019/414, date: 17.04.2019). The data was collected using a structured questionnaire.

The sociodemographic data questionnaire academic adaptation scale and SCL-90 were administered to all participants while data for the adaptation scales was collected from the two sample groups of international students.

Data Analysis

The quantitative data collected was analysed through of the use of SPSS version 23. Normality was tested using measures of Kurtosis and Skewness. The data was not normally distributed. The Mann-Whitney test was used to determine differences between local and international students as well as differences between the different groups of international students. Hierarchical regression analyzed causes or psychopathology and adaptation problems.

Results

The Mann-Whitney test represented in Table 1 reveals that there are significant differences in academic adaptation between local and international students but no significant differences in psychopathology.

Table 1. Comparison of academic adjustment and psychopathology between local and international students.

Variable	Students group	n	Mean rank	U	Z	P
Academic adaptation	Local	35	311.91	6373.00	-.685	0.020*
	International	476	251.89			
Somatization	Local	34	235.53	7413.00	-6.85	0.493
	International	469	253.19			
Obsessive-compulsive	Local	34	222.29	6993.00	-1.253	0.210
	International	470	254.69			
Interpersonal sensibility	Local	34	221.04	6920.50	-1.214	0.225
	International	465	252.12			
Depression	Local	34	227.49	7139.50	-.944	0.345
	International	465	251.65			
Anxiety	Local	35	230.09	7423.00	-.908	0.364
	International	470	253.10			
Anger hostility	Local	34	242.25	7641.50	-.486	0.627
	International	473	254.84			
Phobic anxiety	Local	35	251.16	8160.50	-.078	0.938
	International	470	253.14			
Paranoid ideation	Local	35	237.24	7673.50	-.564	0.573
	International	470	251.50			
Psychotism	Local	35	209.70	6709.50	-1.700	0.089
	International	463	252.51			
SCL 90 total	Local	30	208.53	5791.00	-.638	0.523
	International	415	224.05			

*p<0.05**p<0.01

Table 2. Comparison of adaptation and psychological health between international students from Turkiye and other international students in TRNC

Variable		N	Mean Rank	U	p
Academic adaptation	Turkish	257	231.92	26451.0	0.225
	Other	220	247.27		
Sociocultural adaptation	Turkish	175	175.51	153150.	0.105
	Other	194	193.56		
Psychological adaptation	Turkish	176	166.45	13728.50	0.001**
	Other	193	201.92		
Cultural distance	Turkish	170	145.42	10186.0	<0.001**
	Other	182	201.92		
Home Orientation	Turkish	176	145.42	16650.5	0.877
	Other	190	205.53		
Host orientation	Turkish	177	183.33	17167.0	0.998
	Other	194	184.82		
Somatization	Turkish	258	255.38	22218.50	<0.001**
	Other	212	211.30		
Obsessive-compulsive	Turkish	259	260.49	21110.0	<0.001**
	Other	212	206.08		
Interpersonal sensibility	Turkish	261	250.02	22439.50	0.003*
	Other	205	212.46		
Depression	Turkish	259	252.30	21938.0	<0.001**
	Other	207	209.98		
Anxiety	Turkish	262	247.12	23680.0	0.022*
	Other	206	218.45		
Anger hostility	Turkish	262	257.97	22408.50	<0.001**
	Other	212	212.20		
Phobic anxiety	Turkish	260	247.12	24539.50	0.048*
	Other	211	222.30		
Paranoid ideation	Turkish	257	246.88	23418.00	0.017*
	Other	209	217.05		
Psychoticism	Turkish	257	243.45	23785.5	0.050*
	Other	207	218.91		
Psychopathology total	Turkish	230	228.36	16822.5	<0.001**
	Other	186	183.94		

*p<0.05**p<0.01

The Mann-Whitney test results tabulated in Table 2 reveal no significant differences were seen in the total score of academic adaptation.

Significant differences were seen in psychological adaptation and cultural distance, where students from

Turkiye had significantly lower cores. There were no significant differences in sociocultural adaptation home orientation, or host orientation.

There were significant differences in psychopathology and all its subscales.

Table 3. Hierarchical Regression Analysis for Variables Predicting Psychopathology.

Variables	Model 1 (R ² =0.065)			Model 2 (R ² =0.152)		
	B	SE	β	B	SE	B
Cultural distance	-0.117	3.547	-0.002	1.376	3.857	0.027
Home orientation	-2.373	3.563	-0.051	-1.414	3.500	-0.031
Host orientation	7.168	3.693	0.146	5.157	3.799	0.105
Academic Adaptation	-1.895	0.835	-0.155*	-1.832	0.826	-0.150*
Sociocultural Adaptation	-8.313	4.671	-0.129	-6.776	4.791	-0.105
Psychological Adaptation	-4.235	4.872	-0.059	-1.696	4.890	-0.024
Age				-2.626	1.711	-0.117
Year of study				4.591	4.419	0.078
CGPA				-5.564	5.171	-0.078
Average expenditure				14.568	8.360	0.226
Financial status				-10.564	7.902	-0.095
Source of income				6.719	7.173	0.063
Proficiency in the language of instruction				-25.142	8.898	-0.204*
Access to leisure activities				2.848	6.847	0.029
Religion				-1.414	7.382	-0.013

In Table 3 the first model with acculturation measures accounts for 7% variance in psychopathology. Academic adaptation is the only measure with a significant beta weight. Model 2 introduced demographic factors. The

model accounts for 15% variance in mental health, academic adaptation and proficiency in the language of instruction have significant beta weights.

Table 4. Hierarchical Regression Analysis for Variables Predicting Academic Adaptation.

Variables	Model 1 (R ² =0.061)			Model 2 (R ² =0.082)			Model 3 (R ² =0.118)		
	B	SE	B	B	SE	B	B	SE	B
Sociocultural adaptation	0.896	0.378	0.170*	0.771	0.378	0.146*	0.669	0.404	0.127
Psychological adaptation	0.347	0.398	0.059	0.286	0.395	0.049	0.379	0.412	0.064
Cultural distance	0.230	0.290	0.054	0.223	0.287	0.053	0.319	0.325	0.076
Home orientation	0.519	0.290	0.137	0.477	0.287	0.053	0.433	0.294	0.114
Host orientation	-0.428	0.301	-0.107	-0.328	0.301	-0.082	-0.408	0.321	-0.102
Psychopathology				-0.012	0.005	-0.149*	-0.013	0.006	-0.159*
Age							-0.198	0.145	-0.107
Year of study							0.165	0.374	0.034
CGPA							0.425	0.437	0.073
Average expenditure							0.216	0.711	0.041
Financial status							.0639	0.668	0.070
Source of income							0.833	0.604	0.096
Proficiency in Language of instruction							-0.275	0.756	-0.027
Access to leisure activities							-0.117	0.578	-0.014
Religion							-0.841	0.620	-0.097

In table 4 the first model analysis the impact of acculturation measures on academic adaptation. Acculturation measures account for a 6% variance on academic adaptation, only sociocultural adaptation had a significant beta weight. In the second model psychopathology is added, resulting in an 8% variance in

academic adaption scores. Sociocultural adaptation and psychopathology had a significant beta weight. In the third model demographic variables were had. The third model shows a 12% variance in academic adaptation, only psychopathology had a significant beta weight.

Table5. Hierarchical Regression Analysis for Variables Predicting Sociocultural Adaptation

Variables	Model 1 (R ² =0.161)			Model 2 (R ² =0.172)			Model 3 (R ² =0.223)		
	B	SE	B	B	SE	B	B	SE	β
Psychological adaptation	0.13	0.071	0.123	0.129	0.071	0.115	0.072	0.071	0.065
Cultural distance	0.050	0.052	0.062	0.049	0.052	0.061	0.044	0.056	0.055
Home orientation	0.134	0.051	0.186*	0.128	0.051	0.178*	0.115	0.051	0.160*
Host orientation	0.147	0.053	0.193*	0.158	0.053	0.207*	0.171	0.055	0.224*
Academic Adaptation	0.029	0.012	0.115*	0.025	0.012	0.131*	0.020	0.012	0.106
Psychopathology				-0.002	0.001	-0.114	-0.001	0.001	-0.094
Age							-0.031	0.025	-0.088
Year of study							-0.011	0.065	-0.012
CGPA							-0.075	0.076	-0.067
Average expenditure							0.066	0.123	0.066
Perceived Financial status							0.318	0.114	0.183*
Source of income							0.074	0.105	0.045
Proficiency in language of instruction							0.098	0.134	0.051
Access to leisure activities							-0.112	0.100	-0.073
Religion							0.040	0.108	0.025

Table 5 shows that there is a 16% variance in sociocultural adaptation in model 1, home orientation, host orientation and academic adaptation had significant beta weights. In model 2 psychopathology is added resulting in a 17% variance in sociocultural adaptation. The same 3 variables

had significant beta weights. The last model included demographic variables and showed 22% variance in sociocultural adaptation. Home orientation, host orientation and financial status had significant beta weights.

Table6. Hierarchical Regression Analysis for Variables Predicting Psychological Adaptation

Variables	Model 1 (R ² =0.048)			Model 2 (R ² =0.051)			Model 3 (R ² =0.089)		
	B	SE	B	B	SE	B	B	SE	β
Cultural distance	0.066	0.050	0.091	0.065	0.050	0.091	0.025	0.056	0.035
Home orientation	-0.117	0.049	-0.181*	-0.118	0.049	-0.184*	-0.120	0.050	-0.186*
Host orientation	0.027	0.052	0.040	0.033	0.052	0.049	0.039	0.055	0.057
Academic Adaptation	0.010	0.0012	0.060	0.009	0.012	0.050	0.011	0.012	0.065
Sociocultural Adaptation	0.127	0.065	0.140	0.120	0.066	0.133	0.070	0.069	0.078
Psychopathology				-0.001	0.001	-0.060	0.000	0.001	-0.025
Age							0.007	0.025	0.024
Year of study							0.033	0.064	0.040
CGPA							-0.010	0.075	-0.010
Average expenditure							-0.046	0.121	-0.051
Financial status							0.056	0.114	0.036
Proficiency in language of instruction							0.118	0.130	0.069
Access to leisure activities							-0.051	0.099	-0.037
Religion							0.178	0.106	0.121

Table 6 reveals that acculturation measures account for 5% variance in psychological adaptation in model 1. Only home orientation had a significant beta weight. Model 2 adds psychopathology and variance remains at 5% with home orientation as the only variable with a significant beta weight. The third model introduces demographic data. The model accounts for 11% variance in psychological adaptation, only home orientation had a significant beta weight.

Discussion

The current study aims to investigate the influence of adaptation and acculturative factors on the psychological well-being of international students in the Turkish Republic of Northern Cyprus. The initial analysis compared the academic adaptation and psychological

well-being of local and international students. The results reveal significant differences in academic adaptation but no significant differences in psychopathology. Local students had significantly better academic adaptation. This is contrary to research by Volkova and Kolesov (2022) who found no significant differences in academic adaptation between local and international students at an English medium school in Russia. These results were attributed to the adoption of an inclusive and student-centered approach to education by educational institutions. Academic adaptation is a multifaceted process that involves adjusting to the standards, processes, and values of the new institution, teaching formats, time management, preparing for employment, intrapersonal as well as interpersonal dynamics (Matta, et al., 2017; Oliveira et al., 2014). Familiarity with the social and cultural frameworks

in which the institutions operate allows local students to have a more seamless transition into tertiary education. Transitions in social, vocational, and personal frameworks are also inherent in academic adaptation (Souza et al., 2021). Local students may also not experience some of the changes associated with academic adjustment for university students such as residing away from home, language proficiency and establishing new interpersonal relationships.

The results of the study revealed that there were no significant differences in psychopathology between local and international students. This is contrary to most research which suggests that international students have poorer psychological health than local students (Forbes-Mewett & Sawyer, 2016; Skromanis et al., 2018). Often the differences are attributed to poor access to targeted and culture-sensitive health care services as well as less help-seeking behaviors. The differences seen in the results of this research suggest that international and local students are given equitable access to healthcare services and culture-sensitive mental health support.

The study compared the psychopathology between international students from Türkiye and other countries. International students from Türkiye had higher scores of psychopathologies. These results are in contrast with other research that suggests that reduced cultural distance and ethnic density are protective factors against mental health problems (Galchenko & Vijer, 2007; Feng et al., 2013). Feng et al. (2013) suggests that ethnic density increases social interaction which in turn acts as a protective factor against psychological problems while reduced cultural distance improves adaptation and psychological health (Galchenko & Vijer, 2007). Although students from Türkiye have a high ethnic density in North Cyprus, they are seen to experience more psychological problems. The mental health challenges among international students from Türkiye students may be attributed to increased perceived discrimination (Ladum & Burkholder, 2019). The relationship between discrimination and psychological health problems is well-established in the literature (Okolie & Manyeruke, 2024).

Furthermore, the World Health Organization reported that there has been an exponential increase in mental health problems among individuals in Türkiye because of repeated natural disasters, economic challenges as well as migration (WHO, 2023). Since 2020, 10 natural disasters were documented predominantly earthquakes, but floods, a wildfire and a snow avalanche were also listed (ADRC, 2019). Natural disasters are a source of psychological trauma and impair mental health (Ergun & Senguz, 2022; Bulut, 2023). Furthermore, sociocultural factors like migration and economic problems have been associated with psychological challenges (Çakici et al., 2017). The results also suggest that there may be ethnic differences that influence psychological well-being. Campbell et al. (2022) also identified ethnicity has been identified as a factor that can affect psychological health (Campbell et al., 2022; Chang et al., 2014; Kodish et al., 2022). Some ethnic differences can be attributed to access to mental health services and help-seeking patterns (Chiu et al., 2018).

The data suggests that academic adaptation and proficiency in the language of instruction are significant predictors of psychopathology. Similarly, Silva et al. (2021) identified academic adaptation as a predictor of psychopathology. Numerous studies also outlined the

relationship between academic adaptation and mental health problems like depression and anxiety (Xie et al., 2022; Maroco et al., 2020; Çakici Eş et al., 2020). This suggests that experiences within the academic context such as understanding the structure of tertiary education and enjoying educational processes are important for mental health. Furthermore, poor language skills have frequently been linked to mental health problems (OASH, 2023; Miteva et al., 2022). It should also be noted that the predictive relationship between psychopathology and academic adaptation is two-way. The results reveal that psychopathology also predicts poor academic adaptation. According to Qin (2019), an increasing number of international students indicate that mental health problems affect their academic performance.

The study compared psychological, sociocultural, and academic adaptation, cultural distance as well as acculturation orientation between international students from Türkiye and other countries. Significant differences were seen in psychological adaptation, and cultural distance but not sociocultural adaptation, academic adaptation, and acculturation orientation. International students from Türkiye have significantly less cultural distance from the local culture. Cultural distance focuses on differences in language, religion, climate, family structure, values, wealth and lifestyle between two cultures. Turkish Cypriots, the inhabitants of North Cyprus have a shared history with citizens of Türkiye. The history of Türkiye and Cyprus can be traced back as far back as 1571 as part of the conquest of the Ottoman Empire. Turkish immigrants settled in Cyprus and brought the religious practices, social and political models of the Ottoman to Cyprus. Türkiye and North Cyprus share a linguistic, historical, cultural and religious background (Ladum & Burkholder, 2019).

The results reveal that international students from other countries had significantly higher psychological adaptation scores than international students from Türkiye. This is congruent with results of a study by Ladum and Burkholder (2019) which suggests that higher Turkish proficiency increases acculturative stress and unmet expectations which predict poor emotional responses. It is suggested that better proficiency in the local language leads to increased perception of discrimination which has a negative effect on psychological adaptation. Furthermore, local language proficiency increases interaction with the local population which in turn increases experiences of discrimination (Ladum & Burkholder, 2019). Gokbulut et al. (2019) state that students from Türkiye in North Cyprus expect equal opportunities as local students, freedom of cultural expression, socialization, and positive support from society and instructors. Discriminatory practices frustrate expectations of ingroup membership in the context of continued close economic and political ties between Türkiye and North Cyprus.

Furthermore, the results show that home culture orientation was a significant predictor of psychological adaptation. This is similar to research by Lucena et al. (2020) that stated that home culture orientation was associated with poor psychological and sociocultural adaptation. Being more home culture-oriented makes the individual less likely to adopt an integrative acculturative approach which is associated with better adaptation (Berry, 1997). The individual may withdraw from the host

culture and place more reliance on the home culture, against the potential for acculturation and adaptation. Home culture orientation is associated with the social perception of discrimination, isolation, hopelessness, pessimism, and other maladaptive behavioral strategies (Demes & Geeraert, 2014; Maydell-Stevens et al., 2007).

The findings show that higher home and host culture orientation as well as perceived financial status were significant predictors of sociocultural adaptation. According to Berry (1997), cultural integration is characterized by an individual adopting the host culture's norms and also maintaining their home culture. This leads to biculturalism which increases the resources the individual employs solve emerging problems. This integrative approach is viewed to be adaptive for immigrants. Financial status also enables the individual to experience the host culture in more positive ways. This is similar to the assertion by Yerken et al. (2022), that financial dissatisfaction is associated with sociocultural adaptation problems.

Conclusion

The current study investigated the factors that affect adaptation among international students and how adaptation and acculturative factors affect psychopathology among international students. The results suggest that poorer academic adaptation, poor proficiency in the language of instruction as well as being from Türkiye were all associated with greater psychopathology. Educational attainment is the foremost objective for international students which explains the predictive relationship shared between academic adaptation and mental health. The results suggest a link between ethnicity and mental health.

The study reveals that integrative acculturation orientation (host and home culture orientation) as well as perceived financial status predict sociocultural adaptation. Having a high home culture orientation was associated with poor psychological adaptation while psychopathology predicted academic adaptation. It should be noted that

psychopathology and academic adaptation have a two-way causal relationship.

In light of the challenges being experienced by students from Türkiye, universities should provide psychological support that is tailored for Turkish students such as support groups for natural disaster victims, financial relief programs, and discrimination protocols should be put in place for reporting and addressing such problems.

Declarations

Ethics Approval and Consent to Participate

The study obtained permission from the Ethics Committee of Near East University with application number DÜ/SB/2019/414, date: 17.04.2019. Ethical rules were followed during the study, and consent forms were obtained from the participants. Approval was also obtained from the Near East University Board of Directors for data collection at the schools.

Publication Permission:

Not applicable.

Availability of Data and Materials:

Not applicable.

Conflict of Interest:

The authors declare that they have no conflict of interest.

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Author Contributions:

GM contributed to the conceptualization, writing of the method, data collection, analysis, and interpreted data. ET contributed to the conceptualization of the research, analysis of data, translations, editing, and proofreading of the article. Both authors have read and approved the final version of the article.

References

ADRC (2019). *Information on Disaster Risk Reduction of the Member Countries*.

<https://www.adrc.asia/nationinformation.php?NationCode=792&Lang=en&NationNum=39>

Anderson, J. R., Guan, Y., & Koc, Y. (2016). The academic adjustment scale: Measuring the adjustment of permanent resident or sojourner students. *International Journal of Intercultural Relations*, 54, 68–76. <https://doi.org/10.1016/J.IJINTREL.2016.07.006>

Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative Studies of Acculturative Stress. *The International Migration Review*, 21(3), 491–511. <https://doi.org/10.2307/2546607>

Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology: An International Review*, 46(1), 5–34.

<https://doi.org/10.1111/j.1464-0597.1997.tb01087.x>

Bethel, A., Ward, C. & Fetvadjev, V. H. (2020) Cross-Cultural Transition and Psychological Adaptation of International Students: The Mediating Role of Host National Connectedness. *Front. Educ.* 5, 539950. doi: 10.3389/educ.2020.539950

Brunsting, N. C., Zachry, C., & Takeuchi, R. (2018). Predictors of undergraduate international student psychosocial adjustment to US universities: A systematic review from 2009-2018. *International Journal of Intercultural Relations*, 66, 22–33. <https://doi.org/10.1016/J.IJINTREL.2018.06.002>

Buckelew, S., Burk, J., Brownlee-Duffeck, M., Frank, R., & DeGood, D. (1988). Cognitive and somatic aspects of depression among a rehabilitation sample: Reliability and validity of SCL-90-R research subscales. *Rehabilitation Psychology*, 33(2), 67–75. doi:10.1037/h0091679

- Bulut, A. (2023). The Relationship between Natural Disasters and Mental Health, *Cyprus Turkish Journal of Psychiatry & Psychology*, 5(3), 265-273.
- Çakıcı Eş, A., Öneri Uzun, G. & Güldal Kan, Ş. (2020). Investigation of Loneliness and Anxiety Processes of University Students. *Cyprus Turkish Journal of Psychiatry and Psychology*, 2(2): 68-74. doi:10.35365/ctjpp.20.02.10
- Çakıcı, M., Gökçe, Ö., Babayiğit, A., Çakıcı, E., & Eş, A. (2017). Depression: point-prevalence and risk factors in a North Cyprus household adult cross-sectional study. *BMC Psychiatry*, 17(1), 387. <https://doi.org/10.1186/s12888-017-1548-z>
- Campbell, F., Blank, L., Cantrell, A., Baxter, S., Blackmore, C., Dixon, J., & Goyder, E. (2022). Factors that influence mental health of university and college students in the UK: a systematic review. *BMC Public Health*, 22(1), 1778. <https://doi.org/10.1186/s12889-022-13943-x>
- Chang, T. E., Weiss, A. P., Marques, L., Baer, L., Vogeli, C., Trinh, H. T., Clain, A. J., Blais, M. A., Fava, M., & Yeung, A. S. (2014). Race/ethnicity and other social determinants of psychological well-being and functioning in mental health clinics. *Journal of Health Care for the Poor and Underserved*, 25(3), 1418–1431. <https://doi.org/10.1353/hpu.2014.0138>
- Chen, J. H., Li, Y., Wu, A. M. S., & Tong, K. K. (2020). The overlooked minority: Mental health of International students worldwide under the COVID-19 pandemic and beyond. *Asian Journal of Psychiatry*, 54, 102333. <https://doi.org/10.1016/j.ajp.2020.102333>
- Chiu, M., Amartey, A., Wang, X., & Kurdyak, P. (2018). Ethnic Differences in Mental Health Status and Service Utilization: A Population-Based Study in Ontario, Canada. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 63(7), 481–491. <https://doi.org/10.1177/0706743717741061>
- Choudaha, R. & Van Rest, E. (2018). *Megatrends shaping the future of global higher education and international student mobility*. Study Portals. chrome-extension://efaidnbmnfnkibaajiiaceknfajnllah/https://www.studyportals.com/wp-content/uploads/2018/01/Report-Envisioning-Pathways-to-2030-Studyportals-2018.pdf
- Dag, I. (1991). Reliability and validity of the Symptom Checklist (SCL-90-R) for university students. *Türk Psikiyatri Dergisi*, 2, 5-12
- de Lucena, M. S., Hoersting, R. C., & Modesto, J. G. (2020). The sociocultural and psychological adaptation of Syrian refugees in Brazil. *PSICO*, 51(3), 1–12.
- Demes, K. A., & Geeraert, N. (2014). Measures matter: Scales for adaptation, cultural distance, and acculturation orientation revisited. *Journal of Cross-Cultural Psychology*, 45(1), 91–109. <https://doi.org/10.1177/0022022113487590>
- Derogatis, L. R., & Unger, R. (2010). Symptom checklist-90-revised. *The Corsini Encyclopedia of Psychology*, 1–2. doi: 10.1002/9780470479216.corpsy0970
- Drobnič, S. (2014). Comparative Analysis. In: Michalos, A.C. (eds) *Encyclopedia of Quality of Life and Well-Being Research*. Springer. https://doi.org/10.1007/978-94-007-0753-5_492
- Ergün, D. & Şenyüz, S. (2022) Prolonged grief disorder among bereaved survivors after the 2011 Van Earthquake in Turkey. *Death Studies*, 46(6), 1364371, DOI: 10.1080/07481187.2021.1884624
- Feng, X., Astell-Burt, T., & Kolt, G. S. (2013). Do social interactions explain ethnic differences in psychological distress and the protective effect of local ethnic density? A cross-sectional study of 226 487 adults in Australia. *BMJ open*, 3(5), e002713. <https://doi.org/10.1136/bmjopen-2013-002713>
- Forbes-Mewett, H. & Sawyer, A. (2016). International Students and Mental Health. *Journal Of international students*, 6(3), 661-677. <https://doi.org/10.32674/jis.v6i3.348>
- Galchenko, I., & van de Vijver, F. J. R. (2007). The role of perceived cultural distance in the acculturation of exchange students in Russia. *International Journal of Intercultural Relations*, 31(2), 181–197. <https://doi.org/10.1016/j.ijintrel.2006.03.004>
- Gökbulut, B., Yeniasır, M. & Karabacak, H. E. (2019). Opinions and Expectations of Turkish and Foreign National Students Studying at Northern Cyprus Universities Concerning Multicultural and Inclusive/Integrated Education Settings. *Education Sciences*, 9(1):9. <https://doi.org/10.3390/educsci9010009>
- Hussain, M. & Shen, H. (2019). A Study on Academic Adaptation of International Students in China. *Higher Education Studies*, 9(4), 80-91. DOI: 10.5539/hes.v9n4p80
- Kodish, T., Lau, A. S., Gong-Guy, E., Congdon, E., Arnaudova, I., Schmidt, M., Shoemaker, L., & Craske, M. G. (2022). Enhancing Racial/Ethnic Equity in College Student Mental Health Through Innovative Screening and Treatment. *Administration and Policy in Mental Health*, 49(2), 267–282. <https://doi.org/10.1007/s10488-021-01163-1>
- Kornienko, A. A., Shamrova, D. P., Kvesko, S. B., Kornienko, A. A., Nikitina, Y. A., & Chaplinskaya, Y. I. (2017). Adjustment and Adaptation Problems Experienced by International Students in Aspect of Quality Management. In F. Casati, G. A. Barysheva, & W. Krieger (Eds.), *Lifelong wellbeing in the world-Wellso-2016* (pp. 359-361). Future Academy. DOI: 10.15405/epsbs.2017.01.48
- Ladum, A., & Burkholder, G. (2019). Psychological Adaptation of International Students in the Northern Part of Cyprus. *Higher Learning Research Communications*, 9 (1). DOI: 10.18870/hlrc.v9i1.436
- Marôco J, Assunção H, Harju-Luukkainen H, Lin S-W, Sit P-S, Cheung K-c, et al. (2020) Predictors of academic efficacy and dropout intention in university students: Can engagement suppress burnout? *PLoS ONE* 15(10). <https://doi.org/10.1371/journal.pone.0239816>
- Matta, C. M. B., Lebrão, S. M. G., & Heleno, M. G. V. (2017). Adaptação, rendimento, evasão e vivências acadêmicas no ensino superior: revisão da literatura. *Psicologia Escolar e Educacional*, 21(3), 583–591. doi:10.1590/2175-353920170213111118
- Maydell-Stevens, E., Masgoret, A. & Ward, T. (2007). Problems Of Psychological And Sociocultural Adaptation Among Russian-Speaking Immigrants in New Zealand.

Social Policy Journal Social Policy Journal of New Zealand: te puna whakaaro, 30, 178-198.
Fhdl.handle.net%2F10536%2FDRO%2FDU%3A30034195

Miteva, D., Georgiadis, F., McBroom, L., Noboa, V., Quednow, B. B., Seifritz, E., Vetter, S., & Egger, S. T. (2022). Impact of language proficiency on mental health service use, treatment and outcomes: "Lost in Translation". *Comprehensive Psychiatry*, 114, 152299. <https://doi.org/10.1016/j.comppsy.2022.152299>

OASH. (2023). *Healthy People 2030*. OASH. <https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/language-and-literacy>

Okolie, S. O. & Manyeruke, G. (2024). The impact of discrimination on the psychological well-being and ethnic identity of international students in North Cyprus. *Environment and Social Psychology*, 9(5): 2247. doi: 10.54517/esp.v9i5.2247

Oliveira, C. T., Wiles, J. M., Fiorin, P. C., & Dias, A. C. G. (2014). Percepções de estudantes universitários sobre a relação professor-aluno. *Psicologia Escolar e Educacional*, 18(2), 239–246. doi:10.1590/2175-3539/2014/0182739

Silva, G. O., Aredes, N. D. A., & Galdino-Júnior, H. (2021). Academic performance, adaptation and mental health of nursing students: A cross-sectional study. *Nurse education in practice*, 55, 103145. <https://doi.org/10.1016/j.nepr.2021.103145>

Pathak, R. R. (2013). Sample size: from formulae to concepts: II. *International Journal of Basic and Clinical Pharmacology*, 2(1), 94-95. doi: 10.5455/2319-2003.ijbcp20130119

Qin, X. (2019) Common Factors of Mental Health Challenges Among International Students. In P. Burak, *Addressing Mental Health Issues Affecting International Students*. NAFSA. <https://www.nafsa.org/sites/default/files/media/document/addressing-mental-health-chapter-1.pdf>

Sheng, L., Dia, J. & Lei, J. (2022). The impacts of academic adaptation on psychological and sociocultural adaptation among international students in China: The moderating role of friendship. *International journal of intercultural relations*, 89, 79-89. <https://doi.org/10.1016/j.ijintrel.2022.06.001>

Skromanis, S., Cooling, N., Rodgers, B., Purton, T., Fan, F., Bridgman, H., Harris, K., Presser, J., & Mond, J. (2018). Health and Well-Being of International University Students, and Comparison with Domestic Students, in Tasmania, Australia. *International journal of environmental research and public health*, 15(6), 1147. <https://doi.org/10.3390/ijerph15061147>

Souza, A. P. de, Murgu, C. S., & Barros, L. de O. (2021). Academic adaptation in university students: Associations with stress and sleep quality. *Psicologia: Teoria e Prática*, 23(3), 1–21. doi:10.5935/1980-6906/ePTPPA13275

Stallman, H. M. (2010). Psychological distress in university students: A comparison with the general population. *Australian Psychologist*, 45(4), 249-257. DOI: 10.1080/00050067.2010.482109

Volkova, N. V., & Kolesov, A. A. (2022). Adaptation Challenges of Domestic and International Students in a Russian English-Medium Instruction University. *Journal of international students*, 12(2). <https://doi.org/10.32674/jis.v12i2.3594>

WHO (2023). *Turkiye, Supporting Turkish mental health policy and service delivery*. WHO <https://www.who.int/about/accountability/results/who-results-report-2020-mtr/country-story/2020/supporting-turkish-mental-health-policy-and-service-delivery#:~:text=In%20the%20last%20years%2C%20the,downturn%20and%20COVID%2D19%20pandemic>

Wu, H., Garza, E. & Guzman, N. (2015). International Student's Challenge and Adjustment to College. *Education Research International*. <https://doi.org/10.1155/2015/202753>

Xie L, Zou W and Wang H (2022) School adaptation and adolescent immigrant mental health: Mediation of positive academic emotions and conduct problems. *Front. Public Health* 10, 967691. doi: 10.3389/fpubh.2022.967691

Yerken, A., & Nguyen Luu, L. A. (2022). A stepping stone to the "West": Academic adaptation of international students from post-Soviet countries in Hungary. *International Journal of Intercultural Relations*, 89, 183–194. <https://doi.org/10.1016/J.IJINTREL.2022.06.005>

Yusoff, Y. M. & Chelliah, S. (2010). Adjustment in International Students in Malaysian Public University. *International Journal of Innovation, Management and Technology*, 1(3).