Article

The Effect of Culture-Based Adjustment Program on International Students' Adaptation

Amal Al-Khatib
Dilek Yelda Kağnıcı
Ege University, Turkey

ABSTRACT

Within the scope of this study, a psychoeducation program based on multicultural competencies and Berry's acculturation model was developed to improve the adjustment process of international students. In this study, an explanatory sequential design was used. The study group consisted of 34 international students who volunteered for the study. The quantitative results of the study indicated that the Culture-Based Adjustment Program significantly affected the personal and social adjustment of international students. However, it did not significantly affect the adjustment to the university environment, emotional adjustment, dating relationships, and academic adjustment. The qualitative analysis yielded five major categories: (a) expectations, (b) contributions, (c) evaluation of the program, (d) leader, and (e) suggestions. The findings of this study highlight the importance of psychoeducation programs in the adjustment process of international students.

Keywords: adjustment to university, international students, multiculturalism, mixed design, psychoeducation.

Globalization in the world shows its impact on the field of education. Worldwide, the number of students going to other countries for higher education is increasing yearly. The number of international students increased from 2.1 million in 2000 to more than 6 million in 2019 (UNESCO, 2021). The contribution of international students in economic, cultural, academic, and other fields to the countries they visit and countries' policies to attract international students are effective in this increase (Mariño et al., 2017). Turkey has been considered an appealing option by Central Asian countries because of its strong historical, cultural, ethnic, and linguistic bonds with these countries and also for students

from Turkic Republics due to the higher education scholarships (Bektas, 2008), a similar increase is observed in the number of international students in Turkey. For example, while the number of international students studying at higher education level in Turkey was 48,183 in the 2013-2014 academic year, this number increased to 223,952 in 2020-2021. With this increase, the interest of international students in the total number of students in Turkey increased from 85% to 2.7% (Turkish Council of Higher Education [YÖK], 2021).

As a result of the increase in the number of international students, the problems experienced by students during the adjustment process have started to appear more frequently in the literature such as academic difficulties (Huang, 2006; Huang et al., 2023; Kuo, 2011; Wu et al., 2015, Zhou et al., 2011), economic difficulties (Sherry et al., 2010; Yusof et al., 2017), emotional difficulties as feeling lonely (Gebhard, 2012; Sherry et al, 2010), being subjected to discrimination (Lee, 2015; Poyrazlı & Grahame, 2007; Smith & Khawaja, 2011), being negatively affected by cultural differences (McLachlan & Justice, 2009; Wu et al., 2015; Yeh & Inose, 2003) and experiencing language problems (Güçlü, 1996; Lee, 2017). Considering that the purpose of international students coming to another country is to study, it can be said that adapting to the university and new academic environment plays a critical role in the overall adjustment process. Baker and Sirky (1984) state that adjustment to university is multidimensional and includes academic, social, and emotional adjustment, in addition to institutional attachment. Therefore, international students' success in the adjustment process is seen as necessary to overcome the problems they experience.

Acculturation also plays an important role during the adjustment process. In its most widely used form, acculturation is defined as 'a state of change that occurs in one or both cultures as a result of continuous and direct interaction between groups from different cultures' (Sam & Berry, 2010). The acculturation process is mainly defined by a culture-learning approach (Ward, 1996) and a stress-coping framework (Berry, 1997). In Berry's (1997) acculturation framework, acculturative experience is defined as a major life event characterized by stress, and it demands a cognitive appraisal of a situation and requires coping strategies. During this process, many factors, such as demographic variables, pre-acculturation experience, migration motivation, expectations, cultural distance, personality, length of time, acculturation strategies, social support, and discrimination, significantly affect adaptation.

Although international students sometimes develop their solution strategies to cope with the problems they face, they often need external support. Support options for students include orientation activities at universities, psycho-education programs, and peer support programs. Psychoeducational programs are often the most effective method to facilitate the adjustment process and increase the overall well-being of international students, as they are usually long-term and include different components of the adjustment process (Penman et al., 2021). Studies indicate that psychoeducation programs developed for international students increase social interaction, improve students' language proficiency, increase their level of hope, and facilitate adjustment to the university

environment (Chalungsooth & Faris, 2009; Xiong et al., 2022). As mentioned by Bektaş (2008), to work effectively with international students, counselors need to be *aware* of international students on their campuses, *know* what international students may be experiencing, and *have* multicultural counseling skills to work with international students (p. 271) actively. Therefore, during the development of the psychoeducation program in the present study, these multicultural competencies were also integrated into the program.

In the current study, an eight-session psychoeducation program (Culture-based adjustment program) based on Berry's acculturation model was developed. In the program, the adjustment process of international students is discussed in detail with its sub-dimensions. As a result of the literature review, it was seen that there are very few similar studies, especially in Turkey. In addition, it was observed that there were no intervention studies in Turkey on some sub-dimensions of adjustment (dating relationship, emotional, academic, and social adjustment), and the number of studies on other sub-dimensions (adjustment to the university environment and personal adjustment) was limited. In addition, it was observed that psychoeducation programs are used sparingly, even though they are the most effective method among services for international students. Also, a program prepared within the scope of multicultural perspectives for international students was not found in Turkish literature. For this reason, it is thought that the current study has a unique value as it is one the first studies based on Berry's model with a multicultural counseling competencies perspective. As it is known, internationalization has become an important criterion for universities in recent years. This enables universities to attract more international students. As such, psychological counseling units in universities have more work to do in the context of services provided to international students. It is predicted that the culture-based adaptation program developed in this study will help psychological counselors meet this need in higher education. In summary, the current study aims to measure the effect of the culture-based adjustment program (CBAP) on international students' adjustment to university and to examine the views of the students participating in the program.

METHOD

Research Model

In this study, "explanatory sequential design" was used, one of the mixed research designs in which qualitative and quantitative data are used together. In the explanatory sequential design, quantitative data are collected from the participants in the first stage, followed by qualitative data. In the final stage, quantitative and qualitative data are integrated and interpreted (Creswell, 2003). Since the data collected in two phases within the scope of the explanatory sequential research design were analyzed in depth, it was deemed appropriate to use this design.

In the first stage of the study, the program's effectiveness was measured using the randomized model with a pretest-posttest control group. This design includes

independent process groups (experimental, placebo, control groups) and repeated measures (pretest, posttest, follow-up test) (Fraenkel & Wallen, 1996). After the quantitative data were collected, the opinions of the students who participated in the CBAP were taken in the next stage of the research. Students' opinions were obtained through focus group interviews, and qualitative data were obtained. In the last stage, the quantitative and qualitative data were integrated and interpreted.

Participants

The study group from which the quantitative data were obtained consisted of 34 international students studying at two state universities in the western region of Turkey in the 2021-2022 academic year who volunteered for the study. Eleven of these students, six females and five males, were randomly assigned to the experimental group; eleven students, five females, and six males, were randomly assigned to the placebo group; and twelve students, eight females and four males, were randomly assigned to the control group. After the implementation started, some students left, and the process was completed with 27 students: seven from the experimental group, eight from the placebo group, and twelve from the control group (Table 1). Some criteria were determined before selecting the students in the study group. Accordingly, international students were required to have recently started their education in Turkey and speak Turkish comprehensibly.

Table 1: Demographic Information of Participants ($N = 27$)

Participant	Group	Age	Gender	Degree	Year/month in Turkey	Nationality
1	Experimental	30	M	PhD	3rd month	Iraq
2	Experimental	28	F	Masters	2nd month	Iran
3	Experimental	23	F	Undergraduate	3rd month	Syria
4	Experimental	19	F	Undergraduate	3rd month	Morocco
5	Experimental	23	M	Undergraduate	3rd month	Syria
6	Experimental	30	M	PhD	3rd month	Kazakhstan
7	Experimental	22	F	Undergraduate	3rd month	Kazakhstan
8	Placebo	19	M	Undergraduate	3rd month	Iran
9	Placebo	19	F	Undergraduate	3rd month	Jordan
10	Placebo	21	M	Masters	2nd month	Syria
11	Placebo	22	F	Undergraduate	3rd month	Lebanon
12	Placebo	24	M	Masters	3rd month	Iraq
13	Placebo	18	M	Undergraduate	3rd month	Syria
14	Placebo	30	F	PhD	3rd month	Iran
15	Placebo	21	F	Masters	3rd month	Pakistan
16	Control	21	F	Undergraduate	3rd month	Palestine
17	Control	23	F	Masters	3rd month	Morocco

18	Control	24	M	PhD	2nd month	Liberia
19	Control	18	M	Undergraduate	2nd month	Syria
20	Control	19	F	Undergraduate	3rd month	Iraq
21	Control	23	M	Masters	3rd month	Lebanon
22	Control	21	F	Masters	3rd month	Uganda
23	Control	19	F	Undergraduate	3rd month	Italy
24	Control	22	F	Masters	3rd month	Tunisia
25	Control	20	M	Undergraduate	3rd month	Lebanon
26	Control	21	F	Undergraduate	3rd month	Iran
27	Control	19	F	Undergraduate	2nd month	Afghanistan

The qualitative data of the study were collected through a focus group interview. The focus group interview was conducted with five students, three females and two males, who participated in the CBAP, and their views on the program were obtained.

Measures

Two measures were used to collect the data. 'University Life Scale' was used for quantitative data, and a focus group interview form was used for qualitative data.

University Life Scale (ULS)

The scale developed by Aladağ et al. (2003) consists of six sub-dimensions. As a result of the factor analysis conducted for the scale, it was concluded that six factors explained 40.6% of the total variance. The reliability of the scale was determined with the Cronbach's alpha coefficient. As a result of the analysis, it was concluded that the internal consistency coefficients of the subscales were between .63 and .80. The internal consistency coefficient for the whole scale was calculated as .91 (Aladağ et al., 2003).

Focus Group Interview Form

A semi-structured interview form consisting of five questions (e.g., "What are your opinions about the content of the program?") was prepared by the researchers to determine the views of international students participating in the CBAP. Care was taken to ensure the questions were open-ended and understandable, and probes were included in case the participants did not understand. For the prepared questions, an expert whose field is program development and who has experience in qualitative research was consulted, and the form was finalized by making changes within the framework of the feedback.

Intervention

The experimental process was conducted in the university's classrooms in the fall semester of the 2021-2022 academic year. No intervention was made to the control group, and eight sessions each were conducted with the experimental and comparison (placebo) groups. Before the intervention students in the control group were informed that they were on the waiting list and could participate in the program prepared after the sessions of the experimental and comparison groups ended. Before the interventions started to organize the groups and inform the participants about the process, the researcher conducted preliminary interviews with the students in three groups. The interventions conducted in two groups were completed in four weeks, two sessions per week.

Culture-based Adjustment Program (CBAP)

The experimental group was administered the CBAP. The eight-session psychoeducation program, based on Berry's (1997) acculturation model, was developed to facilitate international students' adjustment to university.

Self-recognition Focused Interaction Group (SRFIG)

The program was developed by the researchers as an eight-session program and administered to the placebo group. The program was used to help international students get to know themselves better and increase their awareness. Details related to interventions and design of the study are presented in Appendix A.

Data Collection

In the process of collecting the quantitative data of the study, pretest, posttest, and follow-up tests were applied to the students in the experimental, placebo, and control groups. After obtaining Institutional Review Board and Ethics Committee approval, the written consent of the students was obtained through the Informed Consent Form. Before the experimental process, students were also pre-interviewed and then administered a pre-test. The interventions conducted in the two groups were completed in four weeks, and the sessions lasted one hour on average. There is approximately one month between the pre-test and the post-test. For both the duration and the frequency of the sessions, COVID-19 restrictions that were effective at the time of the implementation (November-December 2021) were considered.

In the pre-test, the University Life Scale (ULS) was administered to the students, and then the implementation process was started. CBAP was applied to the experimental group, and SRFIG was applied to the comparison group for eight sessions. After the application was terminated, the ULS was reapplied to the students in all three groups, and post-test measurements were obtained. For the follow-up test, the students were contacted again three months later, and the ULS was completed for the last time.

Groups provide natural settings that people feel they are not alone and there is hope in life (Corey & Corey, 2006) and facilitates social support and social skills rehearsal (Harel, Shechtman, & Cutrona, 2011). Since feeling not alone, hope, increased social support are factors that are naturally related to university adjustment and might be experienced in group services, in the present study, it was intended to obtain participants' opinions specifically on CBAP which was developed based on a theoretical background. Therefore, qualitative data were collected from five students in the experimental group only who agreed to participate in the focus group interview. Verbal consent from the students was obtained before starting the focus group interview. The interview was conducted at the faculty where the application was conducted and lasted approximately 40 minutes.

Data Analysis

The quantitative and qualitative data of the study were analyzed separately, and the results obtained from analyses were integrated into the interpretation.

Quantitative Data

First, within the scope of quantitative analysis, the effect of the CBAP on the dependent variable of the study, international students' adjustment to university, was examined. There were three groups in the study: experimental, comparison, and control. In the analysis of the data, repeated measures analysis of variance was used to determine whether there was a significant difference within and between groups in terms of international students' level of adjustment to university and whether there was a significant time and group effect. Before proceeding with this analysis, three assumptions (independence of observations, normality, and homogeneity of variances) required for repeated measures analysis of variance were checked (Leech et al., 2008). After all three assumptions were met, the analysis was conducted, and the results were reported. Finally, the SPSS Statistics 23.0 package program was used to analyze the data.

Qualitative Data

Before analyzing the qualitative data of the study, the first researcher transcribed the focus group interview. Then, content analysis was started, and the steps of content analysis (Yıldırım & Şimşek, 2006) were carried out respectively: First of all, the data in the transcribed interview were coded. The researchers entered all the codings into a coding sheet. The researchers discussed their coding through the coding sheet. Subsequently, the coding framework was terminated, and the calculated agreement was 80%. This level of agreement indicated adequate reliability (Miles & Huberman, 1994). Next, themes were reached from these codes, and data were organized. In the last step, the findings were interpreted and reported.

Reliability and Validity Precautions

The researchers took several measures to ensure the validity and reliability of qualitative data. To ensure internal validity (credibility), expert opinion was consulted while creating the focus group interview form. Adjustments were made to the form in line with the expert's suggestions. Immediately after the focus group interview, the results were summarized to the participants, and their confirmation was obtained. Thus, measures were taken to ensure that the results represent reality. To ensure external validity (transferability), information about the data collection process (sample, setting, process, etc.) was described in detail. In addition, while reporting qualitative data, details and a sufficient number of direct quotations were included. To ensure internal reliability (consistency), the researchers recorded the focus group interview and adopted a consistent approach in the data analysis process. For external reliability (confirmability), the data collection tools and documents used in the research were kept by the first author (Yıldırım & Şimşek, 2006). First author is also an international student who completed a multicultural counseling course before leading the group.

RESULTS

Quantitative Results

The statistics regarding the scores of the international students in the experimental, placebo, and control groups obtained from the pre-test, post-test, and follow-up measurements are given below.

Table 2: Descriptive Statistics for ULS

Sub-scale	Group	n	$\bar{X}$ Pre	SD	n	$\bar{X}$ Post	SD	n	$\bar{X}$ Follow-up	SD
Adjustment to the university environment	Experimental	7	56.74	8.53	7	58.28	10.96	7	62.75	8.13
	Placebo	8	59.29	7.52	8	53.30	10.72	8	56.74	6.93
	Control	12	56.23	9.25	12	54.07	10.89	12	51.83	8.97
Emotional adjustment	Experimental	7	43.29	9.50	7	47.43	6.78	7	48.58	5.15
	Placebo	8	40.42	9.89	8	40.25	6.20	8	42.31	7.18
	Control	12	40.94	10.79	12	40.73	6.26	12	42.64	7.01
Personal	Experimental	7	37.25	4.41	7	35.63	5.79	7	37.79	3.10

Sub-scale	Group	n	X̄	SD	n	X̄	SD	n	X̄	SD
			Pre			Post			Follow-up	
adjustment	Placebo	8	35.93	4.07	8	35.32	4.45	8	33.13	2.03
	Control	12	40.37	7.95	12	37.00	5.26	12	29.08	6.97
Dating relationships	Experimental	7	36.71	7.36	7	36.86	4.60	7	39.90	5.03
	Placebo	8	32.36	5.86	8	33.69	4.97	8	34.21	3.33
	Control	12	35.57	5.83	12	34.08	5.07	12	31.04	3.51
Academic adjustment	Experimental	7	34.29	10.69	7	33.43	9.55	7	36.25	5.11
	Placebo	8	32.38	7.25	8	33.75	5.37	8	32.76	7.19
	Control	12	32.74	8.49	12	33.86	7.17	12	33.00	7.87
Social adjustment	Experimental	7	30.14	3.80	7	29.86	6.54	7	31.02	4.68
	Placebo	8	31.00	5.29	8	25.86	5.22	8	30.00	5.58
	Control	12	32.66	5.58	12	31.08	5.42	12	25.17	4.71

To test the sub-problems of the study, repeated measures analysis of variance was performed to determine whether there was a significant difference between and within groups in terms of adjustment level scores, as well as whether the time and group common effect were significant.

Table 3: ANOVA Results for Adjustment Scores

	Source of Variation	SS	df	MS	F	p	η_p^2
Adjustment to the university environment	Time	72.825	2	36.413	.488	.617	.020
	Group	364.352	2	182.176	1.658	.212	.121
	Time*Group	323.457	4	80.864	1.083	.376	.083
	Error	3584.950	48	74.686			
Emotional adjustment	Time	113.167	1.380	81.977	1.384	.258	.055
	Group	419.373	2	209.687	1.950	.164	.140
	Time*Group	55.179	2.761	19.986	.337	.782	.027
	Error	1962.347	33.131	59.229			
Personal adjustment	Time	263.808	2	131.904	5.462	.007	.185
	Group	51.031	2	25.516	.592	.561	.047
	Time*Group	408.247	4	102.062	4.226	.005	.260
	Error	1159.219	48	24.150			
Dating relationships	Time	.497	2	.248	.012	.988	.001
	Group	290.003	2	145.001	3.773	.038	.239
	Time*Group	182.103	4	45.526	2.267	.076	.159

	Source of Variation	SS	df	MS	F	p	η_p^2
	Error	964.106	48	20.086			
Academic adjustment	Time	9.920	2	4.960	.160	.852	.007
	Group	38.295	2	19.147	.160	.853	.013
	Time*Group	36.564	4	9.141	.295	.880	.024
	Error	1485.241	48	30.943			
Social adjustment	Time	101.924	2	50.962	2.204	.121	.084
	Group	21.369	2	10.685	.292	.750	.024
	Time*Group	335.445	4	83.861	3.627	.012	.232
	Error	1109.726	48	23.119			

As seen in Table 3, the time group interaction effect was statistically significant for personal ($F[4,48] = 4.23$, $p < .05$) and social adjustment ($F[4,48] = 3.63$, $p < .05$). At the same time, it was not significant for adjustment to the university environment ($F[4,48] = 1.08$, $p > .05$), emotional adjustment ($F[2.76,33.13] = .34$, $p > .05$), dating relationships ($F[4,48] = 2.27$, $p > .05$) and academic adjustment ($F[4,48] = .295$, $p > .05$). These findings show that the CBAP program was effective in increasing the personal and social adjustment sub-dimension score of the experimental group, but not in increasing the other sub-dimensions of adjustment to the university environment, emotional adjustment, dating relationships, and academic adjustment.

Qualitative Results

As a result of the content analysis of the focus group interview conducted with international students participating in the CBAP program, the participants' opinions (n = 5) were grouped under five themes: Expectations, contributions, evaluation of the program, leader, and suggestions.

Expectations

International students stated that they expected the program's content to be more limited before participating in the CBAP, but the program was more comprehensive than their expectations. One of the participants (P1) expressed her views: 'I thought that everything is only about university life, but after participating in the program, I realized that not everything is about university life, but maybe about life in Turkey." After participating in the program, international students stated that their expectations were met. In this regard, one participant (P3) stated: "My expectations were that it would be good. And also, I mean, I came to adapt, so I was able to do that."

Contributions

Participants stated that the CBAP contributed to them emotionally in the form of 'not feeling alone' and 'feeling happy.' One of the participants (P5) described the program's contribution to not feeling lonely as follows: "Everyone

has troubles, we shared them, and when my troubles were shared, and others' troubles were shared, as I said, everyone supported each other … there was no loneliness, it eased a little bit, yes, I have bad moments, but I am not alone."

The most emphasized issue by the participants on the contribution of the CBAP was socialization. According to the participant statements, the program contributed to 'making friends,' 'not being afraid to talk,' and 'strengthening social relations.' One of the participants (P3) said, "Before, for example, I could not talk to people at school because I was a foreigner. That's why it was useful for me after I joined. Not being afraid to speak, or if someone misunderstands, for example, I should not be upset when someone misunderstands me because it is a normal thing".

According to the participants' views, another contribution of the CBAP was raising their awareness. Participant 4 described the program's contribution to awareness as follows: "Before, I thought that I could not adapt. When I went over this, I actually think that I have adapted. I realized that I mean, no, I really adapted. Of course, this was good for me*".*

Evaluation of the Program

Under this theme, participants commented on the duration of the program, the number of participants, and the sessions. Regarding the program duration, participants agreed that the sessions were too short. One participant (P3) expressed her views: "An hour and a half would have been better because when we were sitting and talking, time was passing quickly. Well, we couldn't talk as much as we wanted, for example, I think it could have been longer". Similarly, participants stated that the number of sessions should be more. One participant (P2) stated the following: "Eight sessions were enough according to the program, but I wish it were longer." Regarding the number of participants, the participants stated that there should be more students. Participant 1 stated: "Sometimes few friends attended. There was absenteeism... If there were more people participating, it would be bigger and would be more fun, and it would be a better experience".

The content of the CBAP 'activities' and 'materials used' were the issues mentioned by the participants. Participants found the activities (introductory activity, love bombing) and the topics (learning cultures, etc.) emphasized in the program effective and instructive. Regarding the impact of the content, one participant (P1) said, "It was both effective and more attractive to manage in the group. So, I think these things were good". Regarding the materials used, the participants stated that the materials made the sessions more attractive and that they understood the topics discussed in the session more easily, thanks to the materials. One participant (P1) said, "I think the material paper was not very useful, but puzzles, board, video, of course, these are very, very effective, and sometimes we, uh, separate groups are very useful'.

Group Leader

According to all participants, the personal characteristics of the leader had a positive impact on the process. The views of one of the participants (P2) are as follows: "For example, if she thinks there is a misunderstanding, she explains, she explains a lot to people." Regarding the demographic characteristics of the leader, it was stated that being a foreigner had a positive effect on the group. One participant (P4) expressed the effect of the leader being a foreigner on the group: "I think it is really nice because she is a foreigner and she has experienced what we have experienced, so you feel it. I mean, we have all become a group, so it is not just an ordinary group; we are experiencing the same things".

Participants' Suggestions

In the suggestions, the participants stated that the session duration and the number of sessions should be more. Participant 4, who suggested this subject, expressed her views as follows: "I think the sessions could be closer to one and a half hours or two hours; I think it would be more comfortable and explainable, and at the same time, I think the sessions could be more."

In the suggestions made about using technology in the program, it was emphasized that technology and materials should be used more. One participant (P3) suggested: "It would have been better if we used the smart board more because once is not enough; for example, I would like to have it again."

DISCUSSION

According to the study results, CBAP was effective in increasing the adjustment of international students to social and personal adjustment; however, it could have been more effective in terms of other sub-dimensions. The data obtained from the analysis did not provide information about significance of the relationship between adjust to university environment and the CBAP At the same time, in the focus group interview, international students did not express any opinion about adjustment to the university environment. When the literature is examined, it is seen that the general adjustment processes of international students to the university are frequently addressed, but the number of studies directly examining their adjustment to the university environment is quite low. It is seen that different results are reached in these studies: Abe et al. (1998) obtained similar results to the current study, while Law and Liu (2021) and Kalebaşı (2021) concluded that international students' adjustment to university increased as a result of the program they implemented.

There are various reasons why the intervention program implemented in the current study did not significantly affect the level of adjustment of international students to the university environment. First and foremost, the COVID-19 pandemic continued to be effective worldwide in November-December 2021, when the intervention was implemented. The pandemic, which started in 2019

and lasted over two years, negatively affected life worldwide (World Health Organization [WHO], 2022). One of the areas where the pandemic has caused difficulties in human life is education. Within the measures taken during the pandemic, schools were closed in Turkey, as in many other countries, and online education was emphasized (Çiçek et al., 2020). Although the restrictions were relaxed during the implementation of the current study, students did not fully return to the school environment, and education continued in a mixed manner. For this reason, students continued to stay away from the university environment, albeit partially. Therefore, it can be argued that the time spent by the international students participating in the study in the university environment and their opportunities were limited. In this case, even though they participated in the intervention program, the problems experienced by the students may have made their adjustment to the university environment difficult.

The data obtained from the analysis did not also provide information about significance of the relationship between emotional adjustment and the CBAP. Although the program did not significantly affect emotional adjustment, it provided some positive changes in the emotional field, as mentioned in the qualitative findings. The students reported feeling happier, and their loneliness decreased at the end of the program. In the few studies conducted to increase the emotional adjustment of international students, different results were found. While Tavakoli et al. (2009) found an increase in students' emotional adjustment, Law and Liu (2021) found no change in the level of emotional adjustment of international students due to the intervention.

Emotional adjustment is challenging for many students. Especially for international students who feel intensely lonely due to the change in their social environment, which makes their emotional adjustment more difficult. According to Hyun et al. (2007), two out of every five international students experience serious emotional problems. This is because international students have to deal with many stressors. In addition to the developmental tasks (being autonomous, establishing intimacy) required by their life stage, being a foreigner, being away from family and loved ones, facing discrimination, academic expectations, and many other factors can negatively affect the emotional state of international students (Mori, 2000). Therefore, the difficult emotional adjustment process of international students may require a longer time than other types of adjustment. Law and Liu (2021), who reached similar conclusions to this study, stated that international students' emotional adjustment requires more effort and may take longer due to these factors. It is thought that this situation reduces the effect of the CBAP on emotional adjustment. On the other hand, the literature emphasizes that international students experience intense loneliness (Neto, 2021). For this reason, the finding that students' feelings of loneliness decreased in the qualitative data of this study is important.

According to the study's findings, the CBAP significantly increased the personal adjustment of the international students in the experimental group. In addition, the qualitative findings of the study showed positive changes in the personal adjustment process of the students. The students who participated in the CBAP stated that they started to know themselves more and gained awareness at

the end of the program. In the literature, it was observed that the few other studies aiming to increase the emotional adjustment of international students did not yield effective results (Abe et al., 1998; Elemo & Türküm, 2019; Law & Liu, 2021). From this point of view, the finding that the program implemented in the current study increased the personal adjustment of international students gains more importance. The adjustment process of international students takes place in different areas that affect each other. Personal adjustment has a facilitating role for other types of adjustment (Sakurai et al., 2010). If personal adjustment is not achieved, in concrete terms, in cases where the student feels inadequate and does not value themselves, other types of adjustment may also be negatively affected. Rogers (1961) states that among the types of adjustment, personal adjustment forms the basis of the others. For this reason, it is key for the international student to have a positive mood and to realize personal adjustment for the whole adjustment process to be healthy. In this respect, it can be said that the contribution of the CBAP to personal adjustment facilitates the general adjustment process of international students participating in the program in Turkey.

The data obtained from the analysis did not provide information about significance of the relationship between dating relationship and the CBAP.. In addition, international students did not express any opinion about their romantic relationships in the focus group interview. When the literature on the subject was examined, no study included an intervention program for international students' romantic relationship status. Unlike their peers, international students establish emotional intimacy in a foreign country (Delevi & Bugay, 2010). As such, many international students need help to fulfill their need for close relationships. Those in a relationship mostly choose a partner from their own culture or have a long-distance relationship with their partner in their home country (Amelia, 2020). Therefore, there is a need to support international students in close relationships. Although the CBAP is not effective on the level of dating relationships, the current study will likely lead the research to be conducted on this issue.

According to another finding, the data obtained from the analysis did not also provide information about significance of the relationship between academic adjustment and the CBAP. In addition, international students did not express any opinion about academic adjustment in the focus group interviews. Studies on academic adjustment have yielded similar (Abe et al., 1998; Quintrell & Westwood, 1994) and different (Law & Liu, 2021; Westwood & Barker, 1990) results. The fact that the CBAP does not affect the academic adjustment of international students is based on various reasons. First, the students who participated in the program were selected among those who had just started their education in Turkey. In the literature, it is mentioned that there are many academic difficulties for international students in their first year. Many factors, such as differences in the education system and training between countries, cultural differences, and the inability to speak the language fluently, can hinder the academic adjustment of international students (Bastien et al., 2018). Secondly, the implementation phase of the study was carried out during the Covid-19 period. The pandemic had an impact on the program as well as the general education process. Namely, the session duration of the program was shortened (reduced to

one hour instead of 90 minutes) due to pandemic restrictions. It can be argued that this also limited the content of the program.

According to the last finding of the study, the CBAP significantly increased the social adjustment of international students. In addition, the qualitative findings of the study support that there were positive changes in the social adjustment level of the students. The students in the experimental group stated that their social relations strengthened, and they made more friends at the end of the program. It was observed that intervention programs were developed mostly on social adjustment among the sub-dimensions in the adjustment process of international students. While some of the studies involving intervention were found to be effective in increasing the social adjustment of international students, as in the current study (Abe et al., 1998; Sakurai et al., 2010), other studies found that intervention was not effective (Kanekar et al., 2010; Law & Liu, 2021; Smith & Khawaja, 2014; Xie & Wong, 2020).

Although the primary purpose of international students is education, their social cohesion plays a key role in the positive progress of their abroad experience. Failure to achieve social cohesion can lead to various problems for students. In support of this, previous research has shown that international students who do not achieve social cohesion experience alienation (Klomegah, 2006), marginalization (Brown, 2009), loneliness (Sawir et al., 2008), and helplessness (Klomegah, 2006). On the contrary, strong social cohesion and friendship result in higher self-esteem, life satisfaction, and adjustment (Zhou et al., 2008). From this point of view, the contribution of the CBAP to the social cohesion of international students has a positive impact on students' lives in different areas. In addition, there are no studies on improving the social cohesion of international students in Turkey. For this reason, the current study will shed light on the studies conducted in Turkey.

In conclusion, it was found that the Culture-based Adaptation Program significantly affected personal and social adaptation, which are sub-dimensions of adaptation to university. While working with international students, it is seen that including cultural adaptation dimensions in university adjustment programs has positive effects on adjustment. Moreover, a psychoeducation program was also an effective tool for adjustment interventions. In the current study, the group leader was also an international student who completed a multicultural counseling course before leading the group. This eased the development of group dynamics, which might be considered for the implementation of further programs.

Limitations of the Study

Some limitations should be taken into consideration when interpreting the results of the current study. The program implemented in the study was limited in duration (average of 60-minute sessions) due to the restrictions caused by the COVID-19 pandemic. This is undoubtedly thought to limit the content of the program. Another limitation in the research is that interviews were conducted only with participants in the experimental group. Not conducting interviews with participants in the other groups could be evaluated as a limitation of the present

study.. Finally, it is worth noting that the collection of quantitative data for this study was undertaken by the first author. While this approach was adopted to provide language support, it is acknowledged that it may introduce a limitation to the research. In future investigations, it is advisable to assign the data collection process to independent individuals.

Contributions and Suggestions

In line with the suggestions of the students who participated in the program, it is recommended that practitioners who want to use the CBAP should increase the session duration. In addition, the program can be enriched, especially based on sub-dimensions such as adjustment to the university environment, dating relationships, and academic adjustment, where the program does not have a significant effect.. It has been observed that there are no studies in Turkey that include interventions to increase the emotional, academic, and social adjustment of international students, and the number of studies that include interventions in other dimensions is limited. For these reasons, it is considered necessary to conduct further in-depth studies on the sub-dimensions to increase international students' adjustment to university. Lastly, the effect of the CBAP was examined using one scale in the current study. Considering the rich content of the program, it is recommended to measure the program's effect on other variables (hope, loneliness, well-being, etc.) using different scales.

REFERENCES

Abe, J., Talbot, D. M., & Geelhoed, R. J. (1998). Effects of a peer program on international student adjustment. *Journal of College Student Development, 39*(6), 539-547.

Aladağ, M., Kağnıcı, D. Y., Tuna, M. E., & Tezer, E. (2003). Üniversite yaşamı ölçeği: ölçek geliştirme ve yapı geçerliliği üzerine bir çalışma. Türk Psikolojik Danışma ve Rehberlik Dergisi, 2, 41-47.

Amelia, F. R. (2020). Long-distance romantic relationships among international students: "My first qualitative research." *Studies in Philosophy of Science and Education, 1*(2), 74-86.

Baker, R. W., & Sirky, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*, 179-189.

Bastien, G., Seifen-Adkins, T., & Johnson, L. R. (2018). Striving for success: Academic adjustment of international students in the U.S. *Journal of International Students, 8*(2), 1198-1219. doi:10.5281/zenodo.1250421

Bektaş, D. Y. (2008). Counselling international students in Turkish universities: Current status and recommendations. *International Journal of Advancement in Counselling, 30,* 268–278 doi: 10.1007/s10447-008-9064-y.

Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology: An International Review, 46,* 5-68.

Brown, L. (2009). An ethnographic study of the friendship patterns of international students in England: An attempt to recreate home through

conational interaction. *International Journal of Educational Research, 48*(3), 184-193.

Chalungsooth, P., & Faris, A. S. (2009). The Development and Implementation of a Psychoeducational Support Group for International Students. *Human Services Today, 6*(1), 1-8.

Corey, M. S. & Corey, G. (2006). Groups: process and practice (7th Ed.). South Bank: Brooks/ Cole.

Creswell, J. W. (2003). Research design: qualitative, quantitative, and mixed method approaches (2. ed.). USA: Sage Publications.

Çiçek, İ., Tanhan, A., & Tanrıverdi, S. (2020). Covid-19 ve eğitim. *Milli Eğitim Dergisi*, 1091-1104. doi:10.37669/milliegitim.787736

Delevi, R., & Bugay, A. (2010). Understanding change in romantic relationship expectations of international female students from Turkey. *Contemporary Family Therapy, 32*(3), 257-272. doi:10.1007/s10591-010-9124-4

Elemo, A. S., & Türküm, A. S. (2019). The effects of psychoeducational intervention on the adjustment, coping self-efficacy and psychological distress levels of international students in Turkey. *International Journal of Intercultural Relations*(70), 7-18. doi:10.1016/j.ijintrel.2019.02.003

Fraenkel, J. R., & Wallen, N. E. (1996). How to design and evaluate research in education (5. ed.). New York: McGraw-Hill, Inc.

Güçlü, N. (1996). Yabancı öğrencilerin uyum problemleri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 12*, 101-110.

Harel, Y., Shechtman, Z., & Cutrona, C. (2011). Individual and group process variables that affect social support in counseling groups. *Group Dynamics: Theory, Research, and Practice, 15*, 297–310. doi:10.1037/a0025058.

Huang, J. (2006). English abilities for academic listening: How confident are Chinese students? *College Student Journal, 40*(1), 218-226.

Huang, Q., Qin, D. B., Liu, J., & Park, H. J. (2023). Challenges and Resilience of First-Year Chinese International Students on Academic Probation. *Journal of International Students*, 14(2). https://doi.org/10.32674/jis.v14i2.5282

Hussain, M., & Shen, H. (2019). A Study on academic adaptation of international students in China. *Higher Education Studies, 9*(4), 80-91.

Hyun, J., Quinn, B., Madon, T., & Lustig, S. (2007). Mental health need, awareness, and use of counseling services among international graduate students. *Journal of American College Health, 56*(2), 109-118.

Kalebaşı, A. (2021). Uluslararası Öğrencilerin Okula Uyumunu Güçlendirmeye Yönelik Deneysel Bir Çalışma: Üsküdar Örneği. Yalova: Yalova Üniversitesi Lisansüstü Eğitim Enstitüsü, Doktora Tezi.

Kanekar, A., Sharma, M., & Atri, A. (2010). Enhancing social support, hardiness, and acculturation to improve mental health among Asian Indian international students. *International Quarterly of Community Health Education, 30*(1), 55-68. doi:10.2190/IQ.30.1.e

Klomegah, R. Y. (2006). Social factors relating to alienation experienced by international students in the United States. *College Student Journal, 40*(2), 303-316.

Kuo, Y. H. (2011). Language challenges faced by international graduate students in the United States. *Journal of International Students, 1*(2), 38-42.

Law, W., & Liu, S. (2021). Basic need satisfaction intervention for mainland Chinese international students' adjustment to college. *Journal of Studies in International Education*, 1-19. doi:10.1177/10283153211052772

Lee, J. J. (2015). International student experiences of Neo-Racism and discrimination. *International Higher Education, 44*, 3-5.

Lee, J. S. (2017). Challenges of international students in a Japanese university: Ethnographic perspectives. *Journal of International Students, 7*(1), 73-93.

Leech, N. L., Barrett, K. C. & Morgan, G. A. (2008). SPSS for intermediate statistics: Use and interpretation. New York: Psychology Press.

Mariño, J., Montalbo, M., & Bugtong, M. (2017). The socio-culture adaptation among international students at selected schools of Batangas province, Philippines. *International Journal of Education, Psychology and Counselling*, 2(5), 83-98.

McLachlan, D. A., & Justice, J. (2009). A grounded theory of international student well-being. *The Journal of Theory Construction and Testing, 13*(1), 27-32.

Miles, M. B., & Huberman, A. M.(1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage.

Mori, S. C. (2000). Addressing the mental health concerns of international students. *Journal of Counseling and Development* (78), 137-144.

Neto, F. (2021). Loneliness among African international students at Portuguese universities. *Journal of International Students, 11*(2), 397-416. doi:10.32674/jis.v11i2.1379

Penman, J., Malik, G., Chu, M. Y., Kett, G., Hampton, K., Thomacos, N., . . . Mckenzie, W. (2021). Empowering International Students to Succeed: An Innovative and Beneficial Initiative for Health Professions. *Journal of International Students, 11*(4), 832-852. doi:10.32674/jis.v11i4.2226

Poyrazlı, S., & Grahame, K. M. (2007). Barriers to adjustment: Needs of international students within a semi-urban campus community. *Journal of Instructional Psychology, 34*(1), 28-45.

Quintrell, N., & Westwood, M. (1994). The influence of a peer-pairing program on international student's first-year experience and use of student services. *Higher Education Research and Development*(13), 49-57.

Rogers, C. R. (1961). Personal adjustment inventory—Boys and girls. New York: Association Press.

Sakurai, T., McCall-Wolf, F., & Kashima, E. S. (2010). Building intercultural links: The impact of a multicultural intervention programme on social ties of international students in Australia. *International Journal of Intercultural Relations*(34), 176-185. doi:10.1016/j.ijintrel.2009.11.002

Sam, D. L., & Berry, J. W. (2010). Acculturation: when individuals and groups of different cultural backgrounds meet. *Perspectives on Psychological Science, 5*(4), 472-481.

Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2008). Loneliness and international students: An Australian study. *Journal of Studies in International Education, 12* (2), 148-180.

Sherry, M., Thomas, P., & Chui, W. H. (2010). International students: a vulnerable student population. *Higher Education, 60*, 33–46.

Smith, R. A., & Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations, 35*(6), 699-713.

Smith, R. A., & Khawaja, N. G. (2014). A group psychological intervention to enhance the coping and acculturation of international students. *Advances in Mental Health, 12*(2), 110-124. doi:10.1080/18374905.2014.11081889

Tavakoli, S., Lumley, M. A., Hijazi, A. M., Slavin-Spenny, 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

Turkish Council of Higher Education (YÖK). (2021). *Yükseköğretim Bilgi Yönetim Sistemi*. Retrieved March 29, 2022 Yükseköğretim Kurulu: https://istatistik.yok.gov.tr/

UNESCO. (2021). *Global flow of tertiary-level students*. Retrieved May 26, 2022, UNESCO Institute for Statistics (UIS): http://uis.unesco.org/en/uis-student-flow#slideoutmenu

Ward, C. (1996). Acculturation. In D. Landis & R. S. Bhagat (Eds). *Handbook of intercultural training* (p. 124-147). Thousand Oaks, CA: Sage.

Westwood, M., & Barker, M. (1990). Academic achievement and social adaptation among international students: A comparison groups study of the peer-paring program. *International Journal of Intercultural Relations*(14), 251-263.

World Health Organization (WHO). (2022). *WHO Coronavirus (COVID-19) Dashboard*. Retrieved May 18, 2022 https://covid19.who.int/

Wu, H.-p., Garza, E., & Guzman, N. (2015). International student's challenge and adjustment to college. *Education Research International*, 1-9.

Xie, Q., & Wong, D. K. (2020). Evaluation of cognitive behavioral intervention for Chinese international students in Hong Kong. *Research on Social Work Practice, 30*(1), 97-109. doi:10.1177/1049731519852154

Xiong, Y., Prasath, P. R., Zhang, Q., & Jeon, L. (2022). A mindfulness-based well-being group for international students in higher education: A pilot study. *Journal of Counseling & Development*, 1-12. doi:10.1002/jcad.12432

Yeh, C. J., & Inose, M. (2003). International students reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counselling Psychology Quarterly, 16*(1), 15-28.

Yıldırım, A., & Şimşek, H. (2006). Sosyal bilimlerde nitel araştırma yöntemleri (6. Edition). Ankara: Seçkin Press.

Zhou, Y., Frey, C., & Bang, H. (2011). Understanding international graduate students' academic adaptation to a U. S. Graduate School. *International Education, 4*(1), 76-84.

Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education, 33*(1), 63-75.

Author bios

Amal AL-KHATIB, PhD, completed her bachelor degree in 2013, Al-Balqa Applied University Child Development program (Jordan). She completed her graduate degree in 2015, Al-Balqa Applied University Psychology of Education program (Jordan) and doctorate degree in 2022, Ege University, Guidance and Counseling Program (Turkey). Her major research interests lie in the area of multicultural counseling and adaptation of international students. Email: amal.khatib1991@gmail.com

Dilek Yelda KAĞNICI, PhD, completed her bachelor degree in 1997, graduate degree in 1999 and doctorate degree in 2004 in Middle East Technical University, Guidance and Counseling Program (Turkey). She worked as a counselor in METU Health Center between 1998 and 2000. Between 2001 and 2003 she worked as an intern counselor in Incarnate Word University Counseling Center, USA. Since 2004 she has been working as a faculty member in Guidance and Counseling program in Ege University. Since 2017 she has been the chair of Guidance and Counseling program. Her research interests are counselor training and supervision, migration, multicultural counseling and adaptation of international students. Email: yelda.kagnici@gmail.com