



Intercultural
Development
Inventory®

Intercultural Learning in the Healthcare Sector

A WHITE PAPER SYNTHESIZING RESEARCH WITH THE
INTERCULTURAL DEVELOPMENT INVENTORY®

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Abstract

This white paper provides a snapshot of the strategies used by Higher Education Institutions (HEIs) to impart intercultural competence to healthcare students. The studies discussed in this paper have used the Intercultural Development Inventory (IDI) as a measure to evaluate the intercultural learning gains for students. The paper is organized under the following three themes: 1) study abroad and intercultural learning in healthcare, 2) home university curriculum integration and intercultural learning in healthcare, and 3) virtual exchange and intercultural learning in healthcare. The healthcare sectors primarily discussed in this paper are nursing, pharmacy, speech and audiology, and occupational/physical therapy. The studies highlight the importance of structured interventions such as involving students in reflective practices and developing programs allowing students to experience other cultures through virtual exchange or in-person, which would allow students to develop intercultural competence.

Background

Healthcare providers interact daily with patients from diverse backgrounds. It is also crucial for healthcare providers to establish a rapport with their patients so that patients feel comfortable expressing their concerns. This necessary rapport development with increasingly diverse populations of patients requires healthcare workers to possess a high level of competence to understand and interact with patients from different cultural backgrounds. WHO has identified that the biggest hurdle between a healthcare provider and a patient from a different background is the inability to communicate with one another [1], [2]. This communication gap

between patient and provider can lead to ineffective treatment, oftentimes with healthcare providers failing to demonstrate empathy to patients of different cultures [1]. Simply interacting with people of diverse backgrounds is not sufficient to develop intercultural competence; rather it requires a conscious effort on the part of the institution to develop programs that help healthcare providers cultivate and practice intercultural skills [3]–[5]. Therefore, universities can help prepare students for a culturally diverse workforce in healthcare.

It is also crucial for higher education institutions (HEIs) to use the right tool to measure intercultural learning gains. Studies [4], [6], [7] have demonstrated that the Intercultural Development Inventory (IDI) is an effective instrument to measure the intercultural learning gains of students, as it is theoretically grounded and validated. The IDI assesses learners in five orientations of the Intercultural Development Continuum (IDC) ranging from a monocultural mindset to an intercultural mindset. The five orientations along the continuum are Denial (inability to recognize the cultural differences), Polarization (compare “us” versus “them”), Minimization (highlights the commonality among the cultures and misses differences), Acceptance (acknowledges the cultural similarity and difference in own and other culture), and Adaptation (ability to shift cultural perspective and adapt behaviors) [8]. Therefore, HEIs are stepping forward to integrate intercultural learning into the curriculum, use the right tool to measure intercultural gains, and create a culturally responsive workforce. These initiatives include embedding intercultural learning components in the curriculum, conducting study abroad programs, using simulations, and even interacting with actual patients in a real-world scenario [1], [9]. In order to understand the various approaches institutions take to help students develop

intercultural skills, we will categorize the initiatives into three broad themes: study abroad, curriculum integration, and virtual exchange initiatives.

Study Abroad and Intercultural Learning in Healthcare

One of the primary goals of a study abroad program is to help participants experience the culture, people, and environments different from theirs. In the field of healthcare, studying abroad is commonly used as an approach to help students learn about various cultures by providing them the opportunity to work, interact, and deliver services to people different from them. Study abroad programs are standard in the field of nursing, pharmacy, speech, and auditory learning. Fitzgerald and colleagues [10] conducted a pilot study to understand the effectiveness of an 8-week study abroad program for helping nursing students develop intercultural competence. Ten students at a sophomore-level nursing course voluntarily participated in this study. Students were engaged in a 7-week pre-departure hybrid class where they were trained on intercultural learning. They also participated in a service-learning project before their departure for study abroad. Students completed a pre-IDI assessment four weeks before their departure to Nicaragua. After arriving in the US from Nicaragua, students completed a post-IDI assessment. The results of the pre-post IDI assessment indicated that students were in Minimization and remained in Minimization even after participating in the study abroad program. Moreover, in the post-IDI assessment results, it was observed that there was a decrease of 4.55 points in the Orientation Gap, as the mean post departure raw score was lower than the pre-departure raw score. This difference between the scores reveals that studying abroad had a minor impact on the intercultural learning gains of students. Overall, the study concluded that the pilot program demonstrated that

the intervention designed for the pre-study abroad initiative allowed students to engage in reflection activities and develop self-awareness and an understanding of other cultures.

Similarly, Krishnan and colleagues, [4], [5] conducted studies to assess the impact of study abroad initiatives on intercultural sensitivity and competence development in the context of Audiology and Speech-Language Pathology (SLP). According to some of the recent studies [5], [9], [11], SLP students must have a thorough understanding of other cultures as they will interact with patients from diverse backgrounds in their future careers. Krishnan and colleagues, [5] assessed the impact of structured study abroad program on 30 female and 1 male student. All the students went to Zambia as a part of their study abroad trip. The program aimed to help students develop clinical skills by participating in hearing screening, speech consultations, professional development training, and reading and discussing various global healthcare challenges. In 2014 (the control group) consisted of 12 students. 2015 (experimental 1 E1 group) consisted of 9 students, 8 female and 1 male. 2016 (experimental 2 E2) consisted of 10 female students. Control group students participated in a pre-post IDI assessment and received some cultural intervention prior to their study abroad trip that included reading a book, discussing the book in class, writing a final reflection report after their study abroad trip, and learning greetings in Nyanja. It is important to note that students in the control group were not debriefed about their IDI assessment results. They never worked alongside the IDI administrator on their Intercultural Development Plan (IDP). Students in the experimental groups E1 and E2 received multiple cultural interventions. They participated in various activities throughout the spring semester, such as they were engaged in in-class discussions with peers and mentors, attended debriefing

sessions on their IDI assessment results, and worked on an IDP with the IDI administrator. Also, during the study abroad, they were involved in mentor-guided reflections. Students in both groups wrote reflection papers upon their return from Zambia and completed the post-IDI assessment.

The results were quantitatively analyzed using paired t-tests. Students in the control group did not demonstrate any significant increase in their Developmental Orientation (DO) scores from pre- to post-IDI assessment. But students in both E1 and E2 demonstrated a significant increase in their DO scores. Further one-way ANOVA was conducted to evaluate if there was any significant difference in the three groups. The results demonstrated that the control group's DO scores significantly differed from E1 and E2. However, it was important to note that there were no significant differences between E1 and E2. To understand the experiences of E1 and E2 better, the written reflection based on their IDP and study abroad experience was analyzed. The results of the analysis revealed two major themes: 1) learning and 2) emotional experience. All the students in the experimental group agreed that they learned a lot about Zambian and African culture after participating in the activities, reading, and learning about African culture. Students also experienced various emotions after learning about African culture; for example, students felt sad to learn about disparities and discrimination in healthcare for people from underprivileged backgrounds. Overall, this study shows how important it is to develop a structured study abroad program to help students to reflect on their experiences and develop intercultural skills.

Similarly, Schellhase and colleagues [1] conducted a study in the context of Pharmacy education to investigate the impact of pre-departure initiatives and study abroad programs in helping students to develop intercultural competence. The

participants of the study were 27 undergraduate-level nursing students who participated in the study from 2018 to 2020. All students were required to complete a pre- and post-IDI assessment; all 27 students completed the pre-IDI assessment, but the post-IDI assessment was completed by only 18 students. Before the study abroad program, all 27 students participated in pre-departure training for 12 weeks. The objective of the pre-departure training and study abroad was to help students develop self-awareness, awareness of other cultures, learn to manage feelings and emotions, and learn to bridge cultural gaps by shifting frames. During the pre-departure training, students were involved in various activities such as cultural introduction, hot buttons, conflict management training, pacing communication styles, etc. All students attended the eight-week study abroad program in the next phase. While on study abroad, students were engaged with patient care and clinical research at St. Bartholomew's Hospital. Students also worked in groups, completed intercultural learning activities, wrote reflection papers, and met with their mentors to update them on their progress on intercultural learning.

After students returned to the U.S. four weeks later, they were asked to take the post-IDI assessment. The study's results indicated that before the departure, the DO mean was 91.7 and PO was 120.9. The results of the post-IDI assessment demonstrated that there was an overall statistically significant increase in the DO score to 95.9 points. There was also an increase in the overall PO score to 123.2 points, but the increase was not significant. Further, to understand students' intercultural experiences, the reflections were analyzed qualitatively, and the following themes emerged: 1) knowledge of the healthcare system, 2) cross-cultural communication skills, 3) self-awareness, appreciation of culture, and appreciation of experience. The study concluded that participating in study abroad and rigorous pre-

departure training helped the students to learn about their own and other cultures and bridge the differences appropriately.

Home University Curriculum Integration and Intercultural Learning in Healthcare

Improving intercultural learning through curriculum integration is another common approach in the healthcare discipline. It is important to note that conducting study abroad is expensive and unaffordable for many students; therefore, integrating intercultural learning into the curriculum in a structured way can help students develop intercultural competence [4]. In the context of nursing, a study by Kirby and colleagues [12] aimed to integrate the concept of diversity and inclusion into the nursing curriculum. Student participants were divided into two groups: an intervention group consisting of 61 participants and a control group consisting of 56 participants. Students in the intervention group underwent 20 hours of training on diversity and inclusion, whereas the control group was not given any training on diversity and inclusion. Students in both groups took a pre- and post-IDI assessment. Additionally, there was a statistically significant increase in the mean DO and PO scores of pre-and post-IDI assessment results for the intervention group. The control group also demonstrated an increase in PO and DO scores from pre- to post-IDI assessment; however, they showed no significant increase in the pre- to post-IDI assessment results. Lastly, an independent sample t-test was conducted for the intervention and control groups. The study's results demonstrated no significant difference between the intervention and control groups in pre-IDI assessment results, but the post-IDI assessment results demonstrated a significant increase in

the DO scores for the intervention group, meaning students in the intervention group demonstrated gains in intercultural competence.

Similarly, a Krishnan, Jin, and Calahan [11] study evaluated the impact of Audiology and Speech-Language Pathology (SLP) programs in helping students to develop intercultural competence without participating in a study abroad program. The study used a mixed methods approach to conduct the study. A module focused on intercultural learning was included in an introductory level audiology and hearing sciences course. Participants were recruited from all levels and all disciplines for the study. Of 75 total participants, 34 were assigned to an intervention group, and 41 were assigned to a control group. The students in the intervention group were enrolled in the course, whereas the control group was not enrolled in the course. The students in the intervention groups took a pre- and post- IDI assessment, participated in the course, completed an online course related to diversity and inclusion, and wrote reflections whereas the control group only took the pre-and post-IDI assessment and did not participate in any class activities. The results of the post-IDI assessment demonstrated students in the intervention group showed a significant and meaningful gain of 11.22 points from pre to post whereas the students in the control group showed a gain of 0.32 points from pre to post and the gain was neither meaningful nor significant. Further, the reflections of the students were analyzed using AAC&U Value rubrics. The results of the thematic analysis demonstrated that students developed significant intercultural learning gains in Knowledge, Skills, and Abilities as per the AAC&U rubric.

Virtual Exchange and Intercultural Learning in Healthcare

Virtual Exchange (VE) is an initiative that allows students to interact and learn with students from other countries without traveling to a new destination. The popularity of virtual exchanges increased during the COVID-19 pandemic, as studying abroad was impossible due to travel restrictions.

A study by Krishnan, Sreekumar, and colleagues [6] described the impact of virtual exchange initiatives on students enrolled in Audiology and Speech-Language Pathology (SLP). The Virtual Exchange was conducted between the National Institute of Speech and Hearing (NISH), India, and students from Purdue University. The initiative was developed to integrate intercultural learning into the curriculum. The students were paired with a buddy from another culture to understand the country's culture; students were also required to write a reflection of their experiences. Pre- and post-IDI assessments were conducted to assess the impact of the VE in helping students develop intercultural competence. The paired t-test demonstrated that the DO scores of students were statistically significant from pre- to post-IDI assessments for both groups of students (Purdue students and their buddies in India). Further analysis of the reflection paper highlighted the positive experiences of students concerning 1) the course format, (2) cultural learning, (3) transfer to clinical skills, and (4) lifelong learning. The study demonstrated that students found the experience valuable and increased intercultural competence.

Similarly, Hasan and colleagues [13] explored the benefits of a virtual exchange program for pharmacy students. The study described the various challenges institutions experienced after study abroad programs were canceled due to the COVID-19 pandemic and how virtual exchange initiatives were implemented

to facilitate study abroad experiences for students. This study characterized the virtual study abroad experiences of students enrolled in a pharmacy course for the Spring of 2020. Students participated in a virtual exchange program where they were provided an opportunity to develop intercultural intelligence and competence. The program offered students the opportunity to interact with the practitioners from St. Bartholomew's Hospital in London and learn from them. They also learned more about food, entertainment, and other cultural aspects of English culture. All the students in the course took pre-and post-IDI assessments. The results of the IDI assessment demonstrated that DO scores increased for students, and the Orientation Gap, meaning the difference between PO and DO scores decreased, indicating that the students had more accurate perception of their level of Intercultural Competence. The results were compared with results from students in 2019 who participated in an in-person experience, and it was found that not all students in 2019 demonstrated a gain in DO scores. Additionally, the students provided feedback based on their study abroad in 2019 and virtual exchange in 2020. The prominent themes for 2019 were intercultural learning, patient care, and research. For the 2020 study, the emergent themes were intercultural learning and research as patient care was not an aspect of the virtual exchange. The results of the study serve as an example of a successful implementation of a virtual exchange program, encouraging institutions to conduct virtual exchanges in the future to provide more affordable and accessible options for students.

Related studies on the importance of structured intervention and its implications for teaching and learning

It is important to note that the overarching theme that emerges after reviewing the literature at the intersection of healthcare and intercultural

development is the clear need for structured interventions that promote reflection and programs that engage students in experiential learning for developing intercultural competence. The study by Paige and Vande Berg [14] highlights the importance of an experiential and structured program, especially in the context of the study abroad. Students need to experience the culture by interacting with individuals and environment different from theirs either in-person or virtually. Also reflecting on their experiences may help to develop an intrinsic interest to understand and appreciate other cultures. Mentorship could serve as effective mechanism to help students develop intercultural skills. Structured intercultural initiatives play an important role in helping students develop intercultural skills; for instance, The American University Center of Provence (AUCP): Comprehensive, Onsite Intercultural Intervention is a notable example of a structured intercultural initiative. Paige and Vande Berg [14], in their book, describe the AUCP program. The intent of the initiative was to help students to develop proficiency in the French language and intercultural competence through cultural immersion, mentoring, and strictly using French as the language of communication. Students in this program were challenged and supported; they were provided onsite cultural mentoring and asked to participate in various reflection activities. Students also completed pre-and post-IDI assessments. The results of the study revealed that students demonstrated significantly large gains in their DO scores after completing a semester-long program, and impressive gains were observed after students participated in a year-long program.

Specifically, in the context of health care, the study conducted by Zazzi [15] in Switzerland revealed how structured curriculum integration along with a study

abroad program could help students to develop intercultural competence. Students generally enroll in a two-year-long nursing course which can extend up to three years. All the students during their course were required to participate in 16 intercultural training sessions each semester and in a student exchange program in the last year of their education. All the students also completed a pre-IDI assessment at the beginning of their first semester, and a post-IDI assessment was conducted in the final semester of the program. The data was collected from 2010 to 2016, and a total of 1112 students participated in the study and completed the pre-and post-IDI assessments. The results of the study demonstrated that there was a statistically significant increase in the DO scores of the students but not in the PO scores, meaning their perception didn't increase although their actual competence did, meaning they had a more accurate view of their IC. The statistically significant increase in DO scores demonstrates the impact of the intervention. Participating in intercultural training and studying abroad helped students to develop intercultural competence and internalize their learnings. The other studies conducted in the context of intercultural learning and other disciplines, such as the teacher education [16], STEM education [17], and business management [18], have also highlighted the importance of a well-structured curriculum.

Implications for Teaching and Learning

Based on the existing studies in the context of healthcare and intercultural learning, HEIs need to consciously think of the structure and the feasibility of the intervention in imparting intercultural experience to students. The review of literature has clearly revealed that participating in study abroad or simply integrating a one-week module of intercultural competence cannot help students develop intercultural competence. Therefore, HEIs and instructors must focus on designing a

robust curriculum with appropriate interventions which allow students to reflect and gain mentorship from experts. These initiatives, supported by the studies mentioned in this paper, will help students to develop an understanding of their culture and appreciate other cultures.

Conclusion and Future Work

Healthcare as a discipline requires students and future professionals to develop a deep understanding of other cultures as they interact with diverse populations daily. Prior research has indicated that it is challenging to develop intercultural competence by simply assigning students to work with diverse populations without interventions or reflections. Therefore, a conscious effort is required from the institutions to integrate aspects of intercultural learning in the curriculum, provide constant mentorship and organize structured study abroad programs to allow learners to cultivate and practice intercultural skills. Also, it is important that intercultural learning in the context of healthcare should not be restricted only to students; rather, training on intercultural competence is also required in actual health setting such as hospitals, clinics, and the healthcare industry. Moreover, as a part of future work, longitudinal studies with larger sample sizes are required to understand the impact of intercultural interventions in the healthcare sector. Further, research on the role of the mentor is required in the context of the healthcare sector as there are limited studies in healthcare that focus on the role of mentorship in helping students to develop intercultural competence.

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