

The Synthesis and Future Directions of Empirical Research on International Students in the United States: The Insights from One Decade

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ABSTRACT

The purpose of this systematic review was to identify the trends in empirical research on international students in the United States produced between 2010 and 2019. After reviewing and synthesizing the characteristics of 334 research articles published over the past decade, I identify the areas that have been overly researched and the domains that have not yet been adequately explored. The overall findings of this review indicate that recent scholarly efforts have not always been aligned with the international student representation on U.S. campuses. Consequently, I provide eight critical recommendations for future research in the field in the context of over- and underresearched institutional sites (e.g., institutional type and control), international student populations (e.g., academic level, field of study, and country of origin), research methods employed, and research questions examined.

Keywords: international students, international student mobility, systematic review

INTRODUCTION

According to the U.S. Department of Homeland Security, an international student is defined as a “nonimmigrant ... foreign student coming to the United States to pursue a full course of academic study” (2019, para 2). In the academic year 2018–2019, more than 1 million students in U.S. colleges and universities were classified as international (Institute of International Education [IIE], 2019). Of

this number, 39% were undergraduates, 35% were graduate students, 20% were enrolled in optional practical training, and 6% were nondegree seekers.

Reasons why international applicants decide to pursue their higher education degree in the United States are multifold and complex. Exploring prospective students' attitudes about possible study abroad destinations, IIE (2015) identified main pull factors that motivate them to choose a particular destination. In that regard, 77% of prospective international students believed that the quality of U.S. education was superior to that of global competitors, 78% were attracted by the variety of schools and educational programs, and 68% believed that the United States is welcoming toward international students.

In some cases, these predeparture perceptions prove to be warranted. For instance, the recent survey of international students in the United States, conducted by World Education Services (2019), revealed that 89% felt satisfied with the quality of academic programs and teaching. Additionally, 83% found it easy to adjust their educational experiences to new environments, while more than 90% perceived faculty and staff as welcoming. At the same time, however, the survey also revealed that students' positive perceptions and enthusiasm often became moderated by a wide range of challenges and barriers they encountered upon the transition. Thus, approximately 60% of respondents shared not being actively involved in activities and events at their host institutions, while more than 80% disclosed that their social relationships included either students from their home countries or other international students. Consequently, more than half of the respondents reported difficulties in forming close relationships with domestic students. Other roadblocks moderating their positive experiences included a lack of campus networks, cultural and language barriers, academic stress, and barriers to community integration (World Education Services, 2019).

Many of these perceptions have already been identified by the past empirical findings. In that regard, scholars have already noted that international students report lower levels of satisfaction with undergraduate experience than their domestic peers (Kim et al., 2017; Kim et al., 2015). This, in turn, has been found to negatively affect students' self-efficacy and create additional barriers to their academic adjustment (Poyrazli et al., 2002). Similarly, the literature has also repeatedly supported the argument that international students remain highly reluctant toward initiating out-of-class communication with professors, establishing relationships with faculty members, or seeking academic advising, mentorship, or support (Kim et al., 2017; Kim et al., 2015; Leong, 2015; Mamiseishvili, 2012a, 2012b).

With regard to international students' social experiences, the unfamiliarity with American culture emerges as the most prevalent barrier to their successful integration (Andrade, 2005; Kim et al., 2017; Kim et al., 2015). Moreover, scholars have identified numerous cases of international students' inability to form friendships with their domestic peers and community (Leong, 2015; Wu et al., 2015). As a result, international students resort to voluntary and involuntary separation, social isolation, and loneliness (Krsmanovic, 2020; Leong, 2015; Wu et al., 2015). Ultimately, low levels of acculturation and high levels of

acculturative stress have been found to be strongly associated with students' psychological distress and depression (Shadowen et al., 2019).

This adverse evidence supports the need for a comprehensive understanding of the complexity of international student experience in the U.S. institutions of higher education. Providing deeper and systematic insights into the prior research in this area is necessary for the work of higher education institutions, faculty, and student affairs professionals tasked with supporting this student population and aiming to enhance their cultural, social, and academic experiences. A systematic analysis of prior literature can help produce a comprehensive overview of critical areas in international student experiences so that future research and practical efforts can be directed toward supporting these students more strategically and efficiently.

Therefore, the purpose of this systematic review was to gain a comprehensive understanding of current trends in empirical research on international students in American higher education. To achieve this objective, the following research question was investigated: What trends can be identified in empirical research on international students in the United States during the period between 2010 and 2019 in regard to (a) research productivity; (b) research questions; (c) research methods; (d) institutional types and control; and (e) participants' academic level, the field of study, and country of origin?

LITERATURE REVIEW

The first half of the last decade was characterized by a steady annual growth in international student enrollments in U.S. colleges and universities, which ranged from 4.7% in 2010 to 10% in 2015. Even though the number of international students continued to increase in the remaining 5 years, the annual growth percentages declined (from 7.1% in 2016 to 0.5% in 2019). The distribution between undergraduate and graduate students was fairly comparable over the last decade. The percentages of international students pursuing an associate or bachelor's degree ranged between 39% and 47% per academic year while graduate enrollments fluctuated between 34% and 46% (IIE, 2019)

The analysis of the top places of student origin revealed considerable consistencies over the past decade. China, India, South Korea, and Saudi Arabia remained the four countries with the highest student representation over the past decade, followed by Canada, Vietnam, Taiwan, and Japan. In the beginning of the past decade, the leading field of study for international students was business and management, which, even though it still remains among the top 10 majors, became less appealing to global learners. Education and humanities, on the other hand, lost its place among the leading 10 disciplines by the end of the decade. Instead, the fields with increased international enrollments became communication and journalism, health professions, fine and applied arts, physical and life sciences, social sciences, and math and computer science. Not surprisingly, engineering has maintained its position among the top 10 majors over the past decade and its leading position since 2015 (IIE, 2019). Additional trends can be noted for institutional types, with 72% of all international students

in 2019 attending doctorate-granting universities, 13% master's colleges and universities, 8% associate colleges, and 3% bachelor colleges and special focus institutions, respectively.

Prior Syntheses of Literature

Over the past decade, a limited number of scholars have conducted systematic literature searches for the purpose of establishing patterns and trends in the research on international students around the world (Alharbi & Smith, 2018; Click et al., 2017; Khanal & Gaulee, 2019; Tiwari et al., 2017). Moreover, despite the growing number of international students in the United States and the documented benefits of their presence, only a handful of studies have solely focused on synthesizing the research pertaining to global learners in the U.S. academic institutions. Among those that did, additional boundaries were noted in regards to the methods of inquiry, student subpopulation, research questions, or scholarly resources.

For instance, Araujo (2011) provided a valuable synthesis of the empirical research on international students in the United States, but limited such insights to only student adjustment and, consequently, to 21 peer-reviewed studies. On the other hand, Bista and Gaulee (2017) explored a variety of themes and patterns that occurred in the literature on international students in the United States, but limited their investigation only to theses and dissertations published in 2016.

Similarly, Zhang-Wu (2018) directed the focus of her review to international students in the United States but restricted the inquiry to Chinese students, thus producing the synthesis of 21 empirical studies related to students from this cultural group. Li et al. (2014) undertook a similar approach. Even though their systematic review was extended to all East Asian students in the United States, it remained limited to the issues of students' psychological well-being and a sample of 18 studies.

Even though these reviews produced critical insights into the literature on international students attending U.S. colleges and universities, none of them were conducted with the purpose of portraying a comprehensive picture of the general state of research in this field over a certain period of time. While trends in the representation of international students in the United States remain transparent and easily accessible through numerous channels (e.g., IIE), there are still no efforts that would evaluate if the empirical research in this area is representative of the recorded enrollment trends. Consequently, the vision, aim, and scope of future research in this important domain can only be speculated based on the known trends in students' enrollment and representation, but cannot be presumed to address the gaps and limitations of prior scholarship if such gaps remain unknown. In the effort to overcome such a conundrum, this study identified trends, patterns, and gaps in the empirical work pertaining to international students in the United States that were published over the past decade.

THEORETICAL FRAMEWORK

Higher education policymakers have already recognized that college access does not necessarily translate into opportunity unless it includes supportive tools for *all* students to achieve their educational goals (Heller, 2011; Pandit, 2007). Consequently, the concepts of college access and opportunity have evolved over time to incorporate an array of factors, such as cultural, social, geographic, and academic accessibility (Heller, 2011). With respect to international students, in particular, scholars and practitioners have already agreed on one common perspective—despite national efforts to attract and retain international students, positive outcomes are significantly diminished by the absence of a national strategy on internationalization of higher education or a coordinated set of initiatives for increasing college access and opportunity for this student group (American Council on Education, 2015; Helms, 2015; Hudzik, 2011).

Therefore, the conceptual underpinnings for this study were grounded in the theories of comprehensive internationalization (Helms, 2015; Hudzik, 2011) and universal access (St. John, 2013). Comprehensive internationalization is defined as “commitment, confirmed through action, to infuse international and comparative perspectives throughout the teaching, research, and service missions of higher education” (Hudzik, 2011, p. 1). Similarly, Helms (2015) defined comprehensive internationalization as “a broad, but well-coordinated set of well-funded initiatives that support comprehensive internationalization of U.S. higher education” (p. 1). Finally, St. John (2013) described universal access as the need for bridging large disparities between just promoting universal access and actively applying working mechanisms that would ensure the opportunity for every student to succeed academically.

The presented theories served as conceptual underpinnings for this research for several reasons. First, this study has already provided the evidence that, despite their growing access to U.S. higher education, international students’ opportunity to succeed academically is often undermined by a wide array of underlying barriers (e.g., cultural, social, and academic). Thus, this research sought to provide a comprehensive insight into the contemporary scholarly contributions that investigated the experiences of international students in U.S. colleges and universities, along with the array of challenges they encounter. In doing so, the theoretical framework guided this research toward investigating if, and to what extent, the contemporary research is truly comprehensive and inclusive of international students from all institutional types, programs, academic levels, and countries of origin. Consequently, this research attempted to synthesize prior literature by providing a comprehensive description of its scope, directions, and prevalent patterns. Ultimately, this approach allowed for a universal examination of prior scholarly work for the purpose of generating more strategic, deliberate, and, ultimately, comprehensive empirical insights in the future.

METHOD

I designed this study as a systematic literature review with the aim of exploring empirical peer-reviewed research on international students in the United States in a comprehensive manner and through the implementation of an organized, transparent, and replicable process (Littell et al., 2008). I conducted the systematic review following a strict methodological protocol for choosing the literature. I present and discuss the protocol in detail to eliminate potential for author bias (Feak & Swales, 2009).

The central step in the protocol was to determine the study eligibility criteria or to decide what empirical studies will be included and excluded from the review. Detailed specification of inclusion criteria limited the opportunity for selection bias and prevented me from unintentionally selecting studies based on inherent ideological views, personal preferences, or convenience (Littell et al., 2008). Additionally, the rigorous selection criteria produced clear boundaries for other authors who wish to replicate this study in the future.

The selection criteria for this study were guided by the central research question: What trends can be identified in the empirical research on international students in the United States during the period between 2010 and 2019? Consequently, the following inclusion and exclusion criteria were used.

- **Publication type:** This review is limited to empirical peer-reviewed research articles. Consequently, nonempirical research was excluded (e.g., commentary, reflections, essays, literature reviews, book chapters, brief reports, reactions, and editor's notes). Students' papers, theses, and dissertations were also excluded.
- **Publication date:** The search was limited to peer-reviewed articles published between 2010–2019.
- **Location:** As determined by the central question of the study, the search was limited to research conducted at higher education institutions in the United States.
- **Participants:** The search was limited to undergraduate and graduate degree-seeking international students in 4-year universities and 2-year colleges in the United States. Therefore, the search excluded studies on international students in short-term English language programs and university pathway programs, as well as studies on international students' prearrival or postdeparture experiences. This criterion was developed due to the volume of research on internationals students and fact that the pool of studies that include all international students in the United States would be too large to effectively review in one research project.

Data Resources

In selecting possible data resources, researchers need to be cognizant of the fact that exhaustive and complete search of the literature is improbable because the total and exhaustive universe of prior scholarship in any field is unknown (Brunton et al., 2012). Thus, rather than attempting to search for every possible study related to international students in the United States, I decided to locate the pool of studies that would be most likely to answer the research question explored in this study. Consequently, the literature search for this review was undertaken thorough investigation of three online search engines: *ERIC*, *Academic Search Premier*, and *PsycInfo*. Guided by the research question of this study, I deemed these databases as the most appropriate because they specifically focus on educational research (*ERIC*), academic disciplines in colleges and universities (*Academic Search Premier*), and behavioral and social sciences (*PsycInfo*).

The keywords used included “international student” or “foreign student.” The initial search resulted in 7,707 results. Applying the presented inclusion criteria reduced the number of results to 532 articles. I reviewed the titles and abstracts of all studies and removed those that did not meet the inclusion criteria as well as duplicate articles. This process resulted in obtaining the final sample of 334 eligible studies used for this review.

Data Analysis

I analyzed the 334 articles in two stages. The first stage involved a categorial coding process in which I developed and applied predefined codes to each study to produce a categorial representation of the data (Oliver & Sutcliffe, 2012). For the data to be categorized, I first needed to define codes and their unambiguous definitions that would be consistently applied. Thus, I used spreadsheet software (Excel) to develop the categories driven by the central research question (Brown et al., 2013; Brown et al., 2003). The coding spreadsheet included the following codes and their unambiguous categories: (a) publication year (2010–2019); (b) research site (single/multiple); (c) institutional type (2-year/4-year); (d) institutional control (public/private); (e) participants’ academic level (undergraduate/graduate); and (f) research method (qualitative/quantitative/mixed-method). As presented in the previous section of this study, the operational definition for all codes and categories were developed as mutually exclusive and collectively exhaustive (Brown et al., 2003). Using the coding spreadsheet, I reviewed and coded each study using the same guidelines.

The second stage of the data analysis involved open-coding process for analyzing the data that were not suitable for categorial coding. These data included participants’ country of origin, participants’ field of study, and research questions examined in the reviewed studies. The process of open coding involved developing and assigning relevant codes during the review process and as I became more familiar with the content of each study (Oliver & Sutcliffe, 2012). Using the same spreadsheet software (Excel), I first extracted the verbatim content from the reviewed studies that pertained to the participants’ country of origin,

participants' field of study, and research questions examined. I then carefully reviewed the extracted content for the purpose of developing structural codes or content-based words and phrases that would best illustrate the content of the extracted data (Saldana, 2012). As such, these structural codes served as "labeling and indexing devices" (Namey et al., 2008, p. 141), which allowed me to systematically synthesize the data and examine the commonalities, differences, and relationships among the extracted segments (Saldana, 2012).

RESULTS

The review of 334 peer-reviewed articles used for this study revealed several patterns that have developed in the scholarship on international students in the United States over the past decade. These patterns are presented and discussed in alignment with the preestablished codes used for reviewing the studies.

Publication Year

The results revealed a continuous annual increase in the number of empirical peer-reviewed articles on international students in the United States. As illustrated in Figure 1, this increase ranged from 13 empirical studies published in 2010 to 60 articles published in 2018. Even though only 30 studies were published in 2019, this finding does not necessarily indicate a decrease in research engagement. Given that the search for this review was conducted in November of 2019, this number can be justified by the fact that not all studies from 2019 were yet available or published.

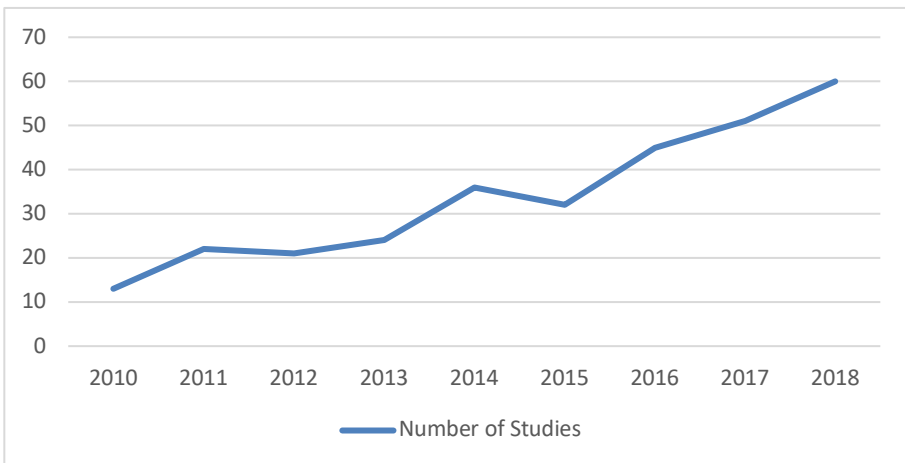


Figure 1: The Increase in Research Activity

Research Site

The examination of the research site in the reviewed studies revealed a much stronger preference for single-site than multi-site research. As illustrated in Table 1, 219 studies were conducted at a single higher education institution in the United States, while the remaining 115 articles examined international students enrolled in multiple U.S. colleges and universities.

Among these 219 single-site studies, the overwhelming majority of the studies ($n = 211$) were conducted at 4-year universities (e.g., bachelor degree-granting or higher), with only eight studies located within 2-year colleges. Additionally, 113 of these single sites were identified as public institutions, while only 19 were private colleges and universities. In 87 cases, the institutional control of the research site was not specified. Four research sites were identified as Historically Black Colleges and Universities and three as faith-based institutions (one as “a Catholic university,” one as “a Christian university,” and one as “a faith-based institution”).

Table 1: Trends in Research Sites ($N = 334$)

Code	<i>n</i>	%
Research site		
Single	219	65.6
Multiple	115	34.4
Institutional type		
2-year	8	2.4
4-year	211	63.2
Multiple	115	33.4
Institutional control		
Public	113	33.8
Private	19	5.7
Multiple	115	34.4
Unspecified	87	26.1

Research Participants

The most prevalent pattern that emerged with respect to participants' academic level was that the majority of the reviewed studies ($n = 146$) examined both undergraduate and graduate learners simultaneously. Among the studies that differentiated between the two academic levels, no strong preferences were recorded for either of the groups. Undergraduate international students were investigated in 79 studies while their graduate counterparts served as participants in 82 articles. As many as 26 studies did not specify participants' academic level.

Interestingly, some studies focused on a particular subpopulation within either the undergraduate or graduate level. Thus, 13 studies specifically concentrated on undergraduate first-year students, and one study investigated

Table 2: Trends in Research Participants (N = 334)

Demographic	<i>n</i>	%
Academic level		
Undergraduate	79	23.6
Graduate	82	24.6
Professional	1	0.3
Both	146	43.7
Unspecified	26	7.8
Special population		
Athletes	2	0.6
Black	5	1.5
Nontraditional	1	0.3
Students with disabilities	1	0.3
Female	11	3.3
Male	1	0.3
No special population	313	93.7
Academic field		
Business	2	0.6
Counseling	10	3.0
Education	3	0.9
Law	1	0.3
Music	2	0.6
Nursing	1	0.3
STEM	10	3.0
Theology	1	0.3
Multiple	304	91
Origin		
Multiple	190	56.4
China	64	19.0
Korea	24	7.1
East Asia	16	4.7
Saudi Arabia	9	2.6
Africa	8	2.4
Arab states	4	1.2
India	3	0.9
Japan	3	0.9
Caribbean	3	0.9
Turkey	2	0.6
Brazil	2	0.6
Colombia	1	0.3
Dominican Republic	1	0.3
Greece	1	0.3
Indonesia	1	0.3
Nigeria	1	0.3
Nepal	1	0.3

Demographic	<i>n</i>	%
Rwanda	1	0.3
Taiwan	1	0.3

Note. The sum of studies for Origin code does not equal 334 as some studies included two cultural groups.

sophomores. On a graduate level, 17 studies limited the inquiry to doctoral students, while three studies focused on master's students.

With respect to participants' country of origin, the majority of the reviewed articles ($n = 190$) were conducted using the sample of students from varied cultures and countries of origin. The remaining 144, on the other hand, concentrated on only one international student population. Unsurprisingly, Chinese students constituted the participants in the majority of studies that examined a single student population ($n = 64$), followed by Asian students ($n = 24$) and Korean students ($n = 16$). Other countries of origin that were of interest to researchers are presented in Table 2. The table also includes the distribution of studies that examined special groups of international students, as well as the number of studies that investigated international students from specific majors and disciplines.

Research Design

Over the past decade, researchers displayed a stronger preference for using quantitative research methods in investigating the issues related to international students in U.S. colleges and universities. From the reviewed sample, 177 studies were conducted using quantitative methods and 136 applied qualitative approaches. Only 21 studies employed a mixed-method research design.

Research Questions

As previously explained, I analyzed research questions in the reviewed studies using the open-coding process. In the first step, I extracted the verbatim content of research questions from each study and pasted it into the spreadsheet software (Excel). I then developed structural codes that would most accurately illustrate the content of the extracted research questions. This process produced the codes presented in Table 3. As illustrated, almost one third of all sampled studies ($n = 108$) focused their research questions on the issues related to students' social and cultural integration, with particular interest devoted to participants' acculturation processes and acculturative stress. This phenomenon was followed by the scholarly intent to understand international students' academic experiences, which were examined in one quarter of the research articles published in the past decade ($n = 82$). On that subject, the authors were primarily interested in gaining insights into students' academic success, retention, and degree attainment ($n = 17$) and their overall academic experience ($n = 10$). Mental health and physical well-being of international students emerged as the third most prominent theme examined in 38 studies, which was followed by the simultaneous

investigation of students' academic and social experiences that was undertaken in 37 articles. The other themes noted included international student development ($n = 23$), transition and adjustment ($n = 18$), postgraduation and career outcomes ($n = 12$), language ($n = 10$), and destination choice ($n = 6$).

Table 3: Trends in Research Questions ($N = 334$)

Theme	<i>n</i>
Social and cultural experience	108
Acculturation	40
Acculturative stress	30
Social relationships and communication	22
Racialization, discrimination, and stereotypes	8
Sense of belonging and isolation	6
Campus involvement	2
Academic experience	82
Success, retention, degree attainment	17
Overall experience	10
Library use	8
Program experience	6
Academic anxiety and stress	5
Advising and mentoring	5
Interactions with faculty	4
Academic adaptation	3
Academic motivation	3
Class participation	3
Plagiarism and academic integrity	3
Writing practices	3
Group work and communication	2
Co-curricular learning experiences	2
Pedagogical preferences	2
Procrastination	2
Reading preferences	1
Physical and mental well-being	38
Mental health	24
Physical health	10
Health care communication	4
Academic and social experience	37
Adjustment and integration	20
Overall experience	11
Campus involvement and support	6
Student development	23
Identity	8
Leadership	4
Cognitive	3
Emotional	3

Theme	<i>n</i>
Psychosocial	2
Academic	1
Cultural	1
Personality	1
Transition and adjustment	18
Psychological	5
Overall experience	4
Undergraduate first-year students	4
Adjustment challenges	2
Graduate students	1
Doctoral students	1
Students with disabilities	1
Postgraduation and career outcomes	12
Career outcomes	6
Migration intentions	4
Degree value	2
Language	10
Oral and spoken English	3
Academic self-efficacy	3
Language challenges	2
ESL classes	1
Language adaptation	1
Destination choice	6
Influencing factors and motivators	5
Recruitment practices	1
Total	334

DISCUSSION

I conducted this systematic review to clarify the state of the existing research on international students in the United States and to provide implications for future scholarly pursuits in this area. Despite the easily accessible and up-to-date knowledge of international students' enrollment trends, the overall state of the empirical research in this domain remains unclear. Thus, undertaking new empirical studies on this student population without being unambiguously informed about previous research may result in unnecessary, inappropriate, or irrelevant research. In that regard, the main contribution of this review is providing findings that can serve as both a precursor for further research and a context for interpreting the results of future empirical studies. Specifically, clarifying the state of current research and empirical findings on international students in the United States generated several critical recommendations for future research.

Overall, the substantial growth in the number of international students who have pursued their higher education in America over the past decade was accompanied by an even greater increase in scholarly commitments to investigate

the wide range of students' study abroad experiences. As an illustration, international student enrollments rose by 58% from 2010 to 2018, a phenomenon to which the scholarly community responded with 4.6 times more studies produced in 2018 compared with 2010. This finding further corroborated the need for classifying and systematizing the ever-growing volume of the research on international students so that future scholarly efforts can be more appropriately aligned with this student representation. In order to assist researchers with this task, I offer the following eight recommendations.

Recommendation 1: Increase research productivity in the domain of international students attending private institutions in the United States.

The examination of the top 25 enrolling colleges and universities in 2019, which welcomed one quarter of all international students, revealed that 59% of international students opted for public institutions, while 41% of their peers decided to attend private colleges and universities (IIE, 2019). Still, only 6% of the single-site studies published over the past decade were conducted at private institutions. In 2019 specifically, only 3% of the single-site studies took place in a private setting. Consequently, an important direction of future research on international students would be to increase the research activity in private colleges and universities.

Recommendation 2: Increase research productivity in the domain of international students attending 2-year community colleges in the United States.

According to the American Association of Community Colleges (2019), approximately 121,000 of community college students in 2017 were classified as international, which represented 11% of the total international student enrollments. On the other hand, the synthesis of the research presented in this review illustrated that only 8% of the empirical studies published over the past decade were conducted at community colleges, while none of the single-site studies published in 2017 took place in a 2-year setting. Therefore, the overall picture of the evidence in this area indicates the need for increased research efforts in examining the experiences of international students enrolled at 2-year community colleges in the United States.

Recommendation 3: Abandon the tradition of examining international undergraduate and graduate students as a single, homogenous group.

As many as 43.7% or 146 articles reviewed for this research investigated both undergraduate and graduate international students simultaneously. Equally concerning is the finding that 7.8% ($n = 26$) articles did not even specify the academic level of their international participants. At the same time, a comprehensive body of theoretical and empirical literature has been produced to demonstrate the importance of accounting for the range of developmental stages

that students undergo while in college (see Pascarella & Terenzini, 2005; Patton et al., 2016).

Scholarly generalizations across students' academic levels become even more alarming after gaining further insights into the studies that investigated undergraduate and graduate participants simultaneously. Namely, 10 of these studies specifically examined the issues related to student development, thus generalizing the findings across both undergraduate and graduate learners. Six of the studies investigated international student transition and adjustment while, again, failing to account for the differences in the age and developmental levels between undergraduate and graduate participants. Moreover, 25 of the studies produced the results pertaining to both undergraduate and graduate students' mental and physical well-being, thus generalizing the findings across the students of different cognitive, emotional, psychosocial, psychological, or identity development levels. Therefore, the overall recommendations stemming from this review are twofold—the future direction of the research on international students' needs to (a) clearly account for students' academic level and (b) limit the investigation and generalizability of findings to either undergraduate or graduate students.

Further examination of the findings related to students' academic level indicated that only 14 articles investigated a particular subgroup of undergraduate students—13 studies focused on freshmen and one on sophomore students. Therefore, the scholars who seek to contribute innovative knowledge on international undergraduate learners should direct their inquiries toward less frequently explored subgroups—sophomores, juniors, or seniors. On a graduate level, scholarly intents to understand a specific subpopulation were mostly directed to doctoral students (17 studies). As only three studies investigated the experience of graduate students in master's programs, focusing future research efforts in this direction can represent the novelty in the field.

Recommendation 4: Increase research productivity in the domain of special populations of international students.

The findings of this review illustrated that only 6.3% ($n = 21$) articles uncovered the issues pertaining to special populations of international students. In that regard, five studies (1.5%) investigated the experiences of Black international students, two studies (0.6%) sought to understand international student athletes, and one article (0.3%) investigated nontraditional students and students with disabilities respectively. Thus, an overall recommendation for future research would be to embrace the general trend of higher education research and increase awareness of the nuances shaping the educational experiences of special populations and diverse groups of international students. Diversity has been commonly defined in higher education literature (and taught on college campuses) as an intersection of students' race, gender, sexual identity, religion, age, and ability (see Cuyet et. al., 2016; Pascarella & Terenzini, 2005). Consequently, an originality in the future empirical work can be exhibited by

attempting to uncover the intersection of international students' experiences and particular aspects of their diverse identities.

Recommendation 5: Increase the research productivity in the domain of international students from underinvestigated academic fields and disciplines.

Comparable with the enrollment trends, the experiences of international students in STEM programs attracted a lot of scholarly interest over the past decade as indicated by 10 articles published on this topic. These 10 articles accounted for 33.3% of all studies that focused on understanding international students within a particular academic field or 3% of all published studies. However, in 2019 alone, U.S. colleges and universities hosted an imposing number of 434,241 STEM students from around the world, which constituted almost half of all international student enrollments. Therefore, it is necessary for the research on this particular student population to increase further so that it would accompany the prevalence of both their enrollment and importance for American higher education institutions.

Another 10 articles (33.3%) of studies that focused on students within a particular discipline were dedicated to graduate students in counseling programs. On the other hand, in 2016, only 1% of all students in counseling and related educational programs were international students (Council for Accreditation of Counseling and Related Educational Programs, 2017). Therefore, it can be argued that this particular area represents an overly researched domain in the scholarship on international students and should yield to other underinvestigated fields such as business and management, social sciences, fine and applied arts, health professions, education, and humanities. Namely, all of these disciplines have been among the top 10 majors for international students over the past decade but have accounted for only 3% of the literature published in this period.

Recommendation 6: Abandon the tradition of examining international students from multiple cultures and counties of origin as a single, homogenous group.

As presented in the findings, more than half of the available studies (57% or 190 articles) examined the experiences of international students from multiple countries of origin and generalized the findings across a variety of cultural groups. This becomes even more concerning in the light of the fact that 53 of these studies specifically investigated students' acculturation and generalized the insights across the participants from multiple countries and cultural groups. Accordingly, the scholarly contributions in this domain need to be extended to more closely investigate the experiences of international students from culture-sharing groups and produce evidence of their acculturation (or other experiences) that is not moderated by the country of origin and prior cultural experiences.

At the same time, however, the results of this study revealed that the remaining 43% of articles ($n = 144$) focused the inquiry on international students

of a particular nationality or cultural group. Not surprisingly, the scholars followed the national trends in student enrollments and were primarily interested in understanding the experiences of Chinese students attending U.S. colleges and universities. As students from China constituted 33.7% of all international enrollments in 2019, and have been maintaining the leading position over the past decade (IIE, 2019), 20% ($n = 64$) studies were dedicated to this student group. Another alignment of research and enrollment trends was reflected in the number of published studies related to international students from Asia (10%; $n = 31$), Korea (5%; $n = 16$), and Saudi Arabia (3%; $n = 8$ studies), all of which maintained their position among the top 10 sending countries over the past decade (IIE, 2019).

Still, a major disparity emerged regarding the students from India. Even though India has been the second top sending country from 2010–2019, Indian students served as participants in only 1% of studies ($n = 3$) published during this time period. Consequently, the most critical area where research on international students needs to be advanced is investigating the experiences of Indian students on U.S. campuses, primarily due to their ever-growing presence in American higher education. Other countries from the top 10 sending list whose students were underresearched over the past decade include Canada (no studies), Brazil (1 study), Taiwan (1 study), Vietnam (0 studies), and Mexico (0 studies).

Recommendation 7: Increase the investigation of international students in the United States using a mixed-method research design.

The conclusion of this review is that the examination of the issues pertaining to international students in the United States has been primarily relying on quantitative research design. Namely, 53% of the reviewed studies ($n = 177$) were conducted using quantitative methods while 40.7% ($n = 136$) applied qualitative research design. Therefore, mixed-methods have been underutilized in the research on international students, as indicated by 6.3% ($n = 21$) mixed-method studies published over the past decade.

On the one hand, these results can be justified by the fact that mixed methods represent a novelty in the research design and are often described as the “third methodological movement” (Tashakkori & Teddlie, 2010, p. xii) or the “third research paradigm” (Johnson & Onwuegbuzie, 2004, p. 15). On the other hand, the use of mixed methods has been rapidly expanding across disciplines and countries, as manifested by the growing number of articles, journals, books, professional associations, and special interest groups focusing on this method (Creswell & Clark, 2018). Accordingly, the research on international students needs to keep abreast of this trend and diversify its contributions to the literature by undertaking more mixed-method investigations.

Recommendation 8: Increase the research productivity in the domain of underinvestigated areas of inquiry.

Approximately one third of all studies reviewed (32.3%; $n = 108$) focused the investigation on international students’ social and cultural experiences. In that

regard, the greatest attention has been dedicated to students' acculturation processes and acculturative stress. Next, 24.5% articles ($n = 82$) were devoted to international students' academic experiences in the U.S. higher education, with particular emphasis on the issues related to their retention and degree attainment ($n = 17$) and overall academic experience ($n = 10$). The third area of interest that emerged over the past decade was students' physical and mental well-being (11.4%; $n = 38$), with a much stronger preference for understanding students' mental health than their physical well-being. This trend was followed by the simultaneous exploration of students' academic and social experiences, which was undertaken in 11.1% of studies ($n = 37$), as well as student development explored in 6.9% of studies ($n = 23$).

Even though the findings of this review identified several areas that were overly researched in the past decade, they do not undermine the need for continued scholarly exploration in these domains. Instead, the overall implication of this study is that scholars should focus on finding a niche that would provide a novelty in any area that has already been extensively explored. Such a goal can be best achieved by intersecting future scholarly investigations with any of the recommendations proposed in this review (e.g., focusing on underinvestigated research settings, student populations, or research methods). By doing so, scholars can ensure the originality of their work and avoid producing the knowledge that has already been offered to the readership.

CONCLUSION

Limitations

Even though this review helped provide a critical understanding of the breadth, purpose, and extent of research activity in the domain of international students in the United States, it remains characterized by a critical limitation. A general weakness of any systematic review is the fact that authors can never claim with certainty how many studies have addressed their subject of inquiry and, therefore, cannot claim to have identified all potentially relevant studies in their field (Brunton et al., 2012). Still, the purpose of this review was not to obtain an all-inclusive synthesis of all research in the field but, instead, to generate a detailed and comprehensive inquiry that would help understand the most current trends and directions of scholarly efforts. For that reason, I never sought to access all studies ever published on this topic, but to obtain a maximum sample of studies within a universe of potentially relevant resources.

Implications

Despite these limitations, this research produced several important findings, all of which translate into concrete implications for research and practice. The overall conclusion of this study is that contemporary research efforts do not effectively bridge the gaps in the empirical knowledge on international students' in the United States. As such, current research does not serve as "a broad, but

well-coordinated set of initiatives” (Hudzik, 2011, p. 1) that would increase the opportunity for every international student to succeed—a goal envisioned by the frameworks of compressive internationalization and universal access (Helms, 2015; Hudzik, 2011; St. John, 2013). Thus, the following implications were developed with the hope of making this goal more attainable.

First, to begin developing a more comprehensive empirical understanding of the factors contributing to social, cultural, and educational experiences of international students in the United States, increased attention needs to be directed to the students attending private institutions and community colleges, both of which have been underresearched over the past decade. Second, a comprehensive research model also needs to include a clear differentiation between undergraduate and graduate students, as well as students from different academic levels. Similarly, in order for faculty, staff, and administrators to truly benefit from the future research findings, these investigations must no longer perceive international students from multiple cultures and counties of origin as a single, homogenous group. Further, to overcome current research limitations, more knowledge needs to be produced regarding the experiences of international students from nationalities and cultures who have been well-represented but underresearched, mainly India, Canada, Brazil, Taiwan, Vietnam, and Mexico.

Next, a more comprehensive and inclusive research model needs to be built by dedicating more attention to special student populations (e.g., nontraditional, first-generation, students with disabilities). Increased research heterogeneity is also needed with respect to students’ academic fields and disciplines. In order for empirical investigations to be commensurate with student representation, more research is required for international students from underinvestigated majors, mainly business and management, social sciences, fine and applied arts, health professions, education, and humanities.

Additionally, to provide a methodologically comprehensive inquiry into international students’ experiences, more mixed-method research is suggested because prior efforts have mainly relied on either qualitative or quantitative studies. The last implication includes a strategic commitment to addressing the identified underinvestigated research areas. With that respect, this study revealed that the greatest attention over the past decade has been dedicated to students’ acculturation processes and acculturative stress, overall academic experiences, and physical and mental well-being. Therefore, future insights should be advanced by either investigating these areas in relation to underresearched institutional settings, student populations, and research designs, or by devoting the inquiries to other areas that have not been adequately explored.

Overall, this review elucidated the state of the existing research in the field and identified critical underlying implications (Feak & Swales, 2009). As such, it is helped promote the originality of future scholarly work related to international students in the United States. Critically exploring and methodologically synthesizing existing research in this area provided an opportunity for scholars to identify the domains where research has not yet been undertaken, the research questions which have not been adequately explored, and the best ways to avoid

research approaches that will not lead to any significant or innovative insights in the field.

On a macro level, this synthesis can be used for designing new empirical undertakings in a manner that would support any culturally and linguistically diverse student, not just an international student. The value of synthesizing prior research in this domain is also reflected in advancing the scholarship on cultural diversity in U.S. higher education. Consequently, the implications of this research synthesis are not limited to only to the scholarship on international students but are also aimed at advancing the existing knowledge in the domain of higher education diversity, inclusion, and internationalization for the benefits of all parties involved—institutions, faculty, staff, and, primarily, their diverse students.

In conclusion, this review provided insights into 344 empirical research studies on the experiences of international students in the United States over the past decade. I conducted this review with the belief that understanding prior scholarly efforts would provide valuable recommendations for the direction of future empirical undertakings. As this review revealed, there is no doubt that the research on international students is claiming a vital position in the higher education scholarship. In order for that position to be sustained, however, future efforts need to be strategically and methodically envisioned. Only by dedicating continued effort to understanding the current trends and directions of research in this domain can authors ensure that their work will truly reflect the richness of global diversity within their academic communities.

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