



Araştırma Makalesi • Research Article

Acculturative Stress, Psychological Adjustment, and Future Orientation Among International Students in Turkey

Türkiye’de Uluslararası Öğrenciler Arasında Kültürleşme Stresi, Psikolojik Adaptasyon ve Gelecek Yönelimleri

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Abstract: The aim of this study is to examine the relationship between acculturative stress, psychological adjustment, and future orientation among international students in Turkey. A total of 650 students were included in this study and the participants completed the Acculturative Stress Scale for International Students (ASSIS), The College Adjustment Scale (CAS), and the future Orientation Questionnaire. The ethics committee permission of this study (dated 30.04.2022 and numbered 29533901-050.99-14329) was taken from the Ethics Committee of Kapadokya University. Results indicated that a positive correlation was found between acculturative stress, psychological adjustment, and future orientation. The analysis showed that gender differences in psychological adjustment showed statistical significance among the students. Also, female students reported higher scores on acculturative stress than male students and they were more prone to homesickness, fear, and interpersonal problems. These findings emphasize the potential role of psychological adjustment in relation to the future orientation. The necessary steps need to be taken to prevent acculturative stress factors for students. Interventions by universities, authorities, and other stakeholders should help prepare students socially and psychologically in the host culture for their future endeavors.

Keywords: Acculturative Stress, Psychological Adjustment, Future Orientation, International Students

Öz: Bu çalışmanın amacı, Türkiye’de uluslararası öğrenciler arasında kültürleşme stresi, psikolojik uyum ve gelecek yönelimi arasındaki ilişkiyi incelemektir. Araştırmaya 650 uluslararası öğrenci dahil edilmiş ve katılımcılardan veriler Uluslararası Öğrenciler için Kültürleşme Stresi Ölçeği (ASSIS), Üniversite Uyum Ölçeği (CAS) ve Gelecek Yönelim Anketinden elde edilmiştir. Bu araştırmanın etik kurul izni (30.04.2022 tarihli ve 29533901-050.99-14329 sayılı) Kapadokya Üniversitesi Etik Komisyonundan alınmıştır. Bulgular, kültürleşme stresi, psikolojik uyum ve gelecek yönelimi arasında pozitif bir ilişki bulunduğunu göstermiştir. Analiz, psikolojik uyumdaki cinsiyet farklılıklarının öğrenciler arasında istatistiksel olarak anlamlı olduğunu göstermiştir. Ayrıca, kız öğrenciler erkek öğrencilere göre kültürleşme stresinde daha yüksek puanlar bildirmişler ve vatan özlemi, korku ve kişilerarası sorunlara daha yatkın oldukları saptanmıştır. Bulgular, psikolojik uyumun gelecekteki yönelimle ilgili potansiyel rolünü vurgulamaktadır. Uluslararası öğrencilerin psikolojik uyumlarına yardımcı

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olmak onların hem kültürleşme stresini azaltacak hem de başarmak istedikleri hedeflerine yardımcı olacaktır. Üniversiter, sorumlu kişiler ve diğer ilgili kişiler öğrencilerin hem sosyal hem de psikolojik olarak adaptasyon sağlamaları için gerekli adımları atarak onların gelecekte başarmak için uğraştları hedefe katkıda bulunmalıdır.

Anahtar Kelimeler: Kültürleşme stresi, Psikolojik Adaptasyon, Gelecek Yönelimi, Uluslararası Öğrenci

Introduction

Many students enter to the foreign countries in hopes of beginning a new and better life for themselves (Bektaş et al., 2009). Attending college is an important milestone in the life of someone in a challenging environment. The aim of the international students is to pursue their aspirations at foreign universities as they move from own countries. While doing this, students often encounter new cultural experiences. This experience affects not only students' emotional, social, and psychological well-being, but also affects their acculturation behavior in the host country. According to many researchers (Berry, 1980; Güler, 2019; Güngör & Bornstein, 2009; Saygın & Hasta, 2018), acculturation is defined as the socialization process of an individual whose social, psychological, and cultural change occur in a new culture. People try to incorporate and adapt to new norms, values, and systems where cultural modification of an individual or group of people takes place in host culture. As this process is related to changes in behavior of the individual in a new system, acculturation involves acculturative stress due to numerous changes in psychological and physical well-being.

Acculturative stress is defined as a particular set of stress behaviors which occur during acculturation that may lowered mental health status (Akdağ & Koçak, 2020). Acculturation stress refers to the psychological and physiological disturbances which are experienced during the adaptation period to a new cultural environment. A person may experience confusion, anxiety, depression, feelings of marginality and alienation and other challenges due to acculturative stress (Şirin et al., 2019). International students can experience acculturative stress at personal or community levels that can have devastating effects on their behavioral and emotional functioning (Balcı & Ögüt, 2019). More briefly, acculturative stress is a response of the students to issues in their lives. Acculturative stress can bring a student to the point of helplessness, hopelessness, apathy, and the presence of an external locus of control or feeling of no control over one's life (Lueck & Wilson, 2010).

Many international students feel the stress and discomfort during the acculturation process, and this can cause psychological disturbances such as anxiety, emotional turmoil, and depression (Ahn et al., 2020). Factors such as personal freedom, economic independence, identity formation, being away from family, and living with people they do not know may cause problems. The study by Crockett et al. (2007) suggests that age, gender, family income, social support and openness play critical roles in facilitating the acculturation process and reducing its negative impact. On the other hand, successful management of acculturative stress can lead to emotional well-being, positive self-esteem and self-image, comfort with one's ethnic or cultural identity, increased healthy relationships with persons from different cultures, feelings of personal empowerment, feelings of self-efficacy, and even better health status (Kosic, 2004). Management of acculturative stress can increase ethnic pride, increased inter-cultural relationships, acceptance of diversity, absence of feelings of victimization, and increased involvement in social institutions (Gülner & Balcı, 2010). Many studies have supported the fact that social support which increases one's ability to cope with problems in the host country is the key adapt a new culture. For example, social support helps to increase cultural self-awareness and the process of cultural assimilation (Seráfica et al., 2019). Acculturation difficulties may present challenges to educational involvement and psychological adjustment of international students.

Psychological adjustment is the ability to adapt from one's home country to the living conditions of the host country. It refers to students' acculturating psychological adaptive changes of the in their environments (Gökyer, 2016). Although it helps facilitates international students to gain social competence, cope with stressors, minimize culture shock, and adapt to the academic environment, students who experience psychological dysfunction or distress may often express higher negative effect, act impulsively, have more pessimistic thought about their careers, class subjects, academic

performance, and life expectations (Kıroğlu et al., 2010). Students' psychosocial dysfunction manifests itself not only in increased negative behaviors, but it also in decreased positive behavior (Ataca & Berry, 2002). Several international students may have to deal with various problems during the acculturation process. Balancing academic performance, social integration, coping with financial constraints and lifestyle changes are among the most common adjustment problems (Riaz & Rafique, 2019).

The literature provides numerous examples about the importance of age, gender, and duration of education and their relations to psychological adjustment (Liao and Wei., 2014; Mitchell et al., 2017; Tavakoli et al., 2009; Thurber and Walton., 2012; Ogunsanya et al., 2018). The findings show that age plays an important role to adapt a new culture and educational system among international students. Several studies conclude that senior international students have better academic adjustment, ability to cope with stressors and have better living situations compared to junior students (Thurber and Walton., 2012). Studies have also revealed that academic performance and success are related to adjustment levels. Students with more academic problems are less adjusted than those with fewer academic problems (Yu et al., 2014). In addition, Glazer et al. (2018) concluded that adjustment is a strong predictor of acculturation stress among international students. Attrill et al. (2019) revealed that there is a significant relationship between adjustment, academic, personal, and environmental factors.

However, future orientation impacts the students' goals and their plans to achieve those goals. Students shape their life goals as they try to balance harmony and psychological well-being. The future orientation may be influenced by psychological adjustment and its outcomes. And this future orientation is a very important requirement for students' goals, academic achievements, and their general orientation. There are many studies on future orientation and its different aspects, but their association with acculturative stress and psychological adjustment among international students has not been examined.

Problem Statement

The number of international students in Turkey has been increasing every year, and the acculturation stress and psychological adjustment of the students affect their future orientation. Developmentally, meeting the psychological needs of young people away from their home country and social ties during their university period, at the end of their adolescence and the beginning of their adult years, is important in motivation, academic success, healthy adaptation, and many other areas (Yiğit, 2012). In this context, scientific studies on the effects and consequences of this migration experience on the mental health of international students who have temporarily immigrated to our country are of great importance, because it is thought that increasing acculturative stress levels and migration phenomenon are the main reasons for students to have adaptation difficulties, and this stress affects the ability to cope with acculturative challenges, psychological well-being, future orientation and therefore adaptation levels of immigrants. The effects of migration and adaptation problems experienced by international university students on their mental health have been evaluated through literature studies (Saygın & Hasta, 2018; Solgun & Durat, 2017). Thus, by examining the relationship between the sociocultural and psychological adjustment levels of international university students, it is aimed to find out whether it differs according to various variables such as age, gender, class, and length of stay in Turkey.

Problem Statement

International student admission is an indicator of development for that country and includes significant social, cultural, and economic advantages. While income from students provides financial contribution, it can also contribute to the increase of qualified workforce potential at the end of their education (Şenol et al., 2014). Numerous studies have been extensively conducted on acculturation, acculturative stress, and psychological adaptation on immigrant students in different countries (Çelik, 2013; Özçetin, 2013; Şeker & Akman, 2016). Examining the effects of international university students' adjustment levels on their mental health is important in various aspects. First, it is aimed to provide better psychosocial support and acculturative transition for international students so that they can better cope with adaptation problems. It may help students to pursue their academic endeavor which is the

main reason of coming to the host culture. International students in Turkey, however, have been investigated on their acculturative stress, acculturation, and psychological adaptation. Acculturative stress, psychological adjustment, and future orientation of international students have not been investigated in our country and therefore, a deficiency in literature is detected. The findings of this study may close the gap and contribute to the literature.

Hypothesis

H₁: The gender is positively correlated with acculturation stress level.

H₂: The age is positively correlated with acculturation stress level.

H₃: The marital status is positively correlated with acculturation stress level.

H₄: The time in Turkey is positively correlated with acculturation stress level.

H₅: The study in programs is positively correlated with acculturation stress level.

H₆: The acculturative stress is positively correlated with psychological adjustment.

H₇: The acculturative stress is positively correlated with future orientation.

H₈: The psychological adjustment is positively correlated with the future orientation.

Methods and Materials

Participants

A total of 650 international students are participated in the study. Among the participants, 32.9% are female and 67.1% are male and the ages of the participants ranged from 18 to 33 (Mean=22.60, SD=2.62). Most of the participants are single (91.3%) and have been living in Turkey for 1 to 4 years (58.1%). 71.5% of the participants are studying in undergraduate programs and 28.5% in graduate programs.

Table 1. Distribution of Participants' Socio-Demographic Characteristics (n=650)

		n	%
Gender	Female	214	32.9
	Male	436	67.1
Age	18-22 years	345	53
	23-27 years	208	32
	28+ years	97	15
Marital status	Single	594	91.3
	Married	56	8.7
Time in Turkey	1-4 years	378	58.1
	5-8 years	206	31.6
	9+ years	66	10.3
Study in Program	Undergraduate	465	71.5
	Graduate	185	28.5

Measures

This study is conducted at universities in Turkey. Convenient sampling model is used to select participant samples in undergraduate and graduate programs. G* power analysis is used to determine sample size. A total of 650 international students are participated in the study. Data are collected and analyzed using the SPSS 26 package program, and t-test, F-test, ANOVA, and correlation are used for statistical analysis. The power is set to .80 and the alpha level to .05. Additionally, informed consent is obtained from all participants. Participants are given the option to opt out of the at any time during the study. Ethical approval is obtained from the Ethics Committee of Kapadokya University.

Instruments

Acculturative Stress Scale for International Students

This scale consists of 36 items in Likert scale format, and it helps to assess the acculturative stress of international students. The scale has six subscales; perceived discrimination, homesickness, perceived hate, fear, stress due to change, guilt and miscellaneous. The response format from 1 as strongly disagreed to 5 as strongly agreed with 3 as not sure. Higher scores on each item means higher acculturative stress. Sandhu and Asrabadi (1998) report that the ASSIS has a very high reliability coefficient; Cronbach's alpha is .94. Kashubeck-West (2015) finds Cronbach's alpha of .94 and Wang et al. (2012) find Cronbach's alpha of .96 among international students for acculturative stress. In this study, Cronbach's alpha is 0.86, and this can be accepted as a good reliability.

The College Adjustment Scale (CAS)

This is a multidimensional psychological measure for students in a university setting. This scale provides information to students about changes that have occurred. The scale has nine sub-dimensions: anxiety, depression, suicidal ideation, substance use, self-esteem problems, interpersonal problems, family problems, academic problems, and career problems. There are 108 items in the scale to be measured according to a 4-point rating scale: 1-False or not at all, 2-Somewhat true, 3-Mostly true, and 4-Very true. Anton and Reed (1991) reported Cronbach's alpha as .86. This scale has high reliability and validity for measuring psychological adjustment in students. In this study, Cronbach's alpha is 0.78, and this can be accepted as a good reliability.

Future Orientation

The Future Orientation Questionnaire is used to assess the future orientation of international students. This questionnaire consists of 39 items with three components: motivational, behavioral, and cognitive. The response format of the questionnaire ranges from 1: strongly disagree to 5: strongly agree. The behavioral and cognitive components consist of two subscales, while the motivational component consists of four subscales to assess future orientation. Cronbach's alpha is .83 for the behavioral component, .76 for the cognitive component and .92 for the motivational component. In this study, a Cronbach's alpha is 0.76 for the behavioral component, Cronbach's alpha is 0.74 for the cognitive component, and Cronbach's alpha is 0.86 for the motivational component.

Results

The current research examines the relationship between acculturative stress, psychological adjustment, and future orientation among international students in Turkey. The respondent sample of 650 international students are administered the Acculturative Stress Scale for International Students (ASSIS), the College Adjustment Scale (CAS), and the Future Orientation Questionnaire. The participants are from different areas of Turkey. They belonged to the age range of 18-32 years and are enrolled in different departments at the universities. The respondents are administered the tests in a classroom setting, one-to-one mode after ethical permission and informed consent is sought. The quantitative analysis reveals that among the variables, only gender shows statistical significance across acculturative stress.

Factors such as age, marital status, time spent in Turkey, and study in programs showed no comparable differences. This study demonstrates the correlation between acculturative stress, psychological adjustment, and future orientation respectively. The Pearson correlation is conducted to show the relationship of the variation and to determine whether there is a linear relationship between two numerical measurements, and if yes, the level of the direction and severity of this relationship. Table 2 shows the descriptive and coefficient values for acculturative stress, psychological adjustment, and future orientation. Positive significance is found between acculturative stress, psychological adjustment, and future orientation ($p < 0.01$) (Table 2).

Table 2. Mean, Standard Deviation and Correlation Coefficient for Acculturative Stress, Psychological Adjustment and Future Orientation Among International Students

	Mean	Std. deviation	Correlation coefficient
Acculturative Stress	87.4	11.44	
Psychological Adjustment	56.2	10.56	0.44**
Future Orientation	66.5	11.02	

**significant at the $p = 0.01$ level

Descriptive statistics about acculturation stress, psychological adjustment and future orientation among international students are shown in Table 3 for the gender variable. It is seen that female students have a higher average acculturation stress than male students. The mean psychological adjustment of male students was higher than female. Finally, the mean of female students' future orientation is higher than that of male students. The ANOVA test also has a statistically significant effect at the $p < 0.05$ level, $F(1, 226) = 45.22$, $p = .002$ adjusted $R^2 = .15$ level. The results shows that the female students scored higher on psychological adjustment and future orientation than the male students.

Table 3. Descriptive statistics for Acculturative stress, Psychological Adjustment and Future Orientation of International Students for Gender

	Gender	N	M	SD	95% confidence interval for mean		Skew	Kurtosis
					Lower bound	Upper bound		
Acculturative Stress	Female	214	62.2	8.55	48.54	53.87	-0.88	-1.73
	Male	436	52.2	7.98	43.88	45.87	-0.34	-0.56
Psychological Adjustment	Female	214	68.4	7.56	52.16	56.77	-0.76	-0.60
	Male	436	72.2	8.43	47.92	49.11	-1.04	-1.87
Future Orientation	Female	214	58.8	8.92	40.18	42.44	-0.66	-0.79
	Male	436	51.8	10.13	36.77	38.45	-0.27	-0.42

One-way ANOVA analysis shows that the acculturative stress, psychological adjustment, and future orientation are significantly influenced by demographic and related factors. The level of acculturation stress, psychological adjustment, and future orientation of the participants differed according to gender, age, marital status, time spent in Turkey, and study in programs are determined through One-Way Analysis of Variance. One-way ANOVA test is used to test whether there is a statistically significant difference between the means of acculturative stress, psychological adjustment, and future orientation. Table 4 shows the results of analysis of variance between variables, acculturative stress, psychological adjustment, and future orientation. The results shows that no statistically significant difference was found between gender ($F = 0.733$, $p > 0.05$), age ($F = 0.621$, $p > 0.05$), marital status ($F = 0.912$, $p > 0.05$), time spent in Turkey ($F = 0.324$, $p > 0.05$), education in the program ($F = 0.542$, $p > 0.05$) and acculturation stress. Thus, hypothesis 1,2,3,4 and hypothesis 5 are rejected. The results

show that there is no statistically significant difference between age ($F=0.566, p>0.05$), marital status ($F=0.977, p>0.05$), time spent in Turkey ($F=0.666, p>0.05$) and psychological adjustment. However, statistical significance is found between gender ($F=0.324, p<0.05$), education in the program ($F=0.112, p>0.05$) and psychological adjustment. Additionally, there is no statistically significant difference was found between gender ($F=0.598, p>0.05$), age ($F=0.887, p>0.05$), marital status ($F=0.118, p>0.05$), time spent in Turkey ($F=0.343, p>0.05$) and future orientation. However, statistical significance is found between the study in the program ($F=0.701, p<0.05$) and future orientation.

Table 4. Differences in Acculturative Stress, Psychological Adjustment and Future Orientation among Variables

			N	X	SD	F	P value
Acculturative Stress	Gender	Female	214	3.46	1.88	0.733	.655
		Male	436	4.12	1.66		
	Age	18-22 years	345	3.08	2.08	0.621	.345
		23-27 years	208	3.22	1.98		
		28+ years	97	2.55	1.77		
	Marital status	Single	594	5.38	1.3	0.912	.512
		Married	56	3.88	1.67		
	Time in Turkey	1-4 years	378	4.67	2.18	0.324	.754
		5-8 years	206	3.96	2.01		
	Study in Program	9+ years	66	2.68	1.83	0.542	.896
Undergraduate		465	5.72	2.78			
	Graduate	185	3.88	1.92			
			N	X	SD	F	P value
Psychological Adjustment	Gender	Female	214	5.34	2.19	0.324	.002*
		Male	436	5.02	2.01		
	Age	18-22 years	345	4.89	1.8	0.566	0.233
		23-27 years	208	4.44	2.37		
		28+ years	97	3.02	1.82		
	Marital status	Single	594	6.02	3.02	0.977	0.556
		Married	56	4.88	2.67		
	Time in Turkey	1-4 years	378	4.78	2.4	0.666	0.723
		5-8 years	206	4.28	3.58		
	Study in Program	9+ years	66	3.99	3.02	0.112	0.011*
Undergraduate		465	5.71	2.46			
	Graduate	185	4.89	2.31			
			N	X	SD	F	P value
Future Orientation	Gender	Female	214	4.81	3.12	0.598	.622
		Male	436	4.97	2.88		
	Age	18-22 years	345	3.93	3.17	0.887	.233
		23-27 years	208	3.33	3.09		
		28+ years	97	2.15	2.66		
Marital status	Single	594	4.88	2.11	0.118	609	

	Married	56	3.77	1.89		
	1-4 years	378	3.74	3.08		
Time in Turkey	5-8 years	206	3.66	2.45	0.343	.243
	9+ years	66	2.21	2.78		
Study in Program	Undergraduate	465	3.77	3.18	0.701	.018*
	Graduate	185	3.16	4.06		

* $p < 0.05$

In Table 5, Pearson correlation analysis is performed to examine the relationship between the sub-dimensions of acculturation stress, psychological adjustment, and future orientation of international university students. The results shows that there is a statistically significant and high correlation between acculturation stress sub-dimensions, psychological adjustment sub-dimensions, and future orientation sub-dimensions. Thus, the hypotheses 6, 7 and 8 are accepted.

Table 5. Correlation analysis between Subdimensions of Acculturative Stress, Psychological Adjustment and Future Orientation of International Students

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1	Perceived discrimination	1																			
2	Homesickness	0.281**	2																		
3	Perceived hate	0.234**	0.628**	3																	
4	Fear	0.316**	0.476**	0.630**	4																
5	Stress due to change	0.561**	0.391**	0.488**	0.149**	5															
6	Guilt	0.123**	0.544**	0.361**	0.209**	0.320**	6														
7	Miscellaneous	0.216**	0.214**	0.618**	0.264**	0.544**	0.666**	7													
8	Anxiety	0.636**	0.188**	0.711**	0.114**	0.077**	0.607**	0.066**	8												
9	Depression	0.418**	0.602**	0.352**	0.465**	0.199**	0.309**	0.109**	0.539**	9											
10	Suicidal ideation	0.462**	0.621**	0.514**	0.983**	0.288**	0.733**	0.206**	0.367**	0.672**	10										
11	Substance abuse	0.378**	0.277**	0.456**	0.477**	0.549**	0.578**	0.679**	0.362**	0.374**	0.044**	11									
12	Self-esteem problems	0.399**	0.553**	0.764**	0.376**	0.011**	0.498**	0.369**	0.277**	0.366**	0.455**	0.205**	12								
13	Interpersonal problems	0.111**	0.671**	0.817**	0.618**	0.183**	0.507**	0.036**	0.755**	0.724**	0.195**	0.107**	0.602**	13							
14	Family problems	0.210**	0.540**	0.501**	0.566**	0.298**	0.205**	0.166**	0.530**	0.611**	0.169**	0.923**	0.444**	0.103**	14						
15	Academic problems	0.366**	0.215**	0.681**	0.321**	0.121**	0.360**	0.363**	0.125**	0.577**	0.452**	0.047**	0.774**	0.302**	0.765**	15					
16	Family problems	0.222**	0.289**	0.733**	0.673**	0.907**	0.488**	0.541**	0.242**	0.777**	0.654**	0.549**	0.639**	0.499**	0.655**	0.488**	16				
17	Career problems	0.217**	0.916**	0.222**	0.505**	0.781**	0.991**	0.909**	0.178**	0.377**	0.433**	0.904**	0.655**	0.401**	0.107**	0.533**	0.165**	17			
18	Behavioral	0.333**	0.251**	0.722**	0.801**	0.166**	0.447**	0.302**	0.622**	0.563**	0.708**	0.458**	0.380**	0.137**	0.507**	0.110**	0.224**	0.490**	18		
19	Motivational	0.722**	0.366**	0.559**	0.099**	0.834**	0.278**	0.467**	0.466**	0.488**	0.055**	0.702**	0.453**	0.048**	0.578**	0.189**	0.388**	0.611**	0.549**	19	
20	Cognitive	0.392**	0.661**	0.382**	0.012**	0.446**	0.230**	0.662**	0.673**	0.056**	0.438**	0.227**	0.404**	0.377**	0.381**	0.366**	0.093**	0.156**	0.530**	0.088**	20

** $p < 0.01$

The results show that there is a statistically significant and high-level correlation between perceived discrimination and motivational behavior ($r=0.722$, $p < 0.01$). This shows that an increase in perceived discrimination level will decrease motivational behavior among international students. Also, a high-level correlation ($r=0.916$, $p > 0.01$) is found between homesickness and students' career

problems; thus, students with a high sense of homesickness will have problems in terms of career planning for their future.

Relatively, the high level of correlation is found between perceived hate and interpersonal problems ($r=0.817$, $p<0.01$) indicate that perceived hate level will increase interpersonal problems among students. The fear of acculturation stress sub-dimension is effective for behavioral factors and suicidal ideation. The results also show that there is a high correlation between fear, suicidal ideation ($r=0.983$, $p<0.01$) and behavioral factors ($r=0.801$, $p<0.01$). Fear has negative consequences on psychological adjustment and students' future orientation. Also, the stress caused by cultural change is highly associated with family problems among international students ($r=0.907$, $p<0.01$). Thus, students exposed to more changes may have more stress, and this may increase the problems in their families. Additionally, feeling guilty is highly correlated with career problems ($r=0.909$, $p<0.01$) among the students. Lastly, substance use is highly correlated with family problems ($r=0.923$, $p<0.01$) and career problems ($r=0.904$, $p<0.01$). This shows that increase level in the level of substance addiction will increase family and career problems in students.

Discussion

This study examines acculturative stress, psychological adjustment, future orientation, and socio-demographic factors such as age, gender, marital status, time spent in Turkey, and study in programs. Participants are from undergraduate/graduate programs from different universities in Turkey. The result shows that gender plays a key role in psychological adjustment and future orientation among international students. The literature provides numerous examples of the relationship between gender and socio-cultural adaptation of international students in Turkey (Sümer, 2009; Şeker & Akman, 2016). Some studies conclude that female international students adapt more easily, and they are exposed to less acculturative stress than male students (Çelik, 2013; Özçetin, 2013). Similarly, Allaberdiev (2007) has found that female international students' personal, social, and general adjustment levels are higher than male students' adjustment levels. On the contrary, Şeker and Akman (2006) conclude that female students have lower sociocultural and psychological adjustment than male ones. In addition, Karaoğlu (2007) demonstrates that gender does not play an important role in adapting socially and psychologically to the host culture.

The present study concludes that female participants received higher scores in psychological adjustment as well as future orientation than male participants when they are exposed to acculturative stress in the host culture. This result is in line with the findings in the literature that female students have higher scores than male students in problems caused by acculturation stress such as perceived discrimination, fear, interpersonal problems, homesickness, career problems, anxiety, and depression (Caplan, 2007; Fang et al., 2021; Park et al., 2014). However, studies have concluded that female students have more psychological adjustment problems than male students (Dean & Koeng, 2019). Çetinkaya-Yildiz et al. (2011), states that the length of stay has a 32.8% variance in the psychological stress levels of international students besides life satisfaction, integration into social life in Turkey, and proficiency in Turkish language. On the contrary, the study by Gökyer (2016) states that gender does not play a role of acculturation attribution among international students.

The results of the present study show that homesickness and fear are significantly higher in female students than in male students. Also, female students give higher scores on acculturative stress and psychological adjustment. Also, there is a positive correlation between psychological adjustment, high level of motivation and behavioral patterns among students. Students tend to be more adjustable psychologically with their environment, school, teachers, friends, and academic orientation when they are motivated more in the host culture. Adapting to a new environment and culture is a stressful process for international students. The results show that the homesickness dimension of acculturation stress is highly correlated with career problems. Students who are far from their family and country experience stress as they adjust to their new lives (Bakhshae et al., 2018; Jardin et al., 2018; Zvolensky et al., 2018). The study by Türel (2021) concludes that students who receive social support from their friends

show better adjustment to the host culture. Bektaş (2009) states that international students choose their friends either from their own country or the host country to help them to adjust and cope with difficulties. Research studies have examined the relationship between acculturation and psychological adjustment, and it has been shown that acculturation is related to psychological adjustment (Jenkins & Boyd, 2020; Liu, 2015; Schneider et al., 2020).

Among the findings of this study, female students experience an increase in acculturation stress and a decrease in psychological adjustment. However, different findings have reported in the literature that male students are compatible and perform a more adaptive behavior than female students in terms of psychological adjustment (Cariello et al., 2020; Menon and Harter, 2012). Maldonado et al. (2018), however, reports that female students have lower sociocultural adaptation than male students, and this negatively affects the psychological adjustment process in the host culture. Contrary to these results, Mayorga et al. (2018) has found that female students are more successful than men in adapting to their environment due to their better personal skills, social skills, and general adjustment levels. The study results also show that female students experience fewer symptoms of anxiety and depression during psychological adjustment, which help them become better acculturated in the host culture. Because of this, female students are found to be more successful in their academic courses and they experience fewer acculturation problems. Thus, they better perform psychological well-being and social adaptation in the host culture (Barton et al., 2022; Suarez-Morales & Lopez, 2009).

The present study findings reveal that age, time, marital status, and education in programs has no effect on acculturation stress, psychological adjustment, and future orientation in Turkey among international students. The research by Tureson et al. (2021) presents that age, marital status and education program have no impact on acculturation level and psychological adjustment in the host country among international students. However, the literature provides numerous examples of the relationship between length of stay, acculturative stress, and psychological adjustment among international students (Incollingo-Rodriguez et al., 2022). Moreover, financial dissatisfaction, language proficiency, expectations, relationship status, social support are found as predictors of acculturative stress and psychological adjustment among international students (Yun et al., 2021). The results of this study show that acculturative stress and psychological adjustment impact future orientation and its components (Alm et al., 2019). However, having less acculturation stress and psychological adjustment problems can help students perform better academic performance in the school environment. Students can also demonstrate better study habits, which can have positive results in terms of academic orientation and success. Other studies have determined that students who have better psychological adjustment perform a better future orientation. It also has an impact on students' behavior, future expectation, and psychological well-being (Sharp et al., 2020).

Additionally, having a higher stress and less adaptive attitude in the host culture negatively affect students' academic performance and needs that creates obstacles academic burden for students and their future goals (Zheng et al., 2019). International students leave their country to accomplish their dreams and pursue academic goals as they go through different challenges and difficulties in host culture. Homesickness, perceived discrimination and hate, interpersonal problems and new adjustment requirements are the most common problems that the students often deal with. The studies have reported that psychological adjustment has an amendable impact on acculturative stress and the students' future expectations (Bakhshai et al., 2018; Caplan, 2007; Fang et al., 2020).

Lastly, psychological adjustment among international students has an influence on both the acculturation stress level and the future orientation. Also, it is important to highlight that gender plays a key in perceiving the level of acculturation stress, psychological adaptation, and academic success among international students in the host culture. It is important to consider holistic approach and psychoeducational intervention for students to perform better academic behavior and personal attitude during adaptation process. Taking into consideration of different educational and psychosocial interventions may help reduce acculturative stress, personal, and social challenges.

Conclusion

Many studies have examined the relationship between acculturation stress and psychological adjustment, but deficiencies have been detected in the literature regarding acculturation stress, psychological adjustment, and future orientation among international students in Turkey. This study examines the relationship between acculturative stress, psychological adjustment, and future orientation among international students in Turkey. The results of this study are important for international students to adapt more easily and comfortably. Expanding academic programs to provide different learning experiences can ease social and cultural barriers for students. Helping students explore different opportunities in the host culture can help them adjust socio-culturally and increase their academic achievements toward achieving their goals. Gender differences should be considered when preparing intervention programs. Turkey is an attractive country for international students from neighboring countries. For this reason, universities should offer the most suitable programs and provide different sources to help students to pursue their dreams.

References

- Akdağ, M., & Koçak, F. Ö. (2020). Uluslararası öğrencilerin kültürleşme stresi düzeylerine ilişkin nicel bir araştırma. *Türkiye İletişim Araştırma Dergisi*, 36, 33-52. doi:10.17829/turcom.806579.
- Allaberdiyev, P. (2007). *Türk Cumhuriyetlerinden Türkiye'ye yüksek öğrenim görmeye gelen öğrencilerin uyum düzeylerinin incelenmesi*. (Yayınlanmamış yüksek lisans tezi). Gazi Üniversitesi, Ankara.
- Alm, S., Låftman, S. B., Sandahl, J., & Modin, B. (2019). School effectiveness and students' future orientation: A multilevel analysis of upper secondary schools in Stockholm, Sweden. *Journal of Adolescence*, 70(1), 62-73. doi: 10.1016/j.adolescence.2018.11.007.
- Anton, W. D., & Reed, J. R. (1991). *College adjustment scales: Professional Manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Ataca, B., & Berry, J. W. (2002). Psychological, sociocultural, and marital adaptation of Turkish immigrant couples in Canada. *International Journal of Psychology*, 37, 13-26.
- Attrill, S., Lincoln, M., & McAllister, S. (2020). International students in professional placements: supervision strategies for positive learning experiences. *International Journal of Language & Communication Disorders*, 55(2), 243-254. doi: 10.1111/1460-6984.12516.
- Bakhshaie, J., Hanna, A. E., Viana, A. G., Garza, M., Valdivieso, J., Ochoa-Perez, M., Lemaire, C., Cardoso, J. B., Rogers, A. H., Mayorga, N. A., Bogiaizian, D., & Zvolensky, M. J. (2018). Acculturative stress and mental health among economically disadvantaged Spanish-speaking Latinos in primary care: The role of anxiety sensitivity. *Psychiatry Research*, 261, 421-427. doi: 10.1016/j.psychres.2018.01.009.
- Balcı, Ş., & Öğüt, N. (2019). Yabancı uyruklu üniversite öğrencileri arasında kültürleşme ve kültürleşme stratejileri. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 49-62.
- Barton, A., Novoa, O., Sanchez, M., Romano, E., & Cano, M. (2022). Impact of pre-migration assets and pre-migration trauma on acculturative stress among recent Latinx immigrant young adults. *Ethnicity and Health*, 27(6):1410-1427. doi: 10.1080/13557858.2021.1881766.
- Bektaş, Y., Demir, A., & Bowden, R. (2009). Psychological adaptation of Turkish students at US campuses. *International Journal for the Advancement of Counseling*, 31(2), 130-143. https://doi.org/10.1007/s10447-009-9073-5.
- Berry, J. W. (1980). *Acculturation as varieties of adaptation*. In *Acculturation: Theory, Models and Some New Findings*, (Ed AM Padilla):9-25. Boulder, CO, Westview Press.
- Caplan, S. (2007). Latinos, acculturation, and acculturative stress: a dimensional concept analysis. *Policy Politics Nursing Practice*, 8(2), 93-106. doi: 10.1177/1527154407301751.

- Cariello, A. N., Perrin, P. B., & Morlett-Paredes, A. (2020). Influence of resilience on the relations among acculturative stress, somatization, and anxiety in latin immigrants. *Brain Behavior*, 10(12), 18-63. doi: 10.1002/brb3.1863.
- Crockett, L. J., Iturbide, M. I., Torres-Stone, R. A., McGinley, M., Raffaelli, M., & Carlo, G. (2007). Acculturative stress, social support, and coping: relations to psychological adjustment among Mexican American college students. *Cultural Diversity Ethnic Minority Psychology*, 13(4), 347-55. doi: 10.1037/1099-9809.13.4.347.
- Cetinkaya-Yildiz, E., Cakir, S. G., & Kondakci, Y. (2011). Psychological distress among international students in Turkey. *International Journal of Intercultural Relations*, 35(5), 534-539.
- Çelik, İ. (2013). *Türkiye’de Yükseköğrenim Gören Yabancı Uyruklu Öğrencilerin Sorunları*. (Yayınlanmamış yüksek lisans tezi). Trakya Üniversitesi, Edirne.
- Dean, K., & Koeng, A. M. (2019). Cross-cultural differences and similarities in attribution. *Cross-Cultural Psychology*, 575-597, John Wiley & Sons Ltd.
- Fang, C. Y., Handorf, E. A., Rao, A. D., Siu, P. T., & Tseng, M. (2021). Acculturative stress and depressive symptoms among Chinese immigrants: The role of gender and social support. *Journal of Racial and Ethnic Health Disparities*, 8(5), 1130-1138. doi: 10.1007/s40615-020-00869-6.
- Gökyer, N. (2016). Yabancı uyruklu üniversite öğrencilerinin psikolojik uyumları. *Yükseköğretim ve Bilim Dergisi*, 7(1), 98-108. doi: 10.5961/jhes.2017.188
- Güler, A. (2019). Acculturation process of Turkish immigrants in the United States. *Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 37,1-13.
- Gülнар, B. ve Balcı, Ş. (2010). Televizyon izleme motivasyonları ve kültürleşme: Yabancı uyruklu üniversite öğrencileri üzerine bir araştırma. *Türkiyat Araştırmaları Dergisi*, 28, 447-483.
- Güngör, D., & Bornstein, M. H. (2009). Gender, development, values, adaptation, and discrimination in acculturating adolescents: The case of Turk heritage youth born and living in Belgium. *Sex Roles*, 60, 537-548. <https://doi.org/10.1007/s11199-008-9531-2>.
- Güzey, Ö., Gültekin, N., Kirsacılıoğlu, O., Aksoy, E., & Ataç, E. (2014). *Acculturation process of the immigrant Turks living in Deventer, The Netherlands, 54th congress of the European regional science association: Regional development and globalization: Best Practices*, 26-29 August 2014, St. Petersburg, Russia.
- Glazer, S., Roach, K. N., Carmona, C., & Simonovich, H. (2018). Acculturation and adjustment as a function of perceived and objective value congruence. *International Journal of Psychology*, 53(2), 13-22. doi: 10.1002/ijop.12554.
- Incollingo-Rodriguez, A. C., Polcari, J. J., Nephew, B. C., Harris, R., Zhang, C., Murgatroyd, C., & Santos, H. P. (2022). Acculturative stress, telomere length, and postpartum depression in Latinx mothers. *Journal of Psychiatric Research*, 147, 301-306. doi: 10.1016/j.jpsychires.2022.01.063.
- Jardin, C., Mayorga, N. A., Bakhshaie, J., Garey, L., Viana, A. G., Sharp, C., Cardoso, J. B., & Zvolensky, M. J. (2018). Clarifying the relation of acculturative stress and anxiety/depressive symptoms: The role of anxiety sensitivity among Hispanic college students. *Cultural Diversity & Ethnic Minority Psychology*, 24(2), 221-230. doi: 10.1037/cdp0000175.
- Jenkins, S. J., & Boyd, L. D. (2020). Perceived barriers to academic success for international students studying dental hygiene in the U.S. *Journal of Dental Education*, 84(1), 81-87. doi: 10.21815/JDE.019.163.
- Karaoğlu, F. (2007). *Yabancı uyruklu öğrencilerde uyma davranışı: TÖMER Örneği*. (Yayınlanmamış yüksek lisans tezi). Gazi Üniversitesi, Ankara.

- Kıroğlu, K., Kesten, A., & Elma, C. (2010). Türkiye’de öğrenim gören yabancı uyruklu lisans öğrencilerinin sosyo-kültürel ve ekonomik sorunları. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 6 (2), 26-39.
- Kosic, A. (2004). Acculturation Strategies, coping process and acculturative stress. *Scandinavian Journal of Psychology*, 45, 269-278.
- Liao, K. Y., & Wei, M. (2014). Academic stress and positive affect: Asian value and self-worth contingency as moderators among Chinese international students. *Cultural Diversity & Ethnic Minority Psychology*, 20(1), 107-115. doi: 10.1037/a0034071.
- Liu, Y. (2015). International note: The relationship between achievement goals and academic-related boredom. *Journal of Adolescence*, 41, 53-5. doi: 10.1016/j.adolescence.2015.03.001.
- Lueck, K., & Wilson, M. (2010). Acculturative stress in Asian immigrants: The impact of social and linguistic factors. *International Journal of Intercultural Relations*, 34, 47-57.
- Maldonado, A., Preciado, A., Buchanan, M., Pulvers, K., Romero, D., & D’Anna-Hernandez, K. (2018). Acculturative stress, mental health symptoms, and the role of salivary inflammatory markers among a Latino sample. *Cultural Diversity & Ethnic Minority Psychology*, 24(2), 277-283. doi: 10.1037/cdp0000177.
- Mayorga, N. A., Jardin, C., Bakhshaie, J., Garey, L., Viana, A. G., Cardoso, J. B., & Zvolensky, M. (2018). Acculturative stress, emotion regulation, and affective symptomatology among Latino/a college students. *Journal of Counseling Psychology*, 65(2), 247-258. doi: 10.1037/cou0000263.
- Menon, C. V., & Harter, S. L. (2012). Examining the impact of acculturative stress on body image disturbance among Hispanic college students. *Cultural Diversity & Ethnic Minority Psychology*, 18(3), 239-46. doi: 10.1037/a0028638.
- Mitchell, C., Del Fabbro, L., & Shaw, J. (2017). The acculturation, language and learning experiences of international nursing students: Implications for nursing education. *Nurse Education Today*, 56, 16-22. doi: 10.1016/j.nedt.2017.05.019.
- Riaz, M. A., & Rafique, R. (2019). Psycho-social predictors of acculturative stress and adjustment in Pakistani institutions. *Pakistan Journal of Medical Sciences*, 35(5), 1441-1445. doi: 10.12669/pjms.35.5.1214.
- Park, S. Y., Anastas, J., Shibusawa, T., & Nguyen, D. (2014). The impact of acculturation and acculturative stress on alcohol use across Asian immigrant subgroups. *Substance Use & Misuse*, 49(8), 922-31. doi: 10.3109/10826084.2013.855232.
- Tavakoli, S., Lumley, M. A., Hijazi, A. M., Slavin-Spenney, O. M., & Parris, G. P. (2009). Effects of assertiveness training and expressive writing on acculturative stress in international students: A randomized trial. *Journal of Counseling Psychology*, 56(4), 590-596. doi: 10.1037/a0016634.
- Thurber, C. A., & Walton, E. A. (2012). Homesickness and adjustment in university students. *Journal of American College Health*, 60(5), 415-9. doi: 10.1080/07448481.2012.673520.
- Tureson, K., Byrd, D. A., Guzman, V., Summers, A. C., Morris, E. P., & Mindt M. R. (2021). The impact of sociocultural factors on prospective memory performance in HIV+ Latinx adults. *Neuropsychology*, 35(4), 411-422. doi: 10.1037/neu0000732.
- Türel, T. M. (2021). Uluslararası öğrencilerin sosyokültürel uyumu. *Avrasya Beşeri Bilim Araştırmaları Dergisi*, 1(2), 73-89. doi: 10.7596/abbad.31122021.003.
- Saygın, S., & Hasta, D. (2018). Göç, kültürleşme ve uyum. *Psikiyatride Guncel Yaklaşımlar-Current Approaches in Psychiatry*, 10(3), 302-323.

- Seginer, R. (2009). *Future orientation: Developmental and ecological perspectives*. New York: Springer Series.
- Serafica, R., Lekhak, N., & Bhatta, T. (2019). Acculturation, acculturative stress, and resilience among older immigrants in United States. *International Nursing Review*, 66(3), 442-448. doi: 10.1111/inr.12522.
- Schneider, J. K., Bender, C. M., Madigan, E. A., & Nolan, M. T. (2020). Facilitating the academic success of international PhD students. *Nursing Education Perspectives*, 41(1), 20-25. doi: 10.1097/01.NEP.0000000000000489.
- Sharp, E. H., Seaman, J., Tucker, C. J., Van Gundy, K. T., & Rebellon, C. J. (2020). Adolescents' future aspirations and expectations in the context of a shifting rural economy. *Journal of Youth and Adolescence*, 49(2), 534-548. doi: 10.1007/s10964-019-01152-6.
- Sirin, S. R., Sin, E., Clingain, C., & Rogers-Sirin, L. (2019). Acculturative stress and mental health: implications for immigrant-origin youth. *Pediatric Clinics North America*, 66(3), 641-653. doi: 10.1016/j.pcl.2019.02.010.
- Solgun, C., & Durat, G., (2006). Göç ve ruh sağlığı. *Journal of Human Rhythm*, 3(3), 137-144.
- Suarez-Morales, L., & Lopez, B. (2009). The impact of acculturative stress and daily hassles on pre-adolescent psychological adjustment: examining anxiety symptoms. *Journal of Primary Prevention*, 30(4), 335-349. doi: 10.1007/s10935-009-0175-y.
- Sümer, S. (2009). *International students' psychological and sociocultural adaptation in the United States*. (Unpublished dissertation). Georgia State University, United States.
- Şeker, B. D., & Akman, Emine, (2016). Uluslararası öğrencilerin psikolojik ve sosyokültürel süreçleri. *Cukurova Medical Journal*, 41(3), 504-514.
- Şenol, D., Dinç, A., & Kala, H. (2004). *Türkiye'de öğrenim gören yabancı öğrencilerin demografik özellikleri ve gelecek beklentileri üzerine sosyolojik bir değerlendirme*. (Yayınlanmamış yüksek lisans tezi). Kırıkkale Üniversitesi, Kırıkkale.
- Ogunsanya, M. E., Bamgbade, B. A., Thach, A. V., Sudhapalli, P., & Rascati, K. L. (2018). Determinants of health-related quality of life in international graduate students. *Current in Pharmacy Teaching and Learning*, 10(4), 413-422. doi: 10.1016/j.cptl.2017.12.005.
- Yiğit, R. (2012). Konya ilinde öğrenim gören yabancı uyruklu üniversite öğrencilerinin temel psikolojik ihtiyaçlarının bir kısım değişkenler bakımından incelenmesi. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 27, 317- 326.
- Yu, B., Chen, X., Li, S., Liu, Y., Jacques-Tiura, A. J., & Yan, H. (2014). Acculturative stress and influential factors among international students in China: a structural dynamic perspective. *PLoS One*, 9(4):e96322. doi: 10.1371/journal.pone.0096322.
- Yun, S., Ahmed, S. R., Hauson, A. O., & Al-Delaimy, W. K. (2021). The relationship between acculturative stress and postmigration mental health in Iraqi refugee women Resettled in San Diego, California. *Community Mental Health Journal*, 57(6), 1111-1120. doi: 10.1007/s10597-020-00739-9.
- Zheng, L., Lippke, S., Chen, Y., Li, D., & Gan, Y. (2019). Future orientation buffers depression in daily and specific stress. *PsyCh Journal*, 8(3), 342-352. doi: 10.1002/pchj.283.
- Zvolensky, M. J., Jardin, C., Rogers, A. H., Bakhshai, J., Mayorga, N. A., Viana, A. G., Walker, R. L., Cardoso, J. B., & Garey, L. (2018). Anxiety sensitivity and acculturative stress among trauma exposed Latinx young adults. *Cultural Diversity & Ethnic Minority Psychology*, 24(4), 470-476. doi: 10.1037/cdp0000208.