

## Psychosocial Status of Iraqi Students and the Effectiveness of Multicultural Therapy in Improving Psychological and Social Functioning Among Students with Anxiety Disorders

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### ABSTRACT

**Purpose:** The present study aimed to investigate the psychosocial status of Iraqi students and determine the effectiveness of multicultural therapy in reducing anxiety and psychological distress and improving social well-being and social functioning.

**Methods and Materials:** This study was conducted in two phases. The first phase used a descriptive-analytical design to assess the psychosocial status of international students at Mohaghegh Ardabili University during the 2025–2026 academic year. From a population of 250 students, 124 were selected through multistage sampling and completed the Beck Anxiety Inventory, Keyes Social Well-Being Scale, Hadian-Nasab Social Functioning Scale, and 28-item General Health Questionnaire. In the second phase, 30 eligible Iraqi students who scored above 17 on the Beck Anxiety Inventory were selected and randomly assigned to an experimental group and a wait-list control group, with 15 participants in each group. The experimental group received a structured multicultural therapy program, whereas the control group received no intervention during the study period. Data were analyzed using descriptive statistics, multivariate analysis of covariance, and univariate analysis of covariance in SPSS version 26.

**Findings:** The multivariate analysis indicated a significant overall effect of group membership on the combined dependent variables after controlling for pretest scores, Pillai's trace = .87,  $F(4, 21) = 35.17$ ,  $p < .001$ , partial  $\eta^2 = .87$ . Univariate analyses showed that multicultural therapy significantly reduced anxiety,  $F(1, 27) = 72.84$ ,  $p < .001$ , partial  $\eta^2 = .730$ , and general psychological distress,  $F(1, 27) = 64.35$ ,  $p < .001$ , partial  $\eta^2 = .704$ . It also significantly improved social well-being,  $F(1, 27) = 58.61$ ,  $p < .001$ , partial  $\eta^2 = .685$ , and social functioning,  $F(1, 27) = 49.27$ ,  $p < .001$ , partial  $\eta^2 = .646$ .

**Conclusion:** Multicultural therapy was effective in reducing anxiety and psychological distress and enhancing social well-being and social functioning among Iraqi students, suggesting that culturally responsive interventions can support both psychological adjustment and social adaptation in international student populations.

**Keywords:** Iraqi students, multicultural therapy, anxiety disorders, psychological functioning, social functioning, social well-being, international students

## 1. Introduction

Anxiety disorders are among the most prevalent and disabling mental health conditions worldwide, and their effects extend beyond emotional distress to impair academic performance, interpersonal relationships, physical health, social participation, and overall quality of life. Epidemiological evidence indicates that anxiety disorders occur across countries, cultures, age groups, and socioeconomic contexts, although their prevalence, expression, and treatment are strongly shaped by demographic, cultural, and structural conditions (Javaid et al., 2023; Khaled et al., 2024). Cross-national findings have also shown that many mental disorders begin during adolescence or early adulthood, the period in which individuals commonly enter higher education and experience major developmental, academic, and social transitions (McGrath et al., 2023). University students are therefore particularly vulnerable because they must simultaneously respond to educational demands, identity development, financial pressures, uncertainty about the future, and changes in their social environments. Systematic reviews have documented substantial rates of anxiety and depressive symptoms among college students and have identified academic burden, loneliness, financial strain, sleep difficulties, poor social support, and maladaptive coping as important correlates (Li et al., 2022; Liu et al., 2023).

The global burden of anxiety became especially visible during and after the COVID-19 pandemic, when social isolation, disruption of education, health-related fear, and uncertainty intensified psychological distress in students and other populations. International estimates demonstrated a marked increase in the prevalence and burden of anxiety and depressive disorders during the pandemic, with younger people and socially disadvantaged groups experiencing particularly pronounced effects (Santomauro et al., 2021). Studies of university students similarly reported elevated anxiety, depression, sleep disturbance, and psychological distress during periods of lockdown and educational disruption (Fu et al., 2021; Guan et al., 2021). Comparable psychological consequences were documented among children and adolescents, physicians, and healthcare workers, showing that anxiety was embedded within a broader social and occupational crisis rather than being limited to a particular population (Johns et al., 2022; Racine et al., 2021; Rana et al., 2020). Although the acute phase of

the pandemic has passed, its effects on educational systems, social relationships, migration experiences, and access to mental health services continue to influence students' psychological functioning.

Anxiety is not solely an intrapsychic phenomenon. Contemporary theoretical approaches increasingly conceptualize it through an integrated biopsychosocial framework in which biological vulnerability, cognitive processes, emotional regulation, interpersonal relationships, environmental stressors, and sociocultural conditions interact dynamically (Smith & Trimble, 2023). Recent refinements of the biopsychosocial model emphasize that psychological symptoms emerge within adaptive and evolutionary systems and cannot be understood adequately without considering the individual's social ecology and lived environment (Smith et al., 2024). The social determinants of mental health, including migration status, poverty, discrimination, housing insecurity, access to education, social exclusion, and unequal access to care, can influence both the development and persistence of anxiety disorders (Vigo et al., 2024). Consequently, effective assessment and intervention must move beyond symptom reduction and address the wider psychological and social functioning of individuals.

Cognitive theory provides an important explanation for the maintenance of anxiety. According to cognitive models, anxious individuals tend to overestimate danger, underestimate their coping ability, interpret ambiguous situations as threatening, and engage in avoidance or safety behaviors that prevent corrective learning (Clark & Beck, 2023). Among international students, these processes may be intensified by unfamiliar social norms, language-related uncertainty, concerns about academic evaluation, fear of negative judgment, and limited confidence in navigating the host culture. From a cognitive-behavioral perspective, acculturative stress can activate maladaptive beliefs concerning personal inadequacy, rejection, social failure, or loss of control, thereby increasing physiological arousal and avoidance (Li & Li, 2024). These mechanisms suggest that anxiety among international students is closely linked to the meaning they assign to cultural differences and to their perceived ability to cope with unfamiliar interpersonal and institutional environments.

International students face a distinctive set of challenges because migration for education requires simultaneous adjustment to a new academic system, language, culture, and social network. In addition to ordinary university stressors,

they may encounter homesickness, separation from family, financial concerns, immigration-related uncertainty, perceived discrimination, cultural misunderstanding, and difficulty accessing appropriate psychological services. Research has shown that acculturative stress can adversely affect life satisfaction through reduced bicultural acceptance, diminished self-esteem, and increased social withdrawal (Kim & Kim, 2022). Immigration status and uncertainty about belonging may also influence mental health and students' intention to persist in higher education (Moreno et al., 2022). These findings demonstrate that psychological adjustment cannot be separated from students' legal, cultural, academic, and relational circumstances.

Social support and coping resources are particularly important protective factors for international students. Evidence from international student populations indicates that supportive relationships, adaptive coping strategies, and access to culturally responsive services are associated with better mental health and reduced psychological distress (Mozafari et al., 2022). Psychological capital, including hope, resilience, optimism, and self-efficacy, can also protect international students from distress and enhance their well-being (Arslan & Allen, 2022). The frequent stressor and mental health model further suggests that mental health outcomes are shaped not merely by exposure to a single major event but by repeated encounters with everyday stressors and the individual's capacity to respond adaptively over time (Kalisch et al., 2023). For international students, recurrent difficulties such as communication barriers, subtle discrimination, academic misunderstanding, and social isolation may accumulate and gradually undermine psychological resilience.

Social functioning represents a central component of mental health and includes the ability to establish and maintain relationships, fulfill expected roles, participate in social and academic activities, communicate effectively, and respond adaptively to interpersonal demands. Psychological symptoms can substantially disrupt these capacities, even when individuals remain enrolled in education or continue performing routine activities. Research across clinical populations has demonstrated that symptom severity is closely related to impaired social functioning and that symptom reduction does not always produce equivalent recovery in social roles (Escandell et al., 2022). Adverse life experiences may also exert long-term effects on mental health and interpersonal functioning by altering trust, emotion regulation, and social engagement (Tzouvara et al.,

2023). Accordingly, evaluating treatment solely through changes in anxiety symptoms may overlook meaningful outcomes related to social integration, responsibility, interpersonal effectiveness, and participation in university life.

The social functioning of international students is particularly dependent on their access to social capital and opportunities for reciprocal interaction within the host society. Social integration develops through repeated exchanges in which students interpret others' responses, construct a sense of belonging, and gradually acquire the cultural and relational resources required for participation (Li & Li, 2023). Cultural capital also influences educational success because familiarity with institutional expectations, communication styles, and academic norms can facilitate participation and performance, whereas limited access to such knowledge can reinforce marginalization (Davies, 2024). Perceptions of the educational climate are similarly important. A supportive school or university environment may strengthen immigrant students' engagement, while exclusionary or unsupportive climates can reduce participation and increase vulnerability (Hu et al., 2025).

Contemporary digital environments have introduced additional opportunities and risks for international students' adaptation. Social media can facilitate communication with family members, provide access to culturally familiar communities, and support the development of new relationships in the host country. It may also assist students in obtaining information about academic and social norms and in maintaining multiple cultural identities. Research has found that social media use can promote social identification and cross-cultural adaptation when it strengthens meaningful relationships and access to supportive communities (Jiang & Wang, 2024). Similar findings indicate that digital communication may enhance adjustment by increasing information exchange, cultural learning, and social connectedness (Zhang et al., 2024). Nevertheless, online interaction may become problematic when it replaces direct social participation, reinforces isolation, increases social comparison, or exposes students to discrimination. Its psychological effect therefore depends on the quality and function of online engagement.

Cultural identity construction is another major aspect of international student adaptation. Students do not simply abandon their original identity and adopt a new one; instead, they negotiate multiple cultural positions and develop ways of integrating elements of both home and host cultures. The process may produce growth, flexibility, and broader social

competence, but it may also create uncertainty, identity conflict, and pressure to conform (Jin & O'Regan, 2024). Research on multicultural adolescents similarly indicates that generalized anxiety is associated with both common psychological risk factors and culturally specific experiences, confirming that multicultural populations require assessment models that account for their distinctive social contexts (Ha & Shin, 2025). The psychosocial condition of Iraqi students studying abroad must therefore be understood in relation to cultural identity, social belonging, adaptation demands, and their position within the host educational system.

Iraqi students may face additional vulnerabilities arising from the social, political, and economic circumstances of their country of origin. Some may have been exposed directly or indirectly to conflict, displacement, instability, loss, or prolonged uncertainty. Even when students have not personally experienced severe trauma, family histories, collective memories, and continuing concern for relatives may shape their emotional responses and sense of safety. These experiences may interact with the pressures of migration and higher education, increasing sensitivity to uncertainty and social threat. At the same time, cultural and religious values, family cohesion, communal responsibility, and educational aspiration may provide significant sources of resilience. A culturally appropriate intervention must therefore avoid viewing Iraqi identity only through the lens of vulnerability and should also recognize cultural strengths and protective resources.

Access to mental health care remains uneven across countries and social groups. Evidence from international surveys indicates considerable variation in the use of antidepressant treatment across low-, middle-, and high-income countries, reflecting disparities in service availability, affordability, recognition of symptoms, and cultural attitudes toward treatment (Kazdin et al., 2023). Students from cultures in which psychological difficulties are stigmatized may be reluctant to disclose emotional distress or seek formal support. They may express anxiety through somatic symptoms, academic concerns, sleep problems, or interpersonal withdrawal rather than through direct psychological language. The use of culturally validated screening measures is therefore important. Studies developing and standardizing anxiety instruments have emphasized the need to establish construct validity and reliability within the population in which a measure is applied (Ghobadian & Javadi, 2024). Assessment should also be sensitive to language, cultural meanings, and the

possibility that standard symptom descriptions may not be interpreted uniformly across groups.

Multicultural therapy has emerged as an important response to these limitations. It is based on the principle that psychological problems and therapeutic processes are embedded within cultural, social, historical, and political contexts. Rather than applying a uniform intervention without modification, multicultural therapy attends to the client's cultural identity, worldview, language, family structure, values, spirituality, migration history, experiences of discrimination, and relationship to dominant institutions (Vasquez & Johnson, 2022). Multicultural practice requires therapists to examine their own assumptions, develop knowledge about diverse communities, and adapt intervention strategies in ways that preserve scientific rigor while remaining culturally meaningful.

Multicultural counseling competence is not a static collection of facts about cultural groups but an ongoing process involving self-awareness, contextual understanding, relational responsiveness, and appropriate therapeutic action. The process model of multicultural counseling competence emphasizes that effective practice develops through continuous interaction among therapist characteristics, client needs, cultural context, and clinical decision-making (Ridley et al., 2021). Deliberate practice can strengthen this competence by allowing therapists to rehearse difficult interactions, identify blind spots, receive feedback, and improve their ability to respond to culturally complex situations (Harris et al., 2024). Training experiences involving refugees and other culturally diverse populations also demonstrate that reflective practice, supervision, and engagement with communities are necessary for culturally and socially responsive intervention (Kuokim, 2024). Similarly, international counseling students require explicit preparation in multicultural and social justice competencies if they are to work effectively across cultural boundaries (Zhai & Prescod, 2025).

Multicultural therapy is particularly relevant for vulnerable populations whose distress is linked to marginalization, migration, discrimination, or unequal access to social resources. Case-based evidence has shown that culturally informed therapy can improve engagement by validating clients' experiences and integrating their social and cultural realities into treatment (Velez Agosto & Almario-Zgheib, 2024). Natural mentoring and supportive relationships may also function as protective resources for individuals who have experienced adversity, highlighting the therapeutic importance of stable, trustworthy, and



culturally meaningful interpersonal connections (Weber Ku et al., 2021). In international student populations, multicultural counseling has been associated with improvements in social functioning and protective psychological factors, suggesting that culturally responsive treatment can influence both symptom relief and broader adaptation (Smith et al., 2023).

Multicultural therapy can incorporate evidence-based cognitive and behavioral strategies while adapting their delivery to the client's worldview. For example, cognitive restructuring may examine not only individual beliefs but also realistic experiences of discrimination or cultural exclusion. Behavioral exposure may target avoidance of classroom participation, public speaking, social interaction, or communication with university staff, while considering language proficiency and cultural norms. Research on multicultural counseling for international students has shown that cognitive-behavioral techniques can effectively address public speaking anxiety when interventions are adapted to students' cultural and linguistic experiences (Anwar et al., 2024). This integration is important because culturally responsive therapy should not merely validate distress; it should also provide structured skills for changing maladaptive cognitive, emotional, and behavioral patterns.

The potential benefits of multicultural therapy extend beyond anxiety reduction. By helping students understand their cultural transitions, strengthen bicultural identity, improve communication, expand social support, and reinterpret stressful experiences, therapy may enhance social well-being and daily functioning. It may also reduce psychological distress by increasing perceived control, self-efficacy, belonging, and confidence in navigating the host environment. Such outcomes are consistent with the broader view that mental health depends on the interaction between personal capacities and social conditions. A comprehensive evaluation of multicultural therapy should therefore include measures of anxiety, general psychological health, social well-being, and social functioning rather than focusing on a single symptom dimension.

Despite increasing attention to international students' mental health, several gaps remain. Much of the available literature has examined international students in Western or East Asian contexts, while Iraqi students studying in Iranian universities have received limited empirical attention. Furthermore, many studies have used cross-sectional designs that identify associations between acculturative stress and mental health but do not evaluate culturally adapted interventions. Studies also frequently emphasize

anxiety or depression without examining how these symptoms influence social responsibility, integration, participation, and interpersonal functioning. Given the growing mobility of students within the Middle East, there is a need for research that first assesses psychosocial conditions and then evaluates an intervention responsive to the cultural and social realities of the target population.

The present study addressed these gaps through a two-phase design. The initial descriptive-analytical phase assessed the psychosocial status of international students and identified Iraqi students with elevated anxiety symptoms. The subsequent quasi-experimental phase evaluated whether a structured multicultural therapy program could improve anxiety, general psychological health, social well-being, and social functioning compared with a wait-list control condition. By combining screening with intervention evaluation, the study sought to generate both descriptive information about the needs of Iraqi students and empirical evidence regarding a culturally responsive therapeutic approach.

Accordingly, the aim of the present study was to investigate the psychosocial status of Iraqi students and determine the effectiveness of multicultural therapy in reducing anxiety and improving their psychological and social functioning.

## 2. Methods and Materials

### 2.1. Study Design and Participants

The inclusion criteria were being an Iraqi student enrolled at Mohaghegh Ardabili University during the study period, obtaining a score above 17 on the Beck Anxiety Inventory, demonstrating sufficient proficiency in Persian or the language used during the therapeutic sessions, providing written informed consent, and expressing willingness to participate actively in the assessment and treatment procedures. Participants were also required to be available for the entire intervention period and to complete both pretest and posttest assessments. The exclusion criteria included absence from more than two therapeutic sessions, withdrawal of consent, unwillingness to continue the therapeutic process, incomplete completion of the study questionnaires, initiation of another structured psychological treatment during the study period, or the presence of psychological or medical conditions that prevented effective participation in group sessions. Before data collection, the participants were informed about the objectives and procedures of the study, the voluntary nature of

participation, the confidentiality of their information, and their right to withdraw from the research at any stage without academic or personal consequences.

## 2.2. Data Collection Tools

The Beck Anxiety Inventory was used to screen participants and measure the severity of their anxiety symptoms before and after the intervention. The instrument was developed by Beck and Steer and consists of 21 items assessing common cognitive, emotional, and physiological symptoms of anxiety. Each item is rated on a four-point scale ranging from 0, indicating that the symptom did not affect the respondent at all, to 3, indicating that the symptom affected the respondent severely. The total score ranges from 0 to 63, with higher scores representing more severe anxiety symptoms. Scores are generally interpreted as minimal, mild, moderate, or severe anxiety, although the precise cutoff points may differ according to the population and validation study. In the present research, a score above 17 was used as one of the eligibility criteria for entry into the intervention phase. The Beck Anxiety Inventory is a widely used self-report measure for evaluating anxiety severity among adolescents and adults and has demonstrated acceptable psychometric properties in different cultural and clinical populations. The Persian version of the instrument was translated and culturally adapted by Kaviani and Mousavi, who reported evidence supporting its validity and reliability. Its brief administration time, straightforward scoring procedure, and sensitivity to changes in anxiety symptoms made it suitable for both screening and outcome assessment in the present study.

The Keyes Social Well-Being Scale was administered to evaluate the participants' perceptions of their functioning within society and their relationships with the broader social environment. Keyes conceptualized social well-being as a multidimensional construct reflecting the extent to which individuals perceive themselves as integrated into society, accept other people, believe in the developmental potential of society, understand the social world, and consider themselves capable of contributing to their communities. The scale commonly contains 20 items, although some versions include 21 items, and the items are rated on a five-point Likert scale ranging from strongly disagree to strongly agree. The measure assesses dimensions such as social integration, social acceptance, social contribution, social actualization, and social coherence. Several negatively worded items are reverse-scored before calculating the total

and subscale scores. Higher scores indicate stronger social well-being, greater social connectedness, and more positive perceptions of one's role within society. In the present study, the scale was particularly relevant because Iraqi students studying in another country could experience cultural adjustment difficulties, reduced social belonging, interpersonal misunderstandings, discrimination, homesickness, or limited access to supportive social networks. Therefore, the instrument was used to determine whether multicultural therapy improved the participants' social well-being and their perceived integration into the university and host society.

The Hadian-Nasab Social Functioning Scale was used to assess the participants' effectiveness in fulfilling interpersonal and social roles. This instrument was developed and standardized by Hadian-Nasab in 2015 and contains 16 items distributed across three dimensions. Six items assess principles of social responsibility, five items evaluate social accountability processes, and five items examine the behavioral outcomes of social functioning. The items are scored on a five-point Likert scale ranging from strongly disagree, scored as 1, to strongly agree, scored as 5. The total score is calculated by summing the responses to all items, with higher scores indicating more adaptive social functioning, greater responsibility in social relationships, and more effective participation in social and interpersonal contexts. The content validity of the instrument was examined through expert judgment during its development, and internal consistency was evaluated using Cronbach's alpha. In the current study, the scale was used to assess changes in the students' ability to communicate with others, participate in social and academic activities, accept social responsibilities, manage interpersonal demands, and respond appropriately to the expectations of their university environment. The measure was therefore considered suitable for evaluating the social consequences of anxiety and the potential effects of multicultural therapy on participants' everyday social functioning.

The 28-item General Health Questionnaire was used to assess the participants' overall psychological functioning and identify symptoms of psychological distress. The General Health Questionnaire was originally developed by Goldberg in 1972 as a 60-item screening instrument, and shorter versions containing 30, 28, and 12 items were subsequently developed. The 28-item version used in the present study consists of four seven-item subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. Each item has four response options

reflecting the degree to which the respondent has recently experienced a particular symptom or difficulty. The questionnaire can be scored using the traditional binary method of 0-0-1-1, resulting in a total score ranging from 0 to 28, or the Likert scoring method of 0-1-2-3, producing a total score ranging from 0 to 84. The Likert scoring method was employed in the present study because it provides greater sensitivity to variations in symptom severity and changes following an intervention. Under the conventional scoring direction, higher scores represent greater psychological distress and poorer general mental health. The questionnaire has demonstrated satisfactory reliability and validity across diverse populations, and Goldberg and Williams reported a split-half reliability coefficient of 0.95. More recent psychometric evidence has also supported the construct validity of the instrument, while Ghobadian and Javadi reported a Cronbach's alpha coefficient of 0.92. In this study, the General Health Questionnaire was used to examine whether multicultural therapy reduced somatic complaints, anxiety-related distress, social dysfunction, and depressive symptoms and consequently improved the participants' overall psychological functioning.

### 2.3. Intervention Protocol

The experimental group participated in a structured multicultural therapy program designed to address the interaction between anxiety symptoms, cultural identity, migration-related experiences, social adjustment, interpersonal relationships, and functioning within the host academic environment. The intervention was delivered in a group format by a trained therapist familiar with multicultural counseling principles and the cultural, linguistic, religious, and social backgrounds of Iraqi students. The therapeutic process began with the establishment of psychological safety, group rules, confidentiality, mutual respect, and a culturally responsive therapeutic alliance. Participants were encouraged to discuss their experiences of studying outside their home country, including homesickness, separation from family, language barriers, academic pressure, uncertainty about social norms, experiences of cultural misunderstanding, perceived discrimination, and difficulties developing supportive relationships. Psychoeducation was provided regarding anxiety symptoms and the influence of cultural beliefs, family expectations, social values, and migration-related stressors on emotional experiences and help-seeking behaviors. The intervention incorporated cognitive and

behavioral techniques to identify anxiety-provoking thoughts, challenge culturally influenced maladaptive beliefs, reduce avoidance, improve emotional regulation, and develop effective coping strategies. Role-playing, guided discussion, relaxation exercises, problem-solving, assertive communication training, and gradual engagement in social and academic situations were used to strengthen participants' confidence and functioning. The therapist also helped the students recognize cultural strengths, preserve adaptive aspects of their Iraqi identity, develop a balanced bicultural perspective, and improve their ability to communicate with individuals from different cultural backgrounds. Particular attention was given to enhancing social support, social participation, interpersonal trust, and a sense of belonging within the university. At the end of the program, the participants reviewed the skills they had acquired, developed individualized plans for maintaining psychological and social improvements, and identified strategies for managing future anxiety-provoking or culturally challenging situations. The wait-list control group received no structured psychological intervention during the study period and continued its usual academic and daily activities.

### 2.4. Data Analysis

The collected data were analyzed using descriptive and inferential statistical methods in IBM SPSS Statistics, version 26. Before conducting the main analyses, the data were reviewed for completeness, coding errors, out-of-range values, missing responses, and potential outliers. Descriptive statistics, including the mean, standard deviation, frequency, percentage, minimum, and maximum, were calculated to summarize the demographic characteristics of the participants and their scores on anxiety, social well-being, social functioning, and general health measures. Frequencies and percentages were used to describe categorical variables, whereas means and standard deviations were used for continuous variables. The psychosocial status of the students in the first phase was examined using the distribution of scores obtained from the study instruments.

In the intervention phase, the baseline equivalence of the experimental and control groups was initially examined by comparing their demographic characteristics and pretest scores. The assumptions required for parametric analyses were evaluated before hypothesis testing. The normality of score distributions was assessed using the Shapiro-Wilk test and examination of skewness and kurtosis indices, while the

homogeneity of variances between the two groups was evaluated using Levene's test. Because the intervention phase included pretest and posttest measurements, the effectiveness of multicultural therapy was assessed by comparing changes in the outcome variables between the experimental and control groups. Analysis of covariance was used for each dependent variable, with the posttest score entered as the outcome, group membership entered as the independent variable, and the corresponding pretest score entered as the covariate. Before conducting the analysis of covariance, the assumptions of linearity, homogeneity of regression slopes, independence of observations, normality of residuals, and homogeneity of error variances were examined. Where the psychosocial outcomes were analyzed simultaneously, multivariate analysis of covariance could also be employed to control the familywise error rate and assess the overall intervention effect across the related dependent variables. Effect sizes were reported using partial eta squared to indicate the magnitude of the differences attributable to multicultural therapy. All statistical tests were conducted using a two-tailed significance level of .05, and results with  $p$  values below .05 were considered statistically significant.

### 3. Findings and Results

The intervention phase included 30 Iraqi students who met the eligibility criteria and completed the pretest assessment. The participants were randomly assigned to the multicultural therapy group and the wait-list control group, with 15 students in each group. All 30 participants completed the posttest assessment and were included in the final statistical analysis. Therefore, the participant retention rate was 100%, and no case was excluded because of excessive absence, withdrawal of consent, or incomplete questionnaire data. The participants' ages ranged from 19 to 29 years, with an overall mean age of 22.73 years and a standard deviation of 2.86. The mean age was  $22.60 \pm 2.72$  years in the experimental group and  $22.87 \pm 3.07$  years in the control group. An independent-samples  $t$ -test showed that the two groups did not differ significantly in age,  $t(28) = -0.25$ ,  $p = .804$ . Of the 30 participants, 18 students were male, accounting for 60.0% of the sample, and 12 were female, accounting for 40.0%. The experimental group included nine male and six female students, and the control group also included nine male and six female students. Consequently, the two groups were completely comparable in terms of gender distribution. Regarding educational level,

19 participants, or 63.3%, were undergraduate students, whereas 11 participants, or 36.7%, were postgraduate students. The experimental group consisted of 10 undergraduate and five postgraduate students, while the control group consisted of nine undergraduate and six postgraduate students. Fisher's exact test indicated no statistically significant difference between the groups in educational level,  $p = .705$ .

With respect to accommodation, 16 students, representing 53.3% of the sample, lived in university dormitories, while 14 students, representing 46.7%, lived in rented accommodation or with relatives. Eight dormitory residents and seven students living outside the dormitory were assigned to each study group. The participants had lived in Iran for an average of  $2.47 \pm 1.13$  years. The mean length of residence was  $2.40 \pm 1.12$  years in the experimental group and  $2.53 \pm 1.19$  years in the control group. The difference between the groups was not statistically significant,  $t(28) = -0.32$ ,  $p = .750$ . Furthermore, 17 participants, or 56.7%, reported moderate proficiency in Persian, whereas 13 participants, or 43.3%, reported good or very good proficiency. The distribution of Persian-language proficiency did not differ significantly between the two groups,  $p = .713$ . None of the participants reported receiving concurrent structured psychotherapy during the intervention period, and none reported a change in psychiatric medication between the pretest and posttest assessments. Overall, the demographic findings demonstrated that the experimental and control groups were comparable in age, gender, educational level, accommodation status, length of residence in Iran, and Persian-language proficiency. Therefore, any post-intervention differences between the groups were unlikely to be attributable to demographic imbalance.

Table 1 presents the descriptive findings obtained from the 124 international students who participated in the initial screening phase. The table includes the mean, standard deviation, minimum, maximum, and observed score range for anxiety, social well-being, social functioning, and general psychological health. Because higher scores on the Beck Anxiety Inventory and the General Health Questionnaire represent greater symptom severity and poorer psychological health, elevated scores on these instruments indicated greater psychosocial vulnerability. In contrast, higher scores on the Keyes Social Well-Being Scale and the Hadian-Nasab Social Functioning Scale represented more favorable social well-being and more effective social functioning.



**Table 1**

*Descriptive Statistics for the Psychosocial Variables in the Screening Sample (N = 124)*

| Variable                       | Possible score range | Mean  | Standard deviation | Minimum | Maximum |
|--------------------------------|----------------------|-------|--------------------|---------|---------|
| Anxiety symptoms               | 0–63                 | 20.47 | 10.36              | 3       | 49      |
| Social well-being              | 20–100               | 63.28 | 12.54              | 34      | 91      |
| Social functioning             | 16–80                | 53.91 | 8.64               | 31      | 73      |
| General psychological distress | 0–84                 | 30.16 | 13.02              | 6       | 64      |

As shown in Table 1, the mean anxiety score in the screening sample was  $20.47 \pm 10.36$ , indicating that anxiety symptoms were a notable concern among the international students. The considerable standard deviation and the observed range of scores from 3 to 49 demonstrated substantial variation in anxiety severity. Some students reported few anxiety symptoms, whereas others experienced moderate to severe anxiety. Based on the eligibility cutoff score of greater than 17 on the Beck Anxiety Inventory, 49 of the 124 screened students, equivalent to 39.5%, obtained scores indicative of elevated anxiety symptoms. Of these 49 students, 30 Iraqi students satisfied the remaining inclusion criteria and agreed to participate in the intervention phase. This finding suggested that more than one-third of the screened international students experienced a level of anxiety that warranted further clinical attention or psychological support.

The mean score for social well-being was  $63.28 \pm 12.54$ . Although this mean was above the theoretical midpoint of the scale, the wide score range from 34 to 91 indicated that the students differed considerably in their perceptions of social integration, social acceptance, social contribution, social coherence, and social actualization. A proportion of the participants appeared to have adequate social resources and a positive perception of their position within the university and host society. However, students at the lower end of the distribution experienced limited social belonging, reduced confidence in their ability to contribute to the social environment, or difficulty understanding and adapting to the social structure around them. Such difficulties may be particularly relevant for international students who must simultaneously manage academic responsibilities, cultural

adjustment, separation from family, language-related challenges, and the formation of new social networks.

The participants obtained a mean social functioning score of  $53.91 \pm 8.64$ , with observed scores ranging from 31 to 73. The mean score indicated a moderate overall level of social functioning; however, the variability in the scores showed that some students had difficulty fulfilling social responsibilities, communicating effectively, responding to interpersonal expectations, or participating actively in academic and social contexts. The mean General Health Questionnaire score was  $30.16 \pm 13.02$ . Considering that higher scores on the General Health Questionnaire reflect greater psychological distress, this result indicated the presence of meaningful somatic complaints, anxiety and sleep difficulties, social dysfunction, and depressive symptoms within the screening sample. The broad range of scores from 6 to 64 further showed that the students' psychological health varied considerably. Collectively, the screening findings indicated that anxiety, psychological distress, and difficulties in social adjustment were relevant concerns among the international students and supported the need for a culturally responsive psychological intervention.

Table 2 presents the pretest and posttest means and standard deviations for anxiety symptoms, social well-being, social functioning, and general psychological distress in the experimental and control groups. Inspection of the pretest values showed that the two groups had highly similar scores before the intervention. In contrast, clear differences emerged at the posttest, with the experimental group demonstrating lower anxiety and psychological distress scores and higher social well-being and social functioning scores.

**Table 2**

*Means and Standard Deviations of the Study Variables at Pretest and Posttest by Group*

| Variable          | Group                 | Pretest mean | Pretest SD | Posttest mean | Posttest SD | Mean change |
|-------------------|-----------------------|--------------|------------|---------------|-------------|-------------|
| Anxiety symptoms  | Multicultural therapy | 27.47        | 5.52       | 13.20         | 4.39        | -14.27      |
| Anxiety symptoms  | Wait-list control     | 26.93        | 5.31       | 25.87         | 5.43        | -1.06       |
| Social well-being | Multicultural therapy | 55.13        | 8.24       | 72.47         | 7.65        | 17.34       |

|                                |                       |       |      |       |      |        |
|--------------------------------|-----------------------|-------|------|-------|------|--------|
| Social well-being              | Wait-list control     | 56.07 | 8.12 | 57.40 | 8.33 | 1.33   |
| Social functioning             | Multicultural therapy | 47.60 | 6.80 | 62.13 | 6.17 | 14.53  |
| Social functioning             | Wait-list control     | 48.27 | 6.54 | 49.13 | 6.63 | 0.86   |
| General psychological distress | Multicultural therapy | 39.07 | 8.41 | 22.27 | 6.75 | -16.80 |
| General psychological distress | Wait-list control     | 38.40 | 8.05 | 37.13 | 8.22 | -1.27  |

According to Table 2, the mean pretest anxiety score was  $27.47 \pm 5.52$  in the multicultural therapy group and  $26.93 \pm 5.31$  in the wait-list control group. The similarity of these scores indicated that both groups had comparable levels of anxiety before the intervention. At the posttest, the mean anxiety score of the experimental group decreased to  $13.20 \pm 4.39$ , whereas the mean score of the control group remained comparatively high at  $25.87 \pm 5.43$ . Therefore, the experimental group experienced an average reduction of 14.27 points in anxiety, compared with a reduction of only 1.06 points in the control group. Expressed as a percentage of the pretest mean, the anxiety score of the experimental group decreased by approximately 52.0%, while the control group demonstrated a reduction of approximately 3.9%. This pattern provided preliminary descriptive evidence that participation in multicultural therapy was associated with a clinically meaningful reduction in anxiety symptoms.

The pretest mean for social well-being was  $55.13 \pm 8.24$  in the experimental group and  $56.07 \pm 8.12$  in the control group. Following the intervention, the mean social well-being score increased to  $72.47 \pm 7.65$  in the experimental group but increased only slightly to  $57.40 \pm 8.33$  in the control group. Thus, the experimental group demonstrated a mean improvement of 17.34 points, whereas the control group showed an improvement of only 1.33 points. The increase in the experimental group represented an improvement of approximately 31.5% relative to its pretest mean. This substantial change suggested that the multicultural intervention strengthened the participants' sense of social belonging, social acceptance, perceived contribution, understanding of the social environment, and confidence in the possibility of positive social development.

A similar pattern was found for social functioning. The experimental group's mean social functioning score increased from  $47.60 \pm 6.80$  at pretest to  $62.13 \pm 6.17$  at posttest, representing an improvement of 14.53 points. The control group's mean score changed only from  $48.27 \pm 6.54$  to  $49.13 \pm 6.63$ , representing an improvement of 0.86 points. The experimental group therefore showed an increase of approximately 30.5% in social functioning. This result indicated that the participants who received multicultural therapy became more effective in fulfilling social roles, accepting social responsibilities, communicating with

others, responding to interpersonal expectations, and participating in academic and social activities.

For general psychological distress, the experimental group's mean score decreased from  $39.07 \pm 8.41$  at pretest to  $22.27 \pm 6.75$  at posttest. The control group showed only a minor reduction from  $38.40 \pm 8.05$  to  $37.13 \pm 8.22$ . The mean reduction was therefore 16.80 points in the experimental group and 1.27 points in the control group. The experimental group experienced an approximate 43.0% reduction in psychological distress, compared with a reduction of approximately 3.3% in the control group. Because lower General Health Questionnaire scores indicate fewer somatic symptoms, less anxiety and insomnia, lower social dysfunction, and fewer depressive symptoms, the results suggested that the intervention produced broad improvements in psychological functioning rather than affecting anxiety symptoms alone.

Independent-samples t-tests conducted on the pretest scores confirmed that the two groups did not differ significantly before the intervention in anxiety,  $t(28) = 0.27$ ,  $p = .788$ ; social well-being,  $t(28) = -0.31$ ,  $p = .756$ ; social functioning,  $t(28) = -0.27$ ,  $p = .786$ ; or general psychological distress,  $t(28) = 0.22$ ,  $p = .826$ . These nonsignificant pretest differences supported the initial comparability of the groups and indicated that the posttest differences could be analyzed while controlling statistically for baseline scores.

Before conducting the main inferential analyses, the assumptions underlying analysis of covariance were examined. The Shapiro-Wilk test was nonsignificant for all pretest and posttest scores within the experimental and control groups, with p values ranging from .084 to .792, indicating no statistically significant departure from normality. Examination of skewness and kurtosis also showed that all values were within the acceptable range of -2 to +2. No extreme univariate outliers were identified through standardized scores, and examination of the Mahalanobis distance did not reveal any influential multivariate outlier. Scatterplots supported an approximately linear relationship between the pretest and posttest scores for each dependent variable.

Levene's test was nonsignificant for anxiety,  $F(1, 28) = 0.59$ ,  $p = .449$ ; social well-being,  $F(1, 28) = 0.11$ ,  $p = .744$ ;

social functioning,  $F(1, 28) = 0.18$ ,  $p = .673$ ; and general psychological distress,  $F(1, 28) = 0.73$ ,  $p = .400$ . Therefore, the assumption of homogeneity of error variances was satisfied. The interaction between group membership and the corresponding pretest score was also nonsignificant for anxiety,  $F(1, 26) = 0.37$ ,  $p = .550$ ; social well-being,  $F(1, 26) = 0.21$ ,  $p = .650$ ; social functioning,  $F(1, 26) = 0.46$ ,  $p = .503$ ; and general psychological distress,  $F(1, 26) = 0.32$ ,  $p = .578$ . These findings confirmed the homogeneity of regression slopes and supported the use of analysis of covariance.

A multivariate analysis of covariance was initially performed to assess the overall effect of multicultural therapy on the combined dependent variables after controlling for pretest scores. The multivariate effect of

group membership was statistically significant, Pillai's trace = .87,  $F(4, 21) = 35.17$ ,  $p < .001$ , partial  $\eta^2 = .87$ . Wilks' lambda also confirmed a significant overall group effect,  $\Lambda = .13$ ,  $F(4, 21) = 35.17$ ,  $p < .001$ . These results indicated that the combined posttest profile of anxiety, social well-being, social functioning, and general psychological distress differed significantly between the experimental and control groups after the effects of the corresponding pretest scores were controlled. The partial eta-squared value of .87 indicated that 87% of the multivariate variance in the combined outcomes was associated with group membership after baseline adjustment. Separate univariate analyses of covariance were subsequently conducted to determine the effect of the intervention on each outcome.

**Table 3**

*Analysis of Covariance for the Effects of Multicultural Therapy on Posttest Outcomes*

| Dependent variable             | Source        | Sum of squares | df | Mean square | F     | p      | Partial $\eta^2$ | Adjusted experimental mean | Adjusted control mean |
|--------------------------------|---------------|----------------|----|-------------|-------|--------|------------------|----------------------------|-----------------------|
| Anxiety symptoms               | Pretest score | 214.63         | 1  | 214.63      | 11.92 | .002   | .306             | —                          | —                     |
|                                | Group         | 1311.42        | 1  | 1311.42     | 72.84 | < .001 | .730             | 13.07                      | 26.00                 |
|                                | Error         | 486.06         | 27 | 18.00       | —     | —      | —                | —                          | —                     |
| Social well-being              | Pretest score | 487.25         | 1  | 487.25      | 10.34 | .003   | .277             | —                          | —                     |
|                                | Group         | 2761.53        | 1  | 2761.53     | 58.61 | < .001 | .685             | 72.75                      | 57.12                 |
|                                | Error         | 1272.15        | 27 | 47.12       | —     | —      | —                | —                          | —                     |
| Social functioning             | Pretest score | 302.74         | 1  | 302.74      | 9.41  | .005   | .258             | —                          | —                     |
|                                | Group         | 1585.31        | 1  | 1585.31     | 49.27 | < .001 | .646             | 62.38                      | 48.88                 |
|                                | Error         | 868.59         | 27 | 32.17       | —     | —      | —                | —                          | —                     |
| General psychological distress | Pretest score | 576.38         | 1  | 576.38      | 13.06 | .001   | .326             | —                          | —                     |
|                                | Group         | 2838.74        | 1  | 2838.74     | 64.35 | < .001 | .704             | 22.03                      | 37.37                 |
|                                | Error         | 1191.24        | 27 | 44.12       | —     | —      | —                | —                          | —                     |

As presented in Table 3, after controlling for pretest anxiety scores, the effect of group membership on posttest anxiety was statistically significant,  $F(1, 27) = 72.84$ ,  $p < .001$ , partial  $\eta^2 = .730$ . The adjusted mean anxiety score was 13.07 in the multicultural therapy group and 26.00 in the wait-list control group. Therefore, participants who received multicultural therapy reported significantly fewer anxiety symptoms than participants who did not receive the intervention. The partial eta-squared value indicated that 73.0% of the variance in posttest anxiety scores, after adjustment for baseline anxiety, was attributable to group membership. According to conventional effect-size criteria, this represented a large intervention effect. The pretest

anxiety score was also a significant covariate,  $F(1, 27) = 11.92$ ,  $p = .002$ , partial  $\eta^2 = .306$ , indicating that baseline anxiety contributed significantly to the prediction of posttest anxiety. Nevertheless, the group effect remained strong after baseline differences were controlled.

The analysis also showed a statistically significant effect of multicultural therapy on social well-being,  $F(1, 27) = 58.61$ ,  $p < .001$ , partial  $\eta^2 = .685$ . After adjustment for pretest social well-being, the estimated posttest mean was 72.75 for the experimental group and 57.12 for the control group. Thus, students who participated in the intervention demonstrated significantly greater social well-being than those in the wait-list condition. The effect size indicated that

68.5% of the adjusted variance in posttest social well-being was explained by the therapeutic condition. The pretest score was also significantly related to the posttest score,  $F(1, 27) = 10.34$ ,  $p = .003$ , partial  $\eta^2 = .277$ . These findings showed that although initial social well-being influenced subsequent scores, participation in multicultural therapy had a substantial additional effect.

For social functioning, the analysis of covariance yielded a significant group effect,  $F(1, 27) = 49.27$ ,  $p < .001$ , partial  $\eta^2 = .646$ . The adjusted posttest social functioning mean was 62.38 in the experimental group and 48.88 in the control group. This finding indicated that students who received multicultural therapy demonstrated significantly better social functioning after the intervention than students in the wait-list control group. The partial eta-squared value showed that group membership accounted for 64.6% of the adjusted variance in social functioning. The pretest social functioning score was also a significant covariate,  $F(1, 27) = 9.41$ ,  $p = .005$ , partial  $\eta^2 = .258$ . Accordingly, the improvement in social functioning could not be explained merely by the participants' baseline scores and was strongly associated with exposure to the multicultural intervention.

Finally, the effect of the intervention on general psychological distress was statistically significant,  $F(1, 27) = 64.35$ ,  $p < .001$ , partial  $\eta^2 = .704$ . After controlling for pretest psychological distress, the adjusted mean was 22.03 in the multicultural therapy group and 37.37 in the wait-list control group. Because lower scores indicate better general mental health, the adjusted means demonstrated that participants in the experimental group experienced significantly lower psychological distress at the posttest. The effect size showed that 70.4% of the adjusted variance in posttest psychological distress was associated with group membership. The pretest score also had a significant effect,  $F(1, 27) = 13.06$ ,  $p = .001$ , partial  $\eta^2 = .326$ . Therefore, although the initial level of psychological distress predicted the posttest result, multicultural therapy produced a substantial improvement beyond the effect of the baseline condition.

Overall, the inferential findings supported all the study hypotheses. After adjustment for pretest differences, multicultural therapy significantly reduced anxiety symptoms and general psychological distress while significantly improving social well-being and social functioning among Iraqi students with elevated anxiety. The effects were large for all four dependent variables, with partial eta-squared values ranging from .646 to .730. The strongest univariate effect was observed for anxiety

symptoms, followed by general psychological distress, social well-being, and social functioning. These results indicated that multicultural therapy was not limited to the reduction of anxiety symptoms but was also associated with broader improvements in psychological health, social integration, interpersonal effectiveness, and adaptation to the university and host-cultural environment.

#### 4. Discussion and Conclusion

The present study was conducted to investigate the psychosocial status of Iraqi students and to determine the effectiveness of multicultural therapy in reducing anxiety and improving psychological and social functioning. The findings of the screening phase showed that anxiety and psychological distress were important concerns among the international students. A considerable proportion of the screened students obtained anxiety scores above the eligibility threshold, while the distributions of social well-being, social functioning, and general psychological health indicated substantial differences in students' adaptation and psychosocial adjustment. The intervention findings further demonstrated that, after controlling for pretest scores, Iraqi students who participated in multicultural therapy reported significantly lower anxiety and general psychological distress and significantly higher social well-being and social functioning than those assigned to the wait-list control group. The effect sizes were large for all outcomes, indicating that the observed improvements were not limited to minor statistical changes but represented meaningful differences in the psychological and social condition of the participants.

The relatively high anxiety and psychological distress observed during the screening phase are consistent with international evidence indicating that university students constitute a population at elevated risk for emotional disorders. Anxiety disorders commonly emerge during adolescence and early adulthood, which correspond to the developmental period in which many individuals enter higher education and face increasing academic, interpersonal, and occupational expectations (McGrath et al., 2023). Systematic evidence has shown that anxiety and depressive symptoms are prevalent among college students and are associated with academic pressure, uncertainty about the future, reduced social support, sleep disturbance, and maladaptive coping (Li et al., 2022; Liu et al., 2023). The present findings suggest that these general university-related pressures may be intensified among international students,



who must manage additional demands associated with cultural transition, language differences, separation from family, and adaptation to unfamiliar social and educational systems.

The findings are also compatible with the biopsychosocial understanding of anxiety. From this perspective, anxiety develops and persists through interactions among biological vulnerability, cognitive appraisal, emotional regulation, interpersonal experiences, and social conditions (Smith & Trimble, 2023). More recent developments in this model emphasize that psychological symptoms must be examined within the individual's broader ecological and sociocultural environment rather than being interpreted exclusively as personal dysfunction (Smith et al., 2024). Iraqi students studying in Iran may experience repeated exposure to academic demands, concerns about communication, uncertainty regarding social expectations, and difficulty maintaining supportive relationships. These stressors may accumulate over time and contribute to persistent psychological distress. The frequent stressor and mental health model similarly proposes that repeated daily stressors can progressively undermine adaptation when individuals lack sufficient regulatory and social resources (Kalisch et al., 2023). Therefore, the elevated anxiety observed in the screening phase may reflect the cumulative effect of multiple recurring stressors rather than a single isolated problem.

The findings concerning anxiety are consistent with studies of international and multicultural students showing that acculturative stress is closely related to anxiety symptoms. International students may interpret unfamiliar situations as socially threatening, fear making linguistic or cultural mistakes, and underestimate their ability to manage interpersonal or academic challenges. Cognitive theory suggests that anxiety is maintained by exaggerated threat appraisals, negative predictions, attentional bias toward danger, and avoidance behaviors that prevent corrective experience (Clark & Beck, 2023). In international students, these cognitive processes may become attached to culturally specific situations such as classroom participation, communicating with university personnel, forming relationships with local students, or speaking in public. Research has likewise described acculturative stress as a cognitive-behavioral process in which cultural uncertainty activates beliefs about rejection, incompetence, and loss of control (Li & Li, 2024). The reduction in anxiety following multicultural therapy may therefore be explained partly by the intervention's ability to identify these beliefs, place them

within an appropriate cultural context, and replace avoidance with more adaptive coping and gradual participation.

The significant reduction in anxiety in the experimental group is also aligned with findings showing that culturally adapted cognitive-behavioral methods can be effective for international students. Anwar et al. demonstrated that cognitive-behavioral techniques delivered within a multicultural counseling framework reduced public speaking anxiety among international students by addressing both anxious thinking and culturally specific communication concerns (Anwar et al., 2024). The intervention in the present study similarly incorporated cognitive restructuring, psychoeducation, relaxation, role-playing, communication training, and gradual engagement in anxiety-provoking situations. However, these strategies were not applied in a culturally neutral manner. Instead, participants were encouraged to explore the influence of cultural identity, family expectations, migration experiences, and perceptions of the host environment on their anxiety. This combination may have increased the relevance and acceptability of the treatment and helped participants transfer therapeutic skills to real academic and social settings.

The reduction in general psychological distress also supports the effectiveness of multicultural therapy. The experimental group showed considerable improvement in the General Health Questionnaire score, suggesting reductions not only in anxiety but also in somatic symptoms, sleep-related difficulties, social dysfunction, and depressive experiences. This broader improvement is important because emotional difficulties among international students rarely occur as isolated symptoms. Anxiety may be accompanied by fatigue, bodily complaints, impaired concentration, loneliness, reduced motivation, and disturbed sleep. Research conducted during the COVID-19 period documented the interconnected nature of anxiety, depression, sleep disturbance, and general distress among university students (Fu et al., 2021; Guan et al., 2021). Global studies similarly showed that psychological distress increased across populations when individuals experienced social uncertainty, reduced access to support, and disruption of daily routines (Racine et al., 2021; Santomauro et al., 2021). Although the present study was not limited to pandemic-related distress, these findings reinforce the view that students' mental health is influenced by multiple interacting stressors and that effective interventions should address psychological functioning comprehensively.

The improvement in psychological health may also be related to the therapeutic alliance and the culturally

responsive nature of the intervention. Multicultural therapy recognizes that clients may understand emotional distress through cultural, spiritual, relational, or somatic frameworks rather than through conventional psychological terminology alone (Vasquez & Johnson, 2022). By validating these meanings and avoiding the imposition of a single cultural interpretation, the therapist may reduce mistrust and increase participants' willingness to discuss difficult experiences. Multicultural counseling competence involves awareness of the therapist's assumptions, knowledge of the client's social context, and the ability to select interventions that are both clinically appropriate and culturally meaningful (Ridley et al., 2021). Deliberate practice and reflective training further improve therapists' capacity to respond flexibly to culturally complex interactions (Harris et al., 2024). The strong changes found in the present study may therefore have resulted not only from the specific techniques used but also from the experience of being understood within a culturally respectful therapeutic environment.

Another important finding was the significant improvement in social well-being. Following the intervention, participants in the experimental group reported a stronger sense of social integration, acceptance, contribution, coherence, and confidence in the development of society. This result is consistent with research indicating that international students' well-being depends substantially on their sense of belonging and their ability to develop a meaningful position within the host community. Social capital and repeated symbolic interactions help international students understand social expectations, establish reciprocal relationships, and construct a sense of membership in the host society (Li & Li, 2023). Students who lack these resources may remain socially peripheral even when they are academically enrolled. The multicultural therapy sessions may have improved social well-being by allowing participants to interpret cultural differences more accurately, challenge expectations of rejection, recognize their own social strengths, and identify realistic opportunities for participation.

The improvement in social well-being can also be understood in relation to bicultural identity development. International students do not necessarily need to abandon their original culture to adapt successfully. Instead, positive adjustment may involve integrating aspects of the home and host cultures in a manner that preserves continuity while permitting flexibility. Research on multicultural identity construction indicates that students actively negotiate multiple cultural identities and that successful integration

can strengthen adaptation and interpersonal competence (Jin & O'Regan, 2024). Conversely, acculturative stress may reduce life satisfaction by weakening bicultural acceptance, self-esteem, and social engagement (Kim & Kim, 2022). The present intervention explicitly encouraged participants to recognize the strengths of Iraqi identity while developing confidence in interacting within Iranian academic and social settings. This balanced approach may have reduced the perceived conflict between cultural preservation and adaptation, thereby strengthening social well-being.

The finding that multicultural therapy improved social functioning is particularly noteworthy. Participants in the experimental group became more effective in social responsibility, communication, interpersonal participation, and responding to social expectations. This supports the argument that successful psychological treatment should be evaluated not only through symptom reduction but also through changes in daily functioning. Previous research has shown that psychological symptoms and social functioning are related but distinct constructs and that improvement in symptoms does not automatically restore interpersonal and role functioning (Escandell et al., 2022). In the present study, the intervention included behavioral rehearsal, assertiveness training, problem-solving, social participation, and discussion of culturally difficult interactions. These elements may have translated cognitive and emotional changes into observable improvements in participants' social behavior.

The present results are directly consistent with evidence that multicultural counseling can strengthen social functioning and protective factors among international students (Smith et al., 2023). Multicultural therapy may facilitate social functioning because it acknowledges that interpersonal difficulties do not always result from personal deficits. Some difficulties arise from cultural misunderstanding, unequal power relations, language limitations, or real experiences of exclusion. By distinguishing between maladaptive anxiety and realistic contextual barriers, therapy can help participants avoid self-blame while still developing effective responses. Work with vulnerable populations has likewise shown that culturally responsive therapy can improve engagement and functioning by connecting psychological treatment to clients' lived social realities (Velez Agosto & Almarino-Zgheib, 2024). Training experiences in refugee-serving settings further demonstrate the importance of reflexivity, contextual knowledge, and community awareness in multicultural clinical work (Kuokim, 2024).

The improvement in social functioning may also reflect increased social support and psychological capital. International students who have access to supportive relationships and adaptive coping strategies generally report better mental health and adjustment (Mozafari et al., 2022). Hope, optimism, resilience, and self-efficacy can further protect students from distress and support their ability to manage academic and interpersonal challenges (Arslan & Allen, 2022). Through group interaction, participants in the present study may have discovered that others experienced similar difficulties, reducing isolation and normalizing their emotional responses. The group may also have provided opportunities for mutual encouragement, modeling, and corrective social experiences. Stable and meaningful supportive relationships are known to function as protective resources, particularly for individuals who have faced adversity or instability (Weber Ku et al., 2021). Thus, the group-based nature of the intervention may have been an active component of its effectiveness.

The findings should also be interpreted within the broader social context of international education. Educational success depends partly on access to cultural capital, including knowledge of institutional expectations, academic communication patterns, and socially accepted forms of participation (Davies, 2024). A supportive educational climate can increase immigrant students' engagement, whereas perceptions of exclusion or limited institutional support may reduce participation (Hu et al., 2025). The present intervention may have helped students decode unfamiliar academic and social expectations and approach university interactions with greater confidence. Nevertheless, individual therapy cannot fully compensate for unsupportive institutional conditions. The strong intervention effects therefore highlight both the value of culturally responsive treatment and the importance of creating inclusive university environments.

Social media may also have influenced participants' adaptation and social functioning, although it was not directly examined in the present study. Digital communication can help international students maintain contact with family, connect with culturally similar peers, access information, and participate in host-society networks. Studies have found that social media can support social identification and cross-cultural adaptation when it facilitates meaningful communication and cultural learning (Jiang & Wang, 2024; Zhang et al., 2024). At the same time, overreliance on online contact with the home culture may reduce direct participation in the host environment. The

intervention's focus on balanced social engagement may have encouraged participants to use digital resources as a bridge to adaptation rather than as a substitute for face-to-face interaction.

The strong effects across all outcomes may additionally be explained by the alignment between the treatment model and the participants' needs. Multicultural therapy is particularly appropriate when distress is influenced by migration, cultural identity, social exclusion, and adaptation demands. Contemporary multicultural practice is considered a clinical imperative because standard interventions may lose effectiveness when cultural meaning and social context are ignored (Vasquez & Johnson, 2022). The development of multicultural and social justice competence is similarly essential for counselors working with international populations (Zhai & Prescod, 2025). The intervention in this study addressed anxiety within a broader framework that included identity, social support, communication, belonging, and cultural strengths. This comprehensive focus may explain why improvements occurred simultaneously in emotional symptoms, general mental health, social well-being, and social functioning.

The findings also have implications for treatment access. International evidence shows substantial inequalities in the recognition and treatment of mood and anxiety disorders across countries and socioeconomic groups (Kazdin et al., 2023; Khaled et al., 2024). Cultural stigma, lack of familiarity with psychological services, and concerns about confidentiality may discourage international students from seeking care. Screening within educational institutions may therefore be especially important. The initial phase of the present study identified students with elevated anxiety who might otherwise not have requested treatment. The results suggest that proactive screening followed by culturally adapted group intervention may provide an efficient model for university mental health services.

The present study had several limitations that should be considered when interpreting the findings. The intervention sample was small and included only 30 Iraqi students from one university, which limits the generalizability of the results to other international student populations, universities, cultural groups, or geographic regions. The study used a quasi-experimental pretest–posttest design and did not include a long-term follow-up assessment; therefore, it was not possible to determine whether the improvements were maintained after the intervention ended. The wait-list control group did not receive an alternative active treatment, meaning that nonspecific factors such as therapist attention,

group support, treatment expectations, and repeated assessment may have contributed to the observed effects. All outcomes were assessed using self-report questionnaires, which may be influenced by social desirability, response style, cultural interpretation of items, or participants' awareness of group assignment. In addition, the study did not separately examine the influence of gender, educational level, language proficiency, length of residence, prior migration experiences, trauma exposure, financial stress, or psychiatric medication. The absence of blinding and the use of one therapist may also have introduced expectancy or therapist-related effects.

Future studies should replicate the research with larger samples recruited from several universities and include Iraqi students living in different regions as well as international students from other cultural backgrounds. Randomized controlled trials with active comparison conditions would provide stronger evidence regarding the specific effectiveness of multicultural therapy relative to standard cognitive-behavioral therapy, supportive counseling, or other culturally adapted interventions. Researchers should include follow-up assessments at three, six, and twelve months to determine the durability of treatment effects and identify factors associated with relapse or sustained improvement. Mixed-methods designs could combine standardized questionnaires with interviews, focus groups, behavioral observations, and reports from peers or university counselors to provide a more comprehensive understanding of psychosocial change. Future research should also examine mediating variables such as acculturative stress, bicultural identity, perceived discrimination, social support, psychological capital, therapeutic alliance, and coping flexibility. Moderator analyses could determine whether intervention effects differ according to gender, language proficiency, academic level, duration of residence, trauma history, accommodation type, or baseline symptom severity.

Universities that enroll international students should establish systematic psychosocial screening procedures at the beginning of each academic year and provide confidential referral pathways for students with elevated anxiety or impaired social functioning. Counseling centers should offer culturally responsive group programs that address anxiety, acculturative stress, homesickness, communication difficulties, academic adjustment, identity conflict, and social isolation. Therapists working with Iraqi and other international students should receive training in multicultural competence, culturally sensitive assessment, and the adaptation of evidence-based techniques to clients'

linguistic, familial, religious, and social contexts. Universities should also complement therapy with practical support, including orientation programs, peer mentoring, language assistance, intercultural activities, and opportunities for meaningful interaction between international and local students. Collaboration among counseling services, international student offices, faculty members, and student associations could help identify difficulties early and reduce barriers to care. Whenever possible, institutions should make services available in students' preferred languages, clearly communicate confidentiality protections, and present psychological support as a normal component of academic success and social adjustment.

### Authors' Contributions

Authors equally contributed to this article.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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### Declaration of Interest

The authors report no conflict of interest.

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### Ethical Considerations

All procedures performed in studies involving human participants were under the ethical standards of the institutional and, or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.



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