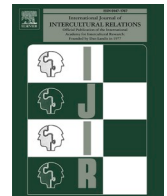




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Review

A systematic review of personal and situational factors associated with intercultural adaptation of international students: Unravelling the resources and demands

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ABSTRACT

The rapid increase in international student mobility has led to a growing body of empirical research examining the factors affecting the students' intercultural adaptation processes and outcomes. This highlights the need for a systematic analysis to understand and organize these factors comprehensively. Previous reviews in this area have primarily focused on studies conducted in specific regions, such as the US, China, and Australia. In contrast, this review analyzed 48 quantitative studies published between 2010 and 2024 across 25 countries, involving 17,774 participants. The analysis reveals a sharp increase in publications, particularly since 2018, with the International Journal of Intercultural Relations emerging as the leading outlet for research in this field. Building on Job Demands-Resources theory, the review identifies five key clusters of factors influencing intercultural adaptation: personal resources, situational resources, personal demands, situational demands, and demographic factors. The findings of the review reveal that personal resources (e.g., emotional intelligence, cultural intelligence, psychological capital, self-determination, multicultural personality, personal growth initiatives, academic self-efficacy) and situational resources (e.g., social support, social connectedness, attachment, social media use) play a critical role in facilitating adaptation. Conversely, personal demands (e.g., acculturative stress, academic strain, intergroup anxiety) and situational demands (e.g., perceived discrimination, cultural distance, sociocultural difficulties) negatively impact adaptation outcomes. Demographic factors (e.g., gender, age, and educational level) are also associated with adaptation, though the results remain inconsistent. The review also addresses the quality assessment of methods, research gaps, limitations, and implications, emphasizing the importance of these findings in understanding the intercultural adaptation of international students.

Introduction

Globalization has significantly shaped and transformed the structure of higher education, leading institutions to align their education systems with global educational standards to accommodate the diverse needs of students from around the world (de Wit & Altbach, 2021; Knight, 2012; Rehman, 2025). A key outcome of this transformation is the explosion of international student mobility. According to Gutema et al. (2024), global student mobility increased from 2 million in 2000–6.36 million in 2020, with projections

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suggesting it could reach 8 million by 2025 (Borges et al., 2022). The global education market offers extensive advantages for both international students and host societies (Knight, 2012; Oranga, 2025). Host countries benefit significantly from international students, who contribute substantially to the national economy through their tuition fees and living expenses (Levent, 2016; Oranga, 2025). For instance, international students generated \$45 billion for the U.S. economy in 2018 and \$41 billion in 2019 (Oduwaye et al., 2023). Additionally, the diverse professional skills and cultural perspectives that international students bring can significantly enrich the intellectual and cultural capital of the host societies (Lin & Chan, 2024; Lu & Everson Härkälä, 2024; Smith & Khawaja, 2011). For international students, advanced personal and academic development, access to future employment prospects, and developing global competencies represent considerable benefits (Ahwireng, 2022; Oranga, 2025; Singh, 2022). Although these mutual benefits exist, adapting to a new sociocultural and educational environment of the host country poses numerous challenges for international students, which might jeopardize successful and effective intercultural adaptation.

Intercultural adaptation

One of the primary challenges in the literature on international students is the lack of clearly defined terms and concepts to describe and understand the affective, behavioral, and cognitive changes they undergo during the process of intercultural transition. The key terms commonly used to describe the success of this transition are “adjustment” and “adaptation.” However, there is no consensus in the literature on how the terms “adjustment and adaptation” are conceptualized. Many researchers and theoretical frameworks do not differentiate between the two, often using the terms interchangeably (Schartner & Young, 2020; Searle & Ward, 1990). However, some scholars define adjustment as the process of making cognitive, affective, and behavioral changes to function effectively in a new environment, while adaptation refers to the measurable outcomes of this process (Pitts, 2005; Schartner & Young, 2020). Given the widely recognized interchangeable use of the terms “adjustment” and “adaptation” in the broader research community (Lu & Tamayo-Verleene, Søderberg, et al., 2024), we have also used them interchangeably in this review to prevent any confusion. Within the broader framework of acculturation, adaptation refers to “the relatively stable changes that take place in an individual or group in response to external demands” (Berry, 2005, p. 709). Similarly, Kim (2001) described intercultural adaptation as “the process of establishing (or reestablishing) and maintaining relatively stable, reciprocal, and functional relationships with individuals from different cultures” (p. 31). Further, intercultural adjustment or adaptation has been defined as “the outcome of a long process of modification, revision, and acclimatization individuals or groups go through when they move into new cultures” (Abi-Hashem & Brown, 2013, p. 1). Adaptation is not a term that exclusively signifies positive outcomes; it can also encompass negative outcomes or poor adjustment (Berry, 2006).

Intercultural adaptation is multifaceted, and research on acculturation highlights two distinct yet interconnected outcomes of the acculturation process: psychological adaptation and sociocultural adaptation (Berry, 2006; Searle & Ward, 1990). Psychological adaptation involves factors such as emotional well-being, self-esteem, life satisfaction, and mental health, while sociocultural adaptation pertains to the behavioral skills required to navigate and integrate into a new cultural context (Ward & Kennedy, 1994; Ward & Rana-Deuba, 1999). Psychological adaptation is rooted in a stress and coping paradigm, which underscores the role of individuals’ interpretations of their experiences and the coping strategies they adopt (Ward et al., 2005). In contrast, sociocultural adaptation aligns with a cultural learning approach, focusing on the acquisition of knowledge and skills needed for effective interaction within a new cultural setting (Ward et al., 2005). Despite Ward and colleagues primarily differentiated between psychological and sociocultural adaptation (Ward & Kennedy, 1994; Ward & Rana-Deuba, 1999), Schartner and Young (2020) also suggested three components of adaptation: psychological, sociocultural, and academic. Academic adjustment or adaptation refers to the process of adapting to the academic demands of a new educational environment, such as teaching and learning styles, and is typically measured by academic achievement (Schartner & Young, 2016, 2020). Building on the conceptualization of intercultural adaptation discussed above, the current systematic review considered three aspects of adaptation as outcomes variables: psychological adaptation (e.g., depression, psychological wellbeing, life satisfaction, psychological distress, anxiety, psychological symptoms, and mental health), sociocultural (e.g., intercultural communication competence, social integration, ecological adaptation) and academic adaptation (e.g., academic performance, academic integration).

International student studies documented that the students often face significant intercultural difficulties, including academic, psychological, sociocultural, and economic challenges (Oduwaye et al., 2023; Okai, 2023). Hence, it is argued that overcoming these challenges and assisting international students achieve successful intercultural adaptation significantly depends on identifying and understanding the contributing and impeding factors. Subsequently, numerous studies have explored the positive and negative influence of various situational and individual factors, such as self-efficacy, intercultural competence, cultural intelligence, cultural distance, perceived discrimination, homesickness, personality traits, cultural distance, acculturative stress, personality traits, cultural intelligence, social connectedness, on the intercultural adaptation of international students (Alasmari, 2023; Bartel-Radic & Cucchi, 2025; Malay et al., 2024; Soh et al., 2025; Yakunina et al., 2012; Yang et al., 2023; Yasmeen et al., 2023; Yusoff, 2011). Although numerous studies have explored factors influencing international students’ intercultural adaptation, a systematic analysis of these factors remains limited. A few prior systematic reviews have provided valuable insights by analyzing cross-cultural adaptation issues among international students (Brunsting et al., 2018; Cao & Meng, 2022; Zhang & Goodson, 2011a). However, these reviews have notable limitations, particularly their narrow focus on studies conducted in specific regions, such as the United States (Brunsting et al., 2018; Zhang & Goodson, 2011a), China (Cao & Meng, 2022), and Australia (Maharaj et al., 2024). Similarly, Smith and Khawaja (2011) conducted a review of the acculturative experiences of international students, making a significant contribution to the acculturation literature. However, the review of Smith and Khawaja (2011) primarily focuses on acculturative stressors within the framework of acculturation models, and the studies included were published between 1989 and 2010 (Brunsting et al., 2018). To

address these research gaps, we conducted a systematic review of 48 studies published between 2010 and 2024 on the factors influencing the intercultural adaptation of international students in various regions of the world. The current review focuses on the period between 2010 and 2024 for several reasons. First, relevant and highly cited previous reviews included studies up to 2009 (Zhang & Goodson, 2011a), and 2010 (Smith & Khawaja, 2011), so this review continues the research line established by those earlier works. Second, the aim was to make the review as current as possible by including studies published in the last 14 years, ensuring it reflects the most recent developments in the field, while still acknowledging the contributions of older foundational publications. This review specifically focuses on identifying and categorizing the personal and situational factors associated with intercultural adaptation.

Theoretical models of intercultural adaptation

Several domain-specific theoretical frameworks guide our understanding of the processes, antecedents, and outcomes of intercultural adaptation, such as the Acculturation Model (Berry, 1997), ABC Framework (Ward et al., 2001), Ecological Framework to Acculturation (Ward & Geeraert, 2016), and Cultural Intelligence Model (Ang & VanDyne, 2008). Berry's acculturation model is a key theory in cross-cultural psychology, explaining how individuals adapt based on two dimensions: maintaining their home culture and engaging with the host culture. These dimensions create four acculturation strategies: assimilation (high host culture orientation), separation (strong home culture orientation), marginalization (low orientation to both cultures), and integration (high orientation to both cultures). Integration is considered a valuable personal resource for supporting the acculturation process and improving adaptation outcomes. Ward and colleagues also introduced the ABC (Affective, Behavioral, and Cognitive) comprehensive framework to explain intercultural adaptation (Ward et al., 2001). The affective component, based on stress and coping theory, highlights the role of personal and interpersonal resources in managing emotional challenges like acculturative stress and anxiety. The behavioral component, grounded in culture learning theory, emphasizes acquiring culture-specific skills for effective adaptation (Ward et al., 2001). The cognitive component, drawing from social identity theory, focuses on identity development and change as key to successful intercultural adjustment (Ward et al., 2001).

Further, Ward and Geeraert (2016) proposed an ecological framework to enhance the understanding of the acculturation process and its outcomes. According to this perspective, acculturation takes place within the ecological context of sojourners and immigrants. All individual-level factors influencing the acculturation process and its outcomes also operate within this broader ecological framework (Ward & Geeraert, 2016). Various aspects of the ecological context, such as familial, institutional, organizational, and societal contexts, serve as significant determinants of acculturation and adaptive outcomes (Ward & Geeraert, 2016). For example, a supportive school or work environment fosters the acculturation process and leads to positive outcomes or adaptation for students and employees, respectively. Another widely used framework for understanding the adjustment process in multicultural environments is the cultural intelligence model. Coined by Earley and Ang (2003), cultural intelligence refers to an individual's ability to function and work effectively across different cultures. It is conceptualized as a multidimensional construct comprising four components: meta-cognitive, cognitive, motivational, and behavioral (Ang & VanDyne, 2008). The cultural intelligence model also serves as a framework for understanding the role of individual resources in international students' intercultural adaptation. Other widely used theoretical frameworks in research on international students include motivation theory, immigration theory, learning theory, and capital theory (Luo et al., 2023). Beyond these theories, Cao and Meng (2022) proposed the Job Demands-Resources Model as a potential theoretical perspective that can also be applied to the intercultural adaptation of international students.

The JD-R model was originally proposed by Demerouti et al. (2001) to explain the relationship between work conditions and burnout among employees. The model assumes that work conditions can be broadly categorized into job demands and job resources, each having distinct implications for employee health and well-being (Bakker & Demerouti, 2017; Demerouti et al., 2001). According to Bakker and Demerouti (2017), the JD-R model encompasses four broad categories of individual and situational factors that determine employees' psychological well-being and performance: job demands, job resources, personal demands, and personal resources. Job demands are aspects of a job that impose physiological and psychological costs, such as excessive workload, time pressure, unfavorable physical environment, family-work conflict, and organizational role conflict. On the other hand, job resources are motivational aspects of the job that help employees achieve their goals and buffer the negative effects of job demands, including feedback, rewards, job security, and supervisor support (Bakker & Demerouti, 2017; Demerouti et al., 2001). While personal demands refer to individual characteristics (e.g., workaholicism, and perfectionism), that may lead to psychological strain, personal resources are individuals' beliefs in their ability to successfully control and navigate their environment, including self-efficacy, hope, and optimism (Bakker & Demerouti, 2017; Demerouti et al., 2001). Despite the application of the model was initially limited to the organizational and occupational settings (Bakker & Demerouti, 2017), various researchers extended its application to academic settings due to its close similarity to working conditions, particularly in terms of demands, required resources, and adjustment to a new environment (e.g., Bakker & Mostert, 2024; Han & Wang, 2025; Lesener et al., 2020; Li et al., 2025; Salmela-Aro & Upadyaya, 2014; Ueno et al., 2024).

Similarly, the antecedents of intercultural adaptation among international students can be categorized and discussed using these four types of personal and situational variables (Cao & Meng, 2022). The basic assumption of the JD-R model is that, like employees, international students experience personal and contextual demands and resources that influence their adaptation to the host environment. Drawing from the JD-R model, Cao and Meng (2022) identified five categories of predictors for intercultural adaptation among international students. The first category, demographic factors, represents personal characteristics such as gender, age, educational level, marital status, length of stay in the host country, economic status, and place of origin. The second category, contextual demands or barriers, refers to sociocultural aspects of the host institution and society that might impede the success and effectiveness of intercultural adaptation and are often associated with negative adaptation outcomes. The third category, contextual

resources, refers to sociocultural or organizational elements that facilitate the adaptation process, stimulate personal development, and buffer the effects of barriers on adaptive outcomes for international students, such as social support, positive intergroup contact, a conducive campus environment, and the hospitality of the host society. The fourth category, personal demands or barriers, refers to individual requirements that demand significant effort from international students to achieve better intercultural adaptation, such as maladaptive perfectionism, intergroup anxiety, and neuroticism, which are associated with negative adaptation outcomes. The final category, personal resources, includes individual beliefs regarding a sense of control over the host environment, such as self-efficacy, optimism, coping strategies, and cultural competence, which positively contribute to the effectiveness of intercultural adaptation and attenuate psychological and physiological costs. Following the suggestion of [Cao and Meng \(2022\)](#), the current systematic review adopts the JD-R model to identify and categorize the determinants of intercultural adaptation among international students, as the model aligns with the aim of this review. Since [Cao and Meng \(2022\)](#) were the first to apply the JD-R model to categorize factors affecting international students in Mainland China, this review builds on their work by applying the JD-R model across studies from diverse regions, further validating and refining its applicability and strengthening its theoretical relevance in the context of international student adaptation. We selected the JD-R model to categorize factors associated with intercultural adaptation because it extends beyond the conventional classification of factors as personal or situational ([Ward et al., 2005](#)). This model distinguishes between personal resources, situational resources, personal demands, and situational demands, providing a more comprehensive understanding of the factors affecting adaptation processes and outcomes.

Research questions

The following questions have been developed to guide the current review.

1. What trends in international student research emerged between 2010 and 2024?
2. What factors contribute to the success of intercultural adaptation of international students?
3. What factors impede the success of intercultural adaptation of international students?
4. What recommendations can be made for future research?

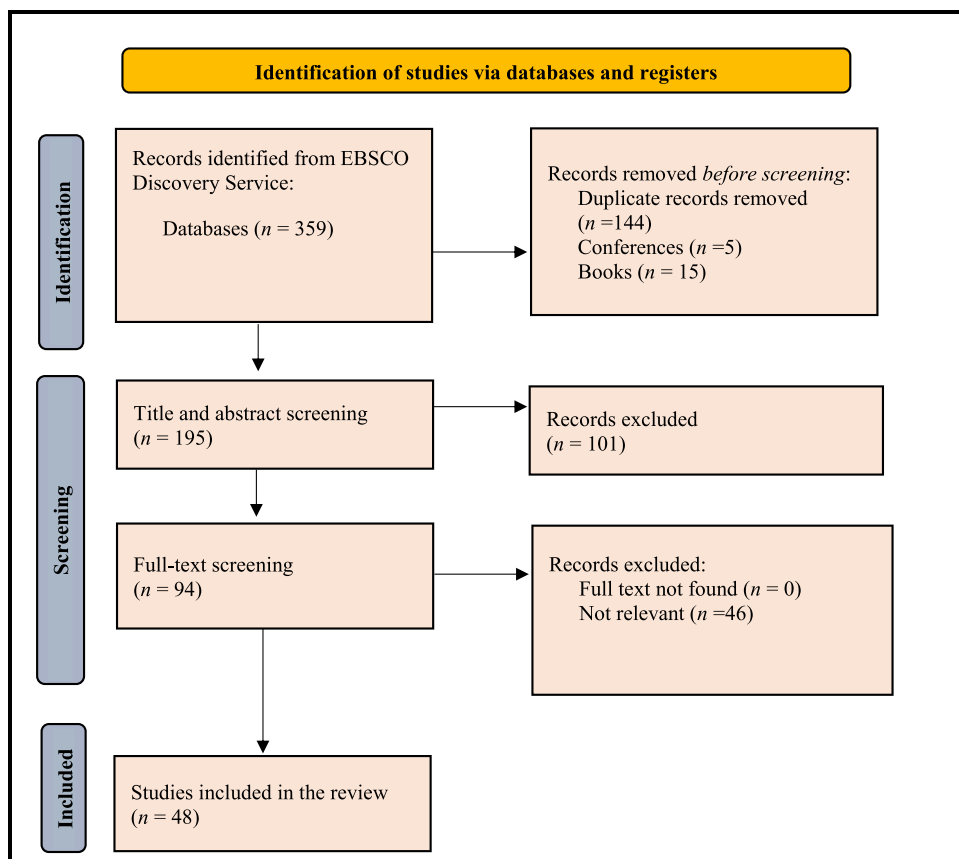


Fig. 1. PRISMA diagram.

Methods

Literature search strategy and screening process

Our systematic review was conducted following the guidelines of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), which can be viewed in Fig. 1. The initial step in the systematic review was conducted using the EBSCO Discovery Service Search Engine. We chose this search engine to access the target literature to maximize relevant search results, as the EBSCO Discovery Service Search Engine includes 85 databases (Kovács et al., 2022). The initial search was conducted on March 3, 2024, and the search was updated on September 25, 2024, to capture relevant studies from 2024. To ensure the retrieval of the most relevant literature, we selected key search terms based on the research questions and commonly used terminology, including synonyms and interchangeable terms (e.g., “adjustment” and “adaptation”) found in previous studies. The keyword directly aligns with the key concepts of the current systematic review. The following keywords were used in the search process: “factors affecting that,” AND “psychological adaptation,” OR “psychological adjustment,” “sociocultural adaptation,” OR “sociocultural adjustment,” OR “academic adaptation” academic adjustment” OR “AND “international students,” OR “foreign students,” OR overseas students”, “student so-journers”. The initial search yielded a total of 359 records. To streamline the dataset, duplicates were removed ($n = 144$) using Zotero software. Zotero is a free, open-source reference management software developed by the Center for History and New Media at George Mason University (Trinoskey et al., 2009). It allows users to automatically import, organize, and cite references, identify duplicates, and generate citations and bibliographies in various formats (e.g., APA). In this review, Zotero was used to import references from the EBSCO Discovery Service Search Engine and identify duplicates. Based on the inclusion/exclusion criteria, non-empirical sources, including books ($n = 15$) and conference proceedings ($n = 5$), were excluded, resulting in a refined set of 195 studies eligible for title and abstract screening. Two researchers independently conducted the title and abstract screening and resolved any differences through discussion. At this stage, studies that were not directly relevant to the review’s objectives were excluded ($n = 101$), leaving 94 articles for the next phase. These remaining articles underwent full-text screening by both authors. After thorough evaluation, 48 studies met the inclusion criteria and were included in the final systematic review (see Fig. 1).

Inclusion and exclusion criteria

For this review, specific inclusion criteria were established to ensure that only relevant studies were selected. The inclusion criteria are as follows: (1) studies conducted specifically among international students; (2) full-length empirical articles containing primary research data, ensuring that findings are based on original analysis and directly reflect international students’ experiences; (3) articles published in peer-reviewed journals, which have undergone rigorous academic scrutiny to ensure quality and reliability; (4) articles published in English; (5) studies with a primary focus on factors affecting the intercultural adaptation of international students; and (6) articles published between 2010 and 2024, ensuring a focus on recent trends and contemporary contexts that shape current adaptation experiences. Exclusion criteria were also applied to eliminate studies that did not meet the review’s objectives. Excluded studies included: (1) review articles, books, and book chapters; (2) conference proceedings; (3) studies focused solely on domestic students or local ethnic groups; (4) studies without a primary focus on factors influencing international students’ adaptation, to maintain relevance; (5) articles published outside the 2010–2024 timeframe; and (6) articles written in non-English languages, to ensure consistency and accessibility in language. Finally, 48 studies that met the established criteria were included in the current systematic review. The summary of the criteria is presented in Table 1.

Analytical procedure and data extraction

In the data analysis process, the first author conducted a thorough review of each included study, and the second author independently reviewed the studies for verification. The following information was extracted from the reviewed studies: 1) Year of publication to examine trends in research on the topic over the last 14 years; 2) Geographic location of the study to understand the regional distribution of research on intercultural adaptation; 3) Methodological characteristics, including sample size, research design, sampling techniques, psychometric properties of measurements, data analysis methods, and theoretical frameworks, to assess the methodological quality of the studies using standard quality of assessment tool; and 4) Factors associated with intercultural adaptation and the nature of relationships between these factors to identify and categorize the predictors of intercultural adaptation thematically. Guided by the JD-R model and prior relevant reviews, the extracted predictors of intercultural adaptation were classified into five

Table 1
Summary of the inclusion and exclusion criteria.

Criteria type	Inclusion criteria	Exclusion criteria
1. Population	International students	Domestic students or local ethnic groups
2. Article type	Full-length quantitative empirical articles	Review articles, books, and book chapters, qualitative studies
3. Source	Peer-reviewed journals	Conference Proceedings
4. Language	Articles written in English	Non-English languages
5. Study focus	factors affecting intercultural adaptation of international students	Other general adaptation topics
6. Publication date	Published between 2010 and 2024	Published outside 2010 and 2024
7. Study site	Studies conducted in any country	None

thematic clusters: demographic factors, personal resources, personal demands, situational resources, and situational demands. These thematic clusters were then qualitatively described. In addition to the direct predictors, mediating and moderating variables were also identified and described within their respective thematic clusters.

Quality assessment of the methods of the included studies

To evaluate the methodological quality of the reviewed studies, the “Quality Assessment and Validity Tool for Correlational Studies” was adopted. The tool is a standardized quality assessment measure, and its reliability and validity have been endorsed by numerous previous systematic reviews (Cicolini et al., 2014; Cowden et al., 2011; Cummings & Estabrooks, 2003; Lee & Cummings, 2008; Xiaoying et al., 2023). This tool is particularly well-suited for systematically reviewing studies that examine relationships, which aligns with the objective of the current review. The tool consists of 13 items addressing four methodological domains (see Table 2): design (2 items), sample (4 items), measurement (5 items), and statistical analysis (2 items). Twelve items are rated dichotomously as 0 (not met) or 1 (met), while one item, assessing the outcome variables, is rated on a scale of 0 (not met) to 2 (met). The total scores range from 0 to 14, allowing studies to be classified into three quality categories: low (0–4), moderate (5–9), and high (10–14). The first author reviewed the included studies twice, while the second author and an invited researcher reviewed them once. There were minimal differences in assessments, as the tool’s items are relatively objective. However, some disagreement arose regarding item 3 (“Was the sample size justified?”). The debate centered on whether a large sample size alone could justify the sample size. After discussion, it was agreed that sample size justification must be based on statistical calculations relative to the total population, not just the sample size. Only studies that used statistical methods to determine the optimal sample size were considered to meet this criterion. The quality scores of the studies in this review ranged from 7 to 13, indicating moderate to high quality (see Table 3). Most studies achieved high-quality scores ($N = 30$), while the rest of the studies demonstrated moderate quality ($N = 18$). Overall, the methodological strengths of the reviewed studies include using valid, reliable, and anonymous instruments for measuring variables, employing research designs that explore independent-outcome variable relationships, applying appropriate statistical analyses, using theoretical frameworks to guide the research, and including samples from multiple study sites. However, notable methodological weaknesses included a heavy reliance on non-probabilistic sampling methods, the lack of statistical determination of optimal sample sizes despite generally large samples, low response rates (less than 60 %), and issues related to managing outliers.

Results

Characteristics of included studies

Regional distribution of the reviewed studies

Fig. 2 presents the geographic distribution of the reviewed studies, which were conducted in 25 countries. Half of the studies were conducted in mainland China ($n = 11$) the United States ($n = 10$) and Germany ($n = 3$). The remaining studies took place in diverse locations, including Italy, New Zealand, Kazakhstan, Canada, Australia, Pakistan, Saudi Arabia, South Africa, Turkey, Malaysia, the United Kingdom, Japan, Poland, Lithuania, Portugal, South Korea, Hungary, Hong Kong, Russia, the Netherlands, Ghana, Spain and Northern Cyprus. Across continents, the studies were distributed across Asia ($n = 18$), North America (mainly the U.S., $n = 12$), Europe ($n = 16$), Oceania ($n = 3$) and Africa ($n = 2$). The screened data did not include any studies from Latin America.

Distribution of reviewed studies across journals

The distribution of the reviewed studies across journals is illustrated in Fig. 3. The findings indicate that the studies were published

Table 2
Summary of quality assessment of included studies ($N = 48$).

Criteria	Number of studies	
	Yes	No
Design		
Was the independent-outcome variable relationship examined?	48	0
Was probability sampling used?	5	43
Sample		
Was the sample size justified?	14	34
Was the sample drawn for more than one site?	31	17
Was anonymity protected?	38	10
Response rate was more than 60 %?	16	32
Measurement		
Was the independent variable measured reliably?	48	0
Was the independent variable measured using a valid instrument?	47	1
Was the dependent variable measured using a valid instrument?	48	0
If a scale was used for measuring the dependent variable, was the internal consistency $\geq .70$?	48	0
Was a theoretical framework used for guidance?	38	10
Statistical analysis		
If multiple independent variables were studied, are correlations analyzed?	40	8
Were outliers managed?	10	38

Table 3
Literature review matrix (N = 48).

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
1. Akhtar and Kroener-Herwig (2019)	Germany	To examine the role of socio-demographics and coping styles on psychological wellbeing	Cross-sectional	533	Mediation, Multivariate regression analysis	While reflective coping styles boosted psychological wellbeing, suppressive and reactive styles lowered it. Academic stress partially mediated the relationship between coping styles and psychological wellbeing. Males and Humanities students had better well-being.	9 (Moderate)
2. Almkudad and Karadag (2024)	Turkey	To determine the effects of self-efficacy, life satisfaction, socio-cultural adaptation on culture shock	Cross-sectional	323	Correlation, Structural Equation Modeling (SEM)	Self-efficacy was negatively related to culture shock and positively associated with sociocultural adaptation and life satisfaction. Sociocultural adaptation and life satisfaction mediated the link between self-efficacy and culture shock.	9 (Moderate)
3. Berger et al. (2019)	Spain and Germany	To examine factors that affect psychological and sociocultural adjustment	Cross-sectional	223	Correlation, MANOVA, SEM, and mediation analyses	Psychological resources, hassles, and co-national connectedness were negatively related to psychological distress. Psychosocial resources were positively associated with contact and assimilation but negatively with integration. Co-national connectedness was positively linked to integration and in-group contact but negatively related to assimilation.	12 (High)
4. Bethel et al. (2020)	New Zealand	To test the predictive effects of language proficiency, cultural distance, and cultural inclusiveness on psychological adaptation via host national connectedness	Cross-sectional	1527	Correlation, mediation path analyses	Host national connectedness fully mediated the effect of English proficiency on psychological symptoms. It also partially mediated the effects of language proficiency, cultural distance, and cultural inclusion on life satisfaction and psychological symptoms.	11 (High)
5. Cao and Jia (2024)	China	To determine the longitudinal mediating effect of coping self-efficacy on social use of WeChat and sociocultural adjustment	Longitudinal	1002	correlation, cross-lagged model	The use of social WeChat enhanced sociocultural adjustment through the mediating effect of coping self-efficacy. Male and Asian students reported better	12 (High)

(continued on next page)

Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
6. Chayinska and Mari (2014)	Italy	To discover the role of acculturative stress in affective evaluations of cross-cultural transition	Cross-sectional	144	Correlation, Path analysis	sociocultural adjustment. Acculturative stress factors mediated the effects of length of stay, self-group inclusion, and intergroup contact on subjective well-being. Acculturative stress factors, including homesickness, feelings of insecurity, and discrimination, had a detrimental impact on wellbeing. While length of stay increased acculturative stress, intergroup contact decreased it.	11 (High)
7. Chu and Zhu (2023)	China	To determine whether psychological resilience mediates the link between cultural intelligence and cross-cultural adaptation	Cross-sectional	624	Correlation, SEM	Psychological resilience partially mediated the association between cultural intelligence and cross-cultural adaptation.	12 (High)
8. Gaitán-Aguilar et al. (2022)	Spain, Portugal, and Poland	To examine the relationships between social media use, social identification, and cross-cultural adaptation across time.	Longitudinal	233	Cross-lagged panel model	Social media contact with home nationals increased identification with the group. While social media contact with host nationals negatively impacted psychological adaptation but not sociocultural. Social media contact with other nationals did not affect adaptation. Social identification with other nationals enhanced adaptation, while identification with host or home nationals had no effect.	11 (High)
9. Gebregergis et al. (2020)	China	To explore the impact of emotional intelligence on depression via acculturative stress	Cross-sectional	506	Correlation, hierarchical multiple regression	Acculturative stress partially mediated the relationship between emotional intelligence and depression.	12 (High)
10. Gebregergis et al. (2020a)	China	To assess the predicting effects of self-efficacy, self-esteem, and travel experience on sociocultural adaptation	Cross-sectional	328	Correlation, multiple regression	Prior travel experience, self-efficacy, and self-esteem were significant predictors of sociocultural adaptation. Self-esteem partially mediated the relationship between self-efficacy and sociocultural adaptation.	11 (High)
11. Han et al. (2017)	USA	To examine the main and interactive effects of acculturative stress, and attachment on college adjustment	Cross-sectional	210	Correlation, regression	Acculturative stress was negatively related to academic integration, while parental and professor attachments were positively related to academic integration. Mother attachment buffered the	9 (Moderate)

(continued on next page)

Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
12. Hirai et al. (2015)	USA	To identify potential predictors of psychological and sociocultural adjustment	Longitudinal	248	Correlation, Group-Based Trajectory Modelling, regressions	effects of acculturative stress on academic integration. Academic control and neuroticism predicted all forms of adjustment. Openness predicted positive psychological and sociocultural adjustment, social connectedness predicted psychological distress and sociocultural adjustment, and language skill predicted positive psychological adjustment.	10 (High)
13. Holliman et al. (2022)	UK	To determine the effect of adaptability and social support on psychological wellbeing	Cross-sectional	325	Correlation, regression	Adaptability and social support predicted psychological wellbeing and social support moderated the effect of adaptability on psychological distress and life satisfaction.	11 (High)
14. Hou and Abu (2024)	China	To discover the factors affecting cross-cultural adaptation	Cross-sectional	167	Correlation Multiple linear regression	Interpersonal interactions, length of stay, Chinese language proficiency, and cultural distance appeared as positive predictors of cross-cultural adaptation.	6 (Moderate)
15. (Hsu & Chen, 2021)	USA	To examine the mediated effects of internet use on cross-cultural adaptation through intercultural communication apprehension and uncertainty reduction	Cross-sectional	152	Correlation, SEM	Intercultural communication apprehension and uncertainty reduction fully mediated the effect of host internet use on sociocultural and psychological adaptation. Host internet use facilitated adaptation by reducing uncertainty and communication apprehension	10 (High)
16. Huang and Mussap (2016)	Australia	To explore the links between perfectionism, acculturative stress, and depression	Cross-sectional	384	Correlation, linear path analyses	Maladaptive perfectionism and acculturative stress predicted depression. Acculturative stress acted as both a moderator and mediator of perfectionism and depression.	11 (High)
17. Khukhlaev et al. (2022)	Russia	To examine the interplay between interpersonal mindfulness, intergroup anxiety, and intercultural communication effectiveness	Cross-sectional	337	Correlation, mediation	Interpersonal mindfulness positively impacted intercultural communication effectiveness, and intergroup anxiety partially mediated the relationship.	10 (High)
18. Lee and Ciftci (2014)	USA	To determine the impact of multicultural personality,	Cross-sectional	330	Correlation, SEM	Multicultural personality and assertiveness predicted	10 (High)

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Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
19. Liu et al. (2016)	China	assertiveness, academic self-efficacy, and social support on sociocultural adaptation To explore the effects of acculturative stress components on depression through self-confidence	Cross-sectional	567	Correlation, path analysis	sociocultural adaptation and academic self-efficacy mediated both relationships with sociocultural adaptation. Distal components of acculturative stress indirectly predicted depression through self-confidence. Self-confidence also partially mediated the relationship between proximal components and depression.	11 (High)
20. Malay et al. (2024)	Netherlands	To determine the dynamics between cultural distance, cultural intelligence, and adjustment	Cross-sectional	341	Correlation, regression, moderation	Cultural distance predicted all aspects of adjustment. Cultural intelligence influenced academic and sociocultural adjustment but not psychological adjustment. Additionally, cultural intelligence moderated the impact of cultural distance on sociocultural adjustment but not on academic or psychological adjustment.	12 (High)
21. Mokhothu and Callaghan (2018)	South Africa	To explore relationships between cultural intelligence, sociocultural adaptation, and academic performance	Cross-sectional	263	Bootstrapping, multiple regression	Motivational cultural intelligence was the only dimension that contributed to sociocultural adaptation and academic performance. Sociocultural adaptation was also related to academic performance.	8 (Moderate)
22. Muthuswamy (2023)	Saudi Arabia	To examine the mediated and moderated effects of self-determined motivation and study abroad goals on subjective well-being via psychological needs satisfaction and sociocultural adjustment	Cross-sectional	267	Correlation, path analysis	Self-determination and study abroad goals predicted subjective well-being through psychological needs fulfillment. Sociocultural adjustment moderated the effect of self-determination on subjective well-being.	10 (High)
23. Neto (2022)	Portugal	To identify correlates of satisfaction with migration life	Cross-sectional	189	Correlation, multiple regression analysis	Perceived discrimination and sociocultural difficulties negatively predicted migration life satisfaction, while cultural intelligence and subjective well-being positively predicted it.	8 (Moderate)
24. Pang (2020)	Germany	To investigate whether patterns of social media	Cross-sectional	298	Correlation, SEM	Active social media use was positively	10 (High)

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Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
25. Prasath et al. (2022)	USA	To examine the mediation and moderation effect of PERMA wellbeing on psychological capital and psychological stress	Cross-sectional	188	Correlation mediation, moderation analyses	use affect cross-cultural adaptation through social support associated with cross-cultural adaptation, and social support mediated the relationship between the two. Psychological capital positively predicted wellbeing and negatively predicted psychological distress. Wellbeing mediated the link between psychological capital and distress, and also moderated the relationship between psychological capital and distress especially depression.	11 (High)
26. Razgulin et al. (2023)	Lithuania	To explore the role of social support, sociocultural adjustment, and sociodemographic factors on mental health	Cross-sectional	193	Correlation, linear regression analysis	Sociocultural adjustment and social support predicted all mental health indices, except that social support did not affect subjective health. Females reported higher anxiety and lower well-being.	10 (High)
27. Riaz and Rafique (2019)	Pakistan	To unravel the psychosocial predictors of acculturative stress and adjustment	Cross-sectional	450	Correlation, structural equation modeling	Scholarship holders, students with longer stays, and those with high relationship satisfaction experienced lower acculturative stress. Scholarship holders also demonstrated better psychological adjustment than self-funded students.	10 (High)
28. Rice et al. (2012)	USA	To analyze the main and interaction effects of self-critical perfectionism and acculturative stress on depression	Cross-sectional	295	Correlation, regression, moderation analyses	Self-critical perfectionism positively predicted depression in both groups. Acculturative stress moderated the effect of self-critical perfectionism on depression for Indian students but not for Chinese students.	9 (Moderate)
29. Sam et al. (2015)	Ghana	To explore predictors of psychological adaptation (i.e., psychological symptoms and life satisfaction)	Cross-sectional	151	Correlation, regression, mediation	Discrimination predicted psychological symptoms and life satisfaction, and English skills mediated its effect on psychological symptoms. Financial satisfaction boosted life satisfaction, whereas social difficulties and academic strain reduced it.	9 (Moderate)
30. Shafaei and Abd Razak (2016)	Malaysia	To identify the factors impacting cross-cultural adaptation and the outcomes of the adaptation	Cross-sectional	1171	Correlation, path analysis	Individual factors such as language proficiency, length of stay, intention to remain after graduation, and	11 (High)

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Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
31. Sheng et al. (2022)	China	To determine the main and interactive effect of academic adaptation on psychological and sociocultural adaptation through friendships	Cross-sectional	211	Correlation, regression, moderation analyses	adjustment and attachment attitudes, as well as situational factors like social support and stereotypes, were key predictors of cross-cultural adaptation. Academic adaptation and host-national friendship positively predicted psychological and sociocultural adaptation, while co-national friendship negatively affected psychological adaptation. Host national friendship moderated the effect of academic adaptation on both psychological and sociocultural adaptations.	11 (High)
32. Smiljanic (2017)	USA	To explore the interplay between attachment, travel experiences, English proficiency, acculturative stress and depression	Cross-sectional	91	Correlation analysis	Acculturative stress and attachment style were positively correlated with depression. Students with no prior travel experience, poor English skills, and high attachment avoidance had higher acculturative stress.	8 (Moderate)
33. Su et al. (2021)	USA	To examine the relationships between acculturative stress, academic standing, and quality of life	Cross-sectional	751	Correlation, regression	Language skills and acculturative stress were consistent predictors of student quality of life. Academic standing protected doctoral students from the negative effects of acculturative stress on quality of life compared to undergraduates.	9 (Moderate)
34. Sun (2013)	Japan	To examine the mediation and moderation effects of acculturative attitude and social support on personality and mental health	Cross-sectional	253	Correlation, path analyses	Personality traits predicted psychological distress directly and indirectly through marginalization. Social support moderated the impact of personality on psychological distress.	8 (Moderate)
35. Swami et al. (2010)	UK	To analyze factors impacting sociocultural adaptation through different sociodemographic mediators	Cross-sectional	249	Correlation, stepwise regression, path analysis	Discrimination, co-national contact, and cultural distance were linked to greater sociocultural adjustment difficulties, while high family income, English skills, and host-national contact reduced these difficulties.	8 (Moderate)
36. Tasmagambetova et al. (2024)	Kazakhstan	To design and evaluate ICT-based educational interventions to facilitate the success of	Experimental	200	Descriptive analysis, Mann-Whitney U test	ICT-assisted education programs, including lectures, video tutorials, interactive exercises, virtual labs, group	7 (Moderate)

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Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
		psychological and sociocultural adaptation				projects, forums, chats, instructor support, and assessments, play a crucial role in enhancing the intercultural adaptation of international students.	
37. Tausová et al. (2019)	Netherlands	To examine whether cultural distance, personal growth initiative, language proficiencies, and acculturation orientations predict psychological adjustment	Cross-sectional	319	correlation, SEM, MANOVA	High personal growth, strong English and Dutch skills, and low perceived cultural distance directly and indirectly predicted better adjustment via host orientation. Heritage orientation mediated the effect of English proficiency on adjustment, while expatriate orientation mediated the effect of Dutch proficiency on adjustment.	9 (Moderate)
38. Tchoh and Mertan (2018)	Northern Cyprus	To determine the prediction effect of self-construal, self-esteem, and social support on sociocultural adaptation	Cross-sectional	112	Correlation, regression	Interdependent self-construal and social support positively predicted sociocultural adaptation, while interaction with co-nationals had a negative effect. Interaction with host nationals and other nationals and independent self-construal were not related to sociocultural adaptation.	9 (Moderate)
39. Yakunina et al. (2012)	USA	To examine whether multicultural personality traits predict openness to diversity and adjustment	Cross-sectional	341	Correlation, path analysis	Emotional stability and social initiatives predicted adjustment. Open-mindedness, flexibility, and cultural empathy predicted adjustment through the mediation effect of openness to diversity.	11 (High)
40. Yakunina et al. (2013)	USA	To discover the impacts of personal and multicultural strengths on adjustment through acculturative stress	Cross-sectional	336	Correlation, path analysis	Personal growth initiative and hardiness positively predicted adjustment. Acculturative stress mediated the relationships of hardiness (partial mediation) and universal-diverse orientation (full mediation) with adjustment.	10 (High)
41. Yang et al. (2023)	China	To explore the links between perceived discrimination and cross-cultural adaptation through autonomous orientation and integration strategy	Cross-sectional	335	Correlation, regression, PROCESS macro	Perceived discrimination negatively impacted cross-cultural adaptation, and autonomous orientation reduced the impact. Integration strategy moderated the effect of	12 (High)

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Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
42. Yang et al. (2024)	South Korea	To unravel whether self-efficacy mediates the relationship between cultural intelligence and life satisfaction	Cross-sectional	392	Correlation, regression analyses	discrimination on sociocultural adaptation but not on psychological adaptation. Cultural intelligence positively predicted life satisfaction and self-efficacy partially mediated the relationship.	11 (High)
43. Yasmeen et al. (2023)	Gulf Cooperation Council countries	To examine the impact of psychological capital on academic adjustment	Cross-sectional	303	Multinomial logistic regression analysis	Psychological capital and language proficiency positively predicted academic adjustment English language skills moderated the link between psychological capital and adjustment. Place of origin and residence location were related to sociocultural adaptation, with students from post-Soviet states and those living in the capital city reporting fewer difficulties. Sociocultural difficulties were linked to higher depression, stress, and lower satisfaction.	13 (High)
44. Yerken et al. (2022)	Hungary	To examine the correlates of sociocultural adaptation	Cross-sectional	267	Independent samples <i>t</i> -test, correlation,	Place of origin and residence location were related to sociocultural adaptation, with students from post-Soviet states and those living in the capital city reporting fewer difficulties. Sociocultural difficulties were linked to higher depression, stress, and lower satisfaction.	9 (High)
45. Yu et al. (2019)	China Hong Kong	To investigate the factors influencing psychological and sociocultural adaptation	Cross-sectional	726	Correlation, regression analyses	Personal resources such as the English language, social support, and discrimination predicted both psychological and sociocultural adaptation. Cantonese proficiency and contact with locals impacted sociocultural adaptation but not psychological.	10 (High)
46. Yu and Shen (2012)	Australia	To examine how well linguistic confidence, integrative motivation, and second language proficiency predict cross-cultural adaptation	Cross-sectional	198	Hierarchical regression analysis	Linguistic confidence, integrative motivation, and second language proficiency emerged as significant predictors of sociocultural adaptation and academic adaptation.	8 (Moderate)
47. Zhang and Goodson (2011b)	USA	To examine the role of acculturation in psychosocial adjustment through social interaction and social connectedness	Cross-sectional	508	Correlation, simple, multiple regression	Social connectedness fully mediated the relationship between host culture adherence and depression and partially mediated its link with sociocultural difficulties. Home culture adherence influenced depression through the moderation of intercultural interaction.	11 (High)

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Table 3 (continued)

Author/Year	Country	Aim	Design	N	Analysis	Main Findings	Quality
48. Zhang and Noels (2024)	Canada	To explore the cross-temporal associations between cultural empathy, ICC, and psychosocial adjustment	Longitudinal	213	SEM and random-intercept cross-lagged panel mode	Certain facets of ICC such as effective and culturally appropriate communication improved positive intercultural interactions and sociocultural adjustment among international students over time.	8 (Moderate)

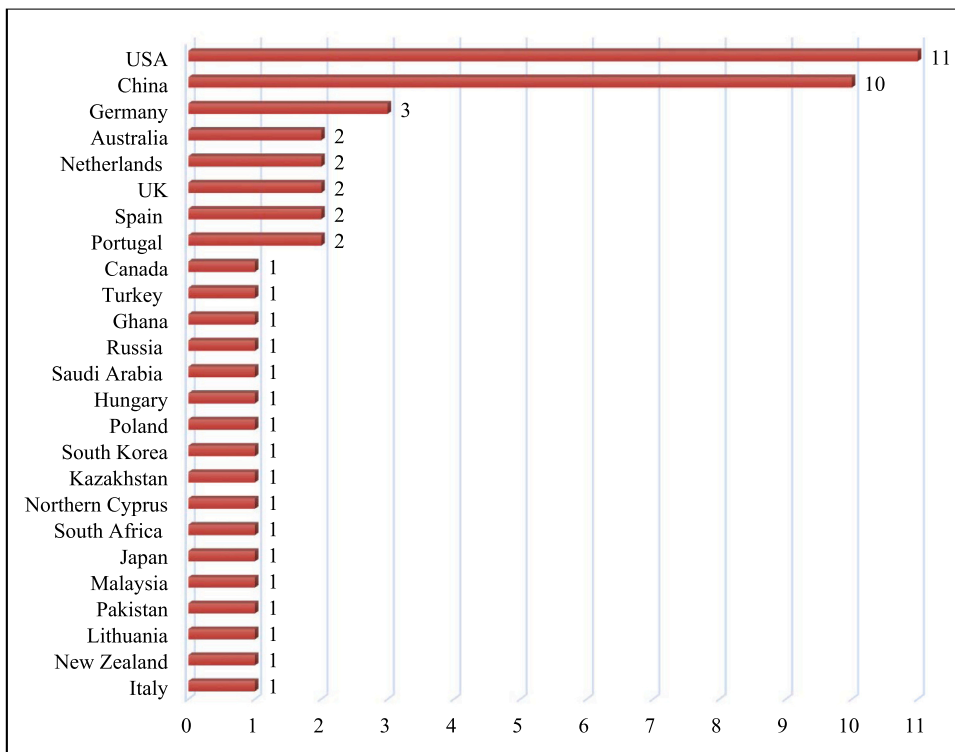


Fig. 2. Regional distribution of the reviewed studies. Note: The total number of studies shown in the figure is 51, as two studies were conducted in more than one country.

in 26 distinct journals. Nearly one-fourth of the reviewed studies were published in the International Journal of Intercultural Relations ($n = 11$) which emerged as the leading contributor to the current review followed by the Journal of International Students ($n = 6$), and Frontiers in Psychology ($n = 4$). The majority of the studies were published in the United States ($n = 21$) and the United Kingdom ($n = 15$). The remaining studies were published in Switzerland ($n = 5$), Pakistan ($n = 2$), Germany ($n = 1$), the Netherlands ($n = 1$), South Africa ($n = 1$), Singapore ($n = 1$), and Italy ($n = 1$).

Basic methodological characteristics of the included studies

Regarding the basic and specific methodological characteristics of the reviewed studies, there were 43 cross-sectional studies, 4 longitudinal studies, and 1 experimental study (See Table 3). Sample sizes ranged from 91 to 1527 international students, with a combined total of 17,774 participants across all studies. As illustrated in Fig. 4, most studies included at least 200 participants ($N = 38$), while 10 studies reported sample sizes below 200. In terms of sampling strategies, 25 studies did not specify their sampling approach, whereas 23 studies clearly described their sampling methods. Convenience and snowball sampling were the most frequently used techniques, although some studies also employed random, purposive, and stratified sampling methods. Self-report questionnaires were the predominant data collection method, typically administered online via email and social media. A smaller number of studies used paper-based methods or a combination of online and paper-based approaches. The statistical techniques applied varied widely, including descriptive statistics, correlation analysis, linear and multiple regression, logistic regression, cross-lagged panel mode,

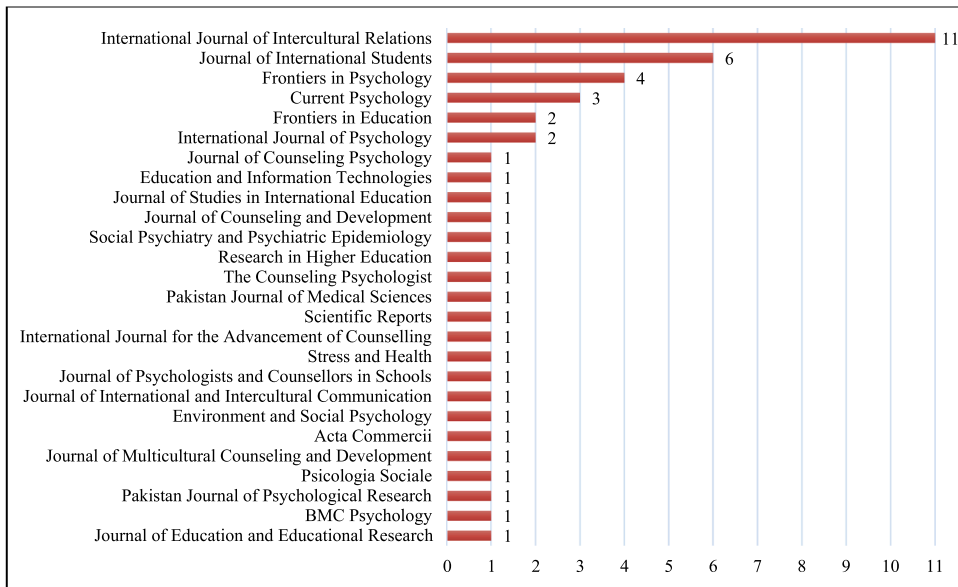


Fig. 3. Distribution of reviewed studies by journal.

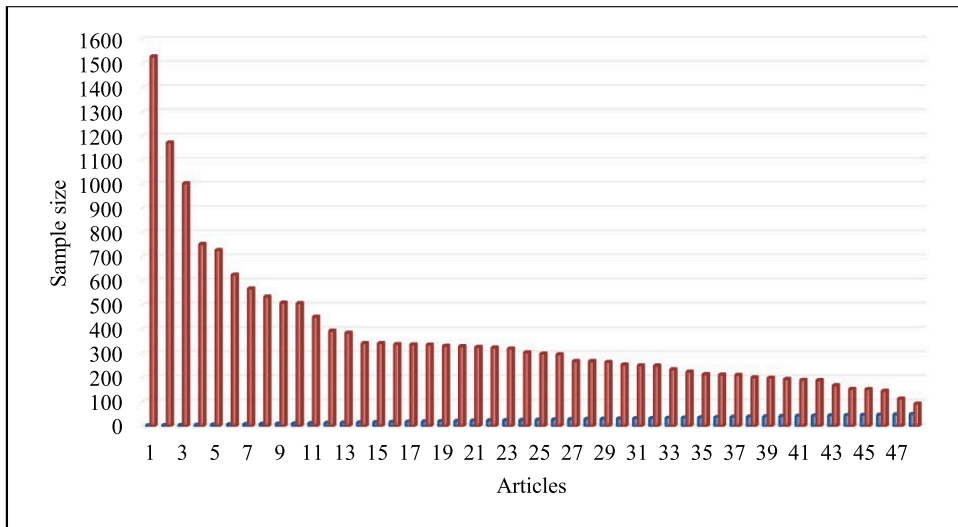


Fig. 4. Distribution of the reviewed studies based on sample size.

mediation and moderation analysis, path analysis, and structural equation modeling. Widely used data analysis software programs in the reviewed studies include SPSS, AMOS, PROCESS macro, MPlus, SmartPLS, LISREL, and SAS.

Main findings

Determinants of intercultural adaptation of international students

Based on the JD-R theory, the factors influencing intercultural adaptation are classified into five domains. The clusters and their specific factors are summarized in Fig. 5, and the literature matrix for the included studies is shown in Table 3.

Demographic factors and intercultural adaptation

Findings from the reviewed studies revealed mixed and sometimes contradictory relationships between these factors and intercultural adaptation outcomes. Gender emerged as a frequently studied variable, with some studies reporting that female international

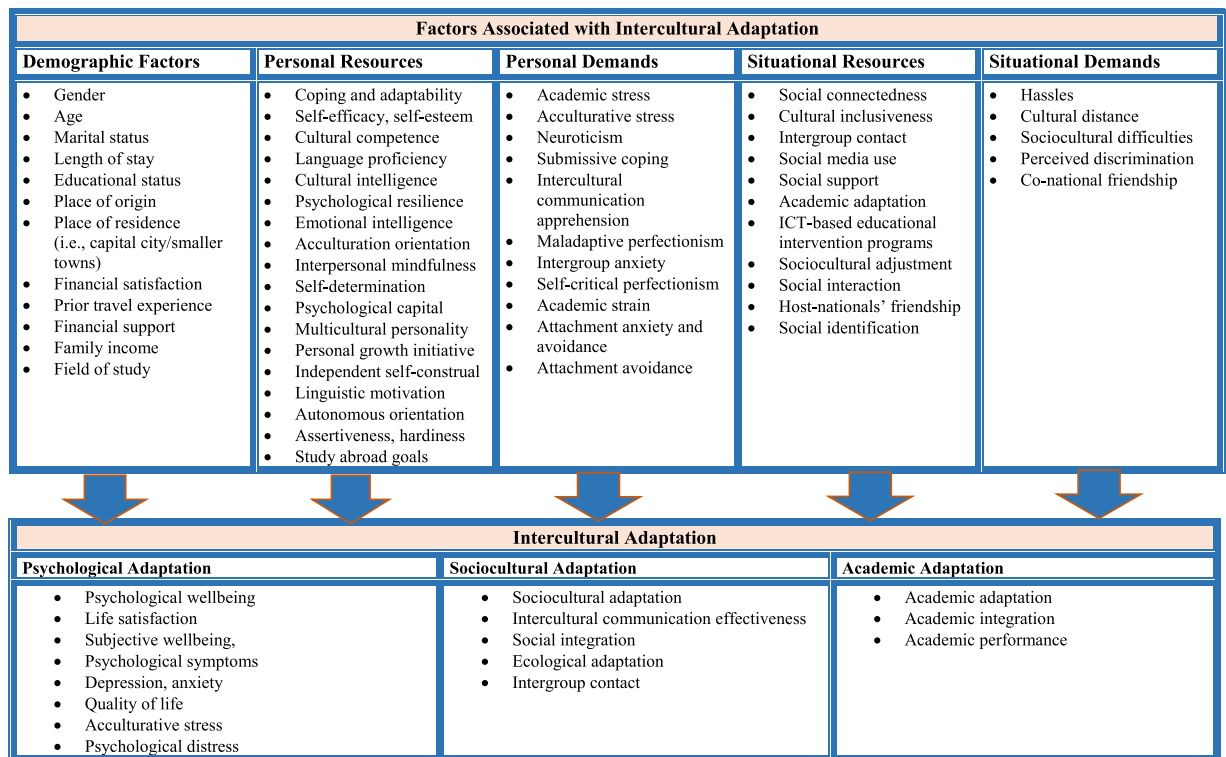


Fig. 5. Summary of the five clusters of factors associated with intercultural adaptation (i.e., psychological and sociocultural).

students face greater challenges than their male counterparts. For instance, females were found to have lower psychological well-being (Akhtar & Kroener-Herwig, 2019; Razgulín et al., 2023), higher levels of anxiety (Razgulín et al., 2023), greater psychological difficulties (Bethel et al., 2020; Sam et al., 2015), and poorer sociocultural adjustment (Cao & Jia, 2024). On the other hand, female students in New Zealand reported greater satisfaction with life and belongingness (Bethel et al., 2020). However, other studies found no significant gender differences in outcomes such as depression (Gebregergis et al., 2020; Razgulín et al., 2023; Rice et al., 2012), intergroup anxiety, intercultural competence (Khukhlaev et al., 2022), psychological, sociocultural, and academic adjustment (Malay et al., 2024; Mokhothu & Callaghan, 2018; Swami et al., 2010; Yerken et al., 2022), life satisfaction (Neto, 2022; Sam et al., 2015), and psychological distress (Prasath et al., 2022), psychological symptoms, and subjective health (Razgulín et al., 2023). Age was another variable with inconclusive findings. Some studies indicated that younger students are more vulnerable to psychological problems (Bethel et al., 2020), intergroup anxiety (Khukhlaev et al., 2022), and challenges related to academic performance (Yerken et al., 2022). Conversely, Neto (2022) reported that younger international students in Portugal experienced better life satisfaction. Other studies found no association between age and outcomes such as depression (Gebregergis et al., 2020), psychological and sociocultural adaptation (Gebregergis et al., 2020a; Mokhothu & Callaghan, 2018; Taušová et al., 2019; Tchoh & Mertan, 2018), psychological distress (Prasath et al., 2022), psychological symptoms, or life satisfaction (Sam et al., 2015).

Length of stay was another widely studied demographic factor, but its association with intercultural adaptation showed contradictory patterns. Some studies highlighted the positive role of duration of stay in facilitating sociocultural adaptation (Hou & Abu, 2024), and reducing acculturative stress (Riaz & Rafique, 2019). However, others reported unexpected findings, such as a longer stay being linked to less satisfaction, greater psychological problems (Bethel et al., 2020), depression (Liu et al., 2016), acculturative stress (Taušová et al., 2019), and challenges with bureaucracy and services (Yerken et al., 2022). Further, several studies revealed that length of stay was not significantly associated with various outcomes, including college adjustment (Han et al., 2017), life satisfaction (Neto, 2022; Sam et al., 2015), psychological symptoms (Sam et al., 2015), or psychological and sociocultural adaptation (Sheng et al., 2022; Tchoh & Mertan, 2018; Yu et al., 2019). Place of origin also played a role in intercultural adaptation. For instance, Cao and Jia (2024) found that Asian international students in China had better sociocultural adaptation than those from Africa, Europe, North America, Oceania, or Latin America. Conversely, Asian and African international students in China reported higher levels of depressive symptoms than American and European students (Liu et al., 2016). Similarly, European international students in the Netherlands demonstrated better psychological, sociocultural, and academic adaptation than non-European students (Malay et al., 2024). However, place of origin was not significantly related to psychological and sociocultural adaptation for international students in Hong Kong (Yu et al., 2019).

Regarding educational level, some of the reviewed studies found that graduate students had better intercultural adaptation than undergraduates (Han et al., 2017; Malay et al., 2024). Similarly, Su et al. (2021) suggested that doctoral students' educational status

could act as a protective factor against acculturative stress. On the contrary, Yu et al. (2019) reported no significant relationship between educational status and intercultural adaptation. Regarding marital status and adaptation, several studies found no link between the variables (Akhtar & Kroener-Herwig, 2019; Gebregergis et al., 2020; Liu et al., 2016). Other demographic variables, though less frequently studied, were also associated with intercultural adaptation. Financial satisfaction was linked to lower academic difficulties (Yerken et al., 2022) and greater life satisfaction (Sam et al., 2015). Higher family income was positively associated with sociocultural adaptation (Swami et al., 2010). Additionally, scholarship holders exhibited better psychological adaptation compared to self-funded students (Riaz & Rafique, 2019). However, Akhtar and Kroener-Herwig (2019) found no link between financial support and adaptation. International students residing in Hungary's capital city experienced fewer sociocultural challenges than those living elsewhere (Yerken et al., 2022).

Personal resources and intercultural adaptation

The systematic review identified a wide range of individual resources that directly or indirectly contribute to the effectiveness of intercultural adaptation among international students. The reviewed studies consistently documented that English language proficiency is associated with better adaptation outcomes, including greater academic integration, improved academic performance (Han et al., 2017), enhanced psychological and sociocultural adjustment (Hirai et al., 2015; Shafaei & Abd Razak, 2016; Swami et al., 2010; Yu et al., 2019), and higher quality of life (Su et al., 2021). Taušová et al. (2019) reported that proficiency in both English and Dutch languages improved psychological adjustment, as reflected in lower acculturative stress, fewer mental health problems, and greater life satisfaction. Self-efficacy emerged as another significant predictor of adaptation outcomes, such as greater life satisfaction, reduced culture shock, and improved sociocultural adaptation (Almukdad & Karadag, 2024; Gebregergis et al., 2020a). The study of Gebregergis et al. (2020a) highlighted the indirect role of self-efficacy on sociocultural adaptation through self-esteem. Similarly, cultural intelligence was identified as a key predictor of life satisfaction (Neto, 2022; Yang et al., 2024), sociocultural adaptation (Gebregergis et al., 2020a), and cross-cultural adaptation (Chu & Zhu, 2023). Cultural intelligence also influences life satisfaction through self-efficacy (Yang et al., 2024) and cross-cultural adaptation through psychological resilience (Chu & Zhu, 2023). Similarly, intercultural communication competence, cultural empathy (Zhang & Noels, 2024), and cultural competence (Berger et al., 2019) were positively related to intercultural adaptation. Emotional intelligence was also identified as a critical individual resource that reduces negative adaptation outcomes, such as depression and acculturative stress and acculturative stress partially mediated the relationship between emotional intelligence and depression (Gebregergis et al., 2020). The review further revealed that personal growth initiative directly predicted better adjustment (Yakunina et al., 2013) and indirectly facilitated adaptation through host-cultural orientation (Taušová et al., 2019). More to these resources, hardiness and universal-diverse orientation enhanced intercultural adjustment by reducing acculturative stress (Yakunina et al., 2013). Interestingly, Prasath et al. (2022) explored a relatively new line of research on the application of positive psychology in intercultural adaptation, demonstrating the significant role of psychological capital and PERMA (Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment) well-being in alleviating psychological distress, including anxiety, stress, and depression. The study further found that PERMA well-being mediated the relationship between psychological capital and depression. Host-culture orientation has also been found to reduce depression through the mediating role of social connectedness, while home-culture orientation alleviated depression through the moderation of intercultural interaction (Zhang & Goodson, 2011b).

Multicultural personality traits and assertiveness (Lee & Ciftci, 2014), and interpersonal mindfulness (Khukhlaev et al., 2022) were also identified as essential resources for sociocultural adaptation and intercultural communication competence, respectively. Academic self-efficacy emerged as a potential mediator in the relationships between multicultural personality and assertiveness with sociocultural adaptation. Intergroup anxiety mediated the link between mindfulness and intercultural competence. Similarly, emotional instability and social initiative aspects of multicultural personality directly enhanced adjustment, while open-mindedness, cultural empathy, and flexibility contributed indirectly through openness to diversity (Yakunina et al., 2012). Besides, open-minded international students and those with a stronger sense of academic control demonstrated better intercultural adjustment (Hirai et al., 2015). Guided by attachment theory, Han et al. (2017) also reported that parental and professor attachment were also linked to successful academic integration among Asian international students, with maternal attachment serving as a protective factor against the negative effects of acculturative stress on academic adaptation. The study highlights that students' attachment to their professors (host culture attachment) consistently serves as a valuable resource for enhancing all aspects of college adjustment, including academic integration, adaptation, and performance. Additionally, guided by self-determination theory (Deci & Ryan, 2000), Yang et al. (2023) found that autonomous orientation buffered the negative effects of perceived discrimination on both psychological and sociocultural adaptations, suggesting that the effect of perceived discrimination in intercultural adaptation was weaker in self-dependent international students and stronger in students with low autonomous orientation. Within the broader framework of acculturation, acculturation strategies are thought to shape the intercultural adaptation of international students. Drawing on this perspective, Yang et al. (2023) confirmed that the integration strategy serves as a significant protective resource, mitigating the negative impact of discrimination on sociocultural adaptation. Using the same theoretical model, Shafaei and Abd Razak (2016) also demonstrated that acculturation attitudes positively and significantly predict both psychological and sociocultural adaptation. The review also identified other individual resources contributing to intercultural adaptation, including reflective coping style (Akhtar & Kroener-Herwig, 2019), linguistic confidence and integrative motivation (Yu & Shen, 2012), self-directedness (Sun, 2013), study abroad goals, and psychological needs satisfaction (Muthuswamy, 2023), intention to remain after graduation (Shafaei & Abd Razak, 2016), uncertainty reduction (Hsu & Chen, 2021), coping self-efficacy (Cao & Jia, 2024), adaptability (Holliman et al., 2022), and self-confidence (Liu et al., 2016).

Personal demands and intercultural adaptation

The review highlighted several individual barriers that hamper effective adaptation. Various reviewed studies indicated that international students experiencing high levels of acculturative stress, such as homesickness, fear, hostility, insecurity, rejection, discrimination, and conflict, were more likely to experience greater depression (Gebregergis et al., 2020; Huang & Mussap, 2016; Liu et al., 2016; Smiljanic, 2017), and lower subjective well-being (Chayinska & Mari, 2014). Furthermore, self-ingroup inclusion was found to intensify negative experiences such as homesickness (Chayinska & Mari, 2014). This finding suggests that strong in-group identification may heighten homesickness among international students. Certain coping styles also emerged as barriers to adaptation. Suppressing and reactive coping strategies negatively impacted the psychological well-being of international students in Germany both directly and indirectly through the mediation effect of academic stress (Akhtar & Kroener-Herwig, 2019). Maladaptive perfectionism is another critical factor hindering adaptation. Among Asian international students in Australia, it increased feelings of depression through the mediation and moderation effects of acculturative stress (Huang & Mussap, 2016). Similarly, research in the United States found that Asian international students with high self-critical perfectionism and acculturative stress reported higher levels of depression (Rice et al., 2012). Neuroticism was also associated with higher psychological distress, reduced well-being, and greater sociocultural difficulties, suggesting that this trait significantly impedes successful adaptation (Hirai et al., 2015). Similarly, the harm-avoidance personality trait and marginalization acculturation attitude were shown to negatively affect the mental health of Chinese international students in Japan (Sun, 2013). Additionally, academic strain functioned as a barrier by reducing students' life satisfaction (Sam et al., 2015). Unexpectedly, despite the widespread acknowledgment of English language proficiency as a resource for intercultural adaptation, Sam et al. (2015) reported a contradictory finding, indicating that English proficiency exacerbated psychological symptoms in some cases. Furthermore, attachment-related factors such as attachment anxiety and attachment avoidance were associated with increased depression (Smiljanic, 2017). Lastly, intergroup anxiety negatively impacted intercultural competence, underscoring its role as a significant barrier to sociocultural adaptation (Khukhlaev et al., 2022).

Situational resources and intercultural adaptation

While the majority of reviewed studies emphasized individual-related factors, several also highlighted the pivotal role of situational resources in facilitating the intercultural adaptation of international students. Prominent situational resources include social support, social connectedness, social media use, positive intergroup contact, and intercultural competence. Social support is considered a key situational factor that facilitates the acculturation outcomes of international students (Bender et al., 2019). Numerous studies included in the current review consistently indicated that international students with sufficient social support experienced better intercultural adaptation. For instance, Holliman et al. (2022) found that Chinese international students in the UK who received adequate social support from family, friends, and significant others reported enhanced psychological well-being, including greater flourishing and life satisfaction, and lower psychological distress. Moreover, social support moderated the relationship between adaptability and psychological well-being (Holliman et al., 2022). Additionally, it buffered the negative impact of harm-avoidance personality traits on mental health issues (Sun, 2013). Similarly, Tchou and Mertan (2018) reported that social support facilitated the sociocultural adaptation of African international students in Northern Cyprus. Further evidence comes from a study in Lithuania, which revealed that higher sociocultural adjustment and perceived social support were associated with reduced depression and anxiety, fewer psychosomatic symptoms, greater well-being, and improved subjective health (Razgulin et al., 2023).

Due to technological advancements, social media is widely recognized as playing a crucial role in international students' adaptation, as evidenced by several studies in the review. For example, Pang (2020) found that active social media use along with social support from both home and host communities enhanced the psychological and sociocultural adaptation and academic integration of Asian international students in Germany. This study also demonstrated that social support mediated the relationship between social media use and adaptation. Host-country internet use among Chinese international students in the US also supported their psychological and sociocultural adaptation through the mediating effects of intercultural apprehension and uncertainty reduction (Hsu & Chen, 2021). The use of WeChat, a popular social media platform in China, was shown to significantly enhance sociocultural adaptation (Cao & Jia, 2024). A Malaysian study with a large sample ($N = 1172$) also reported that social support, social media use, perceived complexity, and perceived stereotype image were positively related to both psychological and sociocultural adaptation among international students (Shafaei & Abd Razak, 2016). These results suggest that international students' use of social media plays a significant role in facilitating their intercultural adaptation by helping them make social connections with people from different cultures and learn new cultural practices. Although the positive role of social media in intercultural adaptation is well-documented, a three-wave longitudinal study conducted in Spain, Portugal, and Poland revealed that international students' use of social media directed toward host nationals negatively affected their psychological adaptation (Gaitán-Aguilar et al., 2022). The inconsistent results may stem from several factors that influence the impact of social media on adaptation, such as the type of platform used, students' prior social networks, and the nature of their interactions.

Moreover, their social identification with host nationals and co-nationals was unrelated to their adaptation. Social identification with other international students was the only group identification that positively predicted both psychological and sociocultural adaptation. Additionally, ICT-based educational intervention programs were found to significantly enhance the adaptation of Chinese international students in Kazakhstan (Tasmagambetova et al., 2024). Parental and professor attachment were also linked to successful academic integration, with maternal attachment serving as a protective factor against the negative effects of acculturative stress on academic adaptation (Han et al., 2017). Interpersonal interaction is considered vital for successful sociocultural adaptation. One study observed that interactions with classmates, teachers, and administrators fostered the sociocultural adaptation of international students

in China (Hou & Abu, 2024). The reviewed studies further highlighted the contributions of various situational factors, including cultural inclusiveness, number of friends, intergroup contact with host nationals (Bethel et al., 2020; Swami et al., 2010; Yu et al., 2019), social connectedness, and intercultural interaction (Almukdad & Karadag, 2024; Berger et al., 2019; Hirai et al., 2015; Zhang & Goodson, 2011b). Additional factors such as academic adaptation, and host-national friendships were also instrumental in fostering successful intercultural adaptation (Sheng et al., 2022).

Situational demands and intercultural adaptation

The current review identified several situational factors that hinder the successful intercultural adaptation of international students. These barriers include perceived discrimination, cultural distance, sociocultural difficulties, and co-national friendships. Perceived discrimination emerged as the most prominent situational barrier to intercultural adaptation. For instance, in Ghana, perceived discrimination was found to negatively predict life satisfaction and was positively associated with psychological symptoms among international students (Sam et al., 2015). Likewise, Yang et al. (2023) and Yu et al. (2019) reported that international students experiencing high levels of perceived discrimination in Hong Kong and mainland China demonstrated lower levels of psychological and sociocultural adaptation. Additionally, Malaysian international students who perceived greater discrimination faced greater sociocultural difficulties (Swami et al., 2010). Cultural distance also appeared as a significant situational impediment to intercultural adaptation. Bethel et al. (2020) studied a large sample of international students in New Zealand ($N = 1527$) and found that cultural distance was positively associated with psychological symptoms and negatively related to social connectedness and life satisfaction. Malay et al. (2024) provided further evidence for the cultural distance hypothesis, demonstrating that cultural distance obstructed psychological, sociocultural, and academic adjustment. Similarly, perceived cultural distance was linked to psychological adjustment challenges, such as increased mental health problems, high acculturative stress, and low satisfaction (Taušová et al., 2019) as well as greater sociocultural difficulties (Swami et al., 2010). Interestingly, despite its generally detrimental impact, some findings suggest a nuanced role for cultural distance. Hou and Abu (2024), for instance, reported that cultural distance positively predicted sociocultural adaptation among international students in China, highlighting the complexity of its effects.

Co-national connectedness was identified as both a barrier and a potential facilitator of adaptation. In several studies of the review, co-national friendships were associated with poorer adaptation outcomes. For example, Sheng et al. (2022) observed that co-national friendships negatively predicted psychological adaptation. Similarly, interaction with co-nationals correlated with greater sociocultural difficulties (Swami et al., 2010) and lower sociocultural adaptation (Tchoh & Mertan, 2018). However, other studies recognized the role of co-national connections as a valuable source of social support, which can positively influence adaptation (Berger et al., 2019; Pang, 2020; Zhang & Goodson, 2011b). In addition to the above barriers, general sociocultural difficulties and daily hassles, including outgroup, ingroup, and family-related issues, contributed to poor adaptation outcomes. For example, Berger et al. (2019) found that such hassles were associated with higher psychological distress among international students. Similarly, students facing greater sociocultural challenges reported lower levels of satisfaction (Neto, 2022).

Discussion

The primary aim of this systematic review was to identify and categorize determinants of intercultural adaptation among international students, drawing insights from 48 quantitative studies conducted across 25 countries. Using the Job Demands-Resources (JD-R) theory as a framework, the current review organized these determinants into thematic clusters. The findings of the review indicate that personal and situational resources are positively associated with intercultural adaptation, whereas personal and situational demands are negatively related to adaptation. The review further analyzed the methodological quality, regional distribution, and leading journals publishing research on this topic. About the basic characteristics of the reviewed studies, the review highlights a significant increase in research output on international students' intercultural adaptation between 2019 and 2020, despite a decline in 2021. This decrease in publications in 2021 may be attributed to the impact of the COVID-19 pandemic, a trend that was also observed in a previous review (Oduwaye et al., 2023). Among academic journals, the International Journal of Intercultural Relations (IJIR) was identified as the most productive outlet, followed by the Journal of International Students. This observation aligns with earlier reviews (Cao & Meng, 2022; Luo et al., 2023; Soheili & Lanz, 2025; Tang & Zhang, 2023), which noted the significant growth in research on international students over the past two decades, with IJIR playing a leading role in disseminating this work. Consistent with previous findings (Tang & Zhang, 2023), this review indicates an uneven global distribution of research on international student adaptation, with the majority of studies conducted in the United States and China. This regional concentration likely reflects the dominance of these countries as top destinations for international students (Cao & Meng, 2022; Oduwaye et al., 2023). The quality assessment revealed that most reviewed studies had high methodological rigor, likely supported by the robust review processes of prestigious journals where they were published. However, the reliance on cross-sectional designs in most studies constrains the ability to infer causation and examine the dynamic relationships between antecedents and adaptive outcomes over time. Similar methodological shortcomings have been identified in earlier reviews (Cao & Meng, 2022; Zhang & Goodson, 2011a).

This review highlights five thematic clusters of factors influencing intercultural adaptation: demographic factors, personal resources, personal demands, situational resources, and situational demands. Demographic factors, including age, gender, educational status, and country of origin, are widely examined in relation to intercultural adaptation. However, their associations with adaptation outcomes remain inconsistent and contradictory, echoing the findings of previous reviews (Cao & Meng, 2022). For example, some studies link younger age and female gender to greater adjustment challenges (Akhtar & Kroener-Herwig, 2019; Cao & Jia, 2024), while others find no significant association (Malay et al., 2024; Prasath et al., 2022). Similarly, while some research reports a positive link

between length of stay, educational status, and adaptation (Han et al., 2017; Hou & Abu, 2024), others find no significant relationship (Neto, 2022; Yu et al., 2019). These inconsistencies suggest that demographic variables alone may not adequately explain intercultural adaptation, necessitating further research into their interactions with other factors. The second and third clusters of predictors are individual and situational resources. Both these personal and contextual factors are crucial for fostering successful intercultural adaptation. Contrary to the earlier assumption by Searle and Ward (1990) that individual factors predominantly predict psychological adaptation while contextual factors drive sociocultural adaptation, this review demonstrates that both individual and contextual resources contribute to both psychological and sociocultural outcomes. This observation aligns with findings from prior reviews (Cao & Meng, 2022; Zhang & Goodson, 2011a), emphasizing the dual impact of personal and situational resources on both psychological and sociocultural adaptation. The implication of individual and situational resources in the intercultural adaptation of international students can be understood through the Job Demands-Resources (JD-R) model, which proposes that resources have a motivational role and contribute to better mental health and performance (Bakker & Demerouti, 2017; Demerouti et al., 2001), and also buffer the adverse effects of demands on well-being and work outcomes (Bakker et al., 2005). The stress and coping perspective also posits that personal and contextual resources can act as coping mechanisms, helping individuals cope with the challenges they encounter during intercultural interactions more effectively and subsequently achieve better intercultural adaptation outcomes (Berry, 2006; Ward et al., 2001). In a similar vein, international students' personal and contextual resources are associated with positive intercultural outcomes. This means that international students with adequate personal and contextual resources are better equipped to manage the challenges of new academic and sociocultural environments, leading to improved outcomes such as mental health, intercultural competence, and academic success. Additionally, the ecological framework suggests that a supportive institutional and organizational context (e.g., university contact) can facilitate the acculturation process and outcomes of student sojourners (Ward & Geeraert, 2016). Additionally, the reviewed studies highlight the mediating and moderating roles of various personal resources and contextual resources showing their capacity to buffer the negative effects of intercultural difficulties on adaptation outcomes.

The fourth and fifth thematic clusters identified in this review are individual and situational demands that negatively impact the process and outcomes of intercultural adaptation. These demands reflect the findings of previous reviews, which also highlighted academic, psychological, sociocultural, and economic challenges faced by international students (Gutema et al., 2024; Oduwaye et al., 2023; Xue & Singh, 2025). Similarly, demands are also explained within the theoretical framework of JD-R theory. According to this theory, demands refer to physical, psychosocial, and organizational factors that are linked to poor mental health and diminished job performance (Bakker & Demerouti, 2017; Bakker et al., 2023). Unlike resources, which play instrumental roles, demands are typically considered energy-depleting and taxing factors (Bakker et al., 2023). Similarly, the personal and situational demands experienced by international students are associated with unfavorable intercultural outcomes, such as mental health issues, poor intercultural competence, and academic difficulties. Excessive intercultural challenges during their transition may hinder their ability to adapt effectively. However, JD-R theory also posits that job demands can augment the positive effects of resources on engagement and motivation by encouraging individuals to acquire additional personal and organizational resources, indicating that demands are not always detrimental (Bakker et al., 2023). In line with this perspective, a moderate level of intercultural adjustment demands may serve as a motivational factor, potentially leading to positive outcomes. Further, the stress and coping approach to acculturation suggests that navigating intercultural differences is inherently demanding and taxing, potentially leading to negative outcomes such as anxiety and depression, depending on how individuals cognitively appraise their experiences (Berry, 2006; Ward et al., 2001). A negative evaluation of intercultural encounters may contribute to adjustment difficulties, whereas perceiving these experiences as opportunities or non-problematic can foster positive adaptation (Berry, 2006; Ward et al., 2001). Similarly, international students who appraise their intercultural experiences negatively may face adverse effects on their adjustment process and overall outcomes. Moreover, situational demands, such as university settings that promote a unidimensional orientation toward the host culture, are more likely to create pressure, tension, and conflict, which can hinder successful intercultural adaptation (Ward & Geeraert, 2016).

Research gap analysis and future directions

Even though the reviewed studies offer valuable insights into numerous demographic, personal, and contextual factors affecting the intercultural adaptation of international students, their effects showed some inconsistencies. To enhance clarity and specificity, research gaps and future directions are discussed separately for demographic factors, individual resources and demands, and situational resources and demands.

Demographic factors

The reviewed studies have examined various demographic factors influencing intercultural adaptation, but the findings remain mixed and inconsistent. For example, while some studies indicate that the length of stay positively correlates with intercultural adaptation, others report a negative relationship. Additionally, a few studies suggest that length of stay may even hinder adaptation. Similarly, the relationship between gender and intercultural adaptation remains inconclusive. While some studies suggest that females experience poorer psychological and sociocultural adaptation (Akhtar & Kroener-Herwig, 2019; Cao & Jia, 2024), others indicate that they adapt more successfully (Bethel et al., 2020). Additionally, some studies find no significant relationship between gender and intercultural adaptation (Malay et al., 2024). Moreover, it is unclear whether intercultural adaptation varies significantly across age and education levels, as the reviewed studies show mixed and inconsistent results. Given these inconsistencies, further research is needed to clarify the role of demographic factors in intercultural adaptation. Moreover, certain demographic variables, such as financial support and family income, are underrepresented in the literature and should be given greater attention in future studies.

Additionally, while many studies included in the review have examined the direct effects of demographic factors on intercultural adaptation, it's equally important to investigate how these factors interact with personal and situational resources to influence adaptation outcomes.

Personal resources and demands

Personal factors related to intercultural adaptation are the most extensively studied factors in the reviewed studies. However, some inconsistent results have to be addressed in future studies. For example, although most studies on cultural intelligence report positive associations with adaptation (e.g., [Chu & Zhu, 2023](#); [Malay et al., 2024](#)), [Mokhothu and Callaghan \(2018\)](#) found that only the motivational component of cultural intelligence significantly predicts sociocultural adaptation. Another key research gap is the role of positive psychological capital in the intercultural adaptation of international students. JD-R theory recognizes psychological resources like self-efficacy, hope, optimism, and resilience as crucial for mental health and job outcomes ([Bakker et al., 2023](#)). Positive psychological strengths are also considered essential for student well-being, academic adjustment, and positive learning outcomes ([Bakker & Mostert, 2024](#); [Liran & Miller, 2019](#); [Luthans et al., 2012](#)). Recently, [Ray-Yol et al. \(2025\)](#) also emphasized the significance of positive psychology in adapting to a new environment. Similarly, these psychological resources could help international students navigate intercultural demands and enhance their adaptation. However, only one reviewed study examined the role of psychological capital in psychological adaptation, indicating a lack of empirical research on its impact on intercultural adaptation. The review also observed a limited focus on multicultural personality traits, which are particularly relevant in multicultural contexts like that of international students ([Wilson et al., 2013](#)). Only two studies in the review examined their contribution to adaptation, highlighting an underexplored area for future research. In the same way, the systematic review of [Xiaoying et al. \(2023\)](#) highlighted mixed findings regarding cultural intelligence's role in academic adjustment. Although existing studies consistently indicate that personal demands are negatively associated with adaptation, several barriers remain underrepresented in the literature. Among these, acculturative stress is the most extensively studied personal demand that plays a detrimental role in intercultural adaptation. However, intergroup anxiety, maladaptive perfectionism, social anxiety, stereotypes, suppressive coping, and marginalization acculturation orientation are among the personal demands that have received limited attention and warrant further investigation. Additionally, this review observes that personal demands are often studied as direct predictors or mediators of intercultural adaptation. Future research should explore how these demands interact with personal resources to shape adaptive outcomes, offering a more nuanced understanding of intercultural adjustment processes and outcomes.

Situational resources and demands

Likewise, some of the reviewed studies on situational factors, such as social media use, and social connectedness, yielded mixed results. For example, while some reviewed studies reported that social media use (e.g., [Cao & Jia, 2024](#); [Pang, 2020](#)) and co-national friendships ([Berger et al., 2019](#); [Pang, 2020](#)) were positively associated with better adaptation, others observed social media use with host nationals ([Gaitán-Aguilar et al., 2022](#)) and co-national friendships ([Sheng et al., 2022](#); [Tchouh & Mertan, 2018](#)) negatively impacted adaptation. Similarly, although some studies suggest that cultural distance is negatively associated with adaptation, others highlight its potential positive role in fostering adjustment. Given these inconsistent results, further studies are necessary to gain an accurate understanding of the influence of these factors on intercultural adaptation. Furthermore, perceived discrimination was widely reported as a barrier to intercultural adaptation. According to intergroup contact theory ([Pettigrew & Tropp, 2006](#)), positive contact between groups can reduce prejudice, discrimination, and intergroup anxiety. While a few studies addressed this, more research is needed to empirically validate how positive intergroup contact, as a situational resource, can reduce discrimination and improve adaptation outcomes. Earlier reviews underlined the limited exploration of intergroup contact within the international student population ([Cao & Meng, 2022](#)). From an ecological acculturation perspective ([Ward & Geeraert, 2016](#)), institutional support can significantly enhance the adaptation process and outcomes of international students. However, the role of support mechanisms such as mentorship programs, peer education, and collaborative learning remains underexplored. Future research should investigate how university-level initiatives contribute to intercultural adaptation. Moreover, the investigation of specific situational demands, such as financial challenges (e.g., inadequate stipends, limited student job opportunities), ecological challenges (e.g., climate), and academic factors (e.g., conflicts with supervisors, differences in teaching styles, and assessment methods), remains significantly limited in the current literature. Future research should address these gaps. Additionally, examining the interactive effects of situational resources and demands could provide deeper insights into the intercultural adaptation process. Furthermore, while some studies examine cultural distance, it is also recommended that future researchers consider how Hofstede's cultural dimensions, such as individualism-collectivism and power distance ([Hofstede, 2011](#)), influence the intercultural adaptation of international students. These dimensions could provide deeper insights into how cultural values shape students' experiences and their ability to adapt to new cultural environments.

Along with the domain-specific research gaps, the current review highlights key methodological limitations and offers suggestions for future research directions. As most reviewed studies are cross-sectional, longitudinal and experimental studies are needed to establish causality and explore relationship patterns over time. Furthermore, non-probabilistic sampling strategies like convenience and snowball sampling were the most widely used strategies. Since these methods may not ensure representativeness, future studies should consider using probabilistic sampling methods, such as random sampling, to enhance the representativeness and generalizability of the results. The current review also identifies a gap in outcome variables. While researchers distinguish between psychological, sociocultural, and academic aspects of intercultural adaptation ([Cao & Meng, 2022](#); [Schartner & Young, 2016](#)), most studies

focus on the first two, leaving academic adaptation comparatively less explored and in need of further research. Furthermore, although the JD-R theory shows great potential for understanding and classifying factors affecting intercultural adaptation, its application has been limited (Cao & Meng, 2022). Therefore, future research could benefit from integrating JD-R theory with other models to gain a more comprehensive understanding of intercultural transitions and international student outcomes.

Implications and limitations of the review

The findings of this review offer several valuable contributions and practical implications. It provides a comprehensive analysis of various clusters of factors that facilitate or hinder intercultural adaptation, framed within the Job Demands-Resources (JD-R) model. This review extends prior review works, which focused on international students in specific regions such as the United States (Brunsting et al., 2018; Zhang & Goodson, 2011a), China (Cao & Meng, 2022), and Australia (Maharaj et al., 2024), by incorporating research conducted between 2010 and 2024 across 25 countries. The review not only addresses the regional gap but also provides a critical update to the field by building on the most cited relevant prior reviews, which synthesized research only up to 2009 (Zhang & Goodson, 2011a), and 2010 (Smith & Khawaja, 2011). By incorporating more recent studies, this review offers fresh insights and identifies emerging trends, ensuring a more comprehensive and up-to-date understanding of the topic. The review also conducts a domain-specific gap analysis and proposes research directions for the five domains of factors associated with intercultural adaptation. Another contribution of the current review lies in its ability to integrate various domain-specific theoretical frameworks to support the JD-R model in analyzing and discussing the findings from the included studies.

More importantly, the current review provides evidence-based insights for universities, teachers, counselors, and other stakeholders working with international students. It highlights the importance of both personal and contextual resources in shaping intercultural adjustment processes and outcomes. Personal resources such as psychological capital, emotional intelligence, multicultural personality traits, and cultural intelligence are flexible and can be developed through short training interventions and active engagement in intercultural interactions (Ang & VanDyne, 2008; Hofhuis et al., 2024; Luthans et al., 2012). Therefore, universities can support international students' intercultural adaptation by organizing workshops, lectures, and short training interventions to strengthen these resources and thereby facilitate intercultural adaptation. Likewise, universities can enhance situational resources, such as social support, pre-departure orientation, social connectedness, and intercultural interaction, by organizing social, cultural, and academic activities like sports tournaments, extracurricular events, cultural exchange programs, student excursions, and potluck gatherings (Liang & Pho, 2025; Soheili & Lanz, 2025). These activities provide opportunities for building friendships, expanding social networks, and fostering a sense of belonging, while also offering cultural, language, and mentorship support (e.g., Bethel et al., 2020; Wong & Liu, 2024; Zhang et al., 2023). Since both personal and situational resources have boosting and buffering effects (Bakker & Demerouti, 2017), strengthening these resources can help universities reduce the negative impact of personal and situational demands on intercultural adaptation. Similarly, providing institutional support and promoting social connectedness and intercultural interaction can help mitigate situational demands, such as perceived discrimination. By implementing these strategies, universities can better support their international students in adapting to the academic and socio-cultural environment of the host society. Despite the implications of the review, it is important to acknowledge certain limitations that should be considered in future research. This review focused exclusively on quantitative empirical studies, excluding qualitative research, book chapters, and conference proceedings, which could provide valuable insights. Additionally, it included only studies written in English, potentially overlooking significant findings published in other languages. The reliance on cross-sectional studies, due to the limited availability of longitudinal research, further restricts the understanding of the dynamic nature of intercultural adaptation over time. Addressing these limitations in future reviews could enhance the comprehensiveness and applicability of findings in the context of international student adaptation.

Conclusion

The primary aim of the review was to identify and understand the factors that contribute to or hinder the intercultural adaptation of international students. To this end, the review adopted the Job D-R model to classify five groups of determinants of intercultural adaptation: personal resources, situational resources, personal demands, situational demands, and demographic factors. The findings generally reveal that individual and situational resources significantly enhanced intercultural adaptation. On the contrary, personal and situational demands had a detrimental effect on adaptation outcomes. Moreover, several resources and demands also served as mediators or moderators in the relationship between predictors and intercultural outcomes. Additionally, demographic factors such as gender, age, educational level, marital status, place of origin, length of stay, and financial status were associated with adaptation, though the findings remain inconsistent. The review highlights the critical influence of demographic, individual, and contextual factors on the intercultural adaptation of international students.

CRedit authorship contribution statement

Werde Tareke Gebregergis: Writing – review & editing, Writing – original draft, Validation, Methodology, Formal analysis.
Csilla Csukonyi: Writing – review & editing, Validation, Supervision, Methodology, Formal analysis.

Declaration of Competing Interest

We, the authors of the manuscript, declare that we have no known competing financial interests or personal relationships that could

have appeared to influence the work reported in this paper.

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